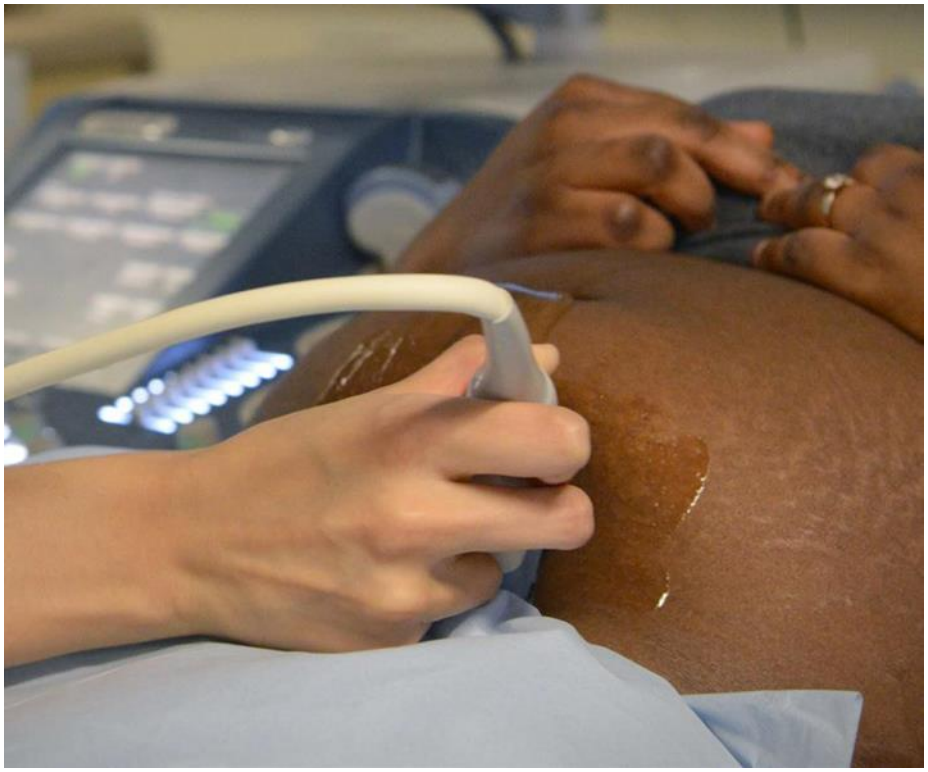
Public Health England

NHS

NHS Fetal Anomaly Screening Programme

Screening standards data report
1 April 2016 to 31 March 2017



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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 programmesare 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 fourUK countries.The Screening Quality Assurance Serviceensures programmes are safe and effective by checking that national standards are met.

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Published February 2019
PHE publications
gateway number: GW-151

PHE supports the UN
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Contents

Executive summary

This report presents data against each of the screening standards for the NHS Fetal Anomaly Screening Programme (FASP) in England from 1 April 2016 to 31 March 2017. It is the second published annual standards data report for FASP. As expected being only the second year of a new process of reporting, there was some variation across England in reporting and completeness of data returns.

The aim of this second report is to feedback performance against the national standards.

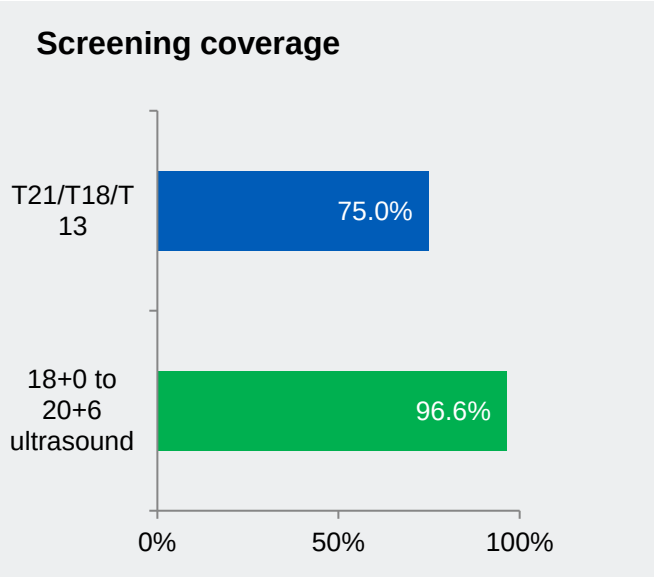
Dependent on the standard, data was returned by maternity units, biochemical screening laboratories, diagnostic laboratories and national teams such as the Down's syndrome quality assurance support service (DQASS) and the National Congenital Anomaly and Rare Diseases Registration Service (NCARDRS).

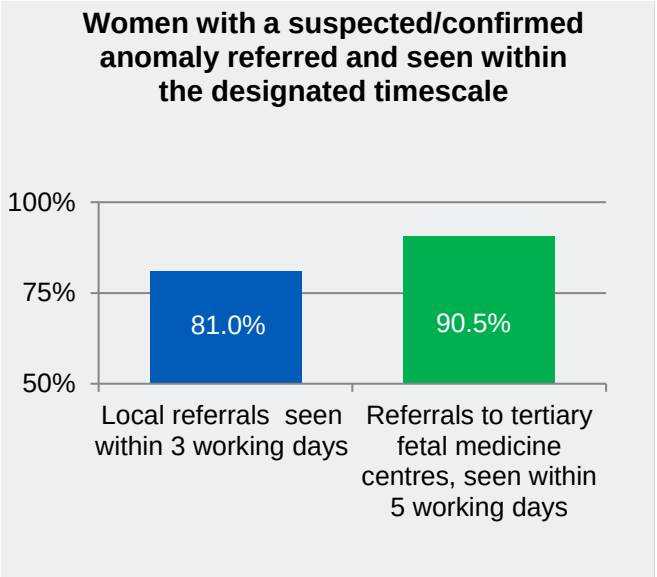
Standard 3 data is collated and reported in 2 parts which are:

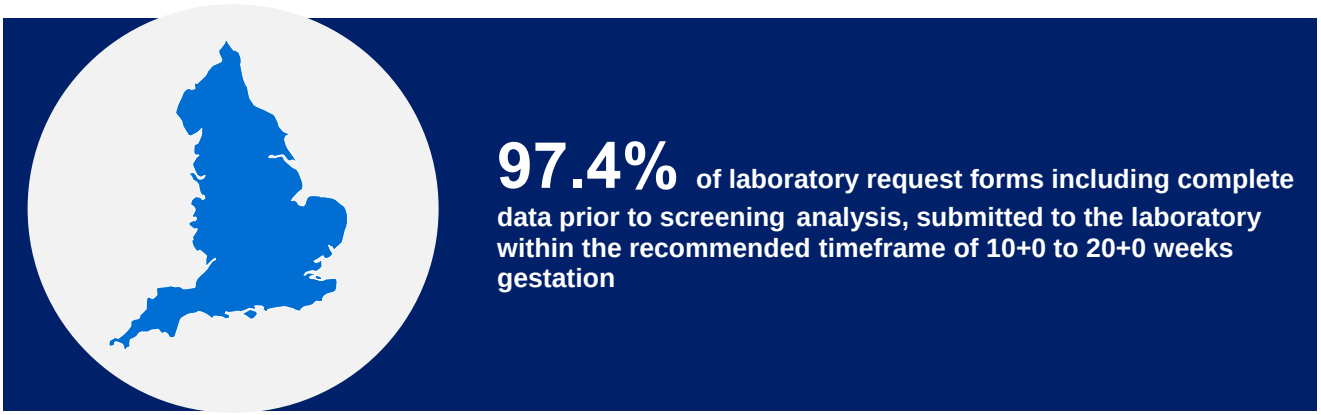
- 3a Test performance - screen positive rate (SPR), reported by DQASS annually
- 3b Test performance - detection rate (DR), reported by the NCARDRS

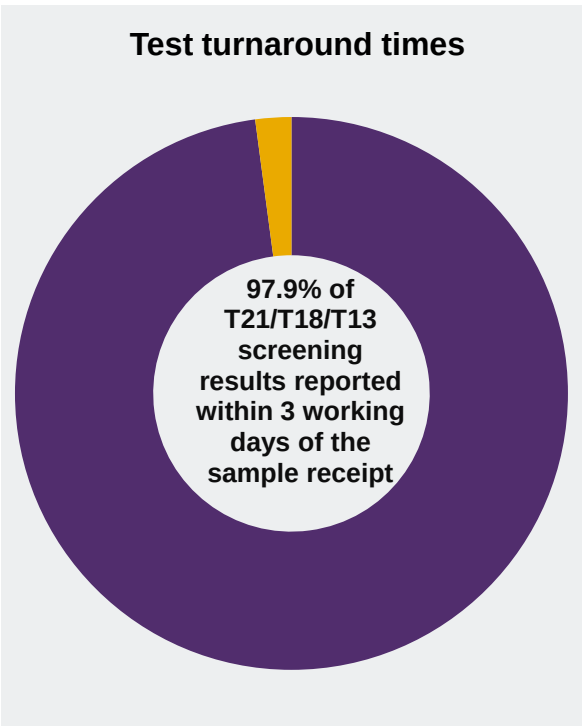
The NCARDRS data is 1 year in arrears and is based on the 2015 to 2016 birth cohort. NCARDRS did not have coverage of the whole of England for this birth cohort, data was received from 71 NHS trusts over 7 regions.

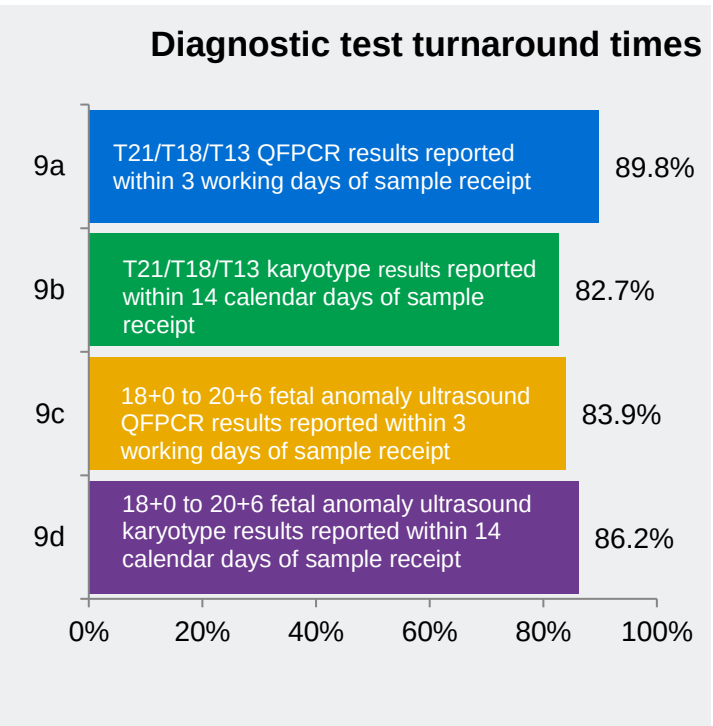
Summary statistics: England, 2016 to 2017











Index of standards: fetal anomaly screening programme

Table 1. Index of standards

Standard	Name of standard	Dataset	Data source	Number of submissions/ expected returns 2016/17	Number of accepted submissions 2016/17	Number of accepted submissions 2015/16
1	Identifying population and coverage: (Down's (T21), Edwards'/Patau's (T18/T13) syndrome screening)	Annual standards data	Maternity units	126/145 (87%)	101 (80%)	54
2	Identifying population and coverage ($18+^{0}$ to $20+^{6}$ fetal anomaly ultrasound)	Key Performance Indicator (KPI) data	Maternity units	115/145 (79%)	73 (50.3%)	39
3a 3b	Test performance (T21/T18/T13 screening) Screen positive rate (SPR) Test performance (T21/T18/T13 screening) Detection rate (DR)	National submission 2016/17		DQASS NCARDRS (reported in 2016/17 based on 2015/16 cohort		n/a
4	Test performance ($18+^{0}$ to $20+^{6}$ fetal anomaly ultrasound)	National submission 2016/17		NCARDRS (reported in 2016/17 based on 2015/16 cohort)		Not collected at this time
5	Test turnaround time (T21/T18/T13 screening)	Annual standards data	Screening laboratories	17/21	17 (81%)	12

6	Minimising harm (T21/T18/T13 screening)	KPI data	Maternity units	145	KPI	142
7	Time to intervention (T21/T18/T13 screening)	Annual standards data	Maternity units	126/145	119 (94%)	94
8a 8b	Time to intervention (18+^{0} to 20+^{6} fetal anomaly ultrasound); Local and Tertiary referral	Annual standards data	Maternity units	126/145	101 (80%)	54
9a 9b	Diagnose (T21/T18/T13 screening); test turnaround QFPCR and Karyotype	Annual standards data	Diagnostic laboratories	16/18	13 (81%) 15 (94%)	14 15
9c 9d	Diagnose (T21/T18/T13 screening); test turnaround QFPCR and Karyotype	Annual standards data	Diagnostic laboratories	16/18	11 (69%) 15 (94%)	12 15

The main issues reported for non-submission or partial submission of data are recurring themes from the 2015 to 2016 report, these were:

- lack of adequate reporting and IT systems in place to collect and report data, for example maternity systems are not necessarily designed to interface with other systems such as laboratories
- unable to define exclusions and split exclusion categories
- unable to provide matched cohort data for coverage standards
- reporting of partial data for example; only 2 or 3 out of 4 quarters of data submitted

Data was not included in the analysis for Standard 1 that relates to coverage of screening for Down's syndrome, Edwards' syndrome and Patau's syndrome in the first trimester if:

- providers were unable to account for 3 or more exclusion criteria
- data was clearly non-matched cohort data

Following a successful pilot process standard 1 – coverage of screening for Down's syndrome, Edwards' syndrome and Patau's syndrome in the first trimester will become a KPI with a quarterly reporting timeframe from April 2017.

Data completeness and quality improved, particularly for standards 8a and 8b. This may be due in part to the engagement of providers in the antenatal data workshops delivered in the regions which commenced at the end of 2016, supporting a better understanding of the reporting requirements.

The recommendations from the analysis of the data for 2016 to 2017 are set out in Table 2 below: summary of recommendations and actions

Summary of recommendations and actions

Table 2. Recommendations and actions

Standards	Recommendations	Responsibility	Timescales
1a	Work with provider IT and audit departments to set up manageable systems for cross-referencing and correlating data that allows women who have accepted the offer of screening for Down's syndrome, Edwards' syndrome and Patau's syndrome to be 'tracked' to confirm completion of screening. This process must ensure that all women are accounted for, including those who decline the offer of screening	Maternity providers that are not yet able to submit matched cohort data	March 2019
1b	FASP will run a pilot project to assess the feasibility of standard 1 becoming a KPI with quarterly data submission	NHS FASP	March 2018 (completed)
2a	Work with provider IT and audit departments to set up manageable systems for cross-referencing and correlating data that allows women who have accepted the offer of fetal anomaly ultrasound screening to be 'tracked' to confirm completion of screening. This process must ensure that all women are accounted for, including those who decline the offer of screening	Maternity providers that are not yet able to submit matched cohort data	March 2019
3a (1)	Providers and commissioners should regularly review their DQASS reports at programme boards and address the recommended actions	Maternity providers/Public Health Commissioners/ Screening & Immunisation Teams	Ongoing
3a (2)	NHS FASP to discuss and agree adjustments to the SPR ranges in Standard 3a at the PHE screening data group	FASP	March 2019
3b (1)	Providers and commissioners should work with NCARDRS to improve notification	Maternity Providers/Public Health Commissioners/ Screening &	Ongoing

		Immunisation Teams	
3b (2)	Biochemistry screening laboratories must be reporting all higher chance results to NCARDRS on a monthly basis. Where this is not in place an action plan should be developed to commence reporting as soon as possible	Biochemical screening laboratories Public Health Commissioners Screening & Immunisation Teams	March 2019
4	Providers and commissioners should work with NCARDRS to improve notification	Maternity providers/Public Health Commissioners/	March 2019
5a	Work should be undertaken directly with laboratories to understand reasons for non- submission of data to improve future returns	Screening & Immunisation teams/Regional SQAS	March 2019
5b	Work should be undertaken directly with the 3 laboratories submitting data who failed to meet the 3 day turnaround standard to understand the reasons for this and apply improvements to meet the standard in 2017/18	Screening & Immunisation teams/Regional SQAS	March 2019
5c	Laboratories meeting the acceptable standard should have an action plan in place to drive performance to meeting the achievable standard	Screening laboratories	March 2019
6	Providers should review local performance and processes to ensure all required data fields are completed on requests for screening	Maternity providers	March 2019
7	Implement local referral pathways for women with higher risk screening results for Down's syndrome, Edwards' syndrome and Patau's syndrome to enable timely intervention	Maternity providers	March 2019
8a	Put measures in place to accurately report data for these standards	Maternity providers	March 2019
8b	Put measures in place to accurately report data for these standards	Maternity providers	March 2019
9a	Work should be undertaken directly with laboratories to understand reasons for non- submission of data to improve future returns	Screening & Immunisation teams/Regional SQAS	March 2019
9b	Review of policy, in conjunction with the evidence team of the UK NSC, regarding diagnostic testing following higher chance screening results and use of microarray in	FASP	April 2019

	place of karyotype once the ACGS updated professional guidelines are published		
9c	Work should be undertaken directly with laboratories to understand reasons for non- submission of data to improve future returns	Screening & Immunisation teams/Regional SQAS	March 2019
9d	Review of policy regarding diagnostic testing following higher chance screening results and use of microarray in place of karyotype once the ACGS updated professional guidelines are published	FASP	April 2019

Introduction

This report presents data against each of the screening standards for the NHS Fetal Anomaly Screening Programme (FASP) in England from 1 April 2016 to 31 March 2017. The standards provide a defined set of measures that providers have to meet to ensure local programmes are safe and effective. Standards are reported annually unless they are also a key performance indicator (KPI) in which case they are reported quarterly and annual figures are aggregated where data were provided for all 4 quarters. The standards data gives a high level overview of the quality of the screening programme at important points on the screening pathway. They contribute to the quality assurance of screening programmes but are not, in themselves, sufficient to quality assure or performance manage screening services.

This report will focus on presenting national data with regional comparisons.

Two thresholds (acceptable and achievable) are specified for each standard except for standard 1: identifying population and coverage (T21 and T18/13) screening. Thresholds are not set for standard 1 as FASP supports personal informed choice for women. This standard enables service providers to be assured that all eligible women are offered the opportunity of screening and where this offer is accepted that women complete the screening pathway.

The SDG is a divisional group where quality assurance and programme teams come together to look at the data and intelligence needs of the screening programmes and to agree changes that drive continuous quality improvement.
These thresholds, definitions and reporting levels are approved by the Public Health England Screening Data Group (PHE SDG):

- the acceptable threshold is the lowest level of performance which programmes are expected to attain to ensure patient safety and programme effectiveness. All programmes are expected to exceed the acceptable threshold and to agree service improvement plans that develop performance towards an achievable level. Programmes not meeting the acceptable threshold are expected to implement recovery plans to ensure rapid and sustained improvement.

- the achievable threshold represents the level at which the programme is likely to be running optimally; screening programmes should aspire towards attaining and maintaining performance at this level.

Considerable efforts are made in trusts to collate and submit national screening data. The 3 antenatal screening programme teams, national antenatal QA portfolio lead and national data team delivered regional data workshops across the country at the end of

2016 to facilitate improvements and a clearer understanding of the requirements of this process. The objectives were to:

- provide an update on the current priorities of the antenatal screening programmes and quality assurance in relation to data processes
- engage with the antenatal programmes and national QA team on the screening KPIs and specific national standards data collection processes
- work in small groups on data simulation exercises and have feedback on returns
- view the new KPI e-learning resource

The initial events evaluated very positively. The antenatal data workshops continued throughout 2017 and it is anticipated that they will have a beneficial impact on data quality in future returns.

Background

The NHS Fetal Anomaly Screening Programme (FASP) recommends the offer of screening to all eligible pregnant women in England to assess the chance of the baby being born with Down's syndrome, Edwards' syndrome or Patau's syndrome, or a number of fetal anomalies (structural abnormalities of the developing fetus).

FASP aims to ensure there is equal access to uniform and quality-assured screening across England and women are provided with high quality information so they can make an informed choice about their screening and pregnancy options. Education and training resources are available for staff covering all stages of the process, from informing women of test availability, through to understanding and supporting their decisions.

FASP supports health professionals and commissioners in providing a high quality fetal anomaly screening programme. This involves developing and regular review of screening standards and KPIs against which data is collected and reported.

Data management

Data is presented by financial year (1 April to 31 March) unless stated otherwise. The year '2016 to17', for example, refers to the financial year '1 April 2016 to 31 March 2017'.

- standards 2 and 6 are KPIs. Annual figures for these standards represent aggregated figures based on 4 quarters of data, with exclusions made if no data was provided for 1 or more quarter in the financial year.
- all submissions are reviewed by the programme teams 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.

- annual aggregated data against the remaining standards are requested from screening co-ordinators through the regional screening quality assurance service (SQAS) teams.
- standard 3 data is collated and reported in 2 parts; 3a Test performance; Screen positive rate (SPR) reported by DQASS annually and 3b Test performance; detection rate (DR); reported by NCARDRS. The NCARDRS data is one year in arrears and is based on the 2015 to 2016 birth cohort.
- standard 4 data (the test performance $18+^{0}$ to $20+^{6}$ fetal anomaly ultrasound) is reported by NCARDRS one year in arrears based on the 2015 to 2016 birth cohort.
- standard 5 data (test turnaround time), requires data from screening laboratories
- standard 9 data (diagnose (T21/T18/T13 screening and $18+^{0}$ to $20+^{6}$ fetal anomaly ultrasound), requires data from diagnostic laboratories.
- data is collated and submitted via excel data templates alongside Infectious Diseases in Pregnancy Screening Programme data and returned directly to the programmes. From 2017/18 this template will include data for the Sickle Cell and Thalassaemia (SCT) Screening Programme.
- providers were excluded from the analysis for particular standards where data appeared incomplete or incorrect. This is done so the reported rates and performance are not biased.

Further information

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

Standards data is matched cohort data and is collated on a fiscal not calendar year basis.

Data tables with provider level data will be shared with the Screening Quality Assurance Service (SQAS) and Screening and Immunisation Teams in NHS England to support quality assurance and commissioning processes.

Methodology

A process and data submission template to support reporting against the standards is in place. Data submission is requested in April each year with a deadline of 30 June. Data received after the deadline is identified as a non-submission and is not included in the report. Null submissions are noted and accepted.
Data was reviewed by the NHS FASP data manager, and clarifications on unclear submissions were sought directly from the person submitting the data. Table 3 demonstrates the data sources and returns received, identifying:

- expected number of returns per standard
- returns received
- returns accepted

The main issues reported for non-submission or partial submission of data were:

- lack of adequate reporting and IT systems in place to collect and report data, for example maternity systems are not necessarily designed to interface with other systems such as laboratories
- unable to define exclusions and split exclusion categories
- unable to provide matched cohort data
- misunderstanding of the data requirements
- reporting of partial data, for example, 2 out of 4 quarters of data only

Data was not included in the analysis for Standards 1 and 2 that relate to coverage of screening for Down's syndrome, Edward's syndrome and Patau's syndrome in the first trimester and the fetal anomaly scan if:

- providers were unable to account for 3 or more exclusion criteria
- data was clearly non-matched cohort data

NHS FASP will take the following actions to improve the methodology for the data collection for 2017/18:

- revise the data dictionary to clarify the definitions of specific data fields
- revise definitions of the standards to improve understanding of the data requirements
- amend the data template to support the actions above and align with other antenatal programmes to support consistency in the reporting required
- continue collaboration with the 2 other antenatal screening programmes (the NHS Sickle Cell and Thalassemia and NHS Infectious Diseases in Pregnancy Screening Programmes); national Screening Quality Assurance Service (SQAS) and national data team to deliver a set of regional data reporting workshops to support improved knowledge and understanding of the reporting and data requirements for the NHS screening programmes data submissions for standards and KPIs.

Standard 1: identifying the population and coverage (T21/T18/T13 screening)

Description

The proportion of pregnant women eligible for first trimester combined screening for T21 and T18/T13 for whom a conclusive screening result is available at the day of report.

75% of pregnant women eligible for first trimester combined screening for T21 and T18/T13 had a conclusive result available at the day of report

This standard is needed to provide assurance that screening is offered to everyone who is eligible and each individual accepting the offer of screening has a conclusive screening result.

Thresholds are not set for this standard. FASP supports informed choice for women and the current screening policy offers women the choice:

- not to have screening
- to have screening for Down's syndrome and Edwards' syndrome/Patau's syndrome
- to have screening for Down's syndrome only
- to have screening for Edwards' syndrome/Patau's syndrome only

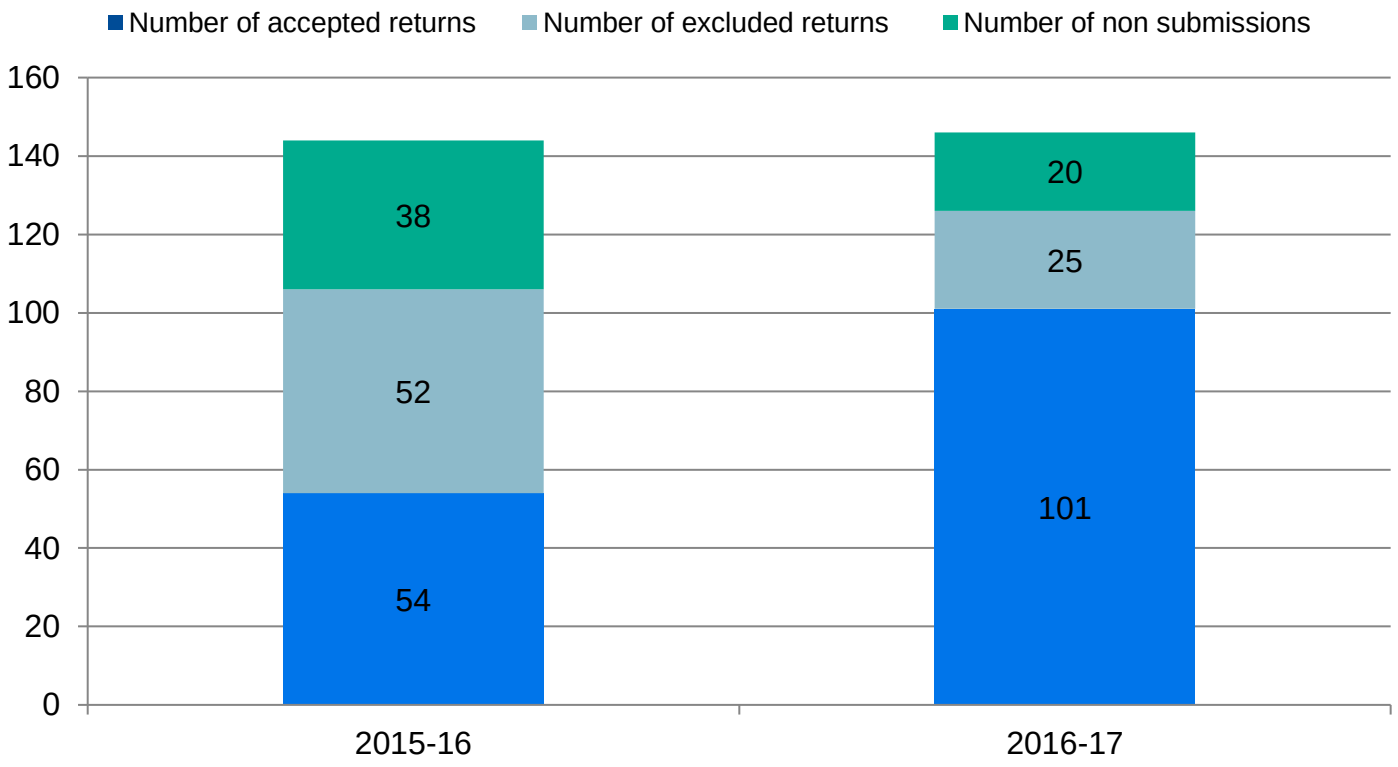
This standard requires matched cohort data. This makes sure women do not miss the offer of screening and, if they wish to have screening, that it is completed. There is no intention to report this standard by maternity service. It was introduced to enable and improve the integrity of the screening pathway by monitoring and tracking women from offer to completion of screening.

It is evident from screening incidents that there are a number of 'missed' screening events across England. This particularly relates to the interface between the combined and quadruple screening pathway, that is, where women who are unable to complete combined screening, and are referred for quadruple test but are not tested and do not receive a screening result. See the PHE screening blog written about this in 2015 and still relevant today.

Table 3. Standard 1: identifying the population and coverage (T21/T18/T13 screening)

Year	Returns received (received/ expected)	Number of acceptable returns/ excluded returns/ non - submissions	Eligible Women	Tested	Coverage (%)
2015/17	106 out of 144	54/52/38	210,252	161,989	77.0
2016/17	126 out of 146	101/25/20	424,095	318,111	75.0

Figure 1. Data returns for standard 1, 2015 to 2017



Reasons for exclusions

- 25 submitted returns were excluded due to inability to provide matched cohort data or partial year reported

It is encouraging to note that there was an increase in submission of data returns in all regions and sub-regions of England for 2016 to 2017.

The data submitted continues to identify a wide variation in completed screening rates both across and within the regions of England. Caution should be taken in the interpretation of the data in figure 1 due to the inconsistency in data returns across regions. We cannot as yet draw any national conclusions from the data due to data quality issues.

Providers need to make sure:

- the population of women eligible for the offer of screening are identified
- all women who are offered and accept screening in their service do receive a screening result.

Recommendations and actions

Standards	Recommendations	Responsibility	Timescales
1a	Work with provider IT and audit departments to set up manageable systems for cross-referencing and correlating data that allows women who have accepted the offer of screening for Down's syndrome, Edwards' syndrome/Patau's syndrome to be 'tracked' to confirm completion of screening. This process must ensure that all women are accounted for, including those who decline the offer of screening	Maternity Providers that are not yet able to submit matched cohort data	March 2019
1b	FASP will run a pilot project to assess the feasibility of standard 1 becoming a key performance indicator with quarterly data submission	NHS FASP	March 2018

Standard 2: identifying the population and coverage (18^{+0} to 20^{+6} fetal anomaly ultrasound)

Description

The proportion of pregnant eligible women for whom a completed screening result was available from the 18^{+0} to 20^{+6} week fetal anomaly scan on the day of report

96.6% of the women eligible for offer of screening for whom a completed screening result was available from the 18^{+0} to 20^{+6} week fetal anomaly scan on the day of report

The purpose of collecting data against this standard is to maximise timely fetal anomaly ultrasound screening in the eligible population who are informed and wish to participate in the screening programme and, to make sure women who accept screening for the 11 auditable conditions offered by the FASP screening pathway, complete screening in a timely manner (by 23^{+0} weeks of pregnancy).

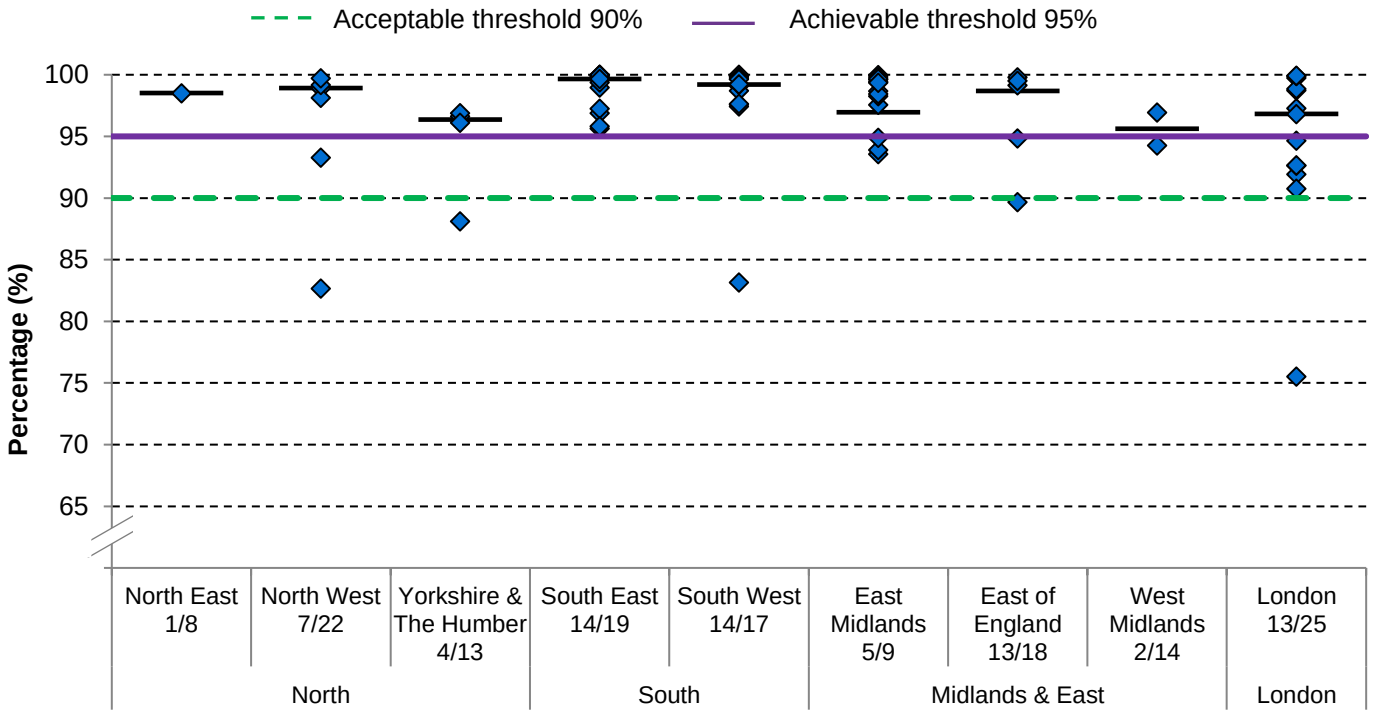
Table 4a. Standard 2: identifying the population and coverage (18^{+0} to 20^{+6} fetal anomaly ultrasound) completeness of returns

Region	Sub-region	Returns received (received/ expected)	Excluded returns*	Number of non-submissions	Number of acceptable returns 2016/17	Number of acceptable returns 2015/16
North	North East	3	3	4	1	0
	North West	7	7	8	7	8
	Yorkshire & The Humber	5	5	4	4	2
South	South East	1	1	4	14	6
	South West	2	2	1	14	10
Midlands & East	East of England	5	5	0	13	6
	East Midlands	3	3	1	5	1
	West Midlands	8	8	4	2	0
London	London	8	8	4	13	6
England total	England total	115 out of 145	42	30	73	39

Table 4b. Standard 2: identifying the population and coverage (18+0 to 20+6 fetal anomaly ultrasound) performance

Region	Sub-region	Eligible Women	Tested	Performance (%) 2016/17	Performance (%) 2015/16
North	North East	2,766	2,725	98.5	No return
	North West	25,745	23,889	92.8	88.5
	Yorkshire & The Humber	12,259	11,627	94.8	89.1
South	South East	67,473	66,635	98.8	91.2
	South West	40,845	39,806	97.5	97.4
Midlands & East	East of England	50,352	49,368	98	96.7
	East Midlands	31,036	29,780	96	96.7
	West Midlands	10,122	9,700	95.8	No return
London	London	69,745	66,121	94.8	93.3
England total		310,343	299,651	96.6	93.1

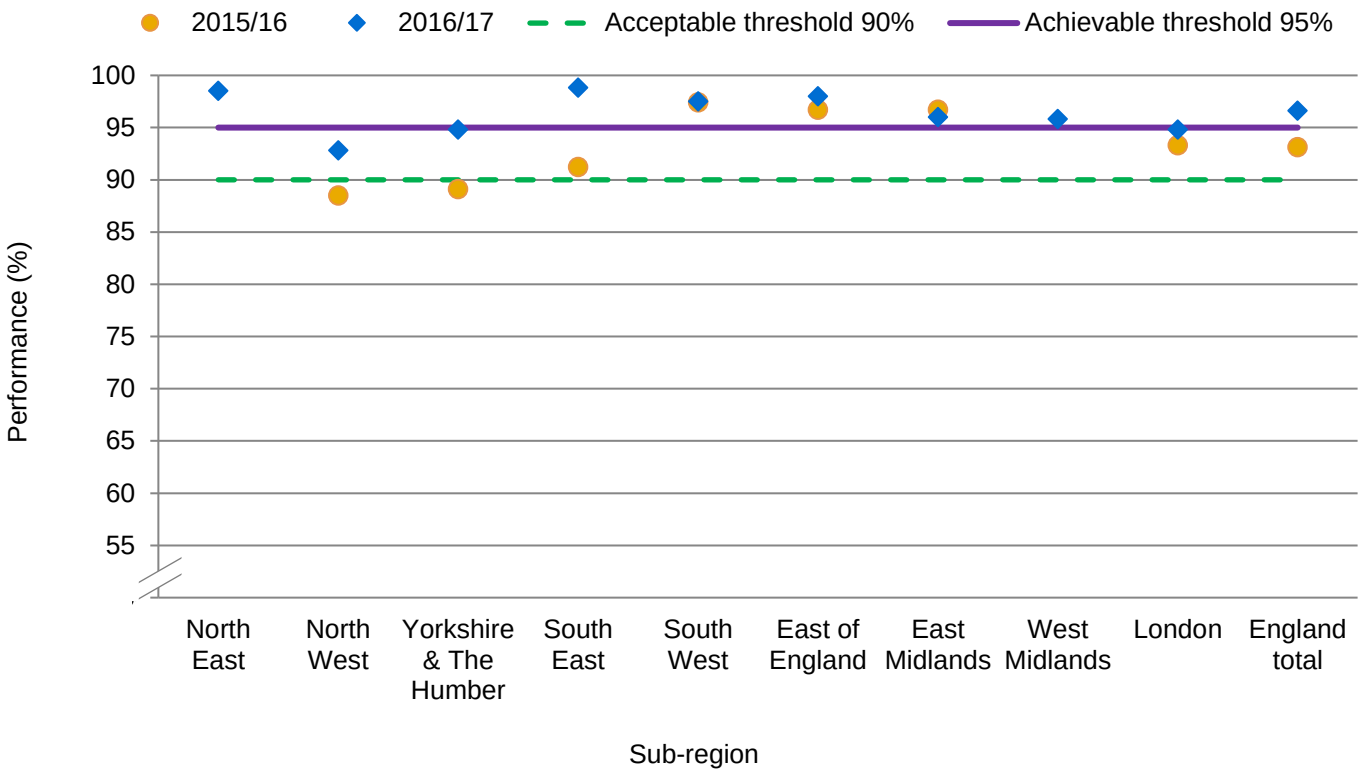
Figure 2. Percentage of eligible women for whom a completed screening result was available from the 18^{+0} to 20^{+6} week fetal anomaly scan on the day of report



Sub-region (returns included/expected returns)

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

Figure 3. Percentage of eligible women for whom a completed screening result as available from the 18^{+0} to 20^{+6} week fetal anomaly scan on the day of report 2015/16 and 2016/17



Reasons for exclusions

42 submitted returns were excluded due to one or more quarterly return missing

Since the introduction of this standard as a KPI in April 2016, there is improvement in:

- data completeness (the number of providers submitting complete data with submissions from the West Midlands and North East for the first time in 2016 to 2017)
- data quality (the number of providers submitting valid data)
- performance (measured against acceptable threshold of ≥90% and an achievable threshold of ≥95%)

The improvement in data quality is expected to continue as the regional data workshops being delivered by the antenatal screening programmes continue to roll out through 2017. These workshops are supporting providers in understanding the data requirements and reporting processes.

A number of providers were still unable to submit data against this standard. To report against this standard, collaboration is required between a number of health professionals and departments, such as maternity, ultrasound, or radiology services. Data may be held on a number of different information systems with no direct interface.

Support from provider IT and audit departments and professionals is therefore required to set up manageable systems for cross-referencing and correlating data that allows women who have accepted screening to be 'tracked' to confirm completion of screening is also needed.

Of the data submitted, 4 of the 9 sub-regions (London, North West, Yorkshire & Humber and the South West) have services that are unable to meet the acceptable threshold of 90%. Therefore they cannot be assured that women who have accepted the offer of screening have completed screening for the 11 auditable conditions offered as part of the 18^{+0} to 20^{+6} week fetal anomaly scan.

Due to the potential time lag between early booking and ultrasound scanning, the complete cohort of women cannot be accounted for until 2 quarters later meaning women booking in quarter 1 may not complete screening until quarter 3. Data is reported as follows:

- April to June (Q1) is reported by December 31 (Q3)
- July to September is reported by March 31 (Q4)
- October to December is reported by June 30 (Q1)
- January to March is reported by September 30 (Q2)

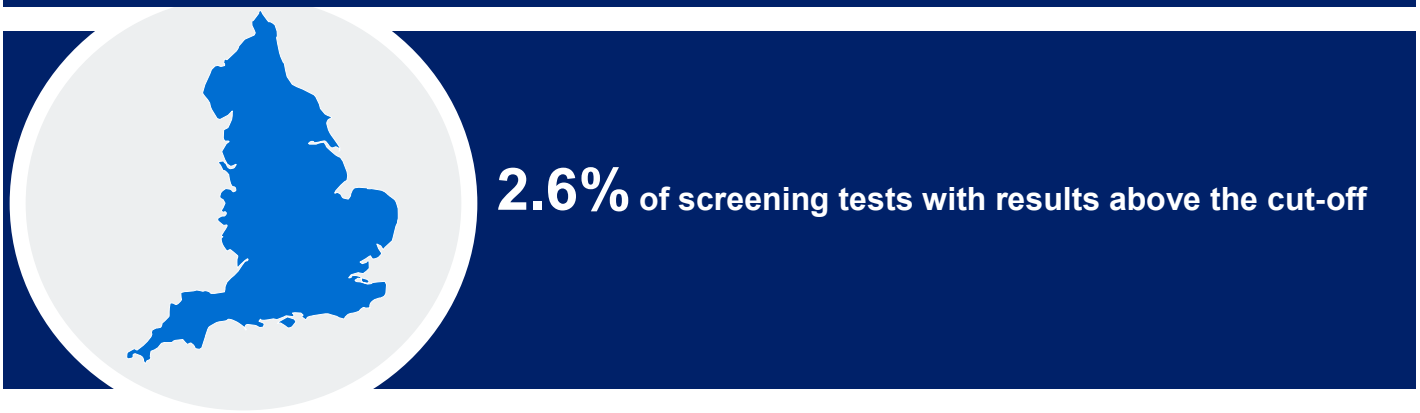
Recommendations and actions

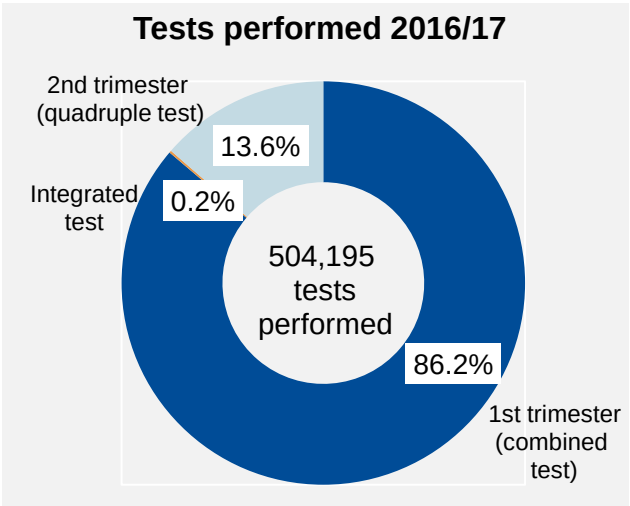
Standards	Recommendations	Responsibility	Timescales
2a	Work with provider IT and audit departments to set up manageable systems for cross-referencing and correlating data that allows women who have accepted the offer of fetal anomaly ultrasound screening to be 'tracked' to confirm completion of screening. This process must ensure that all women are accounted for, including those who decline the offer of screening	Maternity Providers that are not yet able to submit matched cohort data	March 2019

Standard 3a: The test performance – screen positive rate (SPR) (T21/T18/T13 screening)

Description

The proportion of screening tests with results above the cut-off





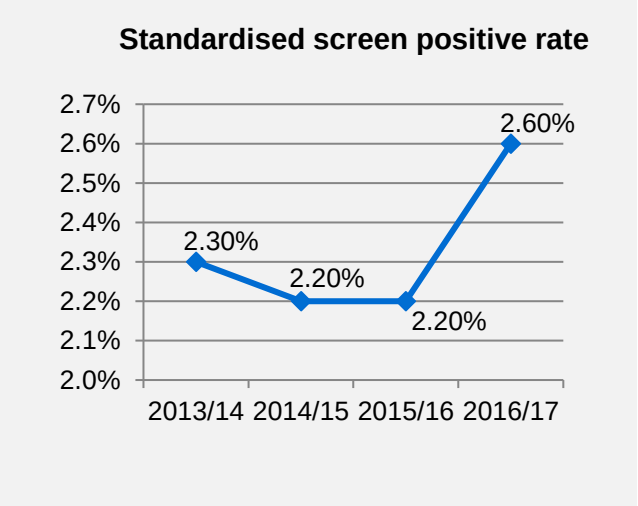


Table 5. Standard 3: Number of tests performed 2016 to 2017

2016 to 2017	Total
Number of tests performed	504,195
Number of tests in 1st trimester (combined test)	435,399
Number of tests in 2nd trimester (quadruple test)	68,796
Number (%) of women with higher chance result	14,738
Standardised screen positive rate	2.60%

This standard is needed to:

- monitor the performance of the screening strategy at a national level
- maximise performance of the screening test and timely reporting.

There are 20 screening laboratories in England providing first and/or second trimester screening for Down's syndrome, Edwards' syndrome and Patau's syndrome submitting data to DQASS.

The first trimester combined test uses 2 biochemical markers from maternal blood and paired measurements from the ultrasound scan, crown rump length (CRL) and nuchal translucency (NT). The second trimester quadruple test uses 4 biochemical markers from maternal blood.

Various factors, including maternal weight, gestational age, ethnicity and maternal smoking affect these markers. These factors require standardisation by laboratories to ensure calculation of the screening results are as accurate as possible.
The latest DQASS audit showed an improvement in this standardisation process, leading to a more effective and equitable programme and ultimately fewer women being offered unnecessary invasive tests.

Table 6. Standard 3a: The test performance – screen positive rate (SPR) (T21/T18/T13 screening) comparative data

	2013/14	%	2014/15	%	2015/16	%	2016-17	%
Number of tests performed	555,377		500,473		508,900		504,195	
Number of tests in 1st trimester (combined test)	461,074	*83.0%*	434,517	*86.8%*	437,748	*86.0%*	435,399	*86.4%*
Number of Integrated test*	3.764	*0.7%*	808	*0.2%*	795	*0.2%*	889	*0.2%*
Number of tests in 2nd trimester (quadruple test)	90,539	*16.3%*	65,148	*13.0%*	70,357	*13.8%*	68,796	*13.6%*
Number of women at high risk	15,455	*2.8%*	13,613	*2.7%*	13,920	*2.7%*	14,738	*2.9%*
Standardised screen positive rate	2.30%		2.20%		2.20%		2.60%	

**This relates to data submitted to DQASS with a risk result which do not conform to the recommended combination of biochemical markers, ultrasound measurements or screening timeframes used in the national screening strategies of either first trimester combined or quadruple tests. Laboratories should remove these data prior to submission to DQASS as they are not performed as part of the NHS screening pathway*

In 2016, the reference maternal age distribution used by DQASS was changed from 2000-2002 to 2011 to address the impact of the rising maternal age on the SPR. This coincided with the introduction of screening for Edwards' syndrome and Patau's syndrome as part of the combined test.

These changes led to increases in standardised screen positive rates (SPR), detection rates (DR) and false positive rates (FPR). This is evidenced in DQASS cycle reports where the overall SPR shifted from around 2.3% to 2.8%. The effect of including Edwards' syndrome and Patau's syndrome into the combined test was included in the FASP standards and reporting processes. However, changes to the reference distribution were not, this is reflected in the reports in which observed rates are higher than reference rates.

Required adjustments to the SPR range in the FASP standards will be discussed within the PHE SDG.

Recommendations and actions

Standards	Recommendations	Responsibility	Timescales
3a (1)	Providers and commissioners should regularly review their DQASS reports at programme boards and address the recommended actions	Maternity Providers/Public Health Commissioners/ Screening & Immunisation Teams	Ongoing
3a (2)	NHS FASP to discuss and agree adjustments to the SPR ranges in Standard 3a at the PHE SDG	FASP	March 2019

Standard 3b: The test performance – detection rate (DR) (T21/T18/T13 screening)

Data reported here for standard 3b relates to women with an expected date of delivery from 1 April 2015 to March 31 2016. As the integration of screening for Edwards' syndrome and Patau's syndrome was not complete across England during this time period, data presented here relates to Down's syndrome (T21) only.

Diagnoses of cases of Down's syndrome (T21) are notified to NCARDRS by cytogenetics laboratories following a confirmed cytogenetic test. The data are then processed by NCARDRS with biochemistry screening laboratory data and provider trust notification data in order to classify cases and produce accurate detection rates.

The crude (unadjusted for maternal age) test detection rates are presented here for NHS combined and quadruple screening tests, for women completing screening. For the programme detection rate, the denominator also includes missed and incomplete screen cases.

Table 7. Standard 3b. Detection rates 2015 to 2016

All reported cases	619	
Trisomy 21 FASP category	N	% complete
Excluded – incomplete data	12	
Unscreened cases		
Declined screening	129	21.3%
Ineligible for screening	64	10.5%
Missed screen	2	0.3%
Total unscreened (complete)	196	32.3%
Screened cases		
Total screened cases - combined test	364	60.0%
Total screened cases - quadruple test	47	7.7%
Total screened cases	411	67.7%
All complete T21		
Total complete T21 cases	607	100%
Crude detection rate combined test (95%CI)	81.9% (77.6-85.5)	
Crude detection rate quadruple test (95%CI)	61.7% (47.4-74.2)	
Crude detection rate programme (95%CI)	79.0% (74.8-82.6)	

There were 27 (4.4%) women where it was identified by invasive testing (amniocentesis or chorionic villus sampling - CVS) that the baby was affected by Down's syndrome before screening was completed. The indications for invasive testing in these women included:

- a previous history of a pregnancy with Down's syndrome
- maternal request for invasive testing prior to completion of screening
- an ultrasound diagnosis of first trimester structural anomalies, for example, cystic hygroma or nuchal translucency greater than or equal to 3.5mm

It is FASP policy that invasive testing for Down's syndrome should not be offered on the basis of maternal age alone and, that all women who accept screening should have a blood sample sent to the laboratory for biochemical analysis and calculation of a chance result even when an NT of equal to or more than 3.5mm is identified and a referral made to fetal medicine.

Maternal age standardised test detection rates

In order to be consistent with DQASS, NCARDRS uses a reference maternal age distribution for standardisation for the 'screened affected' England & Wales maternal population. DQASS use the 'screen positive' distribution from the same screened cohort to standardise their screen positive rates.

The adjusted test detection rate for the combined test was 80.4%. This is not significantly lower than the threshold set within the FASP Standard 4 'test performance (T21/T18/T13 screening)' which is 85%, based on the 364 cases screened.
The adjusted test detection rate for the quadruple test was 44.3% which does not meet the FASP Standard threshold of 80%, based on the 47 cases screened.

For Down's syndrome screening, the maternal age adjusted detection rate for the combined test was lower than the threshold, but not significantly lower. The detection rate for the quadruple test was significantly lower than the national threshold.

Recommendations and actions

Standards	Recommendations	Responsibility	Timescales
3b (1)	Providers and commissioners should work with NCARDRS to improve notification	Maternity Providers/Public Health Commissioners/ Screening & Immunisation Teams	Ongoing
3b (2)	Biochemistry screening laboratories should be reporting all higher chance results to NCARDRS on a monthly basis. Where this is not in place an action plan should be developed to commence reporting as soon as possible	Biochemical screening laboratories Public Health Commissioners Screening & Immunisation Teams	March 2018

Standard 4: The test performance (18^{+0} to 20^{+6} fetal anomaly ultrasound)

Data reported here for standard 3b relates to women with an expected date of delivery from 1 April 2015 to March 31 2016.

72 providers over 7 NCARDRS regions provided data to NCARDRS during the reporting period. This is 52.6% of the total number of NHS trusts providing antenatal services in England

47 providers reached the minimum threshold for the expected number of FASP cases based on their booking denominator and were provided with FASP detection rates. These 46 NHS providers reported a total of 2,117 cases and 34 of these were incomplete for classification at the point of reporting.

Regional data are reported where the combined booking denominator of trusts exceeds 10,000 – this reduces the risk of the data being disclosive because of small numbers. All 7 NCARDRS regions reached the threshold in this cohort.

Whilst data are provided for all 7 NCARDRS reporting regions it should be noted that this is not necessarily representative of FASP screening outcomes in that NCARDRS region as detection rates can vary widely even between neighbouring NHS providers.

The affected cases, defined by FASP standard 4, are babies with a confirmed diagnosis of one or more of the following serious cardiac anomalies occurring in isolation:

- transposition of the great arteries (TGA)
- tetralogy of Fallot (ToF)
- atrioventricular septal defect (AVSD
- hypoplastic left heart syndrome (HLHS)

The FASP target detection rate is 50% for each condition and the group of conditions (selected cardiac anomalies). Whilst the national standard applies to isolated cases and is a test detection rate, this analysis presents a programme detection rate that includes all affected cases.

Table 8. Detected cardiac anomalies reported to NCARDRs 2015 to 2016

Selected cardiac anomaly	Total cases1	FASP* exclusions: tota*	All cases screened in FASP window		FASP detection rate	Detection rate including early detections
			detected (screen+ve)	undetected (screen –ve)		
All serious cardiac anomalies	365	62	195	107	64.4%	68.6%
TGA	84	10	46	28	62.2%	63.6%
ToF	86	13	42	30	57.5%	62.2%
AVSD	133	31	59	43	57.8%	65.0%
HLHS	62	8	48	6	88.9%	90.3%

*** Ineligible (late/no booking, early fetal loss/TOP before screening), declined, early detections. In addition 41 cases were detected outside of the FASP standard.**

Figure 4. Cardiac anomaly detection rates 2015 to 2016

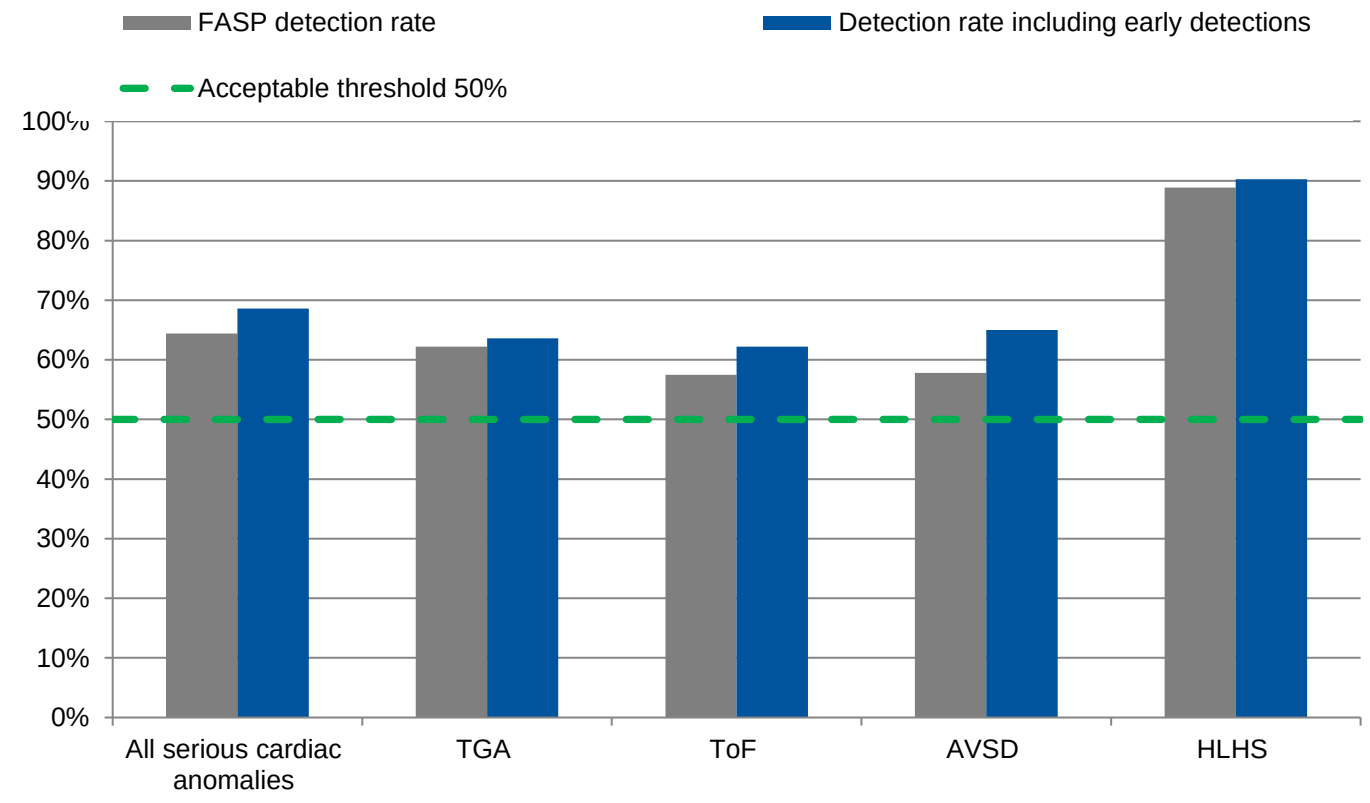


Table 8 and figure 4 show that as a national cohort the FASP target (50%) for selected cardiac anomalies combined and for each individual cardiac anomaly have been met when early detections are both excluded and included.

Transposition of the great arteries (TGA)

Of the 84 reported cases 7 were excluded for reasons other than early detection. Of the remaining 77 cases, 3 (3.9%) were detected early (before the FASP window). The FASP target of 50% was met nationally excluding early diagnoses 62.2% and including early diagnoses 63.6%.

Tetralogy of Fallot (ToF)

Of the 86 reported cases 4 were excluded for reasons other than early detection. Of the remaining 82 cases, nine (11.0%) were detected early (before the FASP window). The FASP target of 50% was met nationally excluding early diagnoses 57.5% and including early diagnoses 62.2%.

Atrioventricular septal defect (AVSD)

Of the 133 reported cases 10 were excluded for reasons other than early detection. Of the remaining 123 cases 21 (17.1%) were detected early (before the FASP window). The FASP target of 50% was met nationally excluding early diagnoses 57.8% and including early diagnoses 65.0%.

Hypoplastic left heart syndrome (HLHS)

Of the 62 reported cases there were no cases excluded for reasons other than early detection. 8 cases (12.9%) were detected early (before the FASP window). The FASP target of 50% was met nationally excluding early diagnoses 88.9% and including early diagnoses 90.3%.

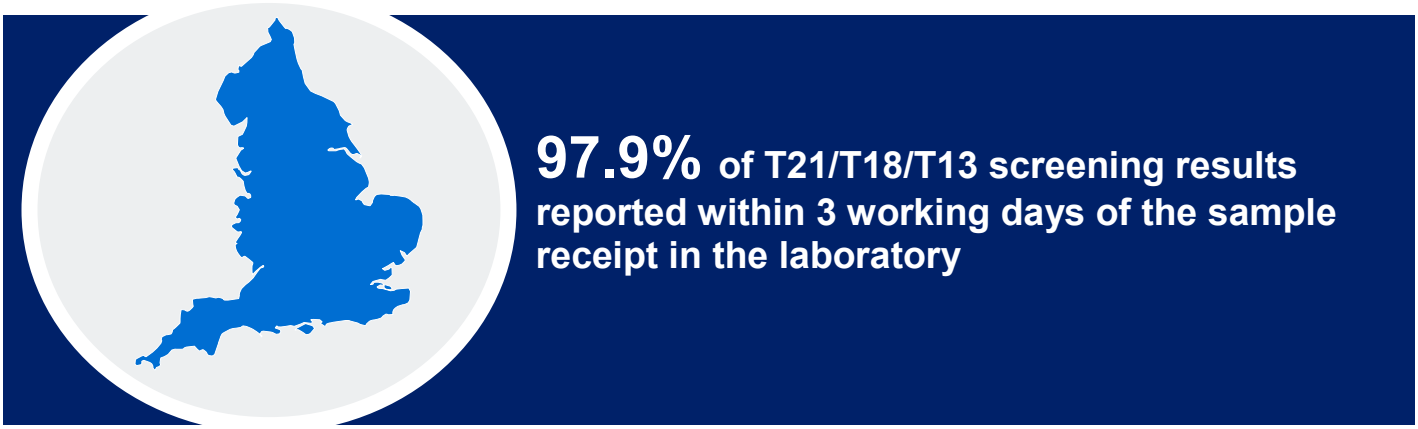
Recommendations and actions

Standards	Recommendations	Responsibility	Timescales
4	Providers and commissioners should work with NCARDRS to improve notification	Maternity Providers/Public Health Commissioners/ Screening & Immunisation Teams	Ongoing

Standard 5: The test turnaround time (T21/T18/T13 screening)

Description

The proportion of screening results reported within 3 working days of the sample receipt



97.9% of T21/T18/T13 screening results reported within 3 working days of the sample receipt in the laboratory

Figure 5. Percentage of T21/T18/T13 screening results reported within 3 working days of sample receipt in the laboratory 2015 to 2017

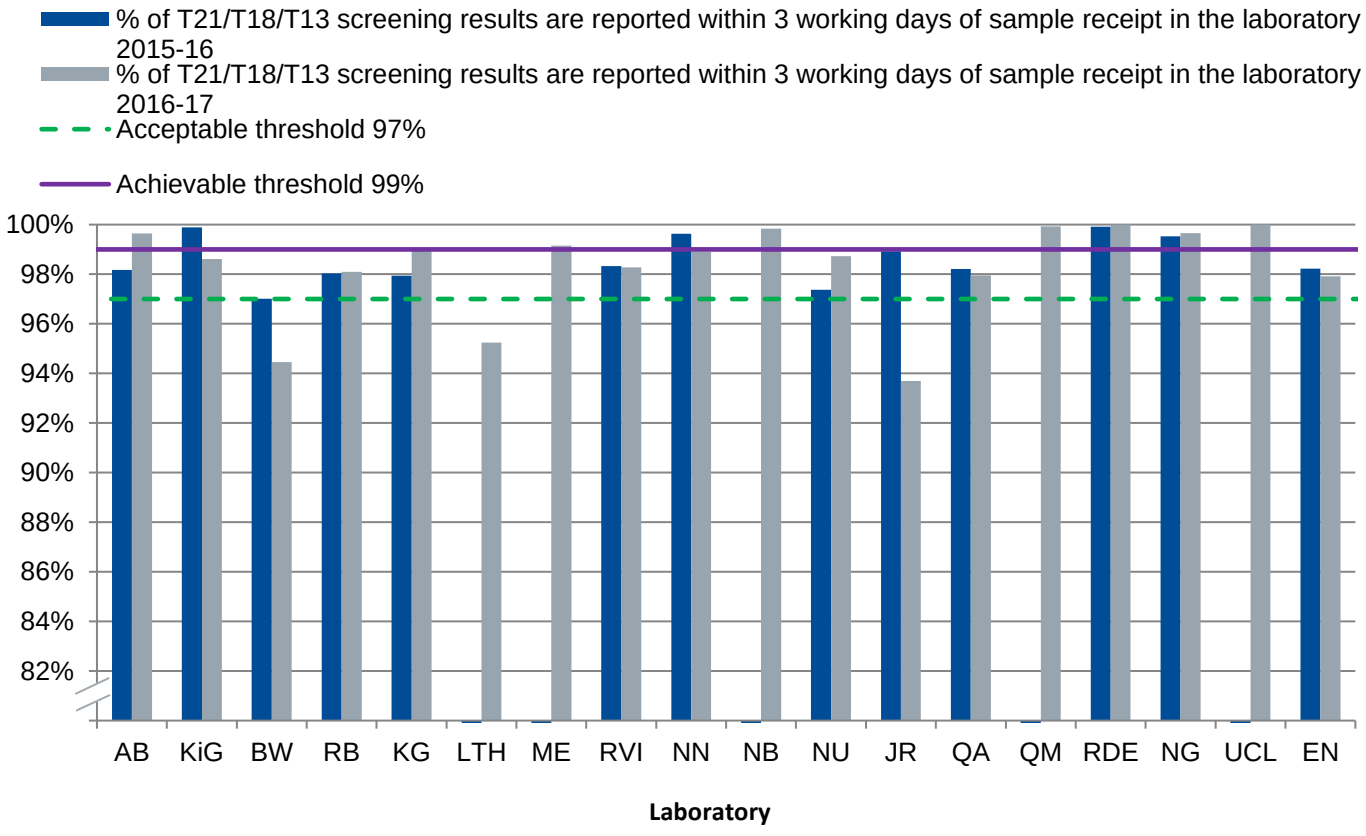


Table 9. Standard 5: The test turnaround time (T21/T18/T13 screening)

Name of trust *(hospital/laboratory name)*	Initials	Total number of T21/T18/T13 samples received by the laboratory in the reporting period	Number of results reported within 3 working days of sample receipt	Exclusions: Initial samples received that are not fit for analysis:	% of T21/T18/ T13 screening results are reported within 3 working days of sample receipt in the laboratory 2016-17	% of T21/T18/T13 screening results are reported within 3 working days of sample receipt in the laboratory 2015-16
Addenbrookes NHS Hospital	AB	18,360	18,294	48	99.6%	98.2%
King George's Hospital	KiG	28,197	27,805	586	98.6%	99.9%
Birmingham Women's Hospital	BW	86,456	81,664	0	94.5%	97.0%
Royal Bolton Hospital	RB	47,916	47,005	378	98.1%	98.0%
Kettering General Hospital	KG	15,788	15,622	0	98.9%	97.9%
Leeds Teaching Hospitals NHS Trust	LTH	20,001	19,049	542	95.2%	No data
Mid Essex Hospital Services NHS Trust	ME	19,456	19,291	64	99.2%	No data
Royal Victoria Infirmary	RVI	8,013	7,875	81	98.3%	98.3%
Norfolk and Norwich NHS Trust	NN	7,747	7,662	1	98.9%	99.6%
Southmead Hospital	NB	11,330	11,311	0	99.8%	No Data
Nottingham University Hospitals NHS Trust	NU	22,957	22,665	255	98.7%	97.4%
John Radcliffe Hospital	JR	19,059	17,857	82	93.7%	90.9%
Queen Alexandra Hospital	QA	22,006	21,555	87	98.0%	98.2%
Wolfson Institute of Preventative Medicine	QM	85,883	85,823	219	99.9%	No data
Royal Devon and Exeter Hospital	RDE	22,387	22,387	4	100.0%	99.9%
Northern General Hospital	NG	26,889	26,797	0	99.7%	99.5%
University College London Hospitals	UCL	6,099	6,099	108	100.0%	No data
England	EN	468,544	458,761	2,455	97.9%	98.2%

Reasons for exclusions

- 3 non-submissions
- 1 site no longer screening
- 17 of the 20 laboratories providing screening for Down's syndrome, Edwards' syndrome and Patau's syndrome submitted data in 2016 to 2017. This an improvement with 5 additional laboratories reporting from the last report
- 14 of the 17 laboratories submitting data met the acceptable threshold of 97% of reporting results within 3 working days of the sample receipt

- 8 laboratories also met the achievable threshold of ≥99%
- 3 laboratories did not achieve the acceptable threshold of 97% for turnaround of samples

Recommendations and actions

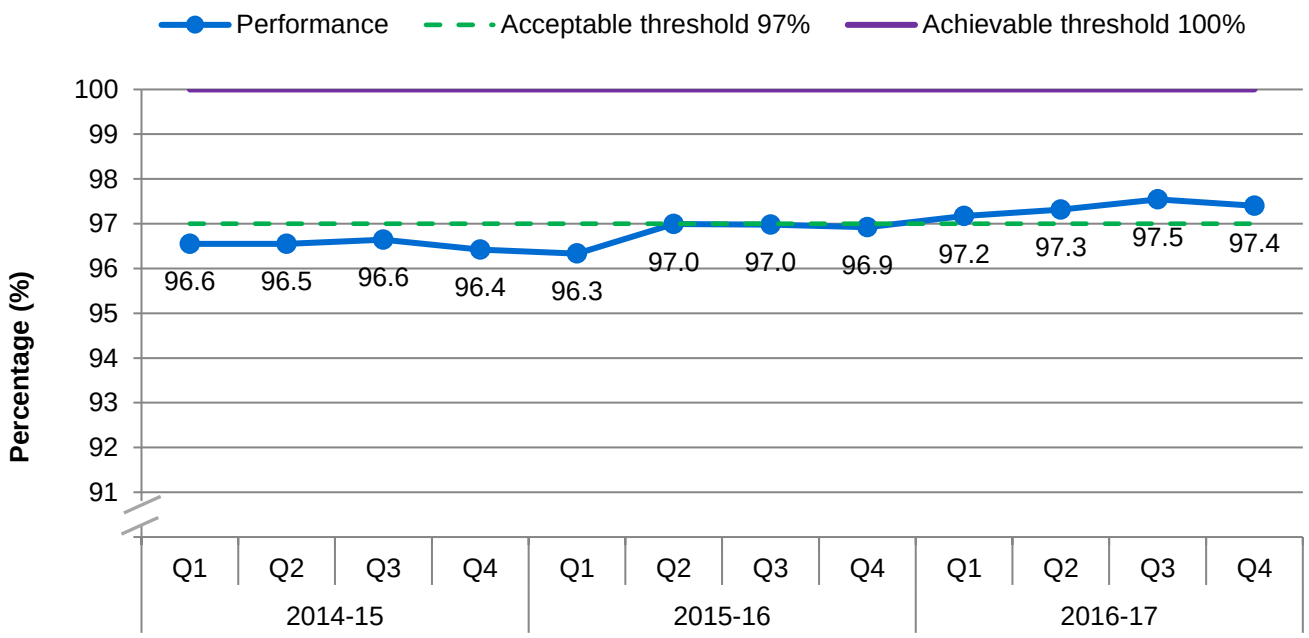
Standards	Recommendations	Responsibility	Timescales
5a	Work should be undertaken directly with laboratories to understand reasons for non-submission of data to improve future returns	Screening & Immunisation teams/Regional SQAS	March 2019
5b	Work should be undertaken directly with the 3 laboratories submitting data who failed to meet the 3 day turnaround standard to understands the reasons for this and apply improvements to meet the standard in 2017/18	Screening & Immunisation teams/Regional SQAS	March 2019
5c	Laboratories meeting the acceptable standard should have an action plan in place to drive performance to meeting the achievable standard	Screening laboratories	March 2019

Standard 6: Minimising harm – completed request forms (T21/T18/T13 screening)

Description

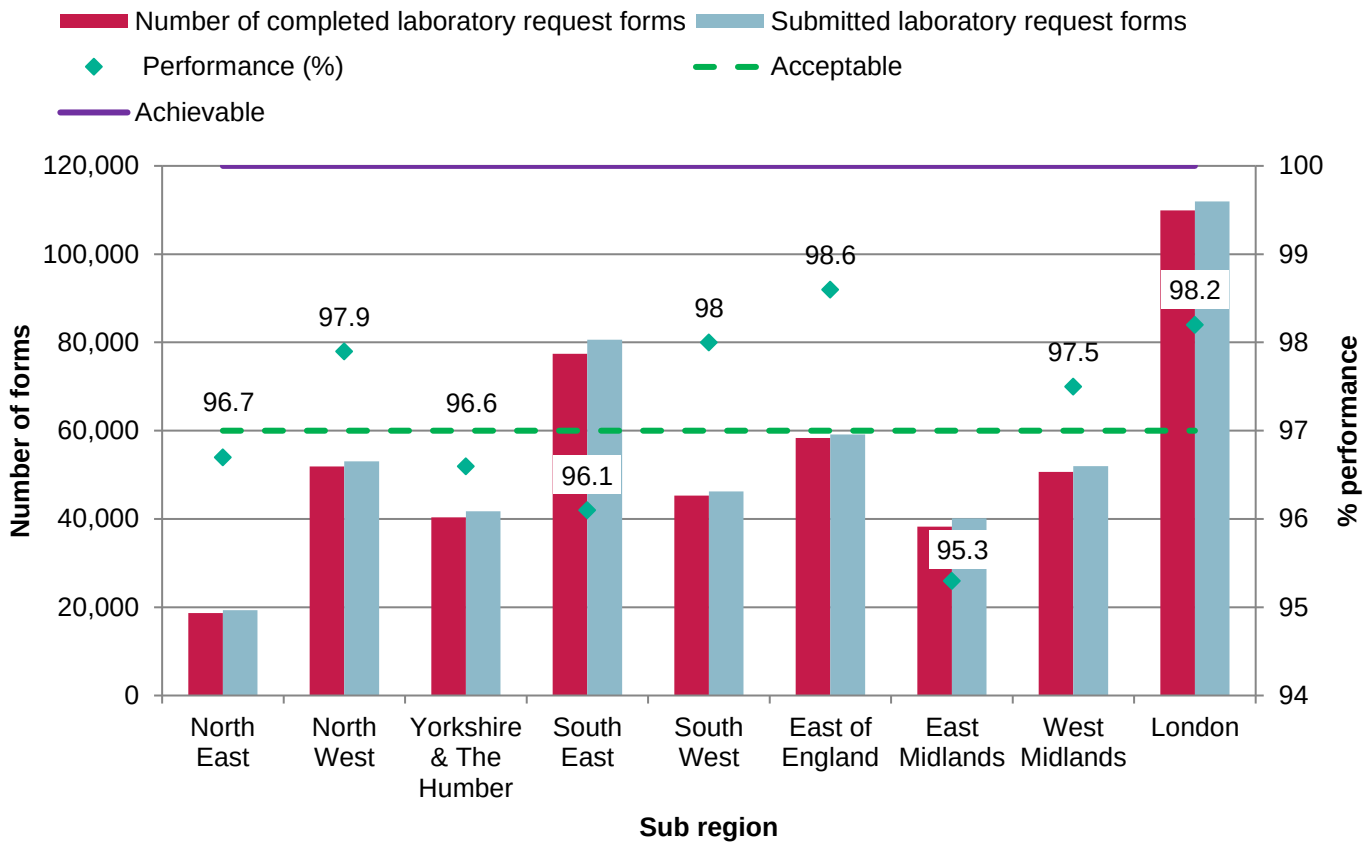
The proportion of completed laboratory request forms

Figure 6. Percentage of completed laboratory request forms 2014 to 2017



The purpose of this standard is to minimise delays in reporting results due to incomplete or inaccurate completion of screening request forms and to minimise potential harms in those screened and in the population.

Figure 7. Number of completed laboratory request forms (T21/T18/T13 screening) out of total number of submitted laboratory forms, and performance percentage



This standard is reported quarterly as a KPI. The data presented here is collated from the submitted quarterly returns:

- national performance of FA1 in 2016 to 2017 is 97.4%, showing a continued improvement compared with previous years (96.8% in 2015 to 2016 and 96.6% in 2014 to 2015).
- the annual performance in 2016 to 2017 ranged from 96.8% in the South region, to 98.2% in the London region.
- out of 143 providers that submitted data for all 4 quarters in the year, overall for 2016 to 2017, 105 providers met the acceptable threshold of 97.0%.

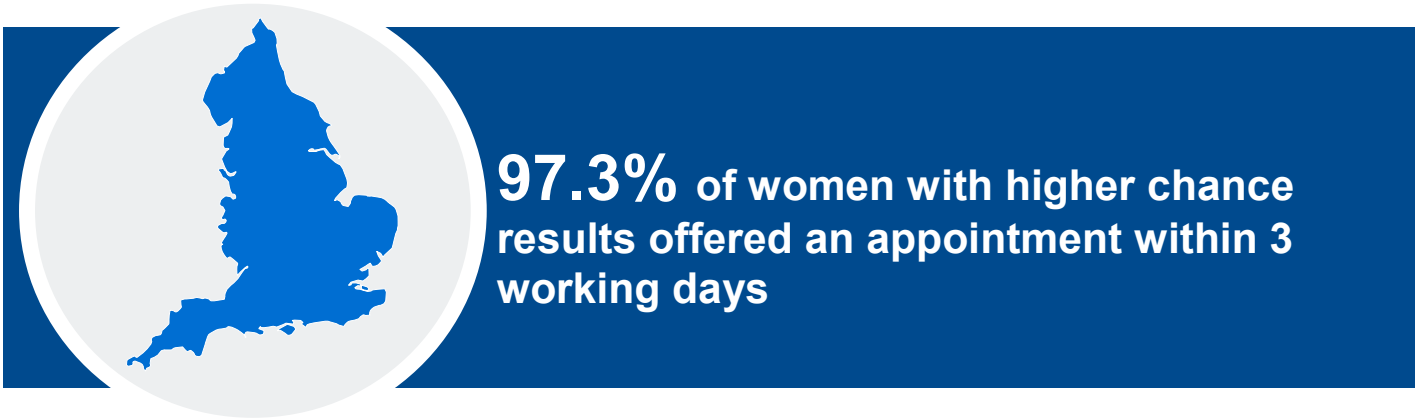
Recommendations and actions

Standards	Recommendations	Responsibility	Timescales
6	Providers should review local performance and processes to ensure all required data fields are completed on requests for screening	Maternity Providers	March 2019

Standard 7:Time to intervention (T21/T18/T13 screening)

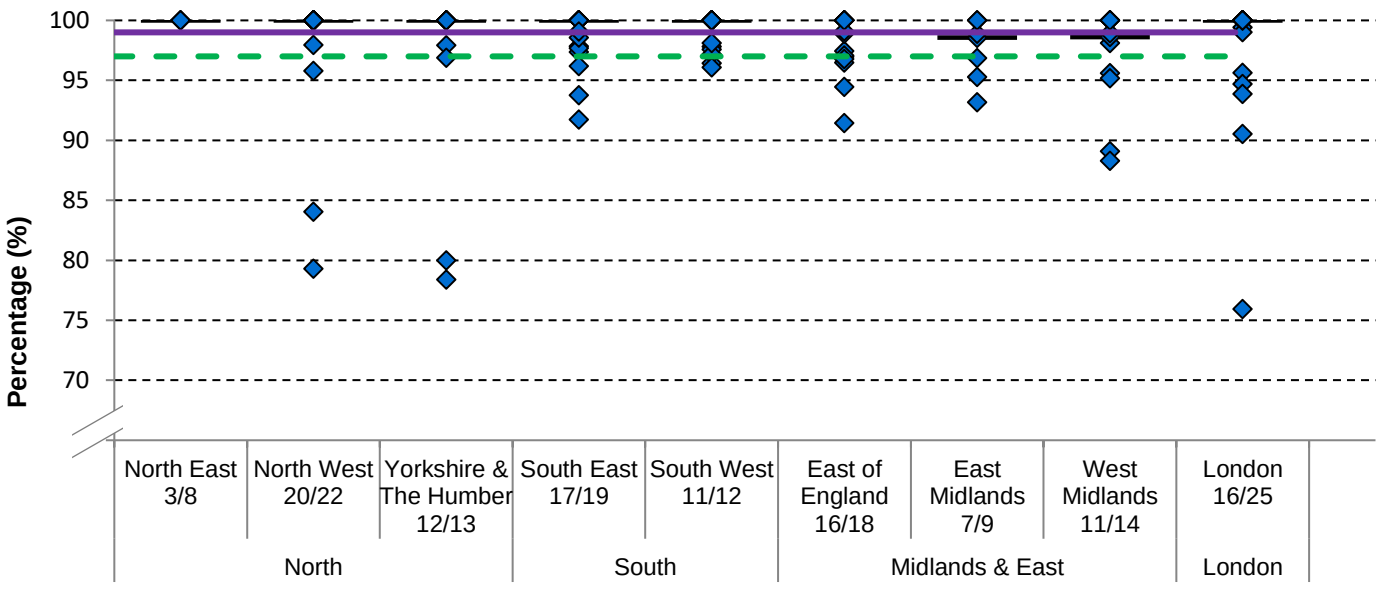
Description

The proportion of women with higher chance results offered an appointment within 3 working days



The purpose of this standard is to provide assurance that individuals with a higher chance result are referred in a timely manner and receive timely intervention where appropriate.

Figure 8. Percentage of women with higher chance results offered an appointment within 3 working days



Reasons for exclusions

3 submitted returns were excluded due to incomplete/inaccurate data reported and/or partial year reported.

Whilst there has been an increase in the number of services submitting data against this standard, as it a long standing measure which has been in place since 2007, it was expected that all services would return data and at least the acceptable standard of performance would have been met.

Services in all sub-regions reported services with performance below the acceptable threshold of 97%, meaning that there is a delay in women being offered an appointment to discuss a higher chance screening result with a knowledgeable health professional to consider their options. The exception was the North East who reported performance of 100% with the caveat that only 3 of a possible 8 services submitted data for 2016/17.

Recommendations and actions

Standards	Recommendations	Responsibility	Timescales
7	Implement local referral pathways for women with higher chance screening results for Down's syndrome, Edwards' syndrome and Patau's syndrome to enable timely intervention	Maternity Providers	March 2019

Standard 8: Time to intervention (18^{+0} to 20^{+6} fetal anomaly ultrasound)

Description
The proportion of women with a suspected anomaly at the 18^{+0} to 20^{+6} week fetal anomaly scan seen within 3 working days (local referral) or 5 working days

(tertiary referral)

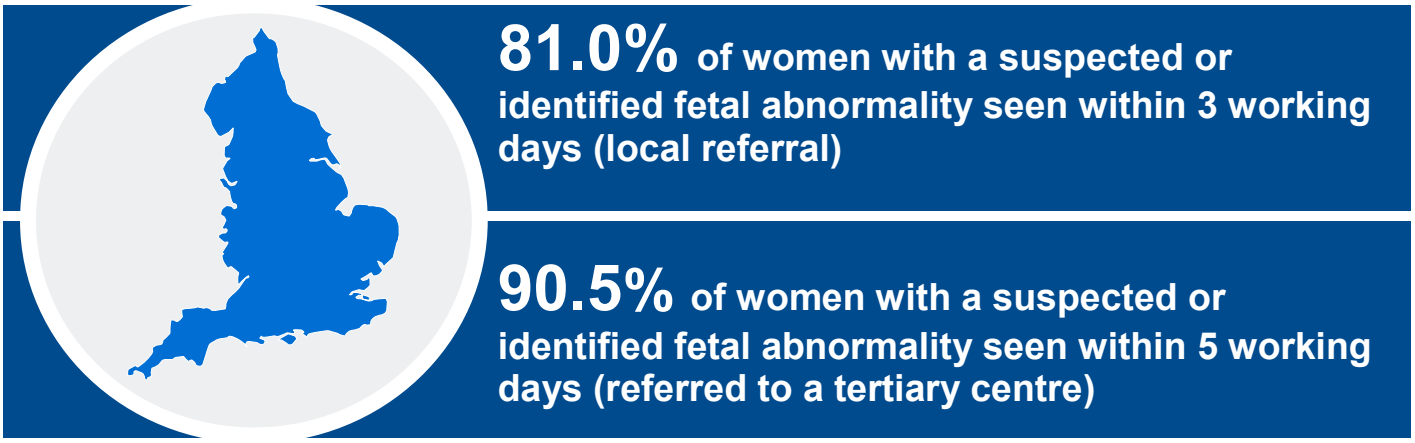
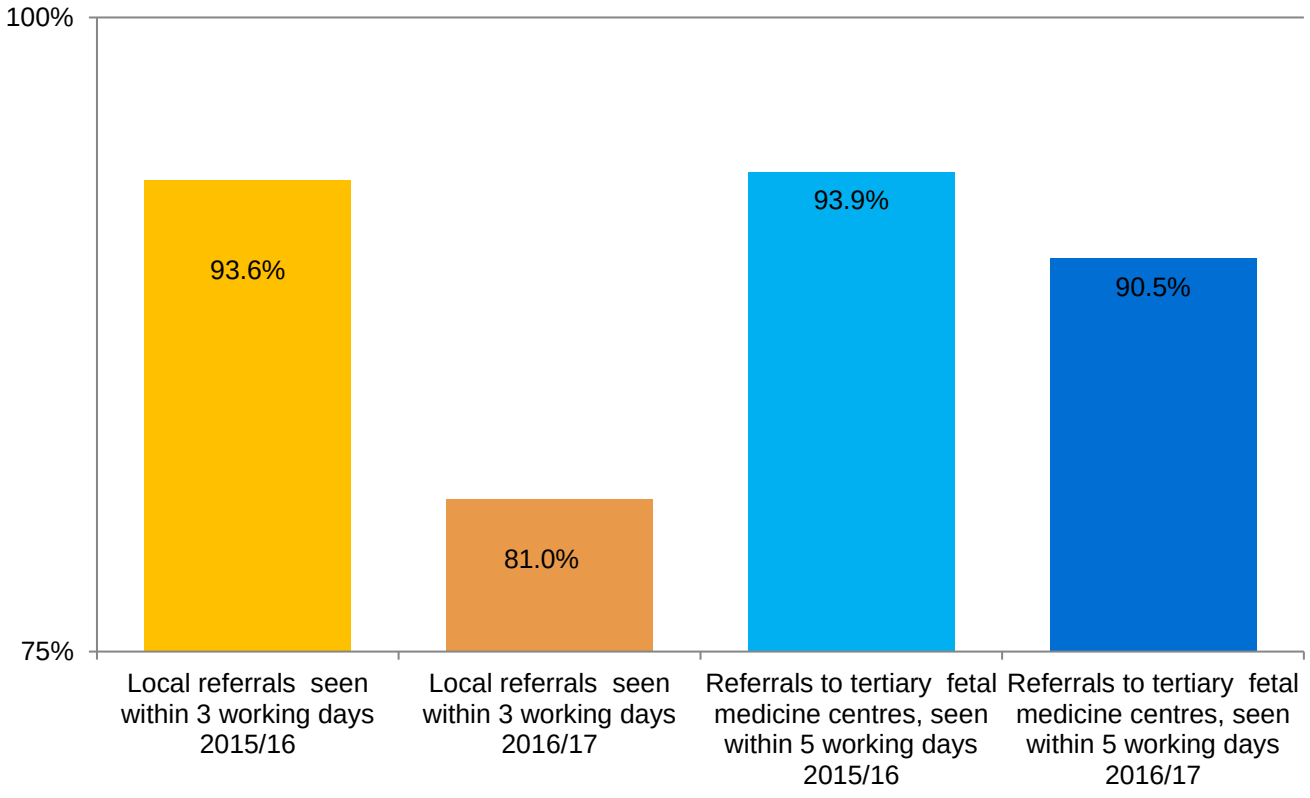


Figure 9. Percentage of women with a suspected/confirmed anomaly referred and seen within the 3 or 5 working days 2016 to 2017



A large proportion of submissions for received for 8a and 8b reported a 'shared' denominator between the local and tertiary unit, counting women attending the alternative option (either local or tertiary unit) as an exclusion which makes it difficult to account for women effectively. These returns were accepted providing the exclusions and numerator did not exceed the denominator. 9 submissions were discounted as they shared both a numerator and denominator and therefore the data reported for 8a contradicted the data reported for 8b.

8a. Local Referral

Standard 8a measures the performance of service providers where referral in-house is required when an anomaly is suspected from the 18^{+0} to 20^{+6} week fetal anomaly scan and further investigation is required.

The purpose of this standard is to provide assurance that individuals with a suspected anomaly are referred in a timely manner and receive timely intervention where appropriate.

The acceptable threshold is set at ≥ 97% of women with a suspected or confirmed fetal anomaly should be seen by an obstetric ultrasound specialist locally within 3 working days of the referral being made.

Table 10. Standard 8a: percentage of women with a suspected or identified fetal abnormality seen within 3 working days

Sub-region	No. of 'No returns'	No.of returns	Women with a suspected/ confirmed abnormality referred locally (denominator)	Women with a suspected/ confirmed abnormality referred locally, seen within 3 working days (numerator)	Performance % 2016/17	Performance % 2015/16
England	**44**	**101**	**3,722**	**3,016**	**81.0%**	**93.6%**
North West	9	13	552	402	72.8%	92.5%
North East	5	3	N/A	N/A	N/A	N/A
Yorkshire & The Humber	2	11	326	228	69.9%	97.3%
South East	3	16	956	858	89.7%	81.5%
South West	2	15	268	208	77.6%	94.8%
East Midlands	3	6	242	215	88.8%	90.1%
East of England	3	15	592	438	74.0%	93.8%
West Midlands	5	9	226	132	58.4%	73.4%
London	12	13	560	535	95.5%	98.6%

Figure 10. Percentage of women with a suspected or identified fetal abnormality seen within 3 working days

*The North East reported no local referrals in both 2015-16 and 2016-17

Reasons for exclusions

- 16 submitted returns were excluded due to incomplete/inaccurate data and/or partial year reported

This threshold was met in only 2 areas, East Midlands and North West for 2016/17. This is a decrease from 2015/16 where 3 areas met the target. North East area did not report any women following a local referral pathway. The West Midlands is the area with the worst performance with only 58.4% of women referred locally seen within 3 working days.

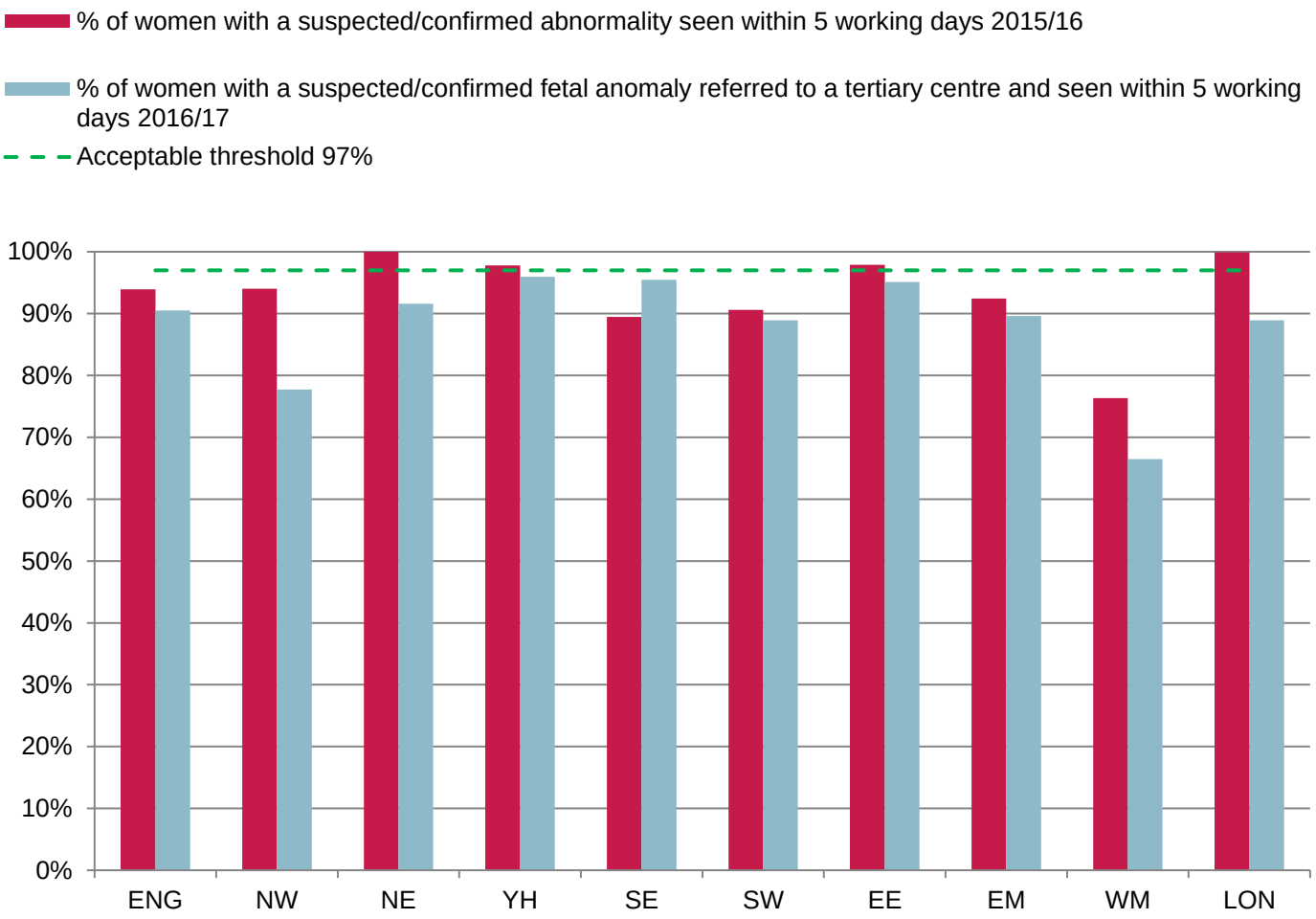
8b. Tertiary Referral

Standard 8b measures the performance of service providers where referral to a tertiary fetal medicine service is required where an anomaly is suspected from the 18^{+0} to 20^{+6} week fetal anomaly scan and further investigation is required.
The acceptable threshold is set at ≥97% of women with a suspected or confirmed fetal anomaly should be seen by a fetal medicine sub specialist in a tertiary fetal medicine centre within 5 working days of the referral being made.

Table 11. Standard 8b: percentage of women with a suspected or identified fetal abnormality seen within 5 working days

Sub region	No. of 'No returns'	Number of returns	Women with a suspected/confirmed abnormality referred to a tertiary fetal medicine centre	Women with a suspected/ confirmed abnormality referred to a tertiary fetal medicine centre, seen within 5 working days	Performance % 2016/17	Performance % 2015/16
England	**44**	**101**	**4,095**	**3,707**	**90.5%**	**93.9%**
North West	9	13	247	192	77.7%	94.0%
North East	5	3	155	142	91.6%	100%
Yorkshire & The Humber	2	11	722	693	96.0%	97.8%
South East	3	16	506	483	95.5%	89.5%
South West	2	15	712	633	88.9%	90.6%
East Midlands	3	6	270	242	89.6%	92.4%
East of England	3	15	720	685	95.1%	97.9%
West Midlands	5	9	185	123	66.5%	76.3%
London	12	13	578	514	88.9%	99.9%

Figure 11. Percentage women with a suspected or identified fetal abnormality seen within 5 working days



No sub-regions met the acceptable threshold in 2016 to 2017. This represents a deterioration in performance from 2015 to 2016 where the threshold of ≥97 % was met by London and the North East (although only 6 out of 24 providers in London and 1 out of 8 providers in the North East submitted data in 2015 to 2016).

Recommendations and actions

Standards	Recommendations	Responsibility	Timescales
8a,b	Put measures in place to accurately report data for these standards	Maternity Providers	March 2019

Standard 9a and b: Diagnose (T21/T18/T13 screening)

Description

Turnaround times for results for either QF-PCR or Karyotype testing following a higher chance result for T21/ T18/ T13

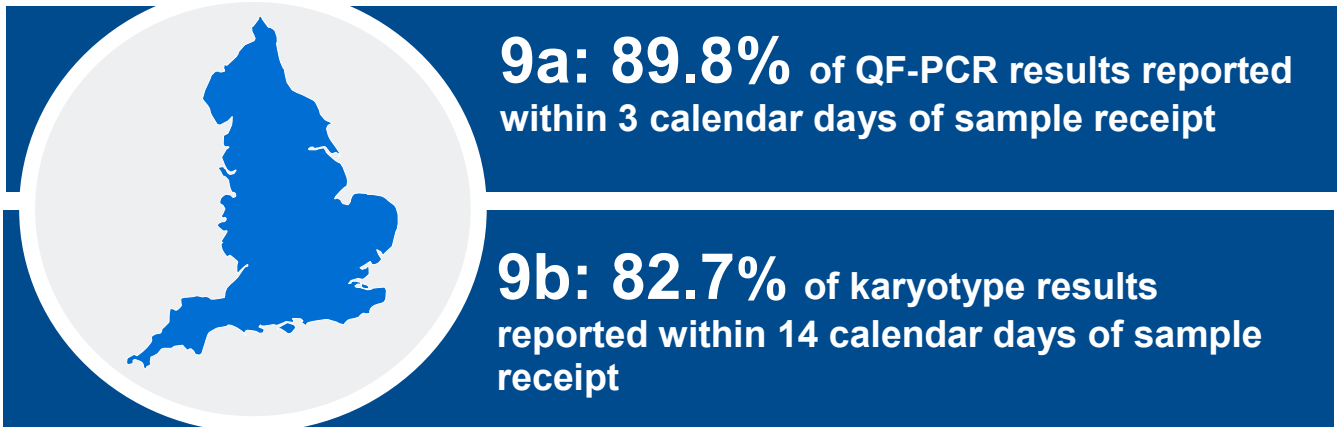
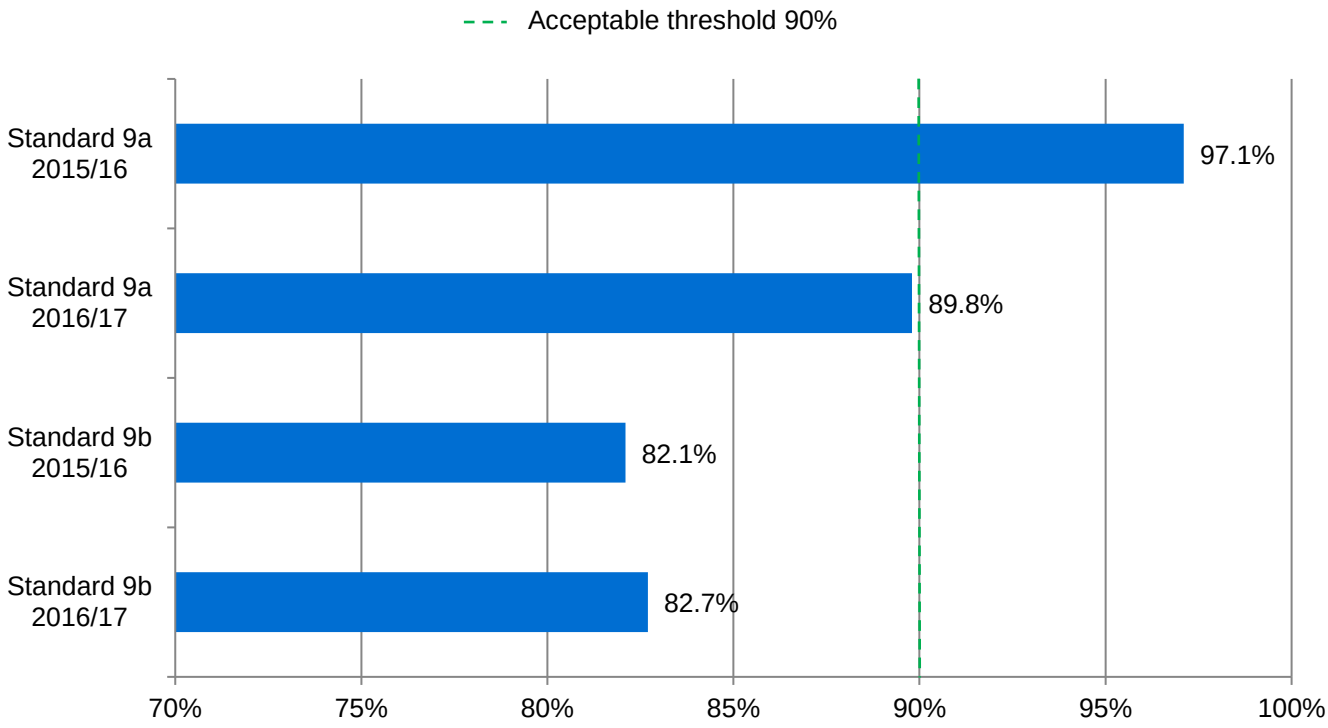


Figure 12. Turnaround times for results for either QF-PCR or Karyotype testing following a higher chance result for T21/ T18/ T13 2015 to 2017



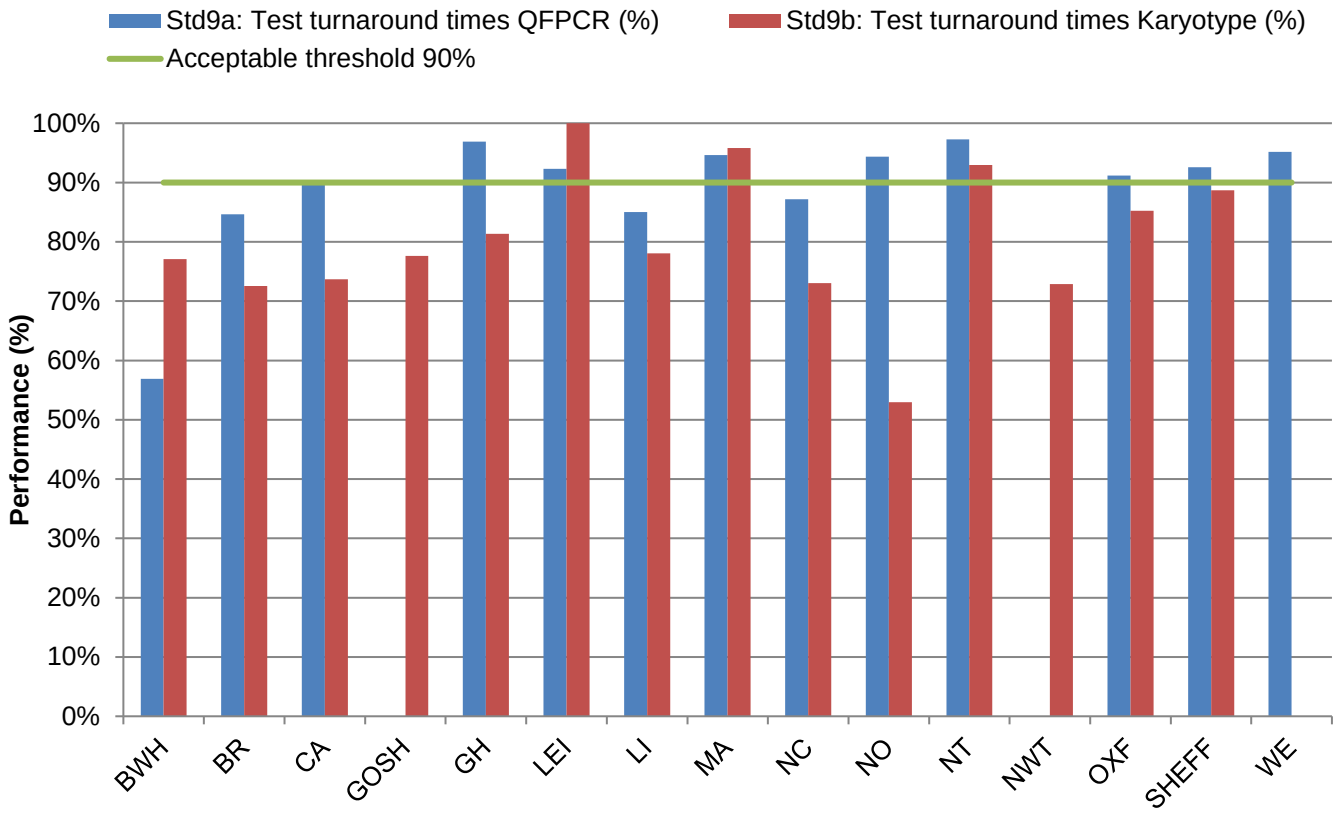
The purpose of this standard is to provide assurance of timely reporting of diagnostic results to enable ongoing information, discussions, and pregnancy management options.
Standards 9a and 9b measure the turnaround times for results from either QF-PCR or Karyotype following a higher chance screening result for Down's syndrome, Edwards' syndrome or Patau's syndrome.

The thresholds for this standard are:

- 9a (QF-PCR) - 90% of rapid aneuploidy QF-PCR results should be reported within 3 calendar days of sample receipt in the laboratory
- 9b (Karyotype)- 90% of karyotype results should be reported within 14 calendar days of sample receipt in the laboratory

Organisation Name	Initials
Birmingham Women's Hospital	WM
Bristol	BR
Cambridge	CA
NE Thames, Great Ormond Street	GOSH
Guys Hospital, GSTS	GH
Leeds – NO SUBMISSION 2016/17	LE
Leicester	LEI
Liverpool	LI
Manchester	MA
Newcastle	NC
Norwich	NO
Nottingham	NT
NW Thames, Northwick Park Hospital	NWT
Oxford	OXF
Sheffield Diagnostic Genetics Service	SHEFF
SW Thames Genetics Laboratory, St Georges – NO SUBMISSION 2016/17	SWT
TDL Genetics, The Doctors Laboratory – NO SUBMISSION 2016/17	TDL
Wessex Regional Laboratory, Salisbury	WE

Figure 13. Percentage of QF-PCR and Karyotype results reported within 3 calendar days (QF-PCR) and 14 calendar days (Karyotype) of sample receipt following screening for Down's syndrome, Edwards' syndrome and Patau's syndrome



Reasons for exclusions

- GOSH and NW Thames did not submit data for 9a:- QF-PCR testing is carried out by Guy's hospital on behalf of the London NHS laboratories
- Wessex did not provide data for 9b:- ArrayCGH has been performed rather than karyotype analysis

The data identifies some variation in the performance of laboratories and it should be noted that one laboratory did not submit data in time for inclusion in the report:

- 9 out of13 laboratories who submitted data and offer QF-PCR met the threshold for reporting of QF-PCR of 3 calendar days
- Birmingham Women's (57%), Bristol (85%), Liverpool (85%) and Newcastle (87%) laboratories perform below this threshold for 2016-2017
- Only 3 out of 15 laboratories (Leicester, Manchester and Nottingham) meet or exceed the 90% acceptable threshold of reporting results within 14 calendar days
- an increasing number of diagnostic laboratories report that they are more likely to perform a micro-array than Karyotype. It should however be noted that the FASP

standards and service specification for the screening programme still recommend Karyotype. FASP policy will be reviewed following publication of the Association of Clinical Genomic Science (ACGS) updated professional guidance

Recommendations and actions

Standards	Recommendations	Responsibility	Timescales
9a	Work should be undertaken directly with laboratories to understand reasons for non- submission of data to improve future returns	Screening & Immunisation teams/Regional SQAS	March 2019
9b	review of policy regarding diagnostic testing following higher chance screening results and use of microarray in place of karyotype once the ACGS updated professional guidelines are published	FASP	April 2019

Standard 9c and d: Diagnose (18^{+0} to 20^{+6} fetal anomaly ultrasound)

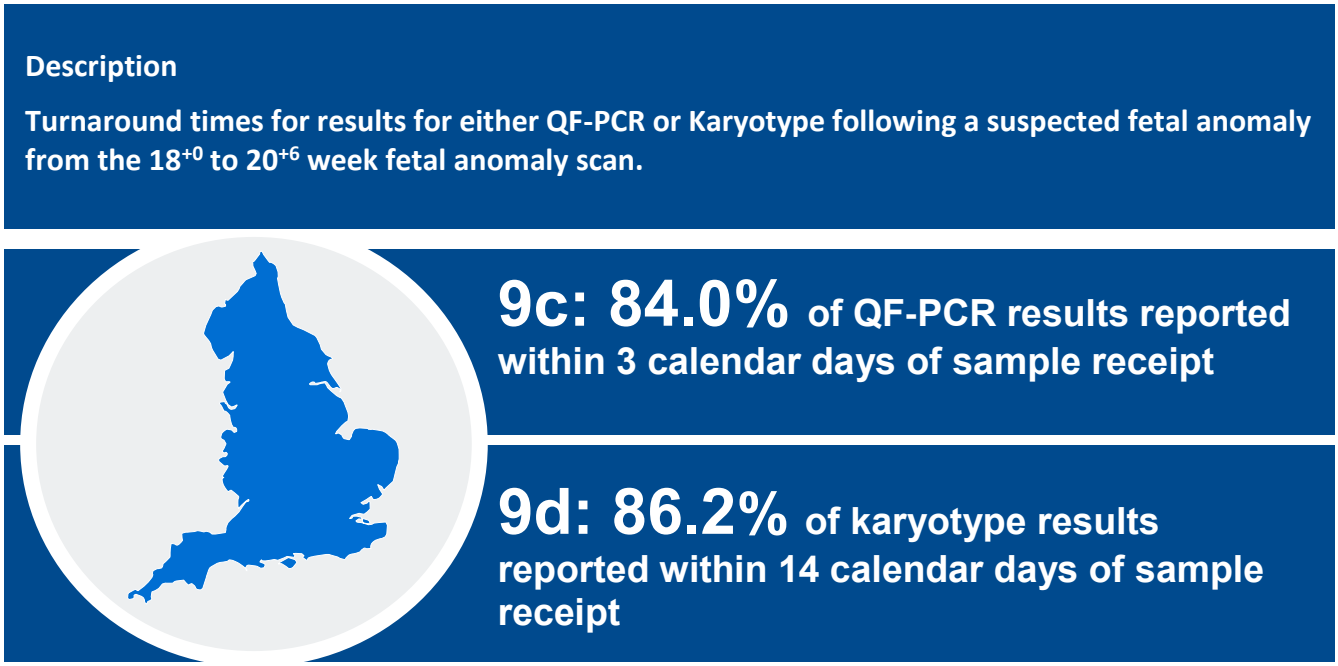
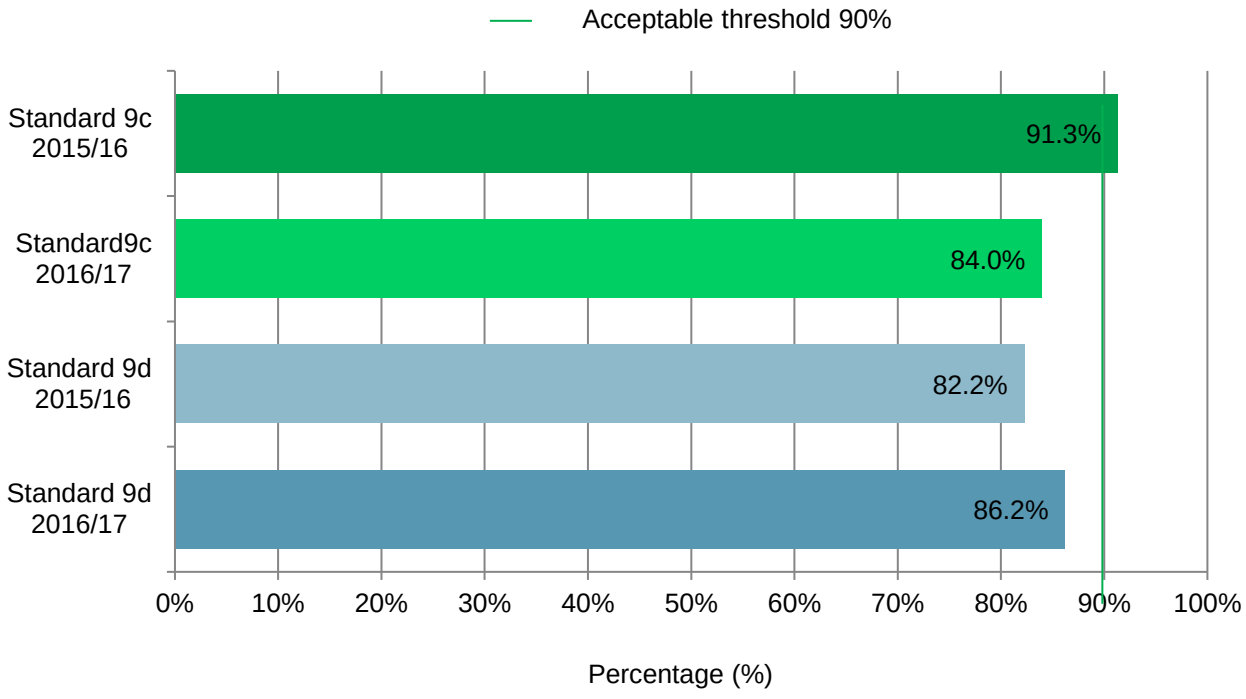


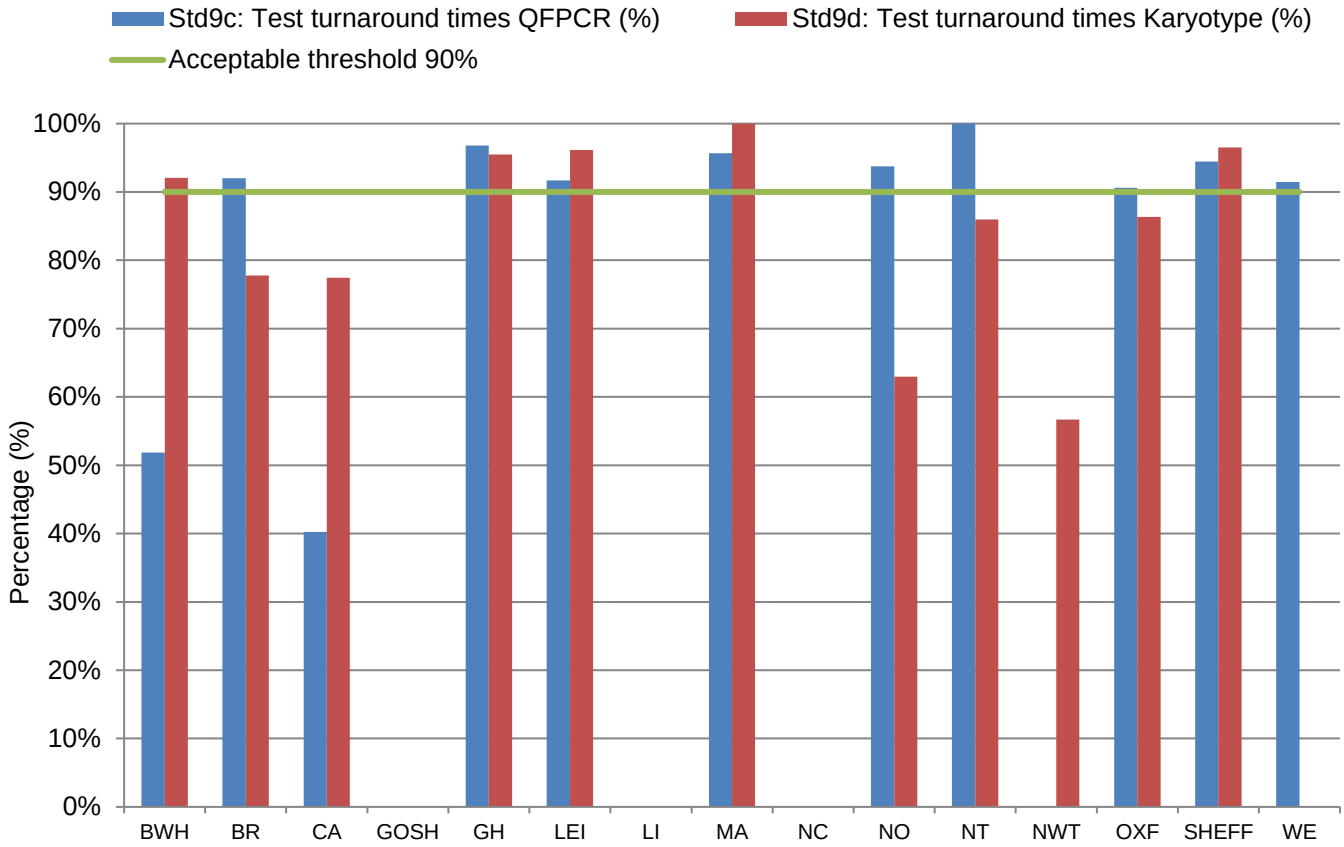
Figure 14. Turnaround times for results for either QF-PCR or Karyotype testing following a suspected fetal anomaly from 2015 to 2017



Standards 9c and 9d measure the turnaround times for results for either QF-PCR or Karyotype following a suspected fetal anomaly from the 18^{+0} to 20^{+6} week fetal anomaly scan.
The thresholds for this standard are:

- 9c / QF-PCR - 90% of rapid aneuploidy QF-PCR results should be reported within 3 calendar days of sample receipt in the laboratory
- 9d / Karyotype - 90% of karyotype results should be reported within 14 calendar days of sample receipt in the laboratory

Figure 15. Percentage of QF-PCR and Karyotype results reported within 3 calendar days (QF-PCR) and 14 calendar days (Karyotype) of sample receipt following fetal anomaly scan



Reasons for exclusions

- GOSH did not submit data for 9c,d:QF-PCR testing is carried out by Guy's hospital on behalf of the London NHS laboratories
- Liverpool did not submit data for 9c,d
- Newcastle did not submit data for 9c,d

- NW Thames did not submit data for 9c, QF-PCR analysis performed by an external laboratory.
- Wessex did not submit data for 9d

Most laboratories (9 out of 11) meet the threshold for reporting of QF-PCR in 3 calendar days:

- Cambridge and Birmingham Women's reported performance well below the threshold at 40% and 52% respectively.

The performance in reporting Karyotype results is more mixed with only 5 out of 11 laboratories meeting or exceeding the 90% acceptable threshold of reporting results within 14 calendar days. Performance in reporting results within 14 calendar days ranges from 57% in North West Thames to 100% in Manchester.

Recommendations and actions

Standards	Recommendations	Responsibility	Timescales
9c	Work should be undertaken directly with laboratories to understand reasons for non- submission of data to improve future returns	Screening & Immunisation teams/Regional SQAS	March 2019
9d	review of policy regarding diagnostic testing following higher chance screening results and use of microarray in place of karyotype once the ACGS updated professional guidelines are published	FASP	April 2019

List of charts and tables