Public Health England

NHS

Key performance indicators for the NHS screening programmes

Definitions and data submission guidance

1 April 2017 to 31 March 2018

Public Health England leads the NHS Screening Programmes

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health, and are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner.

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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. The Screening Quality Assurance Service ensures programmes are safe and effective by checking that national standards are met. PHE leads the NHS Screening Programmes and hosts the UK NSC secretariat.

www.gov.uk/phe/screening
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Published May 2017
PHE publications
gateway number: 2017067

PHE supports the UN
Sustainable Development Goals

About this publication

This is a controlled document. The most recent release is held by: NHS Screening Programmes

Project	NHS Screening Programmes
Document title	Key Performance Indicators for NHS screening programmes
Version and date	Version 4.0 – 11 May 2017
Release status	Final
Author	Screening Data Group (SDG)
Owner	Screening Data Group (SDG)
Type	Guidance
Authorised by	Radoslav Latinovic
Valid from	1 April 2017
Review date	22 January 2018
Audience	Service providers, PHE Screening, NHS England

Distribution

Contents

Introduction

- this document provides a catalogue of key performance indicators (KPIs) relating to each of the 11 young person, adult, antenatal and newborn national screening programmes. For the first time it includes a set of breast, cervical and bowel cancer screening KPIs
- the purpose of these KPIs is to define consistent performance measures for a selection of public health priorities, using terminology that is clear and common across all screening programmes, so that performance can be understood, assessed and compared
- the performance measures in this document were selected by the NHS screening programmes to reflect areas where consistency and an understanding of variation across England are important
- screening KPIs are contained within the Section 7a agreements between the Department of Health (DH) and NHS England and in the Public Health Outcomes Framework (PHOF)
- further information about screening standards and service specifications are available for each programme
- KPIs are a subset of programme standards that are collated and reported quarterly (unless numbers are small, in which aggregated data is reported annually). Each KPI is reviewed once it consistently reaches the achievable threshold, then either;
    - it is withdrawn as a KPI and remains as a programme standard, allowing entry of another KPI to focus on additional areas of concern, or
    - the KPI thresholds are increased to promote continuous improvement
- the indicators relate to a limited range of key screening priorities and are not in themselves sufficient to quality assure or performance manage screening programmes
- data must be complete and valid. Where screening providers are unable to return complete and valid data they are expected to make a nil (blank) return and have an action plan in place to enable them to do in the future
- providers must have failsafe processes in place to identify where things are going wrong and take corrective action before harm occurs. Whilst the KPI process can contribute to this they are not in themselves a means of providing failsafe due to the delay in reporting

Summary of changes

KPI	Type of change	Detail of change
ID3 **ID4**	New KPIs	New KPI: “Antenatal infectious disease screening – hepatitis B coverage” New KPI: “Antenatal infectious disease screening – syphilis coverage”
FA2	Revised definition	Name and definition revised
ST1, ST2, ST3	Wording changes	Wording changes to the KPIs in line with updated standards Definitions of the KPIs have not changed
NB1 **NB4**	Wording changes	Wording changes to the KPIs in line with updated standards Definitions of the KPIs have not changed
NB2	New threshold	Acceptable threshold remains the same Achievable threshold changed from ≤ 0.5% to ≤ 1.0% (reverse polarity KPI)
AA1	Withdrawn KPI	“Abdominal aortic aneurysm screening – completeness of offer” Remains as a programme standard
DE1, DE2, DE3	Revised definitions	Definitions revised in line with updated standards
DE2	New KPI name	Name changed from “Diabetic eye screening – results issued within 3 weeks of routine digital screening” To “Diabetic eye screening - results issued within 3 weeks of routine digital screening, digital surveillance or slit lamp biomicroscopy”
Bowel, breast and cervical KPIs	New KPIs	KPIs for the bowel cancer, breast, and cervical screening programmes added to the document

Index of key performance indicators

A list of the KPIs defined in this document can be found below. When reading this document on screen, hold ‘Ctrl’ and click the KPI identifier to view the KPI.

KPI	Description
ID1	Antenatal infectious disease screening – HIV coverage
ID2	Antenatal infectious disease screening – timely assessment of women with hepatitis B
ID3	Antenatal infectious disease screening – hepatitis B coverage
ID4	Antenatal infectious disease screening – syphilis coverage
FA1	Fetal anomaly screening – completion of laboratory request forms
FA2	Fetal anomaly screening – ultrasound coverage
ST1	Antenatal sickle cell and thalassaemia screening – coverage
ST2	Antenatal sickle cell and thalassaemia screening – timeliness of test
ST3	Antenatal sickle cell and thalassaemia screening – completion of FOQ
NB1	Newborn blood spot screening – coverage (CCG responsibility at birth)
NB2	Newborn blood spot screening – avoidable repeat tests
NB4	Newborn blood spot screening – coverage (movers in)
NH1	Newborn hearing screening – coverage
NH2	Newborn hearing screening – time from screening outcome to attendance at an audiological assessment appointment
NP1	Newborn and infant physical examination – coverage (newborn)
NP2	Newborn and infant physical examination – timely assessment of developmental dysplasia of the hip (DDH)
DE1	Diabetic eye screening – uptake of routine digital screening event
DE2	Diabetic eye screening – results issued within 3 weeks of routine digital screening, digital surveillance or slit lamp biomicroscopy
DE3	Diabetic eye screening – timely assessment for R3A screen positive
AA2	Abdominal aortic aneurysm screening – coverage of initial screen
AA3	Abdominal aortic aneurysm screening – coverage of annual surveillance screen
AA4	Abdominal aortic aneurysm screening – coverage of quarterly surveillance screen
BCS1	Bowel cancer screening – uptake
BCS2	Bowel cancer screening – coverage
BS1	Breast screening – uptake
BS2	Breast screening – screening round length
CS1	Cervical screening – coverage (under 50)
CS2	Cervical screening – coverage (50 and above)

Key performance indicators explained

Composition / format

A broken underline indicates that a term is used according to its definition in the glossary (Appendix A). Where terms from the glossary are used without a broken underline, their common English meaning can be assumed; except where context determines otherwise. Definitions include all forms of the defined term; so 'tested' and 'testing' refer to the definition of 'test'.

KPIs are defined according to a standardised template, which specifies:

- name of KPI and screening programme(s) to which it applies
- description
- rationale
- definition
- performance thresholds
- mitigations and qualifications
- reporting arrangements
- reporting period

The screening pathway is available in appendix A and worked examples for the KPIs are available in appendix B.

Performance thresholds

Performance thresholds are selected to align with existing screening programme standards and service objectives. Two thresholds are specified:

1. The **acceptable threshold** is the lowest level of performance which programmes are expected to attain to ensure patient safety and programme effectiveness.

2. The **achievable threshold** represents the level at which the programme is likely to be running optimally.

All programmes should aspire towards attaining and maintaining performance at the achievable threshold. 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.

Key performance indicator definitions

Infectious diseases in pregnancy screening (IDPS) programme

<table>
<tr><th>KPI</th><th>ID1: Antenatal infectious disease screening – HIV coverage</th></tr>
<tr><td>Description</td><td>The proportion of pregnant women eligible for HIV screening for whom a confirmed screening result is available at the day of report</td></tr>
<tr><td>Rationale</td><td>To provide assurance that screening is offered to all eligible women and each woman accepting screening has a confirmed screening result

Coverage is a measure of the delivery of screening to an eligible population
Low coverage might indicate that:
i) not all eligible women were offered screening
ii) those offered screening are not accepting the test
iii) those accepting the test are not tested</td></tr>
<tr><td>Definition</td><td><table><tr><td>tested women</td><td rowspan="2">expressed as a percentage, where:</td></tr><tr><td>eligible women</td></tr></table>
‘tested women’ (numerator) is the total number of ‘eligible women’ for whom a confirmed screening result was available for HIV at the day of report, including women who were known to be HIV positive at booking and not retested

‘eligible women’ (denominator) is the total number of pregnant women booked for antenatal care during the reporting period, or presenting in labour without previously having booked for antenatal care, excluding women who:
miscarry between booking and testing
opt for termination between booking and testing
transfer out between booking and testing (do not have a result)
transfer in who have a result from a screening test performed elsewhere in the NHS in this pregnancy</td></tr>
<tr><td>Performance thresholds</td><td>Acceptable level: ≥ 95.0%
Achievable level: ≥ 99.0%</td></tr>
<tr><td>Mitigations/ qualifications</td><td>This requires matched cohort data</td></tr>
<tr><td>Reporting</td><td>Reporting focus: maternity service</td></tr>
</table>

arrangements	Data source: maternity service Responsible for submission: maternity service
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

KPI	**ID2: Antenatal infectious disease screening – timely assessment of women with hepatitis B**
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 service
Rationale	To provide assurance of timely interventions
Definition	<table><tr><td>*women seen for hepatitis B*</td><td rowspan="2">expressed as a percentage, where:</td></tr><tr><td>*women with hepatitis B* *(new positive/high infectivity)*</td></tr></table> *'women seen for hepatitis B'* (numerator) is the number of *'pregnant women with hepatitis B'* who are booked in the reporting period, who have been **seen by** a specialist within an effective timeframe, including: • all **newly diagnosed** hepatitis B positive women • women **already known** to be hepatitis B positive with high infectivity markers detected in the current pregnancy *'pregnant women with hepatitis B'* (denominator) is the total number of pregnant women booked in the reporting period who were screened positive (newly diagnosed) for hepatitis B and women already known to be hepatitis B positive with high infectivity as defined as: • HBsAg positive and HBeAg positive • HBsAg positive, HBeAg negative and anti-HBe negative • HBsAg positive where e-markers have not been determined • has acute hepatitis B during pregnancy • HBsAg seropositive and known to have an HBV DNA level equal or above $1x10^6$IUs/ml in an antenatal sample A specialist is a hepatologist, gastroenterologist, infectious diseases physician, or a hepatology nurse specialist working to an agreed protocol within the clinical team

Performance thresholds	Acceptable level: ≥ 70.0% Achievable level: ≥ 90.0%
Mitigations/ qualifications	None
Reporting arrangements	Reporting focus: maternity service Data source: maternity service Responsible for submission: maternity service
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

KPI	**ID3: Antenatal infectious disease screening – hepatitis B coverage**
Description	The proportion of pregnant women eligible for hepatitis B screening for whom a confirmed screening result is available at the day of report
Rationale	To provide assurance that screening is offered to all eligible women and each woman accepting screening has a confirmed screening result Coverage is a measure of the delivery of screening to an eligible population Low coverage might indicate that: i) not all eligible women were offered screening ii) those offered screening are not accepting the test iii) those accepting the test are not tested
Definition	*tested women* / *eligible women* — expressed as a percentage, where: *'tested women'* (numerator) is the total number of '*eligible women'* for whom a confirmed screening result was available for hepatitis B at the day of report, including women who were known to be hepatitis B positive at booking and not retested *'eligible women'* (denominator) is the total number of pregnant women booked for antenatal care during the reporting period, or presenting in labour without previously having booked for antenatal care, **excluding** women who: • miscarry between booking and testing • opt for termination between booking and testing • transfer out between booking and testing (do not have a result) • transfer in who have a result from a screening test performed

	elsewhere in the NHS in this pregnancy
Performance thresholds	Acceptable level: ≥ 95.0% Achievable level: ≥ 99.0%
Mitigations/ qualifications	This requires matched cohort data
Reporting arrangements	Reporting focus: maternity service Data source: maternity service Responsible for submission: maternity service
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

KPI	**ID4: Antenatal infectious disease screening – syphilis coverage**
Description	The proportion of pregnant women eligible for syphilis screening for whom a confirmed screening result is available at the day of report
Rationale	To provide assurance that screening is offered to all eligible women and each woman accepting screening has a confirmed screening result Coverage is a measure of the delivery of screening to an eligible population Low coverage might indicate that: i) not all eligible women were offered screening ii) those offered screening are not accepting the test iii) those accepting the test are not tested
Definition	*tested women* / *eligible women* — expressed as a percentage, where: *'tested women'* (numerator) is the total number of '*eligible women'* for whom a confirmed screening result was available for syphilis at the day of report *'eligible women'* (denominator) is the total number of pregnant women booked for antenatal care during the reporting period, or presenting in labour without previously having booked for antenatal care, **excluding** women who: • miscarry between booking and testing • opt for termination between booking and testing • transfer out between booking and testing (do not have a result) • transfer in who have a result from a screening test performed elsewhere in the NHS in this pregnancy

Performance thresholds	Acceptable level: ≥ 95.0% Achievable level: ≥ 99.0%
Mitigations/ qualifications	This requires matched cohort data
Reporting arrangements	Reporting focus: maternity service Data source: maternity service Responsible for submission: maternity service
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4).

Fetal anomaly screening programme (FASP)

<table>
<tr><th>KPI</th><th>FA1: Fetal anomaly screening – completion of laboratory request forms</th></tr>
<tr><td>Description</td><td>The proportion of laboratory request forms including complete data prior to screening analysis, submitted to the laboratory within the recommended timeframe of 10 weeks + 0 days to 20 weeks +0 days gestation</td></tr>
<tr><td>Rationale</td><td>To ensure a screening test for Down's, Edwards' and Patau's syndromes provides an accurate individual result for the pregnant woman at the earliest opportunity, and to reduce unnecessary delays in processing the test, a number of essential data fields must be provided on the request form. Minimum data fields for a laboratory screening request form are available here: https://www.gov.uk/government/publications/fetal-anomaly-screening-laboratory-handbook-downs-edwards-and-pataus-syndromes</td></tr>
<tr><td>Definition</td><td>
<table>
<tr><td>completed laboratory request forms</td><td rowspan="2">expressed as a percentage, where:</td></tr>
<tr><td>submitted laboratory request forms</td></tr>
</table>

'completed laboratory request forms' (numerator) is the number of 'submitted laboratory request forms' with completed data for all of the following fields at the initial request:

sufficient information for the woman to be uniquely identified
woman's correct date of birth
maternal weight
family origin
smoking status
ultrasound dating assessment, CRL and HC in millimetres (CRL measured to one decimal point)

'submitted laboratory request forms' (denominator) is the total number of request forms for Down's, Edwards' and Patau's syndromes screening submitted to the laboratory within the reporting period during the recommended timeframe for analysis of 10 weeks + 0 days to 20 weeks + 0 days gestation (inclusive). This includes request forms for Down's syndrome screening using combined or quadruple testing and Edwards' and Patau's syndromes screening using combined testing
</td></tr>
<tr><td>Performance thresholds</td><td>Acceptable level: ≥ 97.0%
Achievable level: 100.0%</td></tr>
<tr><td>Mitigations/ qualifications</td><td>All services should aim to complete all fields on the laboratory request forms. The 'acceptable' threshold reflects the possibility that some women may not</td></tr>
</table>

	wish to supply their family origin or smoking status This KPI measures initial laboratory requests, and not subsequent or repeat requests
Reporting arrangements	Reporting focus: maternity service Data source: Down's, Edwards' and Patau's syndromes screening laboratory or ultrasound department Responsible for submission: maternity service
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

KPI	**FA2: Fetal anomaly screening – ultrasound coverage**
Description	The proportion of pregnant women eligible for fetal anomaly ultrasound screening who are tested leading to a conclusive result within the designated timescale
Rationale	One of the objectives of antenatal screening for fetal anomaly is to ensure that all eligible women accepting an offer of screening are actually tested The optimal gestational window for completing the fetal anomaly ultrasound scan is 18 weeks + 0 days to 20 weeks + 6 days of pregnancy. The scan can be completed up to 23 weeks + 0 days for women: • who commence screening between 18 weeks + 0 days to 20 weeks + 6 days of pregnancy and require a single further scan to complete screening where the image quality of the first scan is compromised by one of the following: - increased maternal body mass index (BMI) - uterine fibroids - abdominal scarring - sub-optimal fetal position • where providers are able to arrange the fetal anomaly scan later within the recommended window and have a pathway to facilitate referrals for further investigations and options for pregnancy choices in a timely manner and within the required national timeframes. Ongoing audit of practice should be in place to monitor conformity. The screening pathway must be completed by 23 weeks + 0 days of pregnancy • who present to service at ≥ 20 weeks + 6 days of pregnancy where the sonography department are able to offer a screening scan appointment

<table>
<tr><td></td><td>and complete screening by 23 weeks + 0 days of pregnancy</td></tr>
<tr><td>Definition</td><td>
<table>
<tr><td>tested women</td><td rowspan="2">expressed as a percentage, where:</td></tr>
<tr><td>eligible women</td></tr>
</table>

‘tested women’ (numerator) is the total number of ‘eligible women’ for whom a completed screening result was available from the 18 weeks + 0 days to 23 weeks + 0 days fetal anomaly scan at the day of report

‘eligible women’ (denominator) is the total number of pregnant women booked for antenatal care during the reporting period, excluding women who:
• present to service ≥ 23 weeks + 1 day (as they are not part of the eligible population for the screening programme)
• miscarry between booking and testing
• opt for termination between booking and testing
• transfer out between booking and testing (do not have a result)
• transfer in at ≤ 23 weeks + 0 days of pregnancy who have a result from a screening test performed elsewhere in the NHS in this pregnancy
• have had private screening and do not wish to have NHS screening
• are offered an appointment within the gestational screening timeframe but choose to attend at a different time for personal reasons

In addition:
We recognise that ultrasound departments may not always have the capacity to accommodate women presenting later in pregnancy and have allowed leeway of one week. Therefore if you are not able to offer and complete the fetal anomaly scan to women presenting to service between ≥ 22 weeks + 0 days and ≤ 23 weeks + 0 days they can be excluded. If you were able to offer these women the fetal anomaly scan they should be included in the denominator and numerator
</td></tr>
<tr><td>Performance thresholds</td><td>Acceptable: ≥ 90.0%
Achievable: ≥ 95.0%</td></tr>
<tr><td>Mitigations/ qualifications</td><td>This requires matched cohort data</td></tr>
<tr><td>Reporting arrangements</td><td>Reporting focus: maternity service
Data source: obstetric ultrasound department
Responsible for submission: maternity service</td></tr>
<tr><td>Reporting period</td><td>Quarterly data to be collated 2 quarters in arrears. Due to the potential lag time between early booking and ultrasound scanning, the complete cohort cannot be accounted for until 2 quarters later</td></tr>
</table>

	Deadlines: 31 December (Q1), 31 March (Q2), 30 June (Q3), 30 September (Q4)

Sickle cell and thalassaemia (SCT) screening programme

<table>
<tr><th>KPI</th><th>ST1: Antenatal sickle cell and thalassaemia screening – coverage</th></tr>
<tr><td>Description</td><td>The proportion of pregnant women eligible for antenatal sickle cell and thalassaemia screening for whom a screening result is available at the day of report</td></tr>
<tr><td>Rationale</td><td>To provide assurance that screening is offered to all eligible women and each woman accepting screening has a screening result

Coverage is a measure of the delivery of screening to an eligible population
Low coverage might indicate that:
i) not all eligible women were offered screening
ii) those offered screening are not accepting the test
iii) those accepting the test are not tested</td></tr>
<tr><td>Definition</td><td><table><tr><td>tested women</td><td rowspan="2">expressed as a percentage, where:</td></tr><tr><td>eligible women</td></tr></table>
‘tested women’ (numerator) is the total number of ‘eligible women’ for whom a screening result was available for sickle cell and thalassaemia at the day of report, including known at risk couples referred directly for prenatal diagnosis (PND); repeat testing must not delay referral

‘eligible women’ (denominator) is the total number of pregnant women booked for antenatal care during the reporting period, or presenting in labour without previously having booked for antenatal care, excluding women who:
miscarry between booking and testing
opt for termination between booking and testing
transfer out between booking and testing (do not have a result)
transfer in who have a result from a screening test performed elsewhere in the NHS in this pregnancy</td></tr>
<tr><td>Performance thresholds</td><td>Acceptable level: ≥ 95.0%
Achievable level: ≥ 99.0%</td></tr>
<tr><td>Mitigations/ qualifications</td><td>This requires matched cohort data</td></tr>
<tr><td>Reporting arrangements</td><td>Reporting focus: maternity service
Data source: maternity service
Responsible for submission: maternity service</td></tr>
</table>

Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

KPI	**ST2: Antenatal sickle cell and thalassaemia screening – timeliness of test**
Description	The proportion of women having antenatal sickle cell and thalassaemia screening for whom a screening result is available by 10 weeks + 0 days gestation
Rationale	To identify carrier and affected women by 10 weeks + 0 days of pregnancy to allow the baby's biological father to be offered testing and to offer of pre-natal diagnosis (PND) to women at risk of having an affected infant by 12 weeks + 0 days of pregnancy
Definition	*women tested by 10 weeks + 0 days gestation* / *women for whom screening sample received at laboratory* — expressed as a percentage, where: *'women tested by 10 weeks + 0 days gestation'* (numerator) is the total number of pregnant *'women for whom a screening sample was received at the laboratory'* and for whom an antenatal sickle cell and thalassaemia screening result was available (though not necessarily communicated to the woman) by 10 weeks + 0 days (≤70 days) gestation *'women for whom screening sample received at the laboratory'* (denominator) is the total number of pregnant women for whom an antenatal sickle cell and thalassaemia screening screening sample was received at the laboratory during the reporting period **excluding** full blood count samples where the request is other than antenatal screening Calculation of gestational age may be based on last menstrual period or ultrasound scan
Performance thresholds	Acceptable level: ≥ 50.0% Achievable level: ≥ 75.0%
Mitigations/ qualifications	Does not need to be matched cohort
Reporting arrangements	Reporting focus: maternity service Data source: antenatal screening laboratory Responsible for submission: maternity service

Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

KPI	**ST3: Antenatal sickle cell and thalassaemia screening – completion of FOQ**
Description	The proportion of antenatal sickle cell and thalassaemia samples submitted to the laboratory accompanied by a completed FOQ
Rationale	To interpret screening results in high prevalence areas and to identify women at higher risk to be offered further testing in low prevalence areas
Definition	*number of antenatal screening samples with completed FOQ* / *number of antenatal screening samples* — expressed as a percentage, where: *'number of antenatal screening samples received in the laboratory with completed FOQ'* (numerator) *'number of antenatal screening samples'* (denominator) for sickle cell and thalassaemia testing received by the laboratory during the reporting period A completed FOQ must use the national template (paper or electronic format), and must include: • at least one box for the mother or options for 'declined to answer' or 'don't know' selected • at least one box for the father or options for 'declined to answer' or 'don't know' selected • gestational age or gestational age 'not known' recorded
Performance thresholds	Acceptable level: ≥ 95.0% Achievable level: ≥ 99.0%
Mitigations/ qualifications	This data does not need to be matched cohort Laboratories that serve more than one maternity service must report by each maternity service
Reporting arrangements	Reporting focus: maternity service Data source: maternity units and antenatal screening laboratory Responsible for submission: maternity service
Reporting	Quarterly data to be collated between 2 and 3 months after each quarter

period	end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

Newborn blood spot (NBS) screening programme

<table>
<tr><th>KPI</th><th>NB1: Newborn blood spot screening – coverage (CCG responsibility at birth)</th></tr>
<tr><td>Description</td><td>The proportion of babies registered within the clinical commissioning group (CCG) both at birth and on the last day of the reporting period who are eligible for newborn blood spot (NBS) screening and have a conclusive result recorded on the child health information system (CHIS) at less than or equal to 17 days of age</td></tr>
<tr><td>Rationale</td><td>This standard is to ensure that all eligible babies are offered NBS screening and, with verbal consent from a parent, tested within an effective timeframe</td></tr>
<tr><td>Definition</td><td>
<table>
<tr><td>tested babies</td><td rowspan="2">expressed as a percentage, where:</td></tr>
<tr><td>eligible babies</td></tr>
</table>
‘tested babies’ (numerator) is the total number of ‘eligible babies’ that have a conclusive result for phenylketonuria (PKU) recorded on the CHIS at less than or equal to 17 days of age (day of birth is day 0)
‘eligible babies’ (denominator) is the total number of babies born within the reporting period, excluding any baby who died before the age of 8 days. For this KPI, the cohort includes only babies for whom the CCG was responsible at birth and on the last day of the reporting period
responsible CCG refers to all babies that are registered with a GP within the CCG; the data should be grouped and reported per CCG responsible population or UK equivalent using the baby’s, or if not available, mother’s GP practice code. If neither the baby nor mother’s GP is known, responsibility is determined by place of residence
A conclusive result for PKU is one of the following newborn screening status codes:

04 condition screened for not suspected
07 condition screened for not suspected – other disorders follow up
08 condition screened for suspected

Declines (status code 02) should be recorded on the CHIS and included in the denominator but not the numerator – decline data is collected and reported alongside coverage data to help interpretation
</td></tr>
</table>

	Exclusions: This KPI does not measure babies who change responsible CCG since birth or move in from another UK country or abroad (movers in) even though these babies are eligible for screening – this is measured using KPI NB4
Performance thresholds	Acceptable level: ≥ 95.0% Achievable level: ≥ 99.0%
Mitigations/ qualifications	For this KPI, a conclusive result for PKU will serve as a proxy indicator for each of the conditions screened for (however, a clinical response should include all the other tests – note that cystic fibrosis can only be screened for up to 8 weeks of age)
Reporting arrangements	Reporting focus: CCG Data source: CHIS Responsible for submission: CHRD
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

KPI	**NB2: Newborn blood spot screening – avoidable repeat tests**
Description	The proportion of first blood spot samples that require repeating due to an avoidable failure in the sampling process
Rationale	Good quality blood spot samples are vital to ensure that babies with rare but serious conditions are identified and treated early Good quality samples should be obtained first time to prevent the need for avoidable repeats. Avoidable repeat samples can cause anxiety for parents, distress to babies and delays in the screening process. They are also a waste of resources A good quality blood sample is one that: • is taken at the right time; (date of birth and date of sample being mandatory) • has all data fields completed to enable identification of the baby (NHS number being mandatory), analysis and reporting of results • contains sufficient blood to perform all tests (each circle filled and evenly saturated by a single drop of blood that soaks through to the back of the blood spot card) • is not contaminated • arrives at the laboratory in a timely manner

<table>
<tr><td>Definition</td><td>
<table>
<tr><td>avoidable repeats</td><td rowspan="2">expressed as a percentage, where:</td></tr>
<tr><td>first blood spot samples received by the laboratory</td></tr>
</table>

‘avoidable repeats’ (numerator) is the total number of repeat (second or subsequent) samples requested by the laboratory during the reporting period because the previous sample was:

taken when the baby was too young (on or before day 4, where day 0 is the date of birth), excluding pre-transfusion samples
insufficient (small volume spots, blood not soaked through to the back of the card)
unsuitable (for example incorrect blood application, compressed/damaged, missing/inaccurate details, expired card, in transit for more than 14 calendar days)

‘first blood spot samples received by the laboratory’ (denominator) is the total number of first blood spot samples received by the laboratory during the reporting period

Note that repeat samples requested because the previous sample was taken too soon (less than 3 clear calendar days) after transfusion are excluded from the numerator as the routine sample should be taken by day 8 at the latest

The sample should be taken in accordance with the Guidelines for Newborn Blood Spot Sampling: www.gov.uk/government/publications/newborn-blood-spot-screening-sampling-guidelines
See Status codes v4.2 (see appendix 1) for further details on avoidable repeat categories: www.gov.uk/government/publications/status-codes-for-the-newborn-blood-spot-nbs-screening-programme
</td></tr>
<tr><td>Performance thresholds</td><td>Acceptable level: ≤ 2.0%
Achievable level: ≤ 1.0%</td></tr>
<tr><td>Mitigations/ qualifications</td><td>None</td></tr>
<tr><td>Reporting arrangements</td><td>Reporting focus: maternity service
Data source: newborn screening laboratories
Responsible for submission: maternity service</td></tr>
<tr><td>Reporting period</td><td>Quarterly data to be collated between 2 and 3 months after each quarter end
Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)</td></tr>
</table>

<table>
<tr><th>KPI</th><th>NB4: Newborn blood spot screening – coverage (movers in)</th></tr>
<tr><td>Description</td><td>The proportion of all babies eligible for newborn blood spot (NBS) screening who:
have changed responsible CCG in the first year of life; or
have moved in from another UK country or abroad
and have a conclusive result recorded on the CHIS at less than or equal to 21 calendar days of notifying the CHRD of movement in</td></tr>
<tr><td>Rationale</td><td>To accurately identify the population to whom screening is offered and to maximise coverage in the eligible population who are fully informed and wish to participate in the screening programme

This KPI is to ensure that all eligible babies are offered NBS screening and, with verbal consent from a parent, tested within an effective timeframe

This KPI focuses on children that move in and become the responsibility of the CCG within the reporting period</td></tr>
<tr><td>Definition</td><td>
<table>
<tr><td>tested babies</td><td rowspan="2">expressed as a percentage, where:</td></tr>
<tr><td>eligible babies</td></tr>
</table>

‘tested babies’ (numerator) is the total number of ‘eligible babies’ that have a conclusive result for PKU recorded on the CHIS at less than or equal to 21 calendar days of notifying the CHRD of movement in

‘eligible babies’ (denominator) is the total number of babies:
who have changed responsible CCG, or moved in from another UK country or abroad during the reporting period and
for whom the CCG is responsible on the last day of the reporting period; and
are less than or equal to 364 days of age at the point of notifying CHRD of movement in (only if the blood spot sample can be taken before they reach a year of age)
‘responsible CCG’ refers to all babies that are registered with a GP within the CCG; the data should be grouped and reported per CCG responsible population or UK equivalent using the baby’s, or if not available, mother’s GP practice code. If neither the baby nor mother’s GP is known, responsibility is determined by place of residence

‘changed responsible CCG’ – baby that was born out of the CCG but has become its responsibility because he/she moved and was notified to CHRD</td></tr>
</table>

	within the reporting period *'notifying the CHRD of movement in'* – this is either: • the point of direct electronic registration on the CHIS • the point of receipt of phone/email/fax notification to the CHRD A *conclusive result* for PKU is one of the following newborn screening status codes: • 04 condition screened for not suspected • 07 condition screened for not suspected – other disorders follow up • 08 condition screened for suspected Declines (status code 02) should be recorded on the CHIS and included in the denominator but not the numerator – decline data is collected and reported alongside coverage data to help interpretation Exclusions: Note that this KPI does not measure babies who are already the responsibility of the CCG at birth and transfer within the same CCG. KPI NB1 captures babies registered within the CCG both at birth and on the last day of the reporting period
Performance thresholds	Acceptable level: ≥ 95.0% Achievable level: ≥ 99.0%
Mitigations/ qualifications	For this KPI, a conclusive screening result for PKU will serve as a proxy indicator for each of the conditions screened for (however, a clinical response should include all the other tests – note that cystic fibrosis can only be screened for up to 8 weeks of age)
Reporting arrangements	Reporting focus: CCG Data source: CHIS Responsible for submission: CHRD
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

Newborn hearing screening programme (NHSP)

KPI	NH1: Newborn hearing screening – coverage
Description	The proportion of babies eligible for newborn hearing screening for whom the screening process is complete **by 4 weeks corrected age** (hospital programmes: well babies, NICU babies) or **by 5 weeks corrected age** (community programmes: well babies)
Rationale	This KPI is needed to provide assurance that screening is offered to parents of all eligible babies and that each baby (for whom the offer is accepted) has a completed screening outcome
Definition	$\frac{\textit{complete screens}}{\textit{eligible babies}}$ expressed as a percentage, where: *'complete screens'* (numerator) is the total number of *'eligible babies'* for whom a decision about referral or discharge from the screening programmes is made within an effective timeframe. This includes: • babies for whom a conclusive screening result was available by **4 weeks corrected age** (hospital programmes: well babies, NICU babies) or by **5 weeks corrected age** (community programmes: well babies) • babies referred to an audiology department because a newborn hearing screening encounter/event was inconclusive or contraindicated The 'screening outcomes' that comprise a complete screen are: • clear response – no follow up required • clear response – targeted follow up required • no clear response – bilateral referral, unilateral referral • incomplete – baby/equipment reason, equipment malfunction, equipment not available, baby unsettled • incomplete – screening contraindicated *'eligible babies'* (denominator) is the total number of babies born within the reporting period whose mother was registered with a GP practice within the CCG, or (if not registered with any practice) resident within the area covered by the provider newborn hearing screening programme (NHSP) site or CCG area, excluding: • any baby who died before screening could be completed • babies that have not reached **4 weeks corrected age** (hospital programmes: well babies, NICU babies) or **5 weeks corrected age**

	(community programmes: well babies) at the time of the report • babies born in England and have had their record transferred electronically to Wales Corrected age is used for babies born at <40 weeks gestation. For NHSP, coverage is defined as a screening outcome being set on the national software solution, accepting that the screen may be incomplete
Performance thresholds	Acceptable level: ≥ 97.0% Achievable level: ≥ 99.5%
Mitigations/ qualifications	The following babies will be included in the denominator but may not be screened by NHSP and therefore not be included in the numerator. These babies should be accounted for and the reason explained in the commentary as mitigations against performance thresholds. • babies who have attained the required age (described above) but whose screening was delayed because they are not well enough • babies who are eligible for screening but were screened by one of the other home countries (Northern Ireland, Scotland, Wales) • babies born in US Air Force (USAF) bases
Reporting arrangements	Reporting focus: local NHSP Data source: SMaRT4Hearing (S4H) Responsible for submission: national NHSP
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

KPI	**NH2: Newborn hearing screening – time from screening outcome to attendance at an audiological assessment appointment**
Description	The proportion of babies with a no clear response result in one or both ears or other result that require an immediate onward referral for audiological assessment who receive audiological assessment within the required timescale
Rationale	To provide assurance that babies with a no clear response result in one or both ears or other result who require an immediate onward referral for audiological assessment receive diagnostic audiological assessment in a timely manner
Definition	*referrals for diagnostic audiological assessment who* expressed as a

	<table><tr><td>attend an appointment that is within the required timescale</td><td rowspan="2">percentage, where:</td></tr><tr><td>referrals for diagnostic audiological assessment</td></tr></table> *'referrals for diagnostic audiological assessment'* (denominator) is the total number of babies who receive a no clear response result in one or both ears or other result that requires an immediate onward referral for audiological assessment. Within the national software solution for newborn hearing screening it is defined as the following 'screening outcomes': • no clear response – bilateral referral, unilateral referral • incomplete – baby/equipment reason, equipment malfunction, equipment not available, baby unsettled • incomplete – screening contraindicated The numerator is the number of babies from the denominator who attend an appointment within the required timescale The required timescale is **either** within 4 weeks of screen completion **or** by 44 weeks gestational age Corrected age is used for babies born at <40 weeks gestation
Performance thresholds	Acceptable level: ≥ 90.0% Achievable level: ≥ 95.0%
Mitigations/ qualifications	The following babies will be included in the denominator but may not attend follow up in England and therefore will not be included in the numerator. These babies should be accounted for and the reason explained in the commentary as mitigations against performance thresholds: • babies who are too unwell to proceed or who die between screen completion and offer of diagnostic audiological assessment appointment • babies whose follow up appointment is in another country Providers need to be able to demonstrate robust follow up of those who did not attend as per local policy
Reporting arrangements	Reporting focus: local NHSP Data source: S4H Responsible for submission: national NHSP
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

Newborn and infant physical examination (NIPE) screening programme

The NIPE screening programme are currently revising the definition of NP1 and we will update this document later in the year

KPI	NP1: Newborn and infant physical examination – coverage (newborn)
Description	The proportion of babies eligible for the newborn physical examination who are tested for all 4 components (3 components in female infants) of the newborn examination within 72 hours of birth
Rationale	To provide assurance that screening is offered to parents of all eligible babies and each baby (where the offer is accepted) has a conclusive screening result
Definition	*tested babies* / *eligible babies* expressed as a percentage, where: *'tested babies'* (numerator) is the total number of *'eligible babies'* for whom a decision about referral (including a decision that no referral is necessary as a result of the newborn physical examination) for each of the 4 conditions screened was made within an effective timeframe *'eligible babies'* (denominator) is the total number of babies born within the reporting period whose mother was registered with a GP practice within the CCG, or (if not registered with any practice) resident within the CCG area, excluding any baby who died before an offer of screening could be made The effective timeframe for the newborn physical examination is that a conclusive screening result should be available within 72 hours of birth
Performance thresholds	Acceptable level: ≥ 95.0% Achievable level: ≥ 99.5%
Mitigations/ qualifications	Screening may be delayed if a baby is too premature or too unwell to have the examination (it is not the clinical priority at that given point in time). Screening should be completed as and when the baby's condition allows. These babies should be accounted for and the reason explained in the commentary as mitigations against performance thresholds In terms of a failsafe, all babies will be eligible for the NIPE examination at some point, unless the baby dies. It is recommended that the newborn

	examination is undertaken prior to discharge from hospital (unless home delivery). This maximises the opportunity for the examination to be completed within the 72 hour target. Babies who are identified as not having a newborn physical clinical examination should be followed up locally The NIPE programme recognises that further work is needed in the future to ensure thresholds are appropriate for neonatal intensive care units and, in particular, those that are tertiary referral centres
Reporting arrangements	Reporting focus: maternity service (see NIPE programme handbook for further information) Data source: NIPE SMART (where providers have not implemented NIPE SMART, local processes will need to be in place to enable reporting of this KPI) Responsible for submission: maternity service
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

KPI	**NP2: Newborn and infant physical examination – timely assessment of developmental dysplasia of the hip (DDH)**
Description	The proportion of babies who have a positive screening test on newborn physical examination and undergo assessment by specialist hip ultrasound within 2 weeks of age
Rationale	To provide assurance of timely interventions
Definition	<table><tr><td>*timely assessments* *referral for assessment indicated*</td><td>expressed as a percentage, where:</td></tr></table> *'timely assessments'* (numerator) is the number of babies with a positive screening test on newborn physical examination who attend for specialist hip ultrasound within 2 weeks of age *'referral for assessment indicated'* (denominator) is the total number of babies with a positive screening test of the hips on newborn physical examination (in the reporting period) Inclusion: • babies who are found to have dislocated or dislocatable hips on newborn

	physical examination should be included Exclusions: • babies who have previously noted risk factors but normal physical examination should **not** be included (as referral timescales are different) • babies who are found to have 'clicky hips' on physical examination should **not** be included (be managed and referred as per local arrangement)
Performance thresholds	Acceptable level: ≥ 95.0% Achievable level: 100.0%
Mitigations/ qualifications	None
Reporting arrangements	Reporting focus: maternity service Data source: NIPE SMART (where providers have not implemented NIPE SMART, local processes will need to be in place to enable reporting of this KPI) Responsible for submission: maternity service
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

Diabetic eye screening (DES) programme

<table>
<tr><th>KPI</th><th>DE1: Diabetic eye screening – uptake of routine digital screening event</th></tr>
<tr><td>Description</td><td>The proportion of those offered routine digital screening who attend a digital screening event where images are captured</td></tr>
<tr><td>Rationale</td><td>This KPI gives an indication of the acceptance of the screening test in those offered the screen. A low uptake may be due to people with diabetes not wishing to be screened, not understanding the importance of being screened, forgetting the appointment or not being able to easily access the screening service</td></tr>
<tr><td>Definition</td><td>
<table>
<tr><td>subjects tested</td><td rowspan="2">expressed as a percentage, where:</td></tr>
<tr><td>subjects offered screening</td></tr>
</table>

‘subjects tested’ (numerator) is the number of ‘subjects offered screening’ who attended a successful routine digital screening event within the reporting period, where images are captured such that a screening outcome can be determined

‘subjects offered screening’ (denominator) is the number of known eligible people with diabetes offered a routine digital screening event which was due to take place within the reporting period

Note if a person with diabetes attends a walk in clinic or is screened for diabetic retinopathy while in care of ophthalmology for non-diabetic retinopathy it will be counted as an offer and an attendance on the same day

The numerator includes instances where one or both eyes are not assessable through digital photography and a screening outcome of ‘ungradable’ is assigned. In these cases a subsequent invitation to slit lamp biomicroscopy clinic is issued, the screening event is considered ‘complete’ and is counted in the numerator of this performance measure

For the denominator, where no specific digital screening event date was proposed, the date at which the invitation was sent should be used, and where a range of dates were proposed, the first date in the range should apply

If a person is invited more than once in the year the most recent invitation and subsequent attendance if it occurs, will be counted</td></tr>
</table>

	Full definitions can be found in the programme performance report template and dataset calculation document https://www.gov.uk/government/publications/diabetic-eye-screening-standards-and-performance-objectives
Performance thresholds	Acceptable level: ≥ 75.0% Achievable level: ≥ 85.0%
Mitigations/ qualifications	None
Reporting arrangements	Reporting focus: local DES service Data source: local DES service Responsible for submission: local DES service via the national DESP
Reporting period	Rolling 12 months, ending in the quarter in question; data to be collated between 2 and 3 months after each quarter end, a minimum of 6 weeks plus 1 day after the end of the report period Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

KPI	**DE2: Diabetic eye screening – results issued within 3 weeks of routine digital screening, digital surveillance or slit lamp biomicroscopy**
Description	The proportion of subjects attending for diabetic eye screening, digital surveillance or slit lamp biomicroscopy to whom results were issued within 3 weeks of the screening event
Rationale	In order to reduce anxiety for people with diabetes it is important for them to receive their results in a timely manner. It is also important for the GP and relevant health professional(s) to be informed in a timely manner so that they can take appropriate steps in the ongoing care of the people with diabetes Operationally, this KPI also monitors if there is a backlog in the grading of digital images As described in the DES Service Specification the health professionals may include diabetologist, paediatrician and obstetrician amongst others
Definition	*results issued within 3 weeks* / *subjects tested* — expressed as a percentage, where:

	'results issued within 3 weeks' (numerator) is the number of results letters *produced* within 3 weeks of the screen date *'subjects tested'* (denominator) is the number of people with diabetes who have attended a successful screening event, within the reporting period The screening event may be a) routine digital screening b) digital surveillance c) slit lamp biomicroscopy *'Produced'* may be printing a letter or creating an electronic result letter. This is a proxy measure for the receipt of result letters as it is not possible to measure if they are sent or received
Performance thresholds	Acceptable level: ≥ 70.0% Achievable level: ≥ 95.0%
Mitigations/ qualifications	Providers are not expected to achieve 100% as people with diabetes who are under the care of Hospital Eye Services for other non-diabetic eye pathology may be screened for diabetic retinopathy and so will not receive a results letter from the provider. It also takes into account if a person's death takes place before the result letter is generated The denominator includes instances where one or both eyes are not assessable through digital photography and a screening outcome of 'ungradable' is assigned. In these cases a subsequent invitation to slit lamp biomicroscopy clinic is issued, the screening event is considered 'complete' and is counted in the denominator of this performance measure
Reporting arrangements	Reporting focus: local DES service Data source: local DES service Responsible for submission: local DES service via the national DESP
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4)

<table>
<tr><th>KPI</th><th>DE3: Diabetic eye screening – timely assessment for R3A screen positive</th></tr>
<tr><td>Description</td><td>The proportion of screen positive subjects with referred proliferative (R3A) diabetic retinopathy attending for assessment within 6 weeks of their screening event from all diabetic eye screening pathways</td></tr>
<tr><td>Rationale</td><td>A key part of any screening programme is that there is an appropriate treatment for the screened for condition. It is therefore important that a person with R3A retinopathy is seen in hospital in a timely manner so that they can receive the appropriate management

Failure of screen positive subjects to attending for assessment within 6 weeks might be caused by:
• delays in the local screening service grading or administrative process
• delays in availability of consultation appointment within the hospital eye department
• failure by the patient to attend for assessment</td></tr>
<tr><td>Definition</td><td>
<table>
<tr><td>subjects attending a consultation within 6 weeks</td><td rowspan="2">expressed as a percentage, where:</td></tr>
<tr><td>subjects referred for proliferative retinopathy</td></tr>
</table>

‘subjects attending consultation within 6 weeks’ (numerator) is the number of ‘subjects referred for proliferative retinopathy’ attending a first consultation in the Hospital Eye Service within 6 weeks of their screening event

The attended appointment may occur within or outside the reporting period as long as it is within 6 weeks

‘subjects referred for proliferative retinopathy’ (denominator) is the number of people with diabetes with a final grading outcome of R3A in the worst eye from a screening event which occurred within the reporting period

The screening event generating the referral may be
a) routine digital screening
b) digital surveillance
c) slit lamp biomicroscopy

Excluded: patients currently in hospital eye services for diabetic retinopathy (this must be verifiable) are not included in this indicator

All other referred patients should be included in the denominator, regardless of subsequent findings in the hospital eye service. Exceptions can be</td></tr>
</table>

	reported through the DES quarterly reporting process
Performance thresholds	Acceptable level: ≥ 80.0%
Mitigations/ qualifications	It is not possible for the screening software to differentiate between low risk and high risk R3A. To minimise the risk of harm all R3A referrals are classed as high risk
Reporting arrangements	Reporting focus: local DES service Data source: local DES service Responsible for submission: local DES service via the national DESP
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4), a minimum of 4 weeks plus one day after the end of the report period

Abdominal aortic aneurysm (AAA) screening programme

<table>
<tr><th>KPI</th><th>AA2: Abdominal aortic aneurysm screening – coverage of initial screen</th></tr>
<tr><td>Description</td><td>The proportion of men eligible for abdominal aortic aneurysm screening who are conclusively tested</td></tr>
<tr><td>Rationale</td><td>Coverage is a key measure for the screening programme as it provides an indication of the accessibility of the service and that men are aware of the importance of screening. Providers should aim to increase the coverage of screening so that those not accepting have done so because of informed choice, not lack of access to the service or from lack of information in an appropriate format

Low coverage might indicate that:
• those eligible for screening are not being offered a screen
• those offered screening are not accepting the test (for example, because they do not understand its importance, or because it is inconvenient, or because they have had a bad screening experience in the past)
• those accepting the test are not tested (for example, because they attend but cannot be conclusively tested)</td></tr>
<tr><td>Definition</td><td><table><tr><td>conclusively tested
eligible men</td><td>expressed as a percentage, where:</td></tr></table>
‘conclusively tested’ (numerator) is the number of ‘eligible men’ who have a conclusive scan result within the screening year

‘eligible men’ (denominator) is the number of men eligible for the initial screen

The eligibility criteria are:
1. living; and
2. male; and
3. not excluded from screening in accordance with national guidance; and
4. attaining the age of 65 within the current screening year</td></tr>
<tr><td>Performance thresholds</td><td>Acceptable level: ≥ 75.0%
Achievable level: ≥ 85.0%

This KPI is annual. The rationale for this is that the ‘due date’ for screening is anytime within the screening year, and as such, does not fall within a quarter</td></tr>
</table>

Mitigations/ qualifications	Men who come on to the register towards the end of the year may not be screened by the end of the screening year Some men may choose to defer their initial screen which may lower the number tested within the screening year
Reporting arrangements	Reporting focus: local AAA screening service; CCG and local authority Data source: National AAA screening programme (NAAASP) database Responsible for submission: NAAASP
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4), a minimum of 4 weeks plus one day after the end of the report period. Data will be cumulative across the year

KPI	**AA3: Abdominal aortic aneurysm screening – coverage of annual surveillance screen**
Description	The proportion of annual surveillance appointments due where there is a conclusive test within 6 weeks of the due date
Rationale	Men on surveillance are at greater risk of rupture and so it is important that they are seen as close to their due date as possible Low coverage might indicate that: • those on surveillance are not being offered a screen within an appropriate time frame • those offered screening are not accepting the test (for example, because they do not understand its importance, because it is inconvenient, or because they have had a bad screening experience in the past)
Definition	$\frac{\textit{conclusive scans}}{\textit{annual surveillance appointments due}}$ expressed as a percentage, where: *'conclusive scans'* (numerator) is the number of conclusive scan results occurring between 6 weeks before and 6 weeks after the due date for each man *'annual surveillance appointments due'* (denominator) is the number of due dates for annual surveillance occurring in the reporting period for each man There may be more than one surveillance due date per man in the reporting period and each will be counted

	Where a man passes away prior to the due date and up to 6 weeks after the due date, he will not be counted in the denominator. Where a man becomes excluded prior to the due date and up to 6 weeks after the due date, he will not be counted in the denominator Exceptions can be reported to NAAASP as detailed in the young person and adult KPI submission guidance: https://www.gov.uk/government/publications/young-person-and-adult-screening-submit-key-performance-indicator-data
Performance thresholds	Acceptable level: ≥ 85.0% Achievable level: ≥ 95.0%
Mitigations/ qualifications	None
Reporting arrangements	Reporting focus: local AAA screening service; CCG and local authority Data source: NAAASP database Responsible for submission: NAAASP
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4), a minimum of 4 weeks plus one day after the end of the report period

KPI	**AA4: Abdominal aortic aneurysm screening – coverage of quarterly surveillance screen**
Description	The proportion of quarterly surveillance appointments due where there is a conclusive test within 4 weeks of the due date
Rationale	Men on surveillance are at greater risk of rupture and so it is important that they are seen as close to their due date as possible Low coverage might indicate that: • those on surveillance are not being offered a screen within an appropriate time frame • those offered screening are not accepting the test (for example, because they do not understand its importance, because it is inconvenient, or because they have had a bad screening experience in the past)
Definition	*conclusive scans* / *quarterly surveillance appointments due* expressed as a percentage, where:

	'conclusive scans' (numerator) is the number of conclusive scan results occurring between 4 weeks before and 4 weeks after the due date for each man *'quarterly surveillance appointments due'* (denominator) is the number of due dates for quarterly surveillance occurring in the reporting period for each man There may be more than one surveillance due date per man in the reporting period and each will be counted Where a man passes away prior to the due date and up to 4 weeks after the due date, he will not be counted in the denominator. Where a man becomes excluded prior to the due date and up to 4 weeks after the due date, he will not be counted in the denominator Exceptions can be reported to NAAASP as detailed in the young person and adult KPI submission guidance: https://www.gov.uk/government/publications/young-person-and-adult-screening-submit-key-performance-indicator-data
Performance thresholds	Acceptable level: ≥ 85.0% Achievable level: ≥ 95.0%
Mitigations/ qualifications	None
Reporting arrangements	Reporting focus: local AAA screening service; CCG and local authority Data source: NAAASP database Responsible for submission: NAAASP
Reporting period	Quarterly data to be collated between 2 and 3 months after each quarter end Deadlines: 30 September (Q1), 31 December (Q2), 31 March (Q3), 30 June (Q4), a minimum of 4 weeks plus one day after the end of the report period

Bowel cancer screening programme (BCSP)

KPI	BCS1: Bowel cancer screening – uptake
Description	The proportion of eligible men and women aged 60 to 74 years invited to participate in bowel cancer screening who adequately participate
Rationale	A key objective of the bowel cancer screening programme is to maximise uptake in the eligible population The expected effectiveness of the bowel screening programme in reducing bowel cancer mortality requires a minimum uptake of 52%.
Definition	*adequately screened* / *eligible men and women* expressed as a percentage, where: *'adequately screened'* (numerator) is the number of *eligible men and women* who adequately participated in screening within 6 months of the invitation *'eligible men and women'* (denominator) is the number of men and women aged 60 to 74 years who are invited to participate in bowel cancer screening during the reporting period Adequately participated is defined as reaching a definitive FOBt outcome; normal or abnormal (from potentially multiple test kits) This KPI counts men and women (not test kits / appointments)
Performance thresholds	Acceptable level: ≥ 52.0% Achievable level: ≥ 60.0%
Mitigations/ qualifications	There are a number of men and women in the eligible age range who are not registered with a GP and subsequently not called for screening as they are not on the Screening Population Index (SSPI).
Reporting arrangements	Reporting focus: screening centre, programme hub, GP practice, CCG Data source: Bowel cancer screening system (BCSS) Responsible for submission: BCSP
Reporting period	Quarterly (3 months in arrears)

KPI	BCS2: Bowel cancer screening – coverage
Description	The proportion of eligible men and women aged 60 to 74 years invited for screening who have had an adequate FOBt screening result in the previous 30 months
Rationale	To maximise timely attendance within 24 months of screening in the eligible population (allowance of 6 months for episodes to be closed). To evidence that the eligible population previously invited aged 60 to 74 years had been adequately identified and invited by the screening programme
Definition	*adequately screened* / *eligible men and women* — expressed as a percentage, where: *'adequately screened'* (numerator) is the number of *eligible men and women* who have had an adequate FOBt screening result in the previous 30 months *'eligible men and women'* (denominator) is the number of men and women aged 60 to 74 years registered with a GP during the reporting period An adequate FOBt screening result is defined as reaching a definitive FOBt outcome; normal or abnormal (from potentially multiple test kits)
Performance thresholds	Not applicable
Mitigations/ qualifications	There are a number of men and women in the eligible age range who are not registered with a GP and subsequently not called for screening as they are not on the Screening Population Index (SSPI). Screening units have a responsibility to maximise coverage of eligible men and women in their target population and should therefore support GP registration where appropriate, or employ programme approved alternative mechanisms, on request. If screening programmes have any screening slippage (all men and women not invited within 30 months of their previous screen or invitation), it will adversely impact on rates of coverage.
Reporting arrangements	Reporting focus: local authority Data source: national health application and infrastructure services (NHAIS) Responsible for submission: Exeter, NHS Digital
Reporting period	Quarterly (6 months in arrears)

Breast screening programme (BSP)

KPI	BS1: Breast screening – uptake
Description	The proportion of eligible women invited who attend for screening
Rationale	To maximise uptake in the eligible population who are fully informed and wish to participate in the screening programme. The expected effectiveness of the breast screening programme in reducing breast cancer mortality requires uptake to be maximised
Definition	$\frac{\textit{tested women}}{\textit{eligible women}}$ expressed as a percentage, where: *'tested women'* (numerator) is the number of *eligible women* with a technically adequate screen within 6 months of the date of first offered appointment *'eligible women'* (denominator) is the number of women aged 50 to 70 years with the date of first offered appointment within the reporting period This KPI counts appointments not women. If a woman is invited more than once during a year, she will have more than one screening episode counted during the period. Second timed appointments are not counted as a second screening episode
Performance thresholds	Acceptable level: ≥ 70.0% Achievable level: ≥ 80.0%
Mitigations/ qualifications	None
Reporting arrangements	Reporting focus: screening service Data source: national breast screening system (NBSS), (KC62 report: Tables A-C2 aged 50-70) Responsible for submission: screening service
Reporting period	Data on this indicator will only be accurate 6 months after the end of the reporting period. Care should be taken when reviewing provisional quarterly data due to the proportion of open episodes where women have yet to attend an appointment Quarterly (provisional data produced 7 weeks in arrears) Annual (definitive data produced 7 months in arrears)

KPI	BS2: Breast screening – screening round length
Description	The proportion of eligible women whose date of first offered appointment is within 36 months of their previous screen. Women being screened for the first time will not be included in screening round length statistics
Rationale	Delivering and maintaining round length is important to help achieve the desired mortality reduction. This is achieved by detecting incident screen cancers as early as possible and minimising interval cancers (cancers presenting in between screening episodes) and reducing the negative consequences of inviting women too frequently
Definition	<table><tr><td>*first offered appointment* *eligible women*</td><td>expressed as a percentage, where:</td></tr></table> *'first offered appointment'* (numerator) is the number of *eligible women* with the date of first offered appointment within 36 months of their previous screen *'eligible women'* (denominator) is the number of women aged 50 to 70 years invited within the reporting period, **excluding**: • self-referrals • GP referrals
Performance thresholds	Acceptable level: ≥ 90.0% Achievable level: 100.0%
Mitigations/ qualifications	BS-S was introduced in July 2016. This has replaced NHAIS to facilitate call and recall. The transition away from NHAIS has resulted in the removal of area code as a method to select screening batches and GP out code has taken its place (this is available on the spine). This could cause screening slippage at some services as the cohort definition has now been changed. This effect could be felt for the 36 months following implementation
Reporting arrangements	Reporting focus: screening service Data source: NBSS Responsible for submission: screening service
Reporting period	Quarterly (7 weeks in arrears)

Cervical screening programme (CSP)

<table>
<tr><th>KPI</th><th>CS1: Cervical screening – coverage (under 50 years)</th></tr>
<tr><td>Description</td><td>The proportion of women in the resident population eligible for cervical screening aged 25 to 49 years at end of period reported who were screened adequately within the previous 3.5 years</td></tr>
<tr><td>Rationale</td><td>Cervical cancer screening supports detection of symptoms that may become cancer and is estimated to save 4,500 lives in England each year. Inclusion of this indicator will provide an opportunity to incentivise screening promotion and other local initiatives to increase coverage of cancer screening. Improvements in coverage would mean more cervical cancer is prevented or detected at earlier, more treatable stages</td></tr>
<tr><td>Definition</td><td>
<table>
<tr><td>tested women</td><td rowspan="2">expressed as a percentage, where:</td></tr>
<tr><td>eligible women</td></tr>
</table>

‘tested women’ (numerator) is the number of eligible women with a technically adequate screen within the previous 3.5 years

‘eligible women’ (denominator) is the number of women aged 25 to 49 years resident in the area (determined by postcode of residence) who are eligible for cervical screening at a given point in time, excluding:
those without a cervix</td></tr>
<tr><td>Performance thresholds</td><td>Acceptable level: ≥ 80.0%</td></tr>
<tr><td>Mitigations/ qualifications</td><td>None</td></tr>
<tr><td>Reporting arrangements</td><td>Reporting focus: CCG
Data source: NHAIS / Exeter (Practice Profile)
Responsible for submission: Exeter, NHS Digital</td></tr>
<tr><td>Reporting period</td><td>Quarterly</td></tr>
</table>

KPI	CS2: Cervical screening – coverage (50 years and above)
Description	The proportion of women in the resident population eligible for cervical screening aged 50 to 64 years at end of reported period who were screened adequately within the previous 5.5 years
Rationale	Cervical cancer screening supports detection of symptoms that may become cancer and is estimated to save 4,500 lives in England each year. Inclusion of this indicator will provide an opportunity to incentivise screening promotion and other local initiatives to increase coverage of cancer screening. Improvements in coverage would mean more cervical cancer is prevented or detected at earlier, more treatable stages.
Definition	*tested women* / *eligible women* expressed as a percentage, where: *'tested women'* (numerator) is the number of *eligible women* with a technically adequate screen within the previous 5.5 years *'eligible women'* (denominator) is the number of women aged 50 to 64 years resident in the area (determined by postcode of residence) who are eligible for cervical screening at a given point in time, excluding: • those without a cervix
Performance thresholds	Acceptable level: ≥ 80.0%
Mitigations/ qualifications	None
Reporting arrangements	Reporting focus: CCG Data source: NHAIS / Exeter (Practice Profile) Responsible for submission: Exeter, NHS Digital
Reporting period	Quarterly

Submitting key performance indicator data

KPI data for the following screening programmes are collated by the national programme data managers and submitted directly to the national screening data and information team:

- abdominal aortic aneurysm
- diabetic eye screening
- newborn hearing screening
- bowel cancer screening
- breast screening
- cervical screening

Submission of the KPI data for the AAA and DES programmes should follow guidance available at: https://www.gov.uk/government/publications/young-person-and-adult-screening-submit-key-performance-indicator-data

Antenatal, NBS and NIPE screening programmes

Timescales

KPI data should be returned within the final month of each quarter, 1 quarter in arrears, except for FA2 which will be 2 quarters in arrears. Data collection must allow for sign off and submission by the deadline as outlined in the reporting process below. Submissions received after the deadline will appear as a non-submission for that quarter.

Screening commissioners and SQAS (regions) may work with their local screening providers to review KPI data in accordance with locally agreed arrangements prior to submission. Local organisations can contact the screening quality assurance service (regions) for advice on data collection and submission.

Reporting period	Time for sense checking and return
Q1 (1 April to 30 June)	1 September to 30 September
Q2 (1 July to 30 September)	1 December to 31 December
Q3 (1 October to 31 December)	1 March to 31 March
Q4 (1 January to 31 March)	1 June to 30 June

Completing the KPI template

Updated templates are provided every quarter for the submission of KPI data from maternity service providers and from CHRDs. The templates ask for the numerator, denominator, data sources, and commentary for each KPI. The maternity service template includes separate tabs for the antenatal coverage KPIs (ID1, ID3, ID4, ST1 and FA2), which contain additional fields for:

- exclusion categories
- declines
- women not accounted for (automatically calculated in the template)

By entering the exclusion information, the eligible population (the denominator) is accurately identified which ensures the correct calculation of coverage. **The declines are not excluded as they are women who are eligible for screening, so they are in the denominator but not the numerator.** We ask for them separately because they provide important local intelligence about the screening pathway and help to identify the remaining women who are not accounted for.

Data is reviewed by the national screening data and information team. Data that does not meet the standard definition is not accepted. It is the responsibility of the submitting organisation to ensure that only accurate data is submitted. Good quality data is extremely important for monitoring and improving the screening programmes. Screening providers may want to refer to the guidance for providers on the false or misleading information (FOMI) offence from The Care Act 2014 which sets out the responsibility of providers to supply and publish accurate data.

'Sense checking' should be used by screening providers and screening commissioners/SQAS (regions) to ensure that the data is valid. 'Sense checks', which can be applied whilst completing the KPI template, include the following:

Sense checks
Is the data for the correct time period?
Is the data correct according to the national definitions?
Is the eligible population correctly identified?
Is the data for ID1, ID3, ID4, ST1 and FA2 matched cohort?
For all of the KPIs – are any of the percentage calculations greater than 100%? (are the numerators less than the denominators?)

Is the denominator the same for all those KPIs that apply to the same population? If there is a difference, is it justified by the commentary provided?
How does the data compare to previous submissions – are the numbers higher or lower and what is the explanation for this?
Are mitigations clearly described in detail in the commentary? For example, include explanations for breaches and action plans to rectify issues

Further support regarding data checking should be obtained from the submitting organisation's information and/or performance analyst.

Checklist for data submission

Before submission it is important for the person responsible for checking accuracy and signing off the data to scrutinise the KPI data templates:

Key points for submission
Has the correct submission template been used? These are updated for each quarter and made available on the website
Have you completed the sign off fields? KPI data cannot be accepted if it is not signed off
Remember to select the correct provider name into the organisation name column
Remember to complete the boxes clearly at the top, for the name of the organisation the data is for and contact details for those submitting the data
Any data submitted after the submission date are not included in the quarterly report and may be omitted from the annual data
Missing data are considered as a non-submission for that organisation
Make sure to send the data to the correct email address: phe.screeningdata@nhs.net

Roles and responsibilities

It is strongly recommended that screening data collections and submissions are supported by screening providers' information and/or performance analyst(s).

Generic

- **national screening data and information team**: responsible for making maternity service and CHRD submission templates available at: https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting, updating the website, assessing completeness of returns and performance against KPI thresholds, publication of data, publication of professional briefings, and updating and publication of this KPI definitions and data submission guidance document
- **SQAS:** responsible for reviewing data following submission and providing regional performance reports based on data supplied nationally. The SQAS (regions) will support local initiatives to use data for quality assurance. The SQAS (regions) will provide advice on the KPI collection and submission process in some instances where this is locally/regionally agreed
- **NHS England:** responsible for reviewing KPI data in accordance with locally agreed arrangements; monitoring of contracts and delivery against national service specifications and Section 7a agreements; and sharing data with local screening committees, or their equivalent, and with local authority directors of public health

Antenatal and newborn screening programmes

- **head of midwifery (HoM):** accountable and responsible for providing timely collation of accurate data. The data must be signed off by HoM and submitted on the KPI submission template to phe.screeningdata@nhs.net. The data may be shared with SQAS (regions) and NHS England screening commissioners in accordance with locally agreed arrangements. Submission of KPI data should follow screening providers' assurance processes
- **antenatal and newborn screening co-ordinator/provider information team:** responsible for collating, checking and submitting accurate data to the head of midwifery
- **CHRD manager:** accountable and responsible for the timely collation of accurate data. The data must be submitted on the KPI submission template to phe.screeningdata@nhs.net. The data may be shared with SQAS (regions) and NHS England screening commissioners in accordance with locally agreed arrangements. Submission of KPI data should follow screening providers' assurance processes
- **local NIPE clinical lead:** accountable and responsible for facilitating timely collation and submission of accurate and reliable data. Formal implementation of NIPE

programme including use of IT system such as the recommended NIPE SMART (Screening Management and Reporting Tools) is continuing to be rolled out

- **NHSP local manager/NHSP team leader:** accountable and responsible for facilitating timely entry of accurate data into the national NHSP IT system. The data is submitted by the national programme to the screening KPI team electronically from the national database. Submission of KPI data should follow screening providers' assurance processes. In order for screening providers to sign off their quarterly reports, the NHSP will publish KPI data reports for NH1 and NH2 before the quarter end. Each NHSP site is asked to sign off their reports within 2 weeks of uploading to the NHSP website. If reports are not signed off then, they will be taken to be accurate.

Diabetic eye screening programme

- **local DES service clinical lead/programme manager:** accountable and responsible for facilitating timely collation of accurate and reliable data. The data may be shared with the screening commissioners in accordance with locally agreed arrangements.
- **national DESP team**: responsible for informing local DES programmes when they are required to submit their programme performance reports. Calculating the KPIs from the submitted reports and checking data provided is accurate and complete, and submitting to the national screening data and information team.

Abdominal aortic aneurysm screening programme

- **local AAA service programme manager/coordinator:** accountable and responsible for facilitating timely collation of accurate and reliable data.
- **national AAA team:** collates the KPI data from the national database and sends to local programme managers/coordinator for review and sign off. Once finalised, the data and information manager submits the data for all programmes to the national screening data and information team.

Bowel cancer screening programme

- the data are produced by the national system in real time as a by-product of operational delivery
- **national BCSP team:** downloads the KPI data from the national system, and submits the data for all screening services to the national screening data and information team

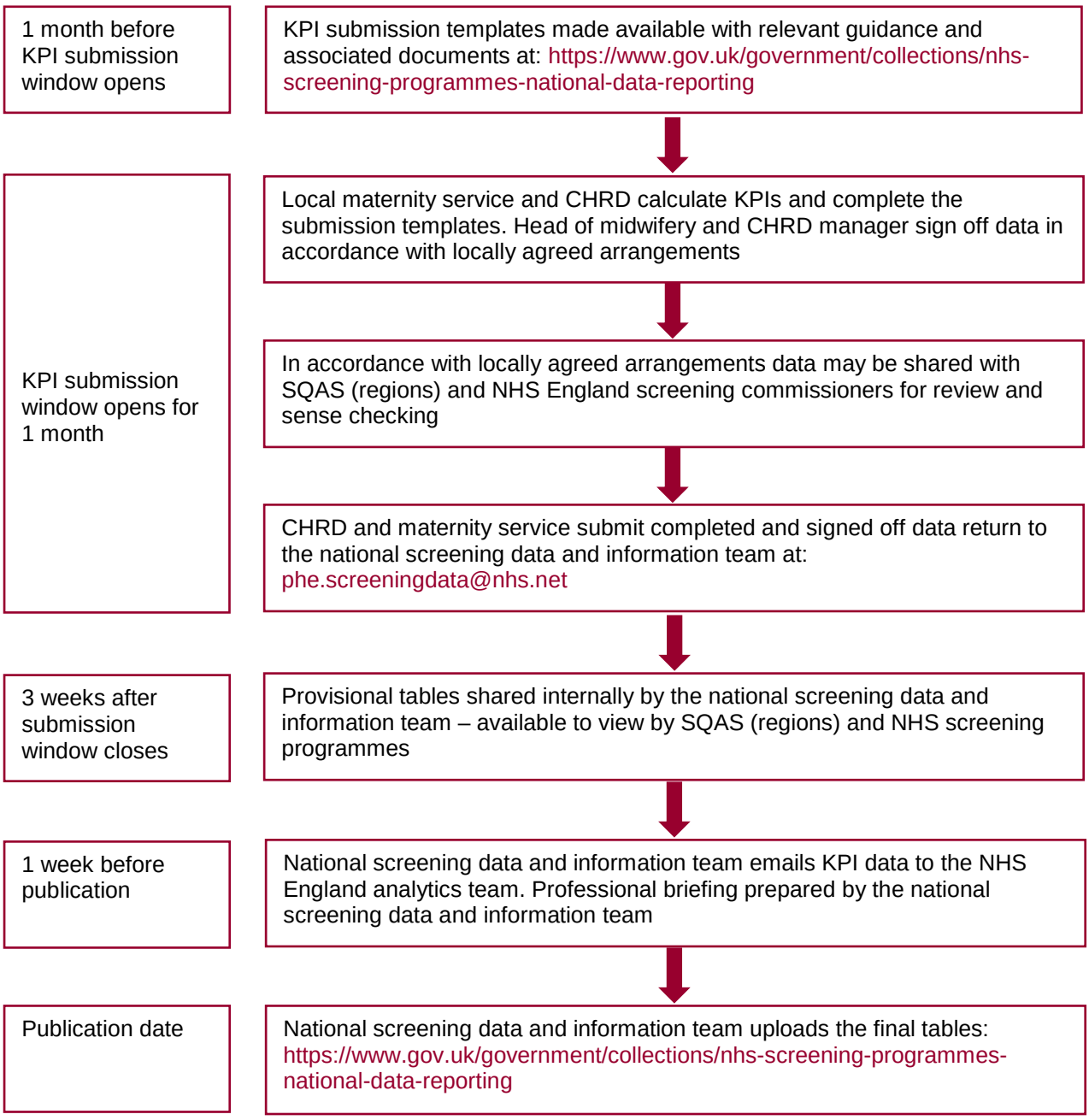
Breast screening programme

- **national BSP team:** validates and collates the KPI data from SQAS (regions). Once finalised, submits the data for all screening services to the national screening data and information team

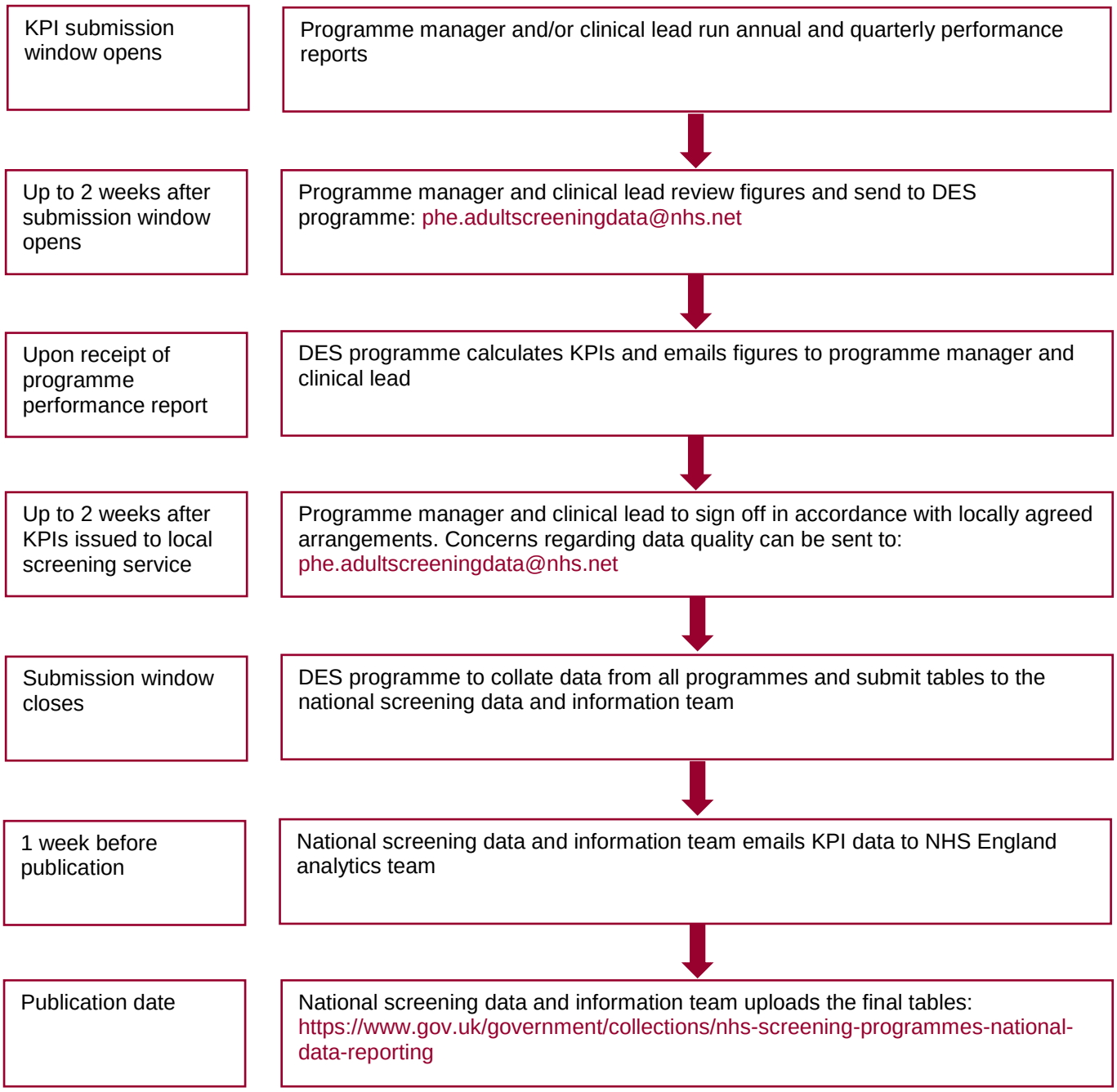
Cervical screening programme

- **national CSP team:** downloads the KPI data from the national database, checks the data are complete. Once finalised, submits the data for all screening services to the national screening data and information team

Antenatal, NIPE and NBS screening KPI submission process flowchart



Diabetic eye screening KPI submission process flowchart



Note: There are no flowcharts for the NHSP, NAAASP, or BCSP because the KPI data is submitted directly to the national screening data and information team from the national programmes. BSP and CSP KPI submission process flowcharts are not available at the time of publication.

Information governance

It is the responsibility of all staff to ensure they are aware of their obligations regarding compliance with their organisation's information governance policies. In particular, they should be aware of the following:

- the reasons for adhering to information governance when collecting and validating data and information
- the accepted standards regarding data and information such as sources, control files, validity, reliability, completeness, terminology, acronyms, purpose and conventions
- data sharing protocols
- local assurance arrangements regarding board level sign off
- normally, no data is published if the numerator or denominator is less than 5 for an individual quarter. In such cases, the data will be aggregated and published annually

Publishing key performance indicator data

Data is published online each quarter at: https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting

Only complete data is published. KPI data is shared with the NHS England analytics team with responsibility for screening, 1 week prior to publication, to perform data analysis to support commissioning, and to SQAS (regions) to support quality assurance

Local screening services and NHS England screening commissioners should be aware of the contents of any material before it is placed in the public domain, so they have an opportunity to prepare suitable communications to respond to any adverse findings

Publication dates for 2017 to 2018 for the antenatal and newborn, AAA and DES KPI data are:

- Q1 April to June data: published 15 November 2017
- Q2 July to September data: published 14 February 2018
- Q3 October to December data: published 16 May 2018
- Q4 January to March: published 15 August 2018

Appendix A: Glossary

The glossary defines terms that are consistent across NHS screening programmes. The scope of each defined term as it applies to a particular screening programme is detailed separately for each screening programme.

Term	Definition
accept	A response to an offer which indicates that a screening subject is willing to proceed with a screening encounter/event Acceptance may be inferred from conduct provided that an offer has been made. In the case of newborn screening programmes, a responsible parent/guardian can accept screening on behalf of the subject baby
acceptance of offer	The proportion of those offered screening who accept the offer. Low acceptance of offer might indicate that: i) the offer is not being communicated or delivered effectively (no response); and/or ii) screening is not deemed necessary or desirable by an entitled population (declined)
affected case	An individual in whom the condition being screened for is present
booking	The point at which a pregnant woman first sees a midwife to book for maternity care. At the booking appointment the maternity records are completed and antenatal screening is offered
communication	An interchange that the subject is capable of understanding and acting upon. This may be in a variety of formats including verbal and/or written
coverage	The proportion of those eligible for screening who are tested and receive a result Coverage is a measure of timely screening to an eligible population. Low coverage might indicate that: i) not all eligible people were offered screening ii) those offered screening are not accepting the test iii) those accepting the test are not tested

Term	Definition
coverage (breast)	Coverage is defined as the percentage of women in the population who are eligible for screening at a particular point in time who have a test with a recorded result at least once within the screening round (past 36 months)
data source	Where the data comes from, such as the IT or manual system
day of report	The day on which data to support an audit or performance return are collated. Usually there will be a time lag between the end of the reporting period and the day of report to allow for the completion of processes being measured and the collation of report data
decline	A response to an offer which indicates that a screening subject does not wish to proceed with a screening test or pathway
diagnosis	A diagnostic process following a screen positive result to determine whether the subject is an affected case
effective timeframe	The period of time within which a screening test can be delivered such that a result is most likely to be obtained The effective timeframe for a test is usually specified by the relevant screening programme
eligible	The population that is entitled to an offer of screening The criteria for eligibility may be administrative, demographic, clinical, or any combination of these, and may take into account individual circumstances such as time of presentation to the screening service
failed offer	Any indication that an attempted offer failed, such as a Post Office return An offer will be deemed as a failed offer if: i) it did not reach the subject ii) the subject was not capable of understanding or acting upon it iii) the screening service lacked the capacity to realise it iv) it did not offer an opportunity of testing within an effective timeframe
false negative	A screen negative result in an affected case
false positive	A screen positive result for a subject in whom the condition being

Term	Definition
	screened for is absent
matched cohort	The numerator must be a subset of the denominator. For example all pregnant women booked must be matched to their result
maternity service	A co-ordinated network of healthcare professionals contracted to or working under the policies and procedures agreed with a single acute trust, with collective responsibility for the provision of antenatal, intrapartum and postpartum care A single maternity service may include: obstetric-led maternity units midwifery-led maternity units units responsible for the management of home births newborn intensive care units (NICU) special care baby units (SCBU) paediatric intensive care units (PICU)
NHS number	The NHS number is a unique 10 digit patient identification number
offer	A formal communication made by the screening service, giving a specific subject a realisable opportunity to be tested within an effective timeframe An offer or invitation will only count as an offer if: i) it reaches the subject ii) the subject is capable of understanding and acting upon it iii) the screening service has the capacity to realise it iv) it offers an opportunity of testing within an effective timeframe In the case of newborn screening programmes, the offer of screening is made to a responsible parent/guardian rather than the subject baby
population	The overall population for which a screening service is responsible
presentation	The first attendance of a screening subject for a screening pathway appointment
realisable	Capable of being acted upon, concluded or delivered
refer	The process of securing further diagnosis/specialist assessment following a screen positive test The date of referral is when the request for further assessment is

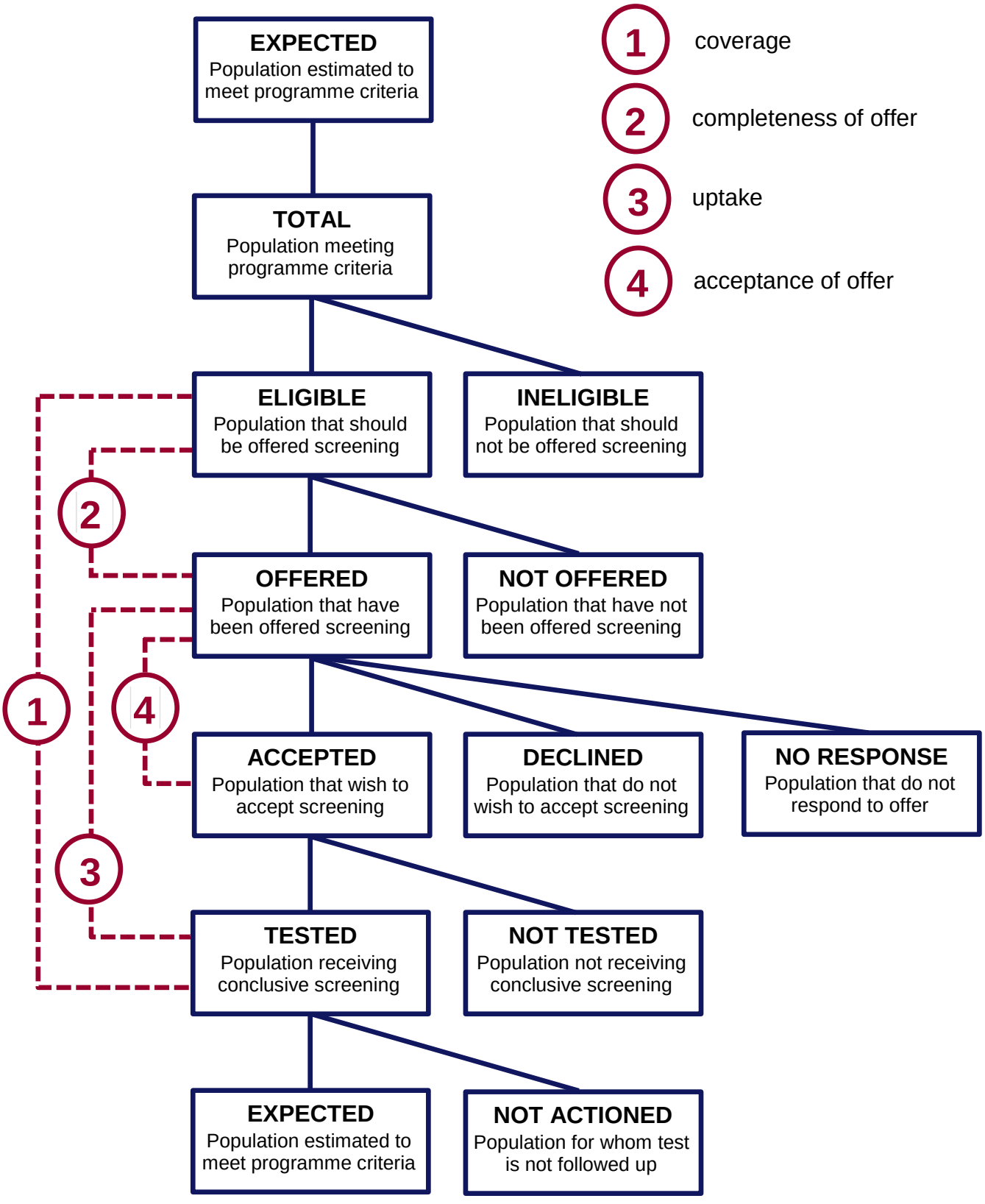
Term	Definition
	made to the appropriate specialist
registered	Formally recognised as being the primary provider of ongoing care to an individual and holding sufficient details to uniquely identify and contact that individual
reporting focus	Organisation/geography whose performance is being measured
reporting period	The defined time period over which activities should be included in an aggregate audit or performance return A reporting period can relate to any specified period but for routine reports is usually quarterly or annual Most screening processes occur over a period of days or weeks, to allow a scan or sample to be assessed. In such cases, a single point in the process (such as the screening encounter/event) should be used to determine whether the process falls within a particular reporting period.
responsible for submission	The organisation that returns the KPI data to PHE screening
result	A formal and completed assessment of the risk of a condition being screened for in a subject A result will be screen positive or screen negative Insufficient or inconclusive tests indicate a failure to obtain a result, and are **not counted** within coverage. In these cases the subject may be offered a repeat screening test
screen negative	An indication following a test that the condition being screened for is low risk/not suspected in a subject
screen positive	An indication following a test that the condition being screened is high risk/suspected in a subject
screener	A healthcare professional responsible for administering screening tests
screening	Testing people who do not have, or have not recognised, the signs or symptoms of the condition being tested for, either with the aim of reducing risk of an adverse outcome, or with the aim of giving information about risk
screening	The provision of screening to a screening subject, usually through

Term	Definition
encounter/event	a process such as a scan or the collection of a sample A screening encounter/event is usually characterised by contact between the screening subject and a healthcare professional, but some screening may be self-administered
screening episode	The end-to-end screening process from the perspective of a subject who has accepted an offer of screening A complete screening episode starts with an offer and ends with the communication of a result. Some screening episodes may end prematurely, for example if the subject fails to attend a booked screening encounter/event
subject	An eligible individual
subject record	The personal information stored on the programme database about a subject
test	A screening encounter/event leading to the determination of an outcome. Test outcomes can be screen positive, screen negative, insufficient or inconclusive
uptake	The proportion of those offered screening who are tested and receive a result Uptake is a measure of the delivery of screening in the population to which it is offered. Low uptake might indicate that: i) those offered screening are not accepting the test ii) those accepting the test are not being tested

Appendix B: Abbreviations

AAA	Abdominal aortic aneurysm
BCSP	Bowel cancer screening programme
BCSS	Bowel cancer screening system
BSP	Breast screening programme
BS-S	Breast screening select
CCG	Clinical commissioning group
CHIS	Child health information system
CHRD	Child health record department
CRL	Crown rump length
CSP	Cervical screening programme
DDH	Developmental dysplasia of the hip
DES	Diabetic eye screening
DH	Department of Health
S4H	SMaRT4Hearing
FASP	Fetal anomaly screening programme
FOBt	Faecal occult blood test
FOQ	Family origin questionnaire
GP	General practitioner
HC	Head circumference
HIV	Human immunodeficiency virus
IDPS	Infectious diseases in pregnancy screening
KPI	Key performance indicator
NAAASP	NHS AAA screening programme
NBS	Newborn blood spot
NBSS	National breast screening systems
NHAIS	National health applications and infrastructure services
NHSP	Newborn hearing screening programme
NICU	Newborn intensive care units
NIPE	Newborn and infant physical examination
NIPE SMART	NIPE Screening Management and Reporting Tool
PHE	Public Health England
PHOF	Public Health Outcomes Framework
PKU	Phenylketonuria
QA	Quality assurance
SCT	Sickle cell and thalassaemia
SQAS	Screening quality assurance service
UK NSC	UK National Screening Committee

Appendix C: Generic screening pathway



Appendix D: Document history

Amendments

Version	Date	Description
Draft 0.1-V1.13	2010 to 2013	Changes available from the screening helpdesk
Version 1.12	18/03/2013	Final guidance
Version 1.13	05/05/2014	Minor changes to ID1, ID2, FA1, ST1, ST2, ST3, NB1, NB3, NP1, NP2, DE1, DE2, DE3 to align with standards and updated guidance Removal of AA2i and AA2ii KPIs Denominator changes from previous PCT to CCG Updating of Executive Summary and Publication Information
V 1.14	07/2014	Minor changes to FASP and NB2 indicators
V 2.0	16/03/2015	Merged process and definition documents and updated for 2015 to 2016. NB3 replaced by NB4.
V 3.0	04/03/2016	Updated for 2016 to 2017
V 3.01	09/05/2016	Minor clarifications of ID1, FA2 and ST1 KPIs
V 4.0	31/03/2017	Updated for 2017 to 2018

Review / approval

Version	Date	Requirement	Signed
Draft 0.8 – V1.12	2010 May	Review/sign off: National Screening Programme Directors	Approved – details available from the screening helpdesk
V 1.13	2014 May	Reviewed by Data and Information Group	Approved
V 1.14	2014 July	Reviewed by Data and Information Group	Approved
V 2.0	2015 March	Reviewed by Data Analyst and Quality Assurance Group (DAQA)	Approved
V 3.0	2016 March	Reviewed by Data Analyst and Quality Assurance Group (DAQA)	Approved
V 3.01	2016 May	Minor amendments reviewed by National Screening Data and Information Lead	Approved
V 3.02	2016 November	Minor amendments reviewed by National Screening Data and Information Lead	Approved
V 4.0	2017 March	Reviewed by Screening Data Group (SDG)	Approved

Appendix E: Worked examples for screening KPIs

Antenatal and NBS screening programmes only

<table>
<tr><th colspan="4">ID1, ID3 and ID4: Antenatal infectious disease screening – coverage</th></tr>
<tr><th colspan="2">Denominator</th><th colspan="2">Numerator</th></tr>
<tr><td>Eligible women
Total number of pregnant women booked for antenatal care during the reporting period, or presenting in labour without previously having booked for antenatal care</td><td>Exclusions, women who:
miscarry between booking and testing
opt for termination between booking and testing
transfer out between booking and testing, ie do not have a result
transfer in who have a result from a screening test performed elsewhere in the NHS in this pregnancy</td><td>Tested women
Total number of eligible women for whom a confirmed screening result was available at the day of report</td><td>Inclusions for HIV and hepatitis B only:
Women who were known to be positive at booking and not retested</td></tr>
<tr><td>Example: eligible women = 1,000</td><td>Example: exclusions
miscarriages = 5
terminations = 4
transfers out = 2
transfers in with results = 4
total exclusions = 15</td><td>Example: confirmed result at day of report = 975</td><td>Example for HIV: known to be HIV positive and not retested = 5</td></tr>
<tr><td colspan="2">Denominator = 1000 - 15 = 985</td><td colspan="2">Numerator = 975 + 5 = 980</td></tr>
<tr><td colspan="4">For this example (for ID1) = 980 / 985 x 100 = 99.5% coverage. Therefore 5 women do not have a result. You need to account for these in the commentary and clarify how many women have a documented decline, missed screen, lack of documented result etc</td></tr>
<tr><td colspan="4">Additional information
These KPIs require matched cohort data</td></tr>
</table>

ID2: Antenatal infectious disease screening – timely referral of hepatitis B positive women for specialist assessment	
Denominator	**Numerator**
Total number of pregnant women with hepatitis B Pregnant women booked in the reporting period who were screen positive (newly diagnosed) for hepatitis B **and** women booked in the reporting period already known to be hepatitis B positive with high infectivity as defined as: • HBsAg positive and HBeAg positive • HBsAg positive, HBeAg negative and anti-HBe negative • HBsAg positive where e-markers have not been determined • has acute hepatitis B during pregnancy • HBsAg seropositive and known to have an HBV DNA level equal or above $1x10^6$IUs/ml in an antenatal sample	**Number of pregnant women with hepatitis B referred within 6 weeks** is the number of pregnant women with hepatitis B who are booked in the reporting period, who have been seen by an specialist within an effective timeframe, including: • all newly diagnosed hepatitis B positive women • women already known to be hepatitis B positive with high infectivity markers detected in the current pregnancy
Example: pregnant women with hepatitis B total number of newly diagnosed hepatitis B positive women = **5** total number of previously known hepatitis B women (high infectivity only) = **5**	Example: women seen for hepatitis B total number of women with hepatitis B who are referred and seen by an appropriate specialist* within 6 weeks of identification = **8**
Denominator = 5 + 5 = **10**	Numerator = **8**
For this example ID2 = **8 / 10 x 100 = 80.0%**.Therefore **2 women** were not seen by a specialist in 6 weeks. You need to account for these in the commentary, for example, if they were women who 'did not attend'	

FA1: Fetal anomaly screening – completion of laboratory request forms	
Denominator	**Numerator**
Submitted laboratory request forms is the total number of request forms for Down's, Edwards' and Patau's syndromes screening submitted to the laboratory within the reporting period during the recommended timeframe for analysis of 10 weeks + 0 days to 20 weeks + 0 days gestation (inclusive) This includes request forms for Down's syndrome screening using combined or quadruple testing and Edwards' and Patau's syndromes screening using combined testing	**Completed laboratory request forms** is the number of submitted laboratory request forms with completed data for all of the following fields at the initial request: • sufficient information for the woman to be uniquely identified • woman's correct date of birth • maternal weight • family origin • smoking status • ultrasound dating assessment, CRL and HC in millimetres (CRL measured to one decimal point)
Denominator = **1,000**	Numerator = **950**
For this example FA1 = **950 / 1,000 x 100 = 95.0%** completion of laboratory request forms	

FA2: Fetal anomaly screening – ultrasound coverage			
Denominator		**Numerator**	
Eligible women Total number of pregnant women booked for antenatal care during the reporting period	**Excluding women who:** • present to service ≥ 23 weeks +1 day (as they are not part of the eligible population for the screening programme) • miscarry between booking and testing • opt for termination between booking and testing • transfer out between booking and testing (do not have a result) • transfer in at ≤ 23 weeks + 0 days of pregnancy who have a result from a screening test performed elsewhere in the NHS in this pregnancy • have had private screening and do not wish to have NHS screening • are offered an appointment within the gestational screening timeframe but choose to attend at a different time for personal reasons	**Tested women** The total number of eligible women for whom a completed screening result was available from the 18 weeks + 0 days to 23 weeks + 0 days week fetal anomaly scan on the day of report	**Including women:** • who commence screening between 18 weeks + 0 days and 20 weeks + 6 days who require a single further scan to complete screening where the image quality of the first scan is compromised by one of the following: increased maternal body mass index (BMI), uterine fibroids, abdominal scarring, sub-optimal fetal position • where providers are able to arrange the fetal anomaly scan later within the recommended window • who present ≥ 20 weeks + 6 days and complete screening by 23 weeks + 0 days
Example: eligible women = **1,000**	Example: exclusions • present to service ≥ 23 weeks +1 day = 20 • miscarriages = 30 • terminations = 5 • transfers out = 10 • transfers in with results = 15 • private screening = 5 • choose to attend outside timeframe = 15 **total exclusions = 100**	Example: • completed screening result available from the 18 weeks + 0 days to 23 weeks + 0 days fetal anomaly scan at the day of report = **880**	
Denominator = 1,000 - 100 = **900**		Numerator = **880**	
For this example FA2 = **880 / 900 x 100 = 97.8% coverage.** Therefore **20 women** do not have a result which you need to account for in the commentary			
Additional information We recognise that ultrasound departments may not always have the capacity to accommodate women presenting later in pregnancy and have allowed leeway of one week. Therefore if you are not able to offer and complete the fetal anomaly scan to women presenting to service between ≥ 22+0 and ≤ 23+0 weeks they can be excluded. If you were able to offer these women the fetal anomaly scan they should be included in the denominator and numerator This KPI requires matched cohort data, and is collected 2 quarters in arrears			

<table>
<tr><th colspan="4">ST1: Antenatal sickle cell and thalassaemia screening - coverage</th></tr>
<tr><th colspan="2">Denominator</th><th colspan="2">Numerator</th></tr>
<tr><td>Eligible women
The total number of pregnant women booked for antenatal care during the reporting period, or presenting in labour without previously having booked for antenatal care</td><td>Exclusions, women who:
miscarry between booking and testing
opt for termination between booking and testing
transfer out between booking and testing (do not have a result)
transfer in who have a result from a screening test performed elsewhere in the NHS in this pregnancy</td><td>Tested
The total number of eligible women for whom a screening result was available for sickle cell and thalassaemia at the day of report</td><td>Inclusions
known at risk couples referred directly for prenatal diagnosis (PND); repeat testing must not delay referral</td></tr>
<tr><td>Example: eligible women = 1,000</td><td>Example: exclusions
miscarriages = 0
terminations = 1
transfers out = 3
transfers in with results = 6
total exclusions = 10</td><td>Example: screening result at day of report = 930</td><td>Example: inclusions = 20</td></tr>
<tr><td colspan="2">Denominator = 1,000 – 10 = 990</td><td colspan="2">Numerator = 930+20 = 950</td></tr>
<tr><td colspan="4">For this example ST1 = 950 / 990 x 100 = 96.0%
Therefore 40 women do not have a result. You need to account for these in the commentary and clarify how many women have a documented decline, missed screen, lack of documented result etc</td></tr>
<tr><td colspan="4">Additional information
This KPI requires matched cohort data</td></tr>
</table>

ST2: Antenatal sickle cell and thalassaemia screening – timeliness of test	
Denominator	**Numerator**
Number of pregnant women for whom an antenatal sickle cell and thalassaemia screening sample was received at the laboratory during the reporting period **excluding** full blood count samples where the request is other than antenatal screening	Number of pregnant women for whom a screening sample was received at the laboratory and for whom an antenatal sickle cell and thalassaemia screening result was available (though not necessarily communicated to the woman) by 10 weeks + 0 days (≤70 days) gestation
Denominator = **1,000**	Numerator = **600**
For this example ST2 = **600 / 1,000 x 100 = 60%** Therefore **400 of the total 1,000** do not have a conclusive test result by 10 weeks + 0 days gestation. If the acceptable threshold level has not been met, please provide information on this in the commentary section, for example, number of samples with unknown gestation at test	

ST3: Antenatal sickle cell and thalassaemia screening – of completion of FOQ	
Denominator	**Numerator**
Number of antenatal samples for sickle cell and thalassaemia testing received by the laboratory during the reporting period	Number of antenatal samples received in the laboratory with completed FOQ
Denominator = **1,000**	Numerator = **950**
For this example ST3 = **950 / 1,000 x 100 = 95%** Therefore samples for **50 of the total 1,000** are not supported by completed FOQ	

<table>
<tr><th colspan="4">NB1: Newborn blood spot screening – coverage (CCG responsibility at birth)</th></tr>
<tr><th colspan="2">Denominator</th><th colspan="2">Numerator</th></tr>
<tr><td>Eligible babies
Number of babies born within the reporting period for whom the CCG were responsible at birth and on the last day of the reporting period</td><td>Exclusions
This KPI does not measure babies who change responsible CCG since birth or move in from another UK country or abroad (movers in) even though these babies are eligible for screening – this is measured using KPI NB4

Excluding any baby born within the reporting period who died before the age of 8 days</td><td>Tested babies
Number of eligible babies that have a conclusive result for PKU recorded on the CHIS at less than or equal to 17 days of age (day of birth is day 0)

A conclusive result for PKU is one of the following newborn screening status codes:
• 04 condition screened for not suspected
• 07 condition screened for not suspected - other disorders follow up
• 08 condition screened for suspected</td><td>Exclusions
Eligible babies:
• with an inconclusive PKU screening result eg status code 03 (condition screened for) repeat/further sample required
• conclusive PKU result recorded on the child health information system after 17 days of age</td></tr>
<tr><td>Example: eligible babies = 1,000</td><td>Example: exclusions = 10</td><td>Example: tested babies = 990</td><td>Example:
PKU status code 03 = 10
PKU conclusive result recorded after 17 days of age = 10</td></tr>
<tr><td colspan="2">Denominator = 1000 – 10 = 990</td><td colspan="2">Numerator = 990 – 10 – 10 = 970</td></tr>
<tr><td colspan="4">For this example NB1 = 970 / 990 x 100 = 98.0%
Therefore 20 babies do not have a conclusive PKU result recorded on the child health information system by 17 days of age</td></tr>
</table>

NB2: Newborn blood spot screening – avoidable repeat tests	
Denominator	**Numerator**
Number of first blood spot samples received by the laboratory during the reporting period	Number of repeat (second or subsequent) samples requested by the laboratory during the reporting period because the previous sample was: • taken when the baby was too young (on or before day 4, where day 0 is the date of birth), excluding pre-transfusion samples • insufficient (small volume spots, blood not soaked through to the back of the card) • unsuitable (for example incorrect blood application, compressed/damaged, missing/inaccurate details, expired card, in transit for more than 14 calendar days
Example: first blood samples = **1,000**	Example: • taken when the baby was too young = **1** • insufficient = **7** • unsuitable = **2**
Denominator = **1,000**	Numerator = **10**
For this example NB2 = **10 / 1,000 x 100 = 1%** Therefore **10 of the total 1,000** samples resulted in an avoidable repeat request	

<table>
<tr><th colspan="4">NB4: Newborn blood spot screening – coverage (movers in)</th></tr>
<tr><th colspan="2">Denominator</th><th colspan="2">Numerator</th></tr>
<tr>
<td>Eligible babies
The total number of babies:
who changed responsible CCG, or move in from another UK country or abroad during the reporting period and
for whom the CCG is responsible on the last day of the reporting period; and
are less than or equal to 364 days old at the point of notifying CHRD of movement in (only if the blood spot sample can be taken before they reach a year of age)</td>
<td>Exclusions
This KPI does not measure babies who are already the responsibility of the CCG at birth and transfer within the same CCG. KPI NB1 captures babies registered within the CCG both at birth and on the last day of the reporting period</td>
<td>Tested babies
The total number of eligible babies that have a conclusive result for PKU recorded on the CHIS at less than or equal to 21 calendar days of notifying CHRD of movement in

A conclusive result for PKU is one of the following newborn screening status codes:
04 condition screened for not suspected
07 condition screened for not suspected - other disorders follow up
08 condition screened for suspected</td>
<td>Exclusions
Tested babies with
an inconclusive PKU screening result, for example, status code 03 (condition screened for) repeat/further sample required or 02 decline status code
conclusive PKU result recorded on the CHIS after 21 calendar days of notifying CHRD of movement in</td>
</tr>
<tr>
<td>Example: eligible babies = 5,000</td>
<td>Example:
Babies for which CCG was responsible at birth and transfer within the same CCG = 4,000</td>
<td>Example:
Tested babies = 967</td>
<td>Example:
declines (status code 02) = 9
repeat tests (status code 03) = 18
babies tested and recorded on CHIS after 21 days of age = 70</td>
</tr>
<tr><td colspan="2">Denominator = 5,000 – 4,000 = 1,000</td><td colspan="2">Numerator = 967 – 97 = 870</td></tr>
<tr><td colspan="4">For this example NB4 = 870 / 1,000 x 100 = 87.0%
Therefore 130 of the total 1,000 babies have not been tested within 21 days of movement in being recorded on the CHIS</td></tr>
</table>