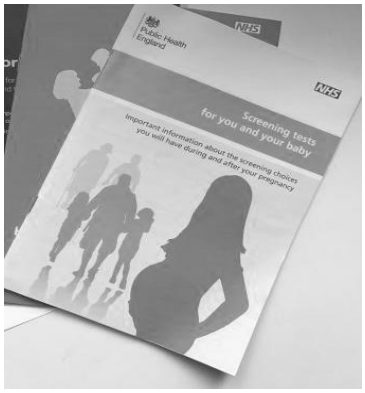
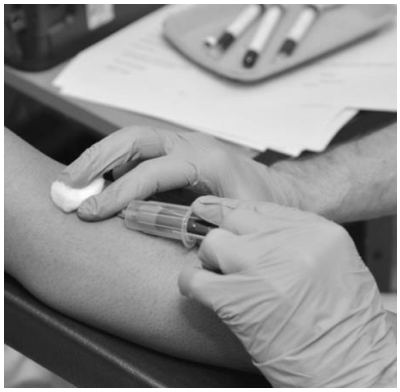
Public Health England

NHS

NHS Infectious Diseases in Pregnancy Screening Programme

Screening standards data report
1 April 2016 to 31 March 2017





About Public Health England

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About PHE Screening

Screening identifies apparently healthy people who may be at increased risk of a disease or condition, enabling earlier treatment or better informed decisions. National population screening programmes are implemented in the NHS on the advice of the UK National Screening Committee (UK NSC), which makes independent, evidence-based recommendations to ministers in the 4 UK countries.

www.gov.uk/phe/screening
Twitter: @PHE_Screening Blog: phescreening.blog.gov.uk
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Contents

Executive summary

This report presents data against each of the programme standards for the NHS Infectious Diseases in Pregnancy Screening (IDPS) programme in England from 1 April 2016 to 30 March 2017.

This is the first published annual standards data report for IDPS. The aim of the report is to feedback performance against the national standards to enable providers and commissioners to identify where improvements are needed.

Data was returned by maternity units and screening laboratories. As expected with a new process of reporting there was some variation across England in reporting and completeness of data returns.

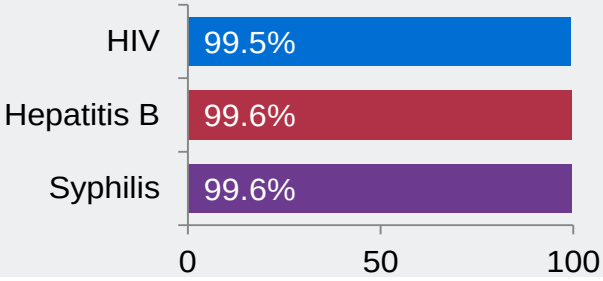
The national screening programme and quality assurance team will work with the Public Heath England (PHE) Screening Quality Assurance Services (SQAS) and Screening and Immunisation Teams to support providers to utilise their local data to continually improve care for women and their babies.

Outcome standards are not included as part of this data collection. See Appendix 1 for further information on IDPS outcomes and plans for the new IDPS Integrated Screening Outcomes Surveillance Service (ISOSS).

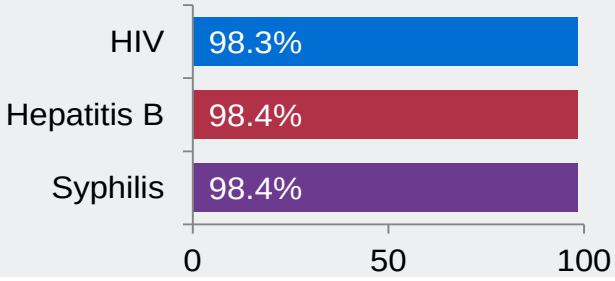
Summary statistics and the key findings and recommendations are presented in the sections below.

Summary statistics: England, 2016 to 2017

Screening coverage



Test turnaround time: results reported ≤ 8 working days of sample receipt

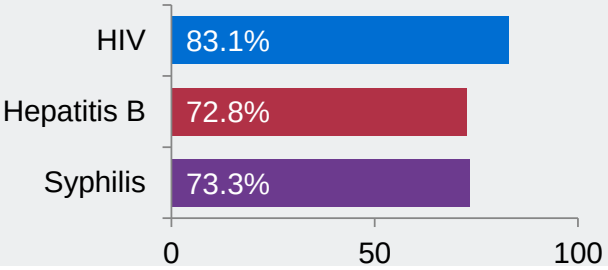


1.3 per 1,000
eligible pregnant women screened positive for HIV

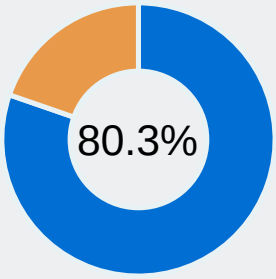
3.8 per 1,000
eligible pregnant women screened positive for hepatitis B

1.3 per 1,000
eligible pregnant women screened positive for syphilis

Women with positive results attending a screening assessment ≤ 10 working days



Women with hepatitis B attending specialist assessment within 6 weeks



Timeliness

98.4% of babies requiring hepatitis B vaccination received first dose ≤24 hours

93.3% of babies requiring immunoglobulin received it ≤24 hours

Index of standards: Infectious diseases in pregnancy screening programme

Standard	Name of standard	Dataset	Performance thresholds	Data source
1	HIV coverage	Quarterly KPI data	Acceptable: ≥ 95.0% Achievable: ≥ 99.0%	Maternity units
2	Hepatitis B coverage	Annual standards data	Acceptable: ≥ 95.0% Achievable: ≥ 99.0%	Maternity units
3	Syphilis coverage	Annual standards data	Acceptable: ≥ 95.0% Achievable: ≥ 99.0%	Maternity units
4	Test turnaround time (HIV, hepatitis B, syphilis)	Annual standards data	Acceptable: ≥ 95.0% Achievable: ≥ 97.0%	Screening laboratories
5	Time to intervention: timely assessment for women who screen positive or are known positive for HIV, hepatitis B or syphilis	Annual standards data	Acceptable: ≥ 97.0% Achievable: ≥ 99.0%	Maternity units
6	Timely assessment of women with hepatitis B	Quarterly KPI data	Acceptable: ≥ 70.0% Achievable: ≥ 90.0%	Maternity units
7a 7b	Intervention- hepatitis B- timely neonatal vaccination and immunoglobulin	Annual standards data	Acceptable: ≥ 97.0% Achievable: ≥ 99.0%	Maternity units

Summary of recommendations and actions

Item	Recommendation/action	Responsible	Timescale
Standards 1, 2, 3 - coverage			
1.	Ongoing review of quarterly coverage KPI data submissions to ascertain which providers continue to have issues with data quality	IDPS Programme, QA Portfolio Lead, SQAS teams and Data Team via the PHE Joint Action Meeting (JAM)	By April 2019
2.	Targeted support should be given to providers identified unable to submit acceptable coverage data	Providers SQAS - regions	By April 2019
3.	Raise health care professionals' awareness of the management of women who decline screening by: • updating programme clinical guidance • launching IDPS e-learning • communications and supporting resources on the rationale and evidence for the recommended management processes	IDPS Programme	By Sep 2019 By Sep 2019 By April 2020
4.	Communication to trusts to ensure the correct data on declines is collated as it is data on the second formal reoffer by the screening team that should be submitted	IDPS Programme, QA Portfolio Lead, SQAS teams and Data Team via the PHE JAM	By July 2019
5.	A review of the data submitted on decline rates in the North West, South West and East Midlands to ascertain any causal and contributing factors that may necessitate a more detailed audit	IDPS Programme, QA Portfolio Lead, SQAS teams and Data Team via the PHE JAM	By April 2020
Standard 4- test turnaround times			
6.	Monitor trends in this data annually when more submissions are complete	IDPS Programme	Annually
7.	Monitor levels of excluded samples	IDPS Programme	Annually

8.	SQAS to liaise with commissioners to raise awareness of the need for collaborative working with screening teams and laboratories on data submissions as specified in Section 7a service specifications	SQAS	By Sep 2019
9.	SQAS to work with laboratories reporting performance below the acceptable level, specifically in the North West, South West and East of England	SQAS	By Sep 2019
10.	Review findings with stakeholders in IDPS Laboratory Task Group and present at planned national IDPS laboratory workshop in 2019 to raise awareness of data quality	IDPS Programme / National QA Antenatal Portfolio Lead / national data team	By April 2019
Standard 5- time to intervention: screen positive women			
11.	Monitor trends in this data annually as a new standard	IDPS Programme	Annually
12.	A review of the timely management of this cohort of women across all regions through linkage to the IDPS checks and audit document and schedule	IDPS Programme, QA Portfolio Lead, SQAS teams and Data Team via the JAM	By April 2020

13.	To raise awareness of the rationale and importance of the screening assessment visit to: • provide a central, continuous point of contact for the woman • complete any further tests and assessments and ensure timely entry into care for all 3 infections • support a comprehensive assessment of a known positive woman's condition and current care • utilise PHE information resources to ensure consistent messages and provision of care • provide an opportunity for health promotion and support for all women including those with complex health and social needs	IDPS Programme, QA Portfolio Lead, SQAS teams	By April 2020
14.	Raise health care professionals' awareness of the management of screen positive women by: • updating programme clinical guidance • launching IDPS e-learning educational resource with bespoke advice and videos on the screening assessment	IDPS Programme	By Sep 2019 By Sep 2019
15.	Clarify the programme advice on rescreening known positive women and update the NHS Service specification and care pathways accordingly	IDPS Programme	By April 2019
Standard 6- time to intervention: women with hepatitis B			
16.	Continue to monitor trends in this data annually as definitions changed in 2016 to 2017	IDPS Programme	Annually

17.	Raise health care professionals' awareness of the management of women with hepatitis B by roll-out of the PHE IDPS and National Immunisation Teams Quality Improvement initiative in response to the World Health Organisation's global health sector strategy on viral hepatitis, 2030 Agenda for Sustainable Development: Target 3 through: • joint regional stakeholder workshops • improved surveillance systems • improved professional knowledge • increased multidisciplinary working • production of clinical resources	IDPS programme and PHE Immunisation/BBV team	By April 2020
Intervention- hepatitis B- timely neonatal vaccination and immunoglobulin			
18.	Continue to monitor trends in this data annually	IDPS Programme	Annually
19.	Targeted review of the management protocols for babies requiring vaccination +/- immunoglobulin in trusts identified as performing below the acceptable thresholds	Providers	By April 2020

Introduction

This report presents data against each of the screening standards for the NHS Infectious Diseases in Pregnancy Screening (IDPS) programme in England. Data is presented by financial year, 1 April 2016 to 30 March 2017. The IDPS programme selected the standards to define consistent performance measures for a selection of public health priorities. The standards data gives a high level overview of the quality of screening programmes at key points on the screening pathway. It contributes to the quality assurance of screening programmes but are not sufficient, in isolation, to quality assure or performance manage screening services.

This report will focus on presenting national data with regional comparisons. Trend data is currently available for 2 standards as they are collated as part of the national screening programmes quarterly Key Performance Indicators (KPIs) data collection process. Direct comparisons with previous years National Antenatal Infection Screening Monitoring (NAISM) Programme surveillance data is not possible as the standards data is matched cohort data and collated on a fiscal not calendar year basis.

Data tables with provider level data have been shared with the PHE Screening Quality Assurance Service (SQAS) and Screening and Immunisation Teams in NHS England to support quality assurance and commissioning processes. National and regional data summaries have also been shared with Public Health England (PHE) National Infection Service HIV and Sexually Transmitted Infections (STI) Department and Health Protection teams to include in the annual Health Protection reports.

Considerable efforts are made by providers to collate and submit national screening data. During 2017 regional data workshops were held across the country by the 3 antenatal screening programme teams, national antenatal QA portfolio lead and national screening data team to facilitate this process. The events evaluated very positively and it is anticipated that they will have a beneficial impact on data quality in future returns.

Further information

This report should be read in conjunction with the screening standards, service specifications and screening and clinical guidance for the IDPS programme. Current versions of the annual standards data collection template and the KPI submission template are available on Gov.uk.

Background

The UK National Screening Committee (UK NSC) recommends systematic population screening in pregnancy for HIV, hepatitis B and syphilis. The IDPS programme has responsibility for implementing this policy.

The NAISM programme was established in 2004 to collect surveillance data to monitor the national uptake and test results of antenatal screening following the implementation of the 2003 Department of Health standards. Since 2006, this data has been used to produce the annual health protection reports.

A formal IDPS Programme was established in 2008 and became part of the population screening programmes within PHE in 2013. The IDPS Programme Standards were updated to include defined metrics to support quality assurance processes. From April 2016 the IDPS programme coordinates the annual data collection in line with the other antenatal and new born screening programmes.

Data management

Standards 1 and 6 are key performance indicators (KPIs). Annual figures for these standards represent aggregated figures based on 4 quarters of data, with exclusions made if no data was provided for one or more quarter in the financial year.

Annual aggregated data against the remaining standards are requested from screening co-ordinators through the regional screening quality assurance service (SQAS) teams.

Standard 4, test turnaround time, requires data from screening laboratories rather than maternity units. To avoid the need for a separate data collection this standard is included in the maternity data collection, requiring screening co-ordinators to request these figures from their laboratories.

Data is collated and submitted via excel data templates alongside Fetal Anomaly Screening Programme (FASP) data and returned directly to the programmes. From 2017/18 this template will include data for the Sickle Cell and Thalassaemia (SCT) Screening Programme.

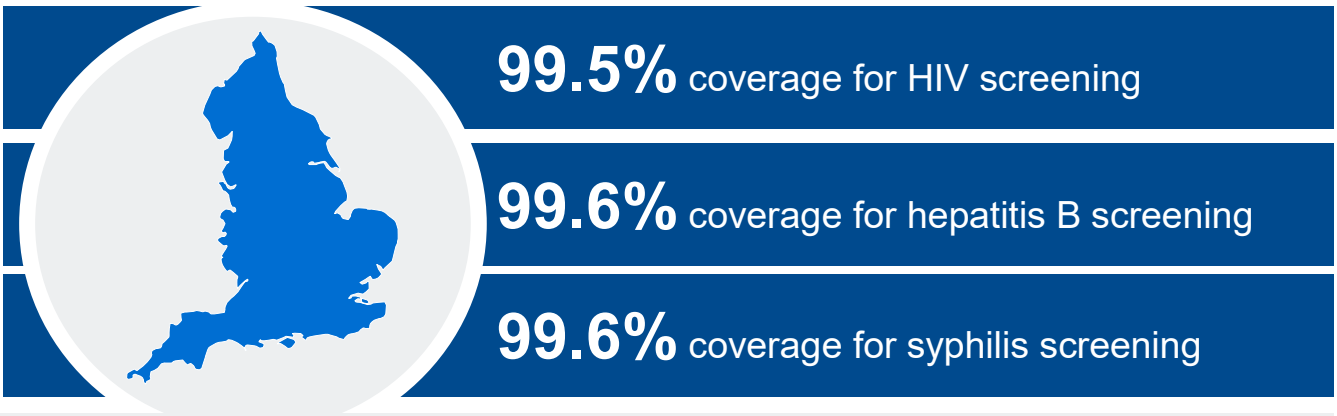
All submissions are reviewed by the programme team and exclusions made if there are gaps or data quality issues. This is done so that aggregated regional and national figures are not skewed where, for example, the numerator or denominator is missing or incomplete for some trusts.

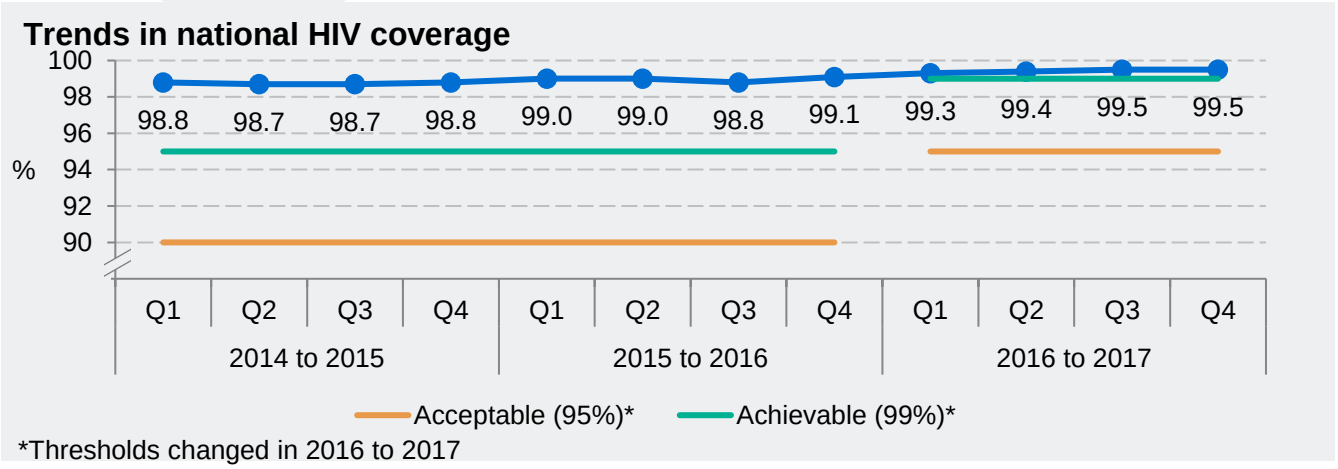
Trusts were excluded from the analysis for standards where data appeared incomplete or incorrect. This is done so the reported rates and performance are not biased.

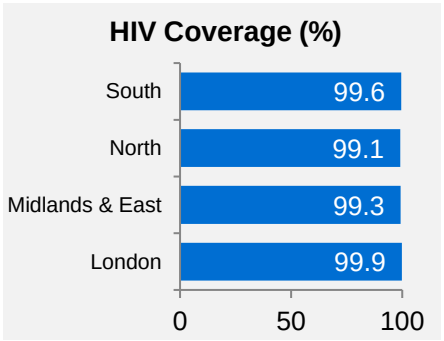
Standards 1, 2, and 3 – coverage

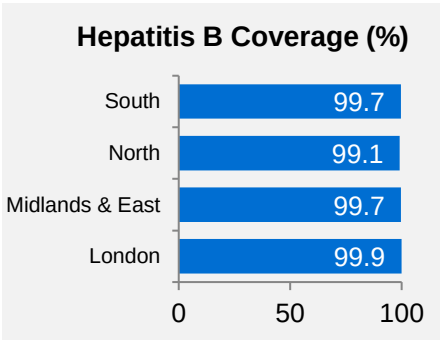
Description

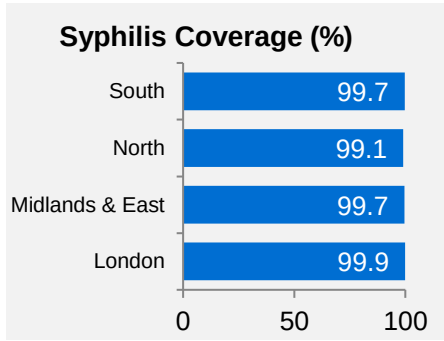
The proportion of pregnant women eligible for HIV / hepatitis B / syphilis screening for whom a confirmed result is available at the day of report











Performance: Standard 1

The data source for standard 1-HIV coverage is the ID1 KPI data (table 1). Direct comparison with data for standard 2- hepatitis B coverage and standard 3- syphilis coverage is not possible for this year. From 2017/18 standards 2 and 3 will be collected as KPIs allowing for more direct comparison.

Table 1. KPI ID1 coverage data for HIV screening, England, 2016/17

Region	Sub-region	Returns included (included/ expected)	Eligible Women	HIV	
				Tested	Coverage (%)
London	London	25/25	154,142	153,941	99.9
Midlands & East	East Midlands	7/9	47,536	47,227	99.3
	East of England	17/18	75,842	75,282	99.3
	West Midlands	13/14	66,516	66,077	99.3
North	North East	1/8	5,803	5,727	98.7
	North West	17/22	80,908	79,987	98.9
	Yorkshire & The Humber	9/13	44,979	44,808	99.6
South	South East	18/19	98,307	98,025	99.7
	South West	17/17	59,984	59,607	99.4
England total		124/145	634,017	630,681	99.5

Figure 1. Standard 1: Variation in coverage for HIV screening, England, 2016/17

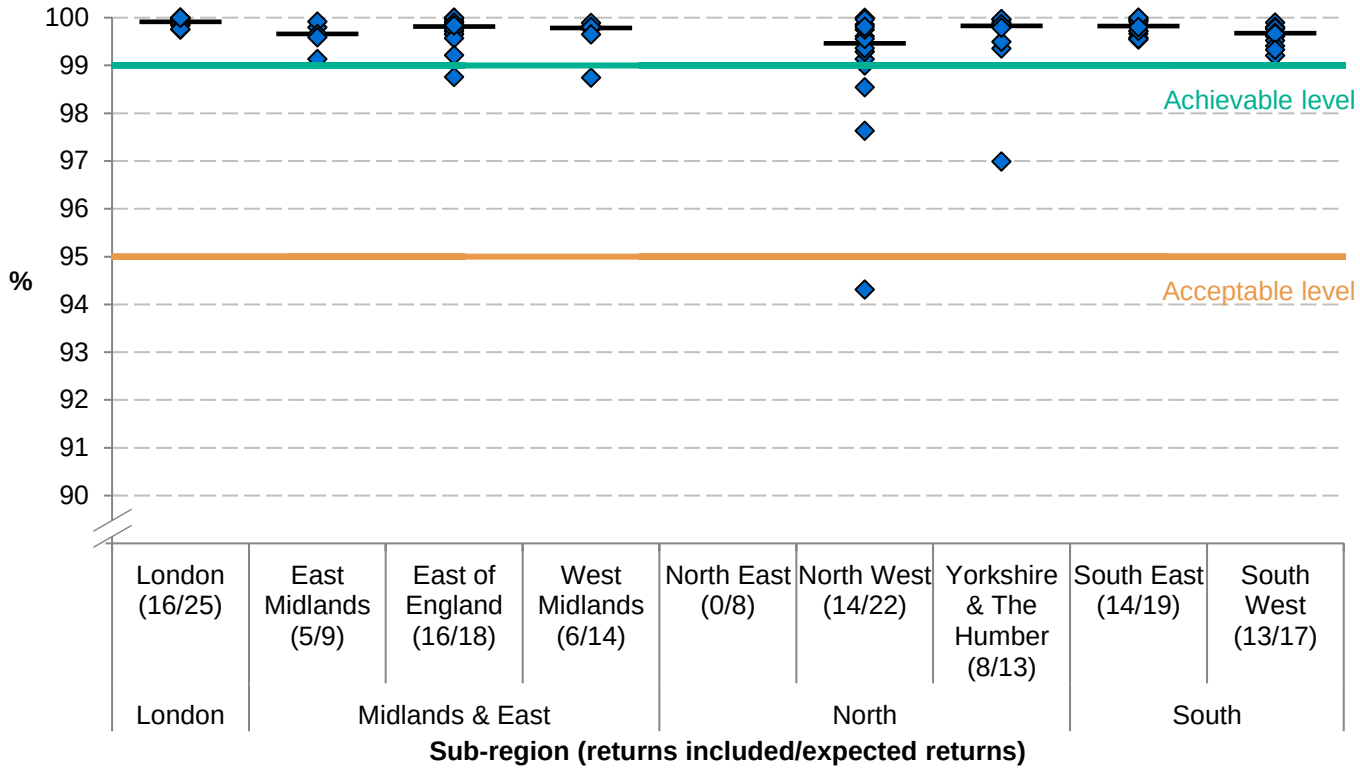
The horizontal markers represent the median value for each sub-region.

Performance: Standards 2 and 3

Table 2. Standards 2 and 3: Coverage for hepatitis B and syphilis screening, England, 2016/17

Region	Sub-region	Returns received (received/ expected)	Excluded returns (excluded/ received)	Women booked	Exclusion categories	Eligible Women	Hepatitis B		Syphilis	
							Tested	Coverage (%)	Tested	Coverage (%)
London	London	18/25	2/18	97,077	1,408	95,669	95,584	99.9	95,581	99.9
Midlands & East	East Midlands	8/9	3/8	30,192	525	29,667	29,558	99.6	29,555	99.6
	East of England	17/18	1/17	76,567	4,042	72,525	72,320	99.7	72,320	99.7
	West Midlands	11/14	5/11	28,259	1,312	26,947	26,846	99.6	26,846	99.6
North	North East	4/8	4/4	-	-	-	-	-	-	-
	North West	21/22	7/21	62,005	1,824	60,181	59,378	98.7	59,387	98.7
	Yorkshire & The Humber	12/13	4/12	46,186	755	45,431	45,268	99.6	45,266	99.6
South	South East	18/19	4/18	78,877	1,421	77,456	77,291	99.8	77,290	99.8
	South West	17/17	4/17	47,335	3,072	44,263	44,112	99.7	44,109	99.7
England total		126/145	34/126	466,498	14,359	452,139	450,357	99.6	450,354	99.6

Figure 2. Standard 2: Variation in coverage for hepatitis B screening, England, 2016/17



The horizontal markers represent the median value for each sub-region.

Figure 3. Standard 3: Variation in coverage for syphilis screening, England, 2016/17

The horizontal markers represent the median value for each sub-region.

Reasons for exclusions

Standard 1

Three returns were excluded as matched cohort data could not be provided for any quarter in April 2016 to March 2017.

Eighteen returns were excluded as one or more quarterly return for the year April 2016 to March 2017 was missing or excluded for data quality reasons. The most frequent reason for exclusion was that matched cohort data had not been provided.

Standards 2 and 3

Thirty-four returns were excluded as they were either unmatched cohort data or did not account for the whole cohort of women. For example, exclusion categories were not provided, or declines were reported for the initial offer of screening and not the required second re-offer.

Declined screening

The IDPS programme commissioned the National Study of HIV in Pregnancy and Childhood (NSHPC), Great Ormond Street Institute of Child Health (GOSH ICH), to conduct an audit to investigate the circumstances surrounding the transmission of perinatal HIV (PHIV) in children born in the United Kingdom (UK) between 2006 to 2013.

The audit identified 108 children with PHIV, of whom around 60% were born to mothers undiagnosed at delivery. Cases were often complex and multifactorial with high rates of adverse psycho-social issues affecting women during the pregnancies.

At least one key factor likely to have contributed directly to PHIV transmission was identified in the vast majority of cases. The most common were decline of HIV screening in pregnancy (accounting for nearly half of undiagnosed women) and seroconversion (around a quarter).

A subsequent survey of maternity units in the UK found wide variation in the management of women who decline antenatal HIV screening. An expert review panel recommended that the screening programme should consider formalising a clinical pathway for women who decline HIV testing at the booking appointment.

Since April 2016 all providers should have a local process in place to notify the screening coordinator/team directly if a woman declines any of the 3 infections offered to facilitate prompt follow up by the screening coordinator or team member. This should

be done as soon as possible to facilitate the formal reoffer by 20 weeks gestation or within 2 weeks if >20 weeks gestation.

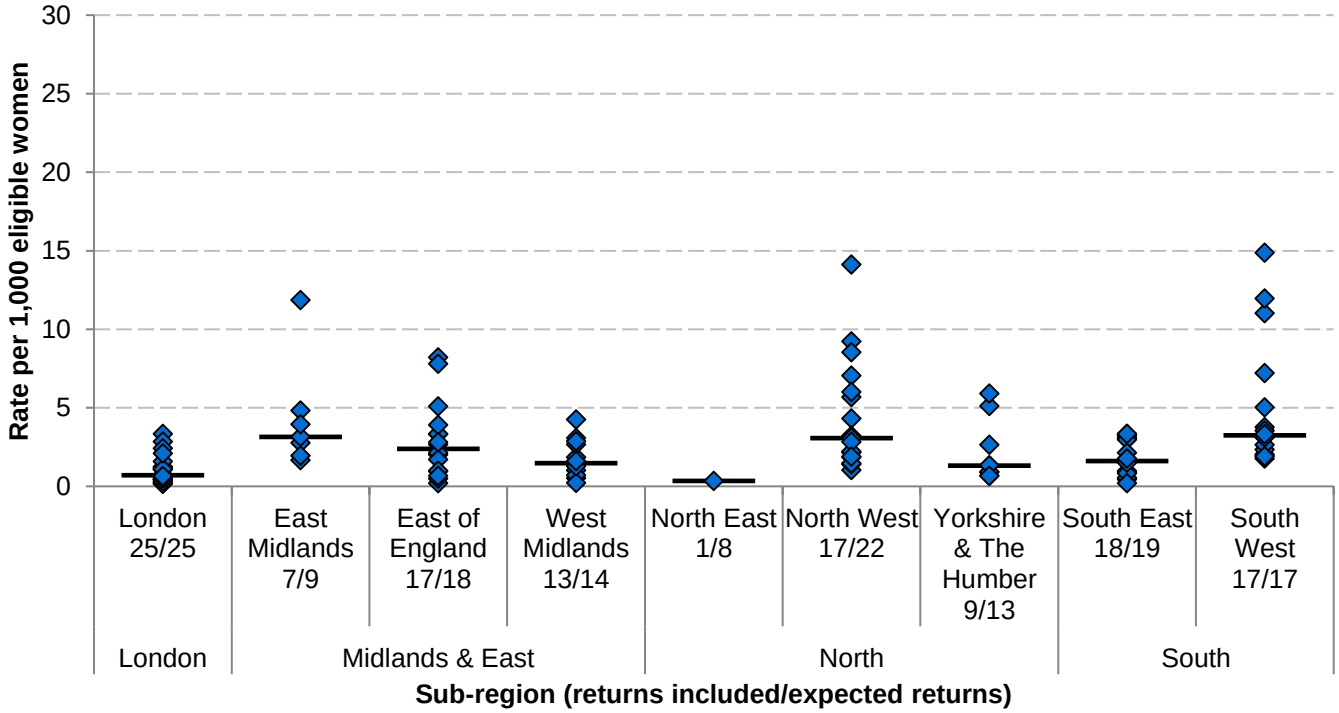
This gives an opportunity to discuss the woman's decision to decline and ensure that she is fully apprised of the benefits of screening for infections in pregnancy for her and her baby. The onus of the reoffer is to facilitate personalised choice and not to coerce women to accept screening.

Table 3. Standard 1: Declined screening for HIV, England, 2016/17

Region	Returns received (included/ expected)	Eligible Women	HIV	
			Declined	Rate/1000
London	25/25	154,142	139	0.9
Midlands & East	37/41	189,894	467	2.5
North	27/43	131,690	518	3.9
South	35/36	158,291	504	3.2
England total	124/145	634,017	1,628	2.6

Due to small numbers this table is not presented by sub-region

Figure 4. Standard 1: Variation in declined HIV screening, England, 2016/17

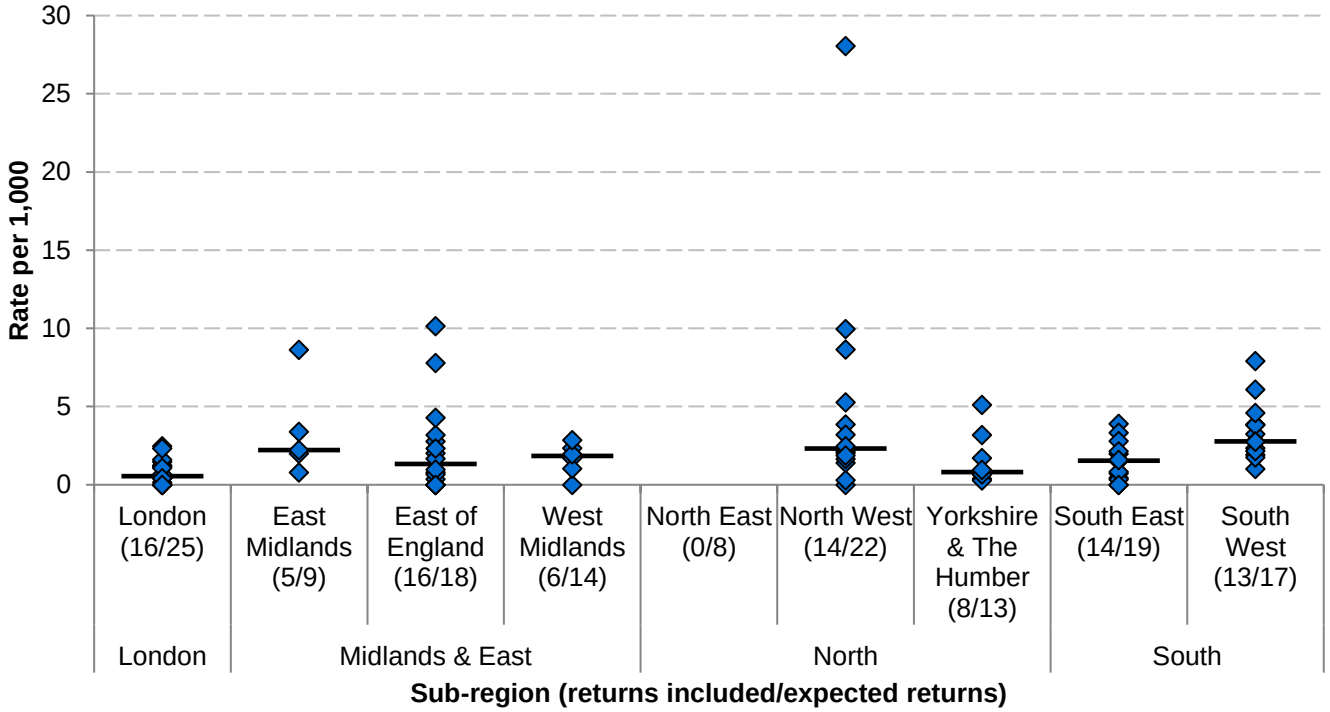


The horizontal markers represent the median value for each sub-region.

Table 4. Standards 2 and 3: Declined screening for hepatitis B and syphilis, England, 2016/17

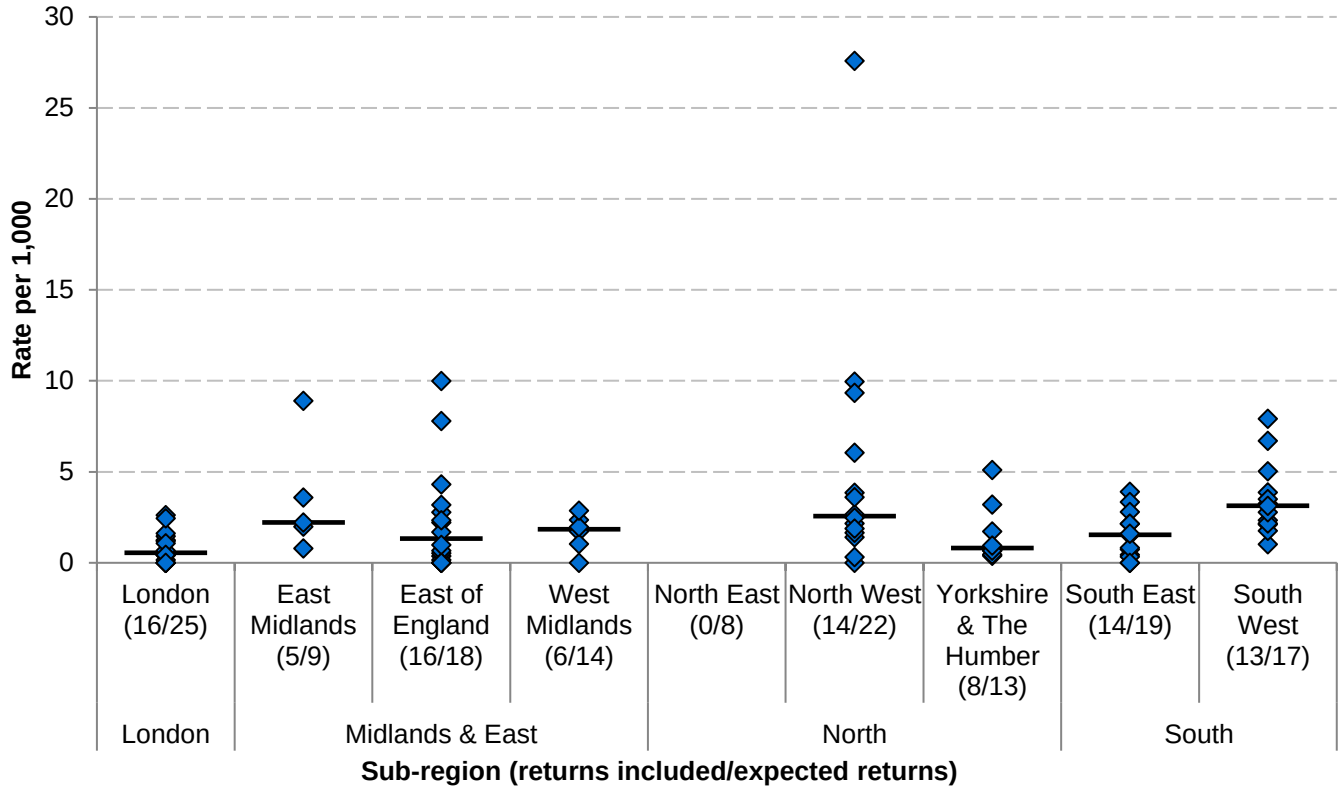
Region	Sub-region	Returns received (received/ expected)	Excluded returns (excluded/ received)	Eligible Women	Hepatitis B		Syphilis	
					Declined	Rate/ 1000	Declined	Rate/ 1000
London	London	18/25	2/18	95,669	82	0.9	84	0.9
Midlands & East	East Midlands	8/9	3/8	29,667	88	3.0	90	3.0
	East of England	17/18	1/17	72,525	161	2.2	161	2.2
	West Midlands	11/14	5/11	26,947	43	1.6	43	1.6
North	North East	4/8	4/4	-	-	-	-	-
	North West	21/22	7/21	60,181	401	6.7	417	6.9
	Yorkshire & The Humber	12/13	4/12	45,431	68	1.5	70	1.5
South	South East	18/19	4/18	77,456	122	1.6	123	1.6
	South West	17/17	4/17	44,263	139	3.1	143	3.2
England total		126/145	34/126	452,139	1,104	2.4	1,131	2.5

Figure 5. Standard 2: Variation in declined hepatitis B screening, England, 2016/17



The horizontal markers represent the median value for each sub-region.

Figure 6. Standard 3: Variation in declined syphilis screening, England, 2016/17



The horizontal markers represent the median value for each sub-region.

Commentary

Coverage

Coverage for all 3 infections remains consistently high and above the achievable threshold of ≥99%.

HIV
All trusts in London and the South West submitted acceptable coverage data with no exclusions.

The number of data returns from the North region has consistently improved. However, over a third were excluded because matched cohort data could not be provided for one or more of the quarters in 2016 to 2017.

Two sub-regions, London and South East, reported all trusts performing above the achievable level.

The North West showed the greatest variation in coverage between trusts.

Hepatitis B and syphilis
Only the South West trusts submitted complete data for all trusts.

All sub-regions had returns excluded, notably all for the North East for data quality reasons.

All sub-regions, except the North East where all returns were excluded, reported a median level of coverage above the achievable level.

Three sub-regions, London, South East and South West, reported all trusts who submitted data as performing above the achievable level.

The North West sub-region showed the greatest variation in coverage between trusts.

Declines

HIV
Eighty-six per cent of trusts submitted data for all 4 quarters of the year.

All trusts in London and the South West submitted data with no exclusions.

The highest decline rates were found in the North West, South West and East Midlands sub-regions.

The greatest variation between trusts was in the North West.

The lowest rates of declines were in London (< 1 per 1000 women).

Hepatitis B and syphilis:
All sub-regions had returns excluded, notably all for the North East for data quality reasons.

The highest decline rate of >6 per 1000 women was in the North West, but higher rates were also noted in the South West and East Midlands: >3 per 1000 women.

The greatest variation between trusts was in the North West.

The lowest rates of declines were in London (< 1 per 1000 women).

Recommendations and actions

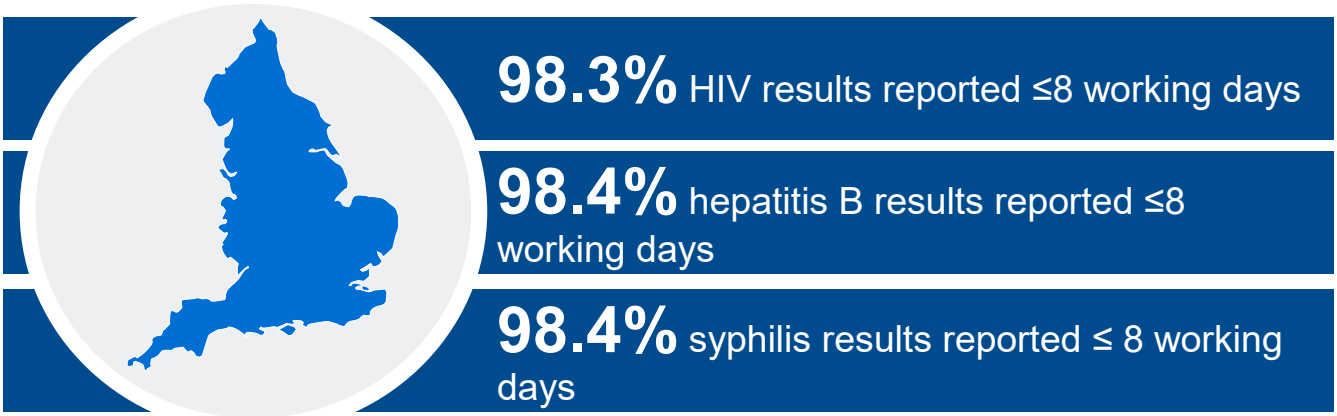
Item	Recommendation/action	Responsible	Timescale
Standards 1, 2, 3 - coverage			
1.	Ongoing review of quarterly coverage KPI data submissions to ascertain which providers continue to have issues with data quality	IDPS Programme, QA Portfolio Lead, SQAS teams and Data Team via the PHE Joint Action Meeting (JAM)	By April 2019
2.	Targeted support should be given to providers identified unable to submit acceptable coverage data	Providers SQAS - regions	By April 2019
3.	Raise health care professionals' awareness of the management of women who decline screening by: • updating programme clinical guidance • launching IDPS e-learning • communications and supporting resources on the rationale and evidence for the recommended management processes	IDPS Programme	By Sep 2019 By Sep 2019 By April 2020

4.	Communication to trusts to ensure the correct data on declines is collated as it is data on the second formal reoffer by the screening team that should be submitted	IDPS Programme, QA Portfolio Lead, SQAS teams and Data Team via the PHE JAM	By July 2019
5.	A review of the data submitted on decline rates in the North West, South West and East Midlands to ascertain any causal and contributing factors that may necessitate a more detailed audit	IDPS Programme, QA Portfolio Lead, SQAS teams and Data Team via the PHE JAM	By April 2020

Standard 4 – test turnaround time

Description

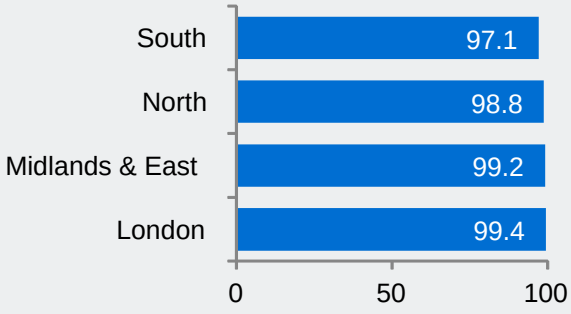
The proportion of antenatal screening samples for HIV, hepatitis B and syphilis where a result is available (confirmed positive or negative) and reported to maternity services within 8 working days of sample receipt in the screening laboratory in line with the IDPS laboratory handbook



HIV by region (%)

Hepatitis B by region (%)

Syphilis by region (%)



Standard 4 median and range, by infection

Infection	Median	Range
HIV	99.8%	(13.0 - 100.0)
Hepatitis B	99.8%	(13.0 - 100.0)
Syphilis	99.8%	(12.9 - 100.0)

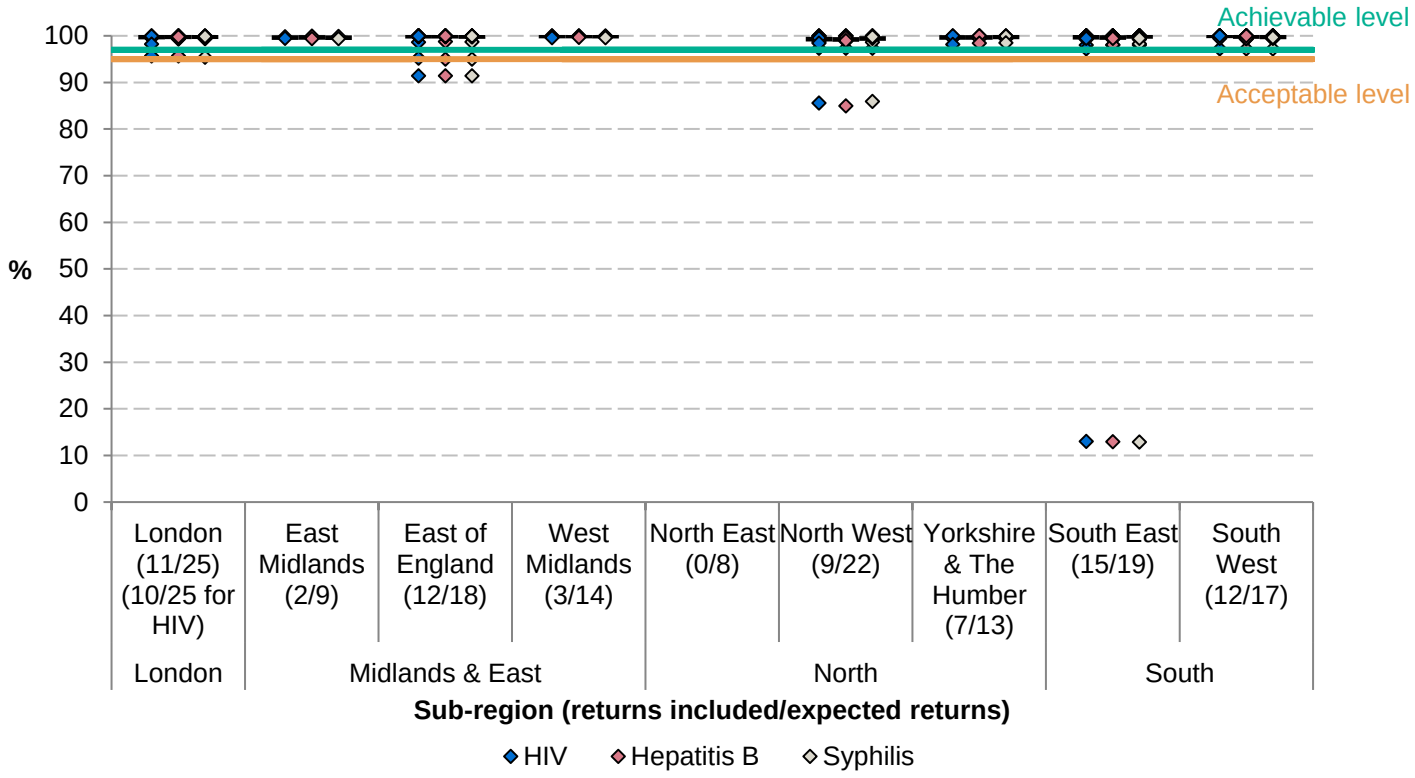
Performance

Table 5. Standard 4: Proportion of results reported within 8 working days by infection, England, 2016/17

Infection	Returns received (received/ expected)	Excluded returns (excluded/ received)	Samples received	Exclusions from samples received*		Samples received minus exclusions (denominator)	Results reported within 8 working days (numerator)	
				n	Rate/ 1000 samples received		n	% of denominator
HIV	126/145	56/126	341,482	2,121	6.2	339,361	333,622	98.3
Hepatitis B	126/145	55/126	349,845	2,128	6.1	347,717	342,025	98.4
Syphilis	126/145	55/126	349,373	2,110	6.0	347,263	341,640	98.4

*Samples received that were not fit for analysis and/or a repeat sample was requested from the screening co-ordinator/team

Figure 7. Standard 4: Variation in test turnaround time, England, 2016/17



The horizontal markers represent the median value for each sub-region.

Reasons for exclusions

Sixteen trusts provided no data for this standard.

Eleven returns were missing data for some of the required fields for HIV and 10 for hepatitis B and syphilis.

Twenty-six returns showed numerator plus mitigations as greater than the denominator.

Two returns were unable to split data by infection.

One trust returned data covering the laboratory service not the specific maternity service.

Commentary

Eighty-seven per cent of providers submitted data, however almost half of these were excluded for data-quality issues.

The South region returned the greatest number of complete submissions.

There were no complete submissions from the North East.

All reporting sub-regions had a median level of coverage above the achievable level of ≥97.0%.

The greatest variation between providers was in the South East.

Three sub-regions, North West, South East and East of England, had laboratories performing below the acceptable level of ≥95.0%.

The rate of samples excluded for analyses by laboratories was approximately 6 per 1000 samples received.

Recommendations and actions

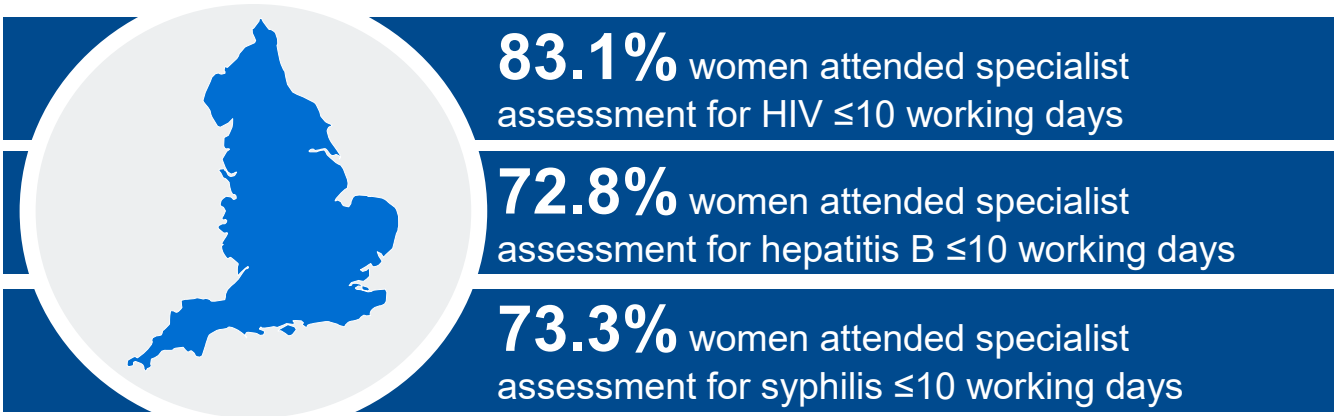
Item	Recommendation/action	Responsible	Timescale
Standard 4- test turnaround times			
6.	Monitor trends in this data annually when more submissions are complete	IDPS Programme	Annually
7.	Monitor levels of excluded samples	IDPS Programme	Annually
8.	SQAS to liaise with commissioners to raise awareness of the need for collaborative working with screening teams and laboratories on data submissions as specified in Section 7a service specifications	SQAS	By Sep 2019

9.	SQAS to work with laboratories reporting performance below the acceptable level, specifically in the North West, South West and East of England	SQAS	By Sep 2019
10.	Review findings with stakeholders in IDPS Laboratory Task Group and present at planned national IDPS laboratory workshop in 2019 to raise awareness of data quality	IDPS Programme / National QA Antenatal Portfolio Lead / national data team	By April 2019

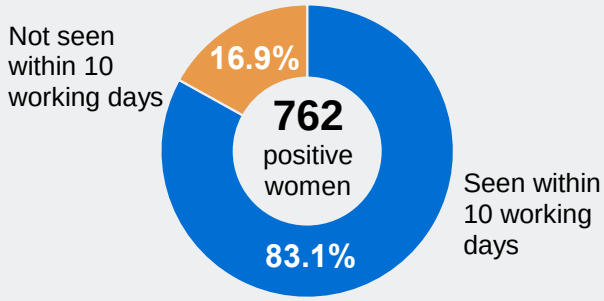
Standard 5 – time to intervention

Description

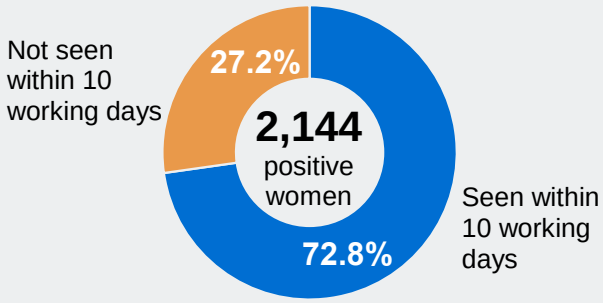
The proportion of pregnant women attending for specialist assessment within 10 working days of the positive result or known status being reported to maternity services



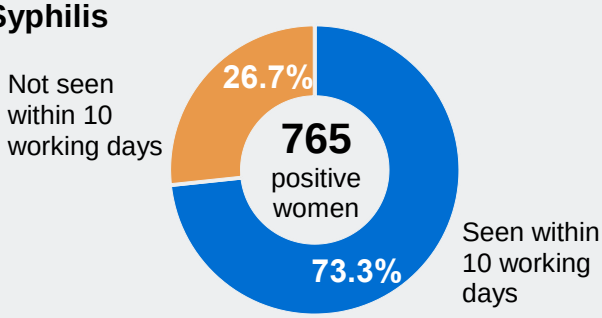
HIV



Hepatitis B



Syphilis



Standard 5 median and range, by infection

Infection	Median	Range
HIV	100.0	(0.0 - 100.0)
Hepatitis B	87.5	(0.0 - 100.0)
Syphilis	100.0	(0.0 - 100.0)

Performance

Table 6. Standard 5: Proportion of screen positive women attending specialist assessment within 10 working days, England, 2016/17

Infection	Returns received (received/ expected)	Excluded returns (excluded/ received)	Screen positive women	Attended specialist assessment within 10 working days	%
HIV	126/145	2/126	762	633	83.1
Hepatitis B	126/145	4/126	2,144	1,560	72.8
Syphilis	126/145	2/126	765	561	73.3

In the above table, specialist assessment refers to a face-to-face appointment with a member of the multidisciplinary team. The assessment supports and informs appropriate triage of women for clinical management by the medical team in pregnancy.

Reasons for exclusions

One trust submitted no data (all conditions).

One trust had included incomplete data, so not all screen positive women are accounted for (HIV and hepatitis B only).

Two trusts reported a numerator greater than the denominator for hepatitis B and one trust reported a numerator greater than the denominator for syphilis.

Table 7. Breakdown of women who are HIV positive, England, 2016/17

Breakdown of screen positives	n	% of total
Newly screened positive women	76	10.0
Previously known positive women, not re-tested	165	21.7
Previously known positive women, re-tested in this pregnancy	521	68.4
Total screen positive women	762	100.0

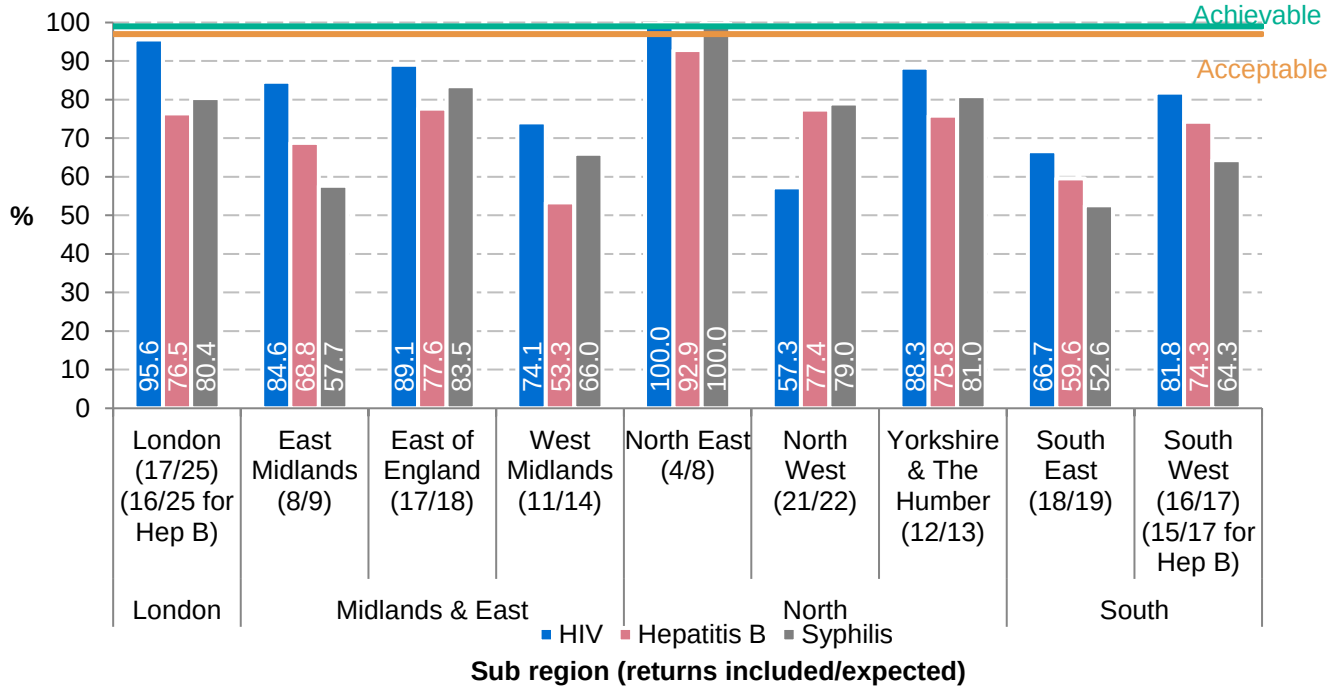
Table 8. Breakdown of women who are hepatitis B positive, England, 2016/17

Breakdown of screen positives	n	% of total
Newly screened positive women	494	23.0
Previously known positive women, not re-tested	35	1.6
Previously known positive women, re-tested in this pregnancy	1,615	75.3
Total screen positive women	2,144	100.0

Table 9. Breakdown of women who screen positive for syphilis, England, 2016/17

Breakdown of screen positives	n	% of total
Newly diagnosed requiring treatment	225	29.4
Previously diagnosed requring treatment	105	13.7
Previously diagnosed not requiring treatment	404	52.8
Other treponemal infections	31	4.1
Total screen positive women	765	100.0

Figure 8. Standard 5: Proportion of screen positive women attending specialist assessment within 10 working days by sub-region, England, 2016/17



Commentary

There was an excellent number of submissions across all regions with minimal exclusions.

No sub-region reached the acceptable threshold for all 3 infections.

Only the North East reached the acceptable threshold (HIV and syphilis) but it is noted that only 4/8 providers submitting data.

Over 25% of women were not seen within 10 working days of the result for hepatitis B and syphilis.

The breakdown of the syphilis-positive cohort of women is consistent with the findings from the Surveillance of Antenatal Syphilis Study (SASS) in that:

- approximately 43% of women required treatment (new and previous diagnosed)
- approximately 53% of women had a previously diagnosed infection that did not require treatment in the current pregnancy

The majority of women present as previously diagnosed prior to pregnancy, not new diagnoses in current pregnancy.

Most women previously known to be HIV or hepatitis B positive are being retested in the current pregnancy, reflecting that most trusts are rescreening women in every pregnancy for HIV and hepatitis B.

Recommendations and actions

Item	Recommendation/action	Responsible	Timescale
Standard 5- time to intervention: screen positive women			
11.	Monitor trends in this data annually as a new standard	IDPS Programme	Annually
12.	A review of the timely management of this cohort of women across all regions through linkage to the IDPS checks and audit document and schedule	IDPS Programme, QA Portfolio Lead, SQAS teams and Data Team via the PHE JAM	By April 2020

13.	To raise awareness of the rationale and importance of the screening assessment visit to: • provide a central, continuous point of contact for the woman • complete any further tests and assessments and ensure timely entry into care for all 3 infections • support a comprehensive assessment of a known positive woman's condition and current care • utilise PHE information resources to ensure consistent messages and provision of care • provide an opportunity for health promotion and support for all women including those with complex health and social needs	IDPS Programme, QA Portfolio Lead, SQAS teams	By April 2020
14.	Raise health care professional's awareness of the management of screen positive women by: • updating programme clinical guidance • launching IDPS e-learning educational resource with bespoke advice and videos on the screening assessment	IDPS Programme	By Sep 2019 By Sep 2019
15.	Clarify the programme advice on rescreening known positive women and update the NHS Service specification and care pathways accordingly	IDPS Programme	By April 2019

Positivity rates

Positivity rates are calculated as the total number of screen positive women (newly positive or previously known diagnosed) per 1,000 women tested.

Rates for the 3 infections are calculated using a combination of data from:

- standards 1, 2, 3, on coverage to provide numbers tested
- standard 5- to provide the number of screen-positive women

Data are only included if trusts provided completed data for both standards, so as to not skew the reported rates. This means that the absolute numbers reported here are lower than those reported for individual standards.

Table 10. Screen positivity rates for HIV in pregnant women, England, 2016/17

Region	Women tested	Screen positive women†		Newly diagnosed women‡	
		n	Rate/1,000 women tested	n	Rate/1,000 women tested
London	103,765	273	2.63	24	0.23
Midlands & East	155,004	172	1.11	21	0.14
North	128,338	152	1.18	15	0.12
South	157,112	120	0.76	11	0.07
England total	544,219	717	1.32	71	0.13

Please note that the above positivity rates are based upon two separate data collections relating to the number of women who were booked for antenatal care in the reporting period and subsequently tested (including women who were known positives and not retested), and the number of women with screen positive results\known positive status reported in the reporting period. The two cohorts of women may therefore differ slightly, and the above should therefore be interpreted with caution.

†The number positive is the total number of women who screened positive during antenatal screening which comprises: women newly diagnosed and those previously diagnosed. Previously known diagnosed women may not be retested in the pregnancy, but will still appear in the women tested and screen positive women totals. The rate of screen positive women is calculated based on the total number of women tested.

‡The rate of women newly diagnosed is calculated based on the total number of women tested.

Exclusions are applied where data for either standard 1 or standard 5 was missing or incomplete, and so figures differ compared to those presented elsewhere in this report.

Due to small numbers this table is not presented by sub-region.

Table 11. Screen positivity rates for hepatitis B in pregnant women, England, 2016/17

Region	Sub-region	Women tested	Screen positive women†		Newly diagnosed women‡	
			n	Rate/1,000 women tested	n	Rate/1,000 women tested
London	London	88,710	679	7.65	125	1.41
Midlands & East	East Midlands	29,558	102	3.45	29	0.98
	East of England	72,320	242	3.35	65	0.90
	West Midlands	26,846	67	2.50	17	0.63
North	North East	-	-	-	-	-
	North West	59,378	206	3.47	61	1.03
	Yorkshire & The Humber	45,268	115	2.54	26	0.57
South	South East	77,291	188	2.43	52	0.67
	South West	42,406	75	1.77	18	0.42
England total		441,777	1,674	3.79	393	0.89

Please note that the above positivity rates are based upon two separate data collections relating to the number of women who were booked for antenatal care in the reporting period and subsequently tested (including women who were known positives and not retested), and the number of women with screen positive results\known positive status reported in the reporting period. The two cohorts of women may therefore differ slightly, and the above should therefore be interpreted with caution.

†The number positive is the total number of women who screened positive during antenatal screening which comprises: women newly diagnosed and those previously diagnosed. Previously known diagnosed women may not be retested in the pregnancy, but will still appear in the women tested and screen positive women totals. The rate of screen positive women is calculated based on the total number of women tested.

‡The rate of women newly diagnosed is calculated based on the total number of women tested.

Exclusions are applied where data for either standard 2 or standard 5 was missing or incomplete, and so figures differ compared to those presented elsewhere in this report

Table 12. Screen positivity rates for syphilis in pregnant women, England, 2016/17

Region	Sub-region	Women tested	Screen positive women†		Screen positive, requiring treatment‡	
			n	Rate/1,000 women tested	n	Rate/1,000 women tested
London	London	91,479	166	1.81	69	0.75
Midlands & East	East Midlands	29,555	54	1.83	22	0.74
	East of England	72,320	107	1.48	44	0.61
	West Midlands	26,846	56	2.09	16	0.60
North	North East	-	-	-	-	-
	North West	59,387	58	0.98	36	0.61
	Yorkshire & The Humber	45,266	43	0.95	18	0.40
South	South East	77,290	69	0.89	33	0.43
	South West	44,109	32	0.73	14	0.32
England total		446,252	585	1.31	252	0.56

Please note that the above positivity rates are based upon two separate data collections relating to the number of women who were booked for antenatal care in the reporting period and subsequently tested, and the number of women with screen positive results reported in the reporting period. The two cohorts of women may therefore differ slightly, and the above should therefore be interpreted with caution.

†The number positive is the total number of women who screened positive during antenatal screening. All women are offered screening for syphilis in every pregnancy regardless of history of previous infection. The rate of screen positive women is calculated based on the total number of women tested.

‡The rate of screen positive women requiring treatment is calculated based on the total number of women tested.

Exclusions are applied where data for either standard 3 or standard 5 was missing or incomplete, and so figures differ compared to those presented elsewhere in this report

Standard 6 – time to intervention

Description

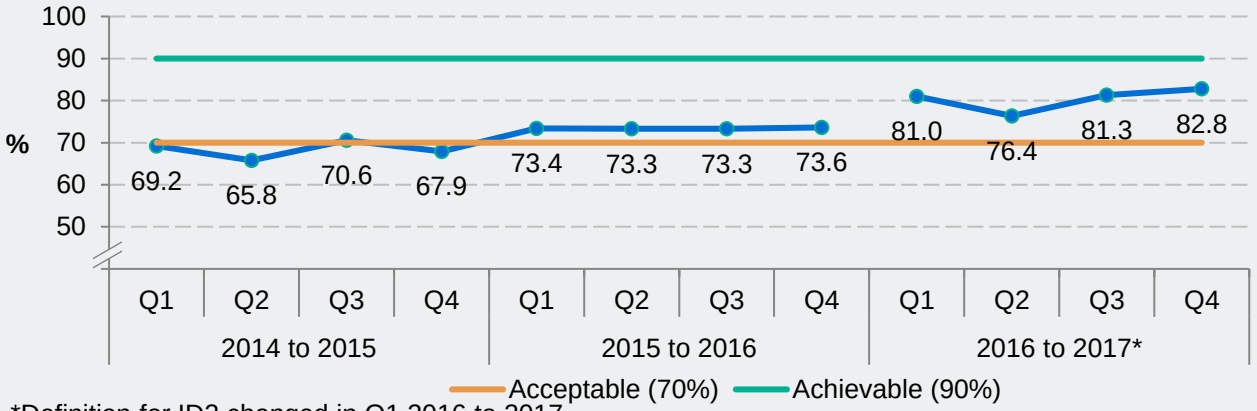
The proportion of pregnant women who are hepatitis B positive attending for specialist assessment within 6 weeks of the positive result being reported to maternity services.

Consistent upward trend in performance across all service providers

80.3% women with hepatitis B (new positive or high infectivity) seen within 6 weeks

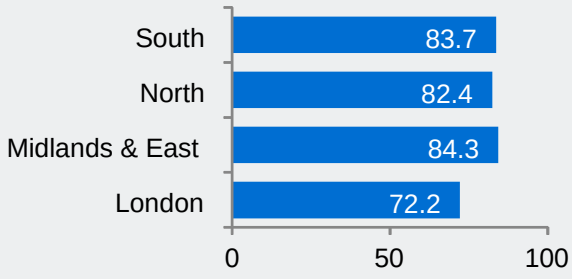
73.1% of trusts^ are performing above the acceptable level for this standard

Trends in national proportion of women attending specialist assessment within 6 weeks



*Definition for ID2 changed in Q1 2016 to 2017

Proportion seen within 6 weeks by region (%)



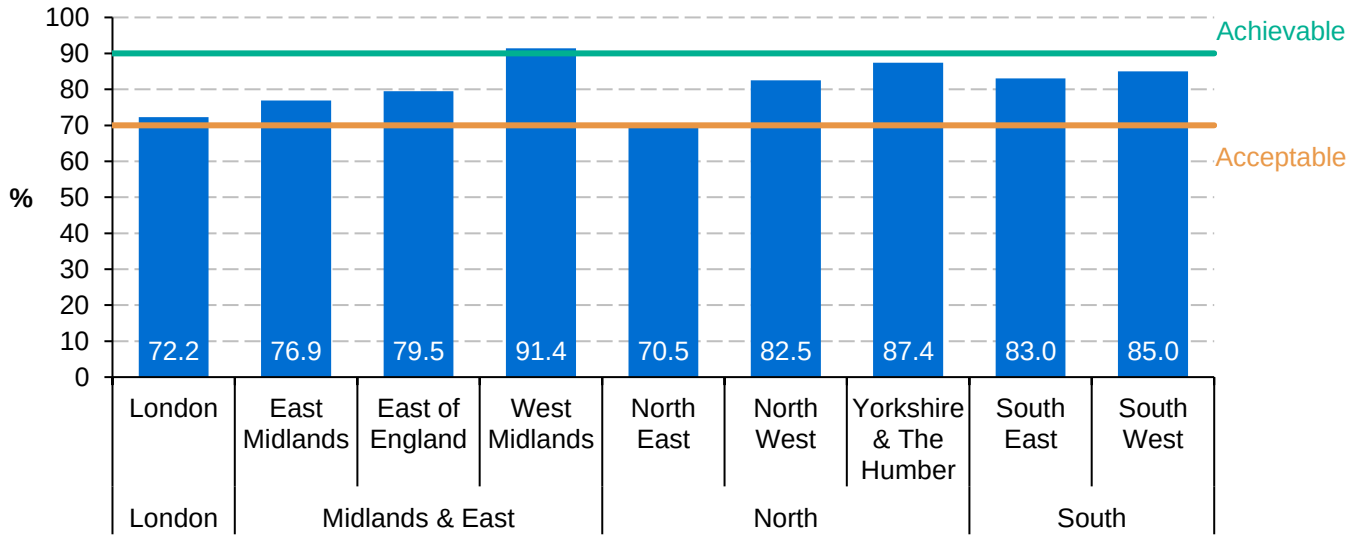
^Includes only those trusts which reported cases in 2016 to 2017

Performance

Table 13. Standard 6: Timely assessment of women with hepatitis B, England, 2016/17

Region	Sub-region	Returns included (included/ expected)	Women with hepatitis B (new positive or high infectivity)	Number of women seen for hepatitis B within 6 weeks (new positive or high infectivity)	%
London	London	25/25	425	307	72.2
Midlands & East	East Midlands	9/9	91	70	76.9
	East of England	17/18	166	132	79.5
	West Midlands	14/14	209	191	91.4
North	North East	8/8	44	31	70.5
	North West	21/22	194	160	82.5
	Yorkshire & The Humber	13/13	103	90	87.4
South	South East	19/19	165	137	83.0
	South West	17/17	80	68	85.0
England total		143/145	1,477	1,186	80.3

Figure 9. Standard 6: Timely assessment of women with hepatitis B, England, 2016/17



Reasons for exclusions

Two returns were excluded as one or more quarterly returns for the year April 2016 to March 2017 was missing or excluded for data quality reasons.

Commentary

The definition for this KPI changed in 2016 to 2017 in response to stakeholder feedback to account for newly diagnosed and known positive women with high infectivity only.

All sub-regions reported performance above the acceptable level.

Only the West Midlands sub-region reported performance above the achievable level.

Clinical care for women who are known positive with low infectivity is under review by the British Association for the Study of the Liver (BASL) British Viral Hepatitis Group (BHVG) guidelines team.

Recommendations and actions

Item	Recommendation/action	Responsible	Timescale
Standard 6- time to intervention: women with hepatitis B			
16.	Continue to monitor trends in this data annually as definitions changed in 2016 to 2017	IDPS Programme	Annually
17.	Raise health care professionals' awareness of the management of women with hepatitis B by roll-out of the PHE IDPS and National Immunisation Teams Quality Improvement initiative in response to the World Health Organisation's global health sector strategy on viral hepatitis, 2030 Agenda for Sustainable Development: Target 3 through: • joint regional stakeholder workshops • improved surveillance systems • improved professional knowledge • increased multidisciplinary working • production of clinical resources	IDPS programme and PHE Immunisation /BBV team	By April 2020

Standard 7 – intervention and treatment

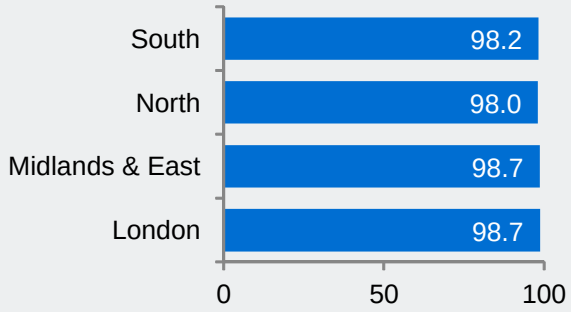
Description

The proportion of babies born in the reporting period to women with hepatitis B receiving first dose of vaccination +/- immunoglobulin within 24 hours of birth

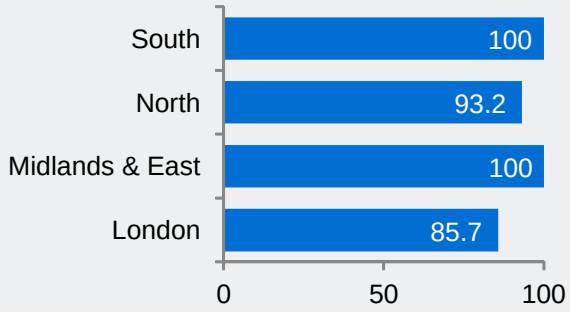
98.4% of babies received their first dose of hepatitis B vaccination within 24 hours of birth

93.3% of babies requiring immunoglobulin received it within 24 hours of birth

Standard 7a: vaccination (%)



Standard 7b: immunoglobulin (%)



Performance

Table 14. Standard 7a: Proportion of babies born to hepatitis B positive women receiving first dose of hepatitis B vaccination ≤24 hours of birth, England, 2016/17

Region	Sub-region	Returns received (received/ expected)	Excluded returns (excluded/ received)	Babies born to hep B positive women	Babies received first dose of hep B vaccination <24 hours	%
London	London	18/25	6/18	379	374	98.7
Midlands & East	East Midlands	8/9	2/8	64	64	100.0
	East of England	17/18	5/17	106	104	98.1
	West Midlands	11/14	2/11	54	53	98.1
North	North East	4/8	1/4	18	18	100.0
	North West	21/22	6/21	241	237	98.3
	Yorkshire & The Humber	12/13	3/12	88	85	96.6
South	South East	18/19	2/18	220	218	99.1
	South West	17/17	5/17	64	61	95.3
England total		126/145	32/126	1,234	1,214	98.4

Table 15. Standard 7b: Proportion of babies born to hepatitis B positive women requiring immunoglobulin receiving it ≤24 hours of birth, England, 2016/17

Region	Sub-region	Returns received (received/ expected)	Excluded returns (excluded/ received)	Babies born to hep B women requiring immunoglobulin	Babies received immunoglobullin <24 hours	%
London	London	18/25	6/18	42	36	85.7
Midlands & East	East Midlands	8/9	2/8	9	9	100.0
	East of England	17/18	5/17	7	7	100.0
	West Midlands	11/14	2/11	6	6	100.0
North	North East	4/8	1/4	2	2	100.0
	North West	21/22	6/21	32	30	93.8
	Yorkshire & The Humber	12/13	3/12	10	9	90.0
South	South East	18/19	2/18	18	18	100.0
	South West	17/17	5/17	9	9	100.0
England total		126/145	32/126	135	126	93.3

Reasons for exclusions

Twenty-seven trusts submitted data using the incorrect cohort – this standard follows babies born in the reporting period, but a number of trusts submitted data on the babies born to women screened positive in the reporting period.

Two trusts reported a numerator greater than the denominator.

Two trusts had other data quality issues.

One trust provided no data.

Commentary

The majority of trusts submitted data on this standard but over a quarter of these were excluded due to data-quality issues.

For timely administration of neonatal vaccination:

- only 3 sub-regions reported performance above the achievable level of ≥99% (East Midlands, North East and South East), but it should be noted not all trusts submitted acceptable data
- the South West and Yorkshire and The Humber sub-regions reported performance below the acceptable level of ≥97%

For timely administration of neonatal immunoglobulin:

- 6/9 sub-regions reported performance above the achievable level of ≥99% but it should be noted not all trusts submitted acceptable data
- the remaining 3 sub-regions (London, North West and Yorkshire and The Humber) reported performance below the acceptable level of ≥97%

Recommendations and actions

Item	Recommendation/action	Responsible	Timescale
Standard 7- Intervention: hepatitis B- timely neonatal vaccination and immunoglobulin			
18.	Continue to monitor trends in this data annually	IDPS Programme	Annually
19.	Targeted review of the management protocols for babies requiring vaccination +/- immunoglobulin in trusts identified as performing below the acceptable thresholds	Providers	By April 2020

Appendix 1. Screening outcomes

The IDPS programme commissions the Infections team at Great Ormond Street Institute Child Health (ICH), University College London (UCL) to collect data on screening programme outcomes. Collation and analyses of screening outcome data is essential to:

- monitor the performance of the screening programme
- identify areas for further audit and research
- review all positive cases to inform screening programme pathways and standards

The National Study of HIV in Pregnancy and Childhood (NSHPC) NSHPC conducts active surveillance of pregnancies in women living with HIV, babies born to women living with HIV and other children diagnosed with HIV and have collected data in the UK and Ireland since 1990. Confidential data on HIV in pregnant women is requested on a quarterly basis via secure online reporting with named respondents in every maternity unit. Confidential data on HIV exposed and infected children is collected by the NSHPC. Notifications are either made directly to the NSHPC and in some cases notifications are facilitated by the British Paediatric Surveillance Unit.

The NSHPC conducts anonymised comprehensive surveillance of:

- all pregnancies in women diagnosed with HIV prior to or during their current pregnancy in the UK or Ireland
- all infants with in utero HIV exposure

In addition, reports of all children diagnosed with HIV (<16 years) are sought, regardless of country of birth.

Key statistics

The annual number of pregnancies to HIV-positive women in the UK and Ireland peaked at more than 1,500 in 2010 and has since stabilised at around 1,200.

The NSHPC reported an overall transmission rate of just under 0.3% (95% CI: 0.11-0.56 %) for 2,580 births to diagnosed women from 2012 to 2014. This represents a continuing decline from 2.1% in 2000-2001 and 0.46% in 2010-2011.

In 2012 to 2014, 85% of children were born to mothers who were aware of their HIV status at conception, over 60% of women conceived on combined antiretroviral

therapy, and overall almost 90% of women delivered with undetectable viral load (<50 copies/ml).

This reflects over 97% coverage of antenatal screening of HIV in the UK, improved HIV testing outside of pregnancy and treatment advances (more efficacious, less toxic drugs).

There have been changes in the population of pregnant women with HIV. These include an increasing number of women aged over 40 years, including those delivering for the first time, and the emergence of a new population of young vertically-infected pregnant women.

New diagnoses for UK and Irish-born children fell from 40-50 per year (2000 to 2006) to 20-30 (2007 to 2011), then further to below 10 (2012 onwards).

Screening outcomes audits and studies

Over the past 6 years, the IDPS Programme has commissioned several bespoke audits and studies to provide evidence to inform the development of the IDPS programme standards and guidelines, and the planned IDPS Integrated Screening Outcomes Surveillance Service (ISOSS) to further improve strategies for preventing vertical transmission of HIV, hepatitis B and syphilis and for safeguarding the health of pregnant women with these conditions.

Enhanced HIV in pregnancy audit

The audit of perinatal HIV infection explored circumstances surrounding vertical transmissions among children born in the UK between 2006 to 2013 and found that:

- among the 108 children born since 2006 who were confirmed infected by April 2014, 41 were born to diagnosed and 67 to undiagnosed women
- two-thirds of infected infants were born to women not diagnosed by delivery
- for infants born to diagnosed women, the most common contributing factors were difficulties with engagement/ART adherence and late booking
- for infants born to undiagnosed women the most common contributory factors were decline of HIV testing and seroconversion
- over half of the mothers experienced adverse social circumstances

The audit is now an embedded part of the NSHPC surveillance process and enhanced data collection is ongoing for newly reported cases.

Surveillance of antenatal syphilis screening (SASS) study

The SASS study established what proportion of women identified as screen positive for syphilis by antenatal screening in the UK in 2010 to 2011 required treatments to reduce the risk of vertical transmission of syphilis to their babies, review how they were managed and review what happened to their babies. It found that:

- > 1,900 pregnancies were reported as screen positive
- > 1,400 were confirmed positive with syphilis
- only a quarter of these women had newly diagnosed infections
- about 40% of women required treatment in pregnancy mainly penicillin
- 6 children born to women requiring treatment had confirmed congenital syphilis

National hepatitis B in pregnancy audit

This is the first national audit of practice regarding management of hepatitis B in pregnancy. The aim is to undertake a national clinical audit of the management of pregnant women with hepatitis B infection booked to receive antenatal care over a 12-month period (from 1st January to 31st December 2014).

The audit has now been extended to include correlation and analyses of Public Health England COVER data on babies receiving vaccination during their first year of life and the serology tests at one year of age to determine infectivity status.

Interim findings have been reported to the IDPS programme team to inform the review of hepatitis in women and babies and the allied quality improvement initiative.

Congenital Infections

The IDPS team also supports the continued monitoring of congenital rubella cases through notification of cases via the British Paediatric Surveillance Unit rare conditions active reporting scheme. Surveillance of congenital syphilis cases will commence in 2019 and will support the surveillance of maternal syphilis based on the datasets from the SASS study as a core surveillance process as part of the IDPS programme Integrated Screening Outcomes Service (ISOSS).

Future plans

The IDPS programme is currently planning implementation of the IDPS Integrated Screening Outcomes Service (ISOSS) with:

- a simple submission portal for screening outcome data for hepatitis B, syphilis and HIV via a simple, secure, web based system that will reduce the burden on data providers
- a review of funding, contracts, data sharing agreements and standard operating procedures for data and information governance and reporting linkage with the PHE National Congenital Anomaly and Rare Disease Registration Service (NCARDRS)

Planned objectives include:

- establishing annual expert review panels on outcomes for all 3 infections and confirmed congenital and paediatric cases of rubella
- inclusion of outcomes data as part of annual data reports across PHE
- establishing a feedback process to submitting trusts and stakeholders