



National Audit Office

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## **Report**

by the Comptroller  
and Auditor General

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**Department of Health & Social Care**

# Investigation into the management of health screening

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Department of Health & Social Care

# Investigation into the management of health screening

Report by the Comptroller and Auditor General

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National Audit Act 1983 for presentation to the House of  
Commons in accordance with Section 9 of the Act

Sir Amyas Morse KCB  
Comptroller and Auditor General  
National Audit Office

30 January 2019

The Department of Health & Social Care oversees NHS England's health screening performance using a 'coverage' indicator for each screening programme which measures the proportion of the eligible population who have been screened. In 2017-18 none of the screening programmes met their standard coverage target.

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### **Investigations**

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# What this investigation is about

**1** Health screening is a way of identifying apparently healthy people who may have a higher risk of developing a particular condition, so that they can be offered treatment or management techniques at an earlier stage where this may make a difference to the outcome. Screening services are offered to a wide range of groups in society. There are currently 11 national screening programmes in England. During 2017-18, more than 7.9 million people were screened under the four programmes covered by this report: abdominal aortic aneurysm, bowel cancer, breast cancer and cervical cancer.

**2** The Department of Health & Social Care (the Department) is responsible for health screening in England but has delegated statutory responsibility to NHS England. NHS England is responsible for commissioning screening services and holding providers to account to ensure they deliver the contracts that have been agreed. Public Health England's responsibilities include providing expert advice, producing national specifications which it agrees with NHS England, and assuring the quality of screening programmes.

**3** In 2018, two events (on the breast and cervical screening programmes) raised concerns about the management and understanding of screening programmes.

**4** In May 2018, the former Secretary of State for Health and Social Care made a statement to the House of Commons informing members of a "serious failure" in the breast screening programme.<sup>1</sup> He explained there had been a failure in a computer algorithm that selects women to be invited for breast screening and that, between 2009 and early 2018, an estimated 450,000 women aged between 68 and 71 had not been invited for their final breast screening. In June 2018, the estimated number of women affected was revised to 174,000 which was later revised to 122,000.<sup>2</sup> In December 2018, the Independent Breast Screening Review, commissioned by the former Secretary of State, concluded there was ambiguity about the age women should stop being invited for screening and noted that it was unacceptable for there to be confusion about what women should expect from the breast screening programme.<sup>3</sup> It also concluded that the women who were contacted following the incident could be considered to have already had their final screen, depending on the status of the 2013 service specification.

<sup>1</sup> Secretary of State for Health and Social Care, Hansard, 2 May 2018, available at: <https://hansard.parliament.uk>

<sup>2</sup> Secretary of State for Health and Social Care, HCWS731, 4 June 2018, available at: [www.parliament.uk](http://www.parliament.uk)

<sup>3</sup> Lynda Thomas, Professor Martin Gore, Peter Wyman, *The Independent Breast Screening Review*, HC 1799, 2018, available at: [www.gov.uk](http://www.gov.uk)

**5** In November 2018, the Parliamentary Under Secretary of State for Public Health and Primary Care made a written statement to the House of Commons informing members of a serious incident in the cervical screening programme.<sup>4</sup> Between January and June 2018, 43,220 women had not received letters inviting them for a cervical screening, and a further 4,508 women were not sent their results letters. Of these women, 182 needed follow-up treatment. NHS England believes that these women were contacted via a 'fail safe' process, but we have not been able to confirm this.

**6** Our investigation focuses on:

- delivery of health screening programmes (Part One);
- performance of health screening programmes (Part Two);
- oversight of health screening programmes (Part Three); and
- progress in implementing change in screening programmes (Part Four).

**7** We focus on the Department of Health & Social Care, NHS England and Public Health England. We have only looked at screening programmes operating in England.

**8** We do not evaluate the effectiveness or value for money of the screening programmes' administration, nor do we seek to assess the efficacy or clinical effectiveness or evidence base of screening programmes.

<sup>4</sup> Parliamentary Under Secretary of State for Public Health and Primary Care, HCWS1086, 15 November 2018, available at: [www.parliament.uk](http://www.parliament.uk)

# Summary

## Key findings

The delivery of health screening programmes

**1 The funding the Department provides to NHS England to deliver its delegated public health functions is ring-fenced.** NHS England receives funding from the Department of Health & Social Care (the Department) for public health functions for which the Department has delegated its responsibility. NHS England has responsibility for making decisions about how to allocate the funding between public health functions, including the proportion to allocate to screening. In 2017-18, the Department gave NHS England £1.152 billion for these services, from which it spent £423 million on the adult health screening programmes that we have examined (paragraph 1.6 and Figure 2).

**2 NHS England's objectives for health screening include commissioning high-quality services and reducing health inequalities.** As part of efforts to reduce health inequalities, since 2014 Public Health England coordinates the production of national specifications for each screening programme each year which it agrees with NHS England. These provide national standards on who to invite for screening; how often to invite them; and how the screening is to be conducted. Prior to this, each screening provider ran the service to its own specifications. Each programme has its own screening pathway that guides patients through the process and aims to make sure that people receive the same screening experience regardless of where they live in England (paragraphs 1.8, 1.9, Figures 3 and 4).



**3 All the screening programmes rely on a complex and ageing IT system to identify who to invite for screening.** A legacy database of GP registrations, known as National Health Application and Infrastructure Services (NHAIS), is used to identify the eligible population for each screening programme. The Department believes that NHAIS is not fit for purpose for screening programmes because, for example, information is held in 83 separate databases, making it hard to track screening histories when people move across geographical boundaries. NHS England intended to replace NHAIS in 2017 but this has now been delayed, causing additional cost and greater risk that screening services cannot reliably identify and invite eligible populations for screening. Each screening programme also relies on its own IT systems to send invites, and to process and send results. These vary in their age and complexity from more than 30 years old on the cervical programme to less than 10 years old on the abdominal aortic aneurysm programme. The Independent Breast Screening Review concluded that the IT on the breast screening programme was “dated and unwieldy” and that 5,000 women were not invited to their final breast screening because of errors caused by using two complicated systems, despite the best efforts of staff (paragraphs 1.10 to 1.15 and 3.12).<sup>5</sup>

The performance of health screening programmes

**4 None of the adult screening programmes met their ‘standard’ coverage target during 2017-18.** The Department oversees NHS England’s health screening performance using a ‘coverage’ indicator for each screening programme, which measures the proportion of the eligible population who have been screened. For the first time, in 2017-18, the Department set two performance levels for each screening programme: a ‘lower threshold’: the lowest level of performance that programmes are expected to attain, and ‘standard’, the level at which programmes are likely to be running optimally. Prior to this, the programmes’ performance was compared with previous years because they either had no target or just a single coverage target. In 2017-18 none of the screening programmes met their standard coverage target although bowel screening achieved coverage of 59.6% against a target of 60%. All met their lower threshold except for the cervical screening programme which achieved coverage of 72% against a standard target of 80% and a lower threshold of 75% (paragraphs 2.1 to 2.4, Figure 5 and Figure 6).

**5 Levels of coverage in screening programmes are inconsistent.** Our analysis of the proportion of the eligible population screened in 2017-18 across the four programmes we examined shows that coverage is inconsistent across clinical commissioning groups (CCGs) within England, meaning that not all of the eligible population is being screened. CCGs in London consistently ranked among those with the lowest coverage for each of the screening programmes. NHS England and Public Health England recognise that levels of coverage can be influenced by social and demographic factors, and patient choice (paragraphs 2.5 to 2.10 and Figures 7 to 10).

<sup>5</sup> Lynda Thomas, Professor Martin Gore, Peter Wyman, *The Independent Breast Screening Review*, HC 1799, 2018, available at: [www.gov.uk](http://www.gov.uk)

**6 Performance on screening programmes is below expected levels.** In addition to coverage, two other areas of performance are measured:

- **Women should be invited for a repeat breast screening within 36 months of their previous appointment.** The Department has set two performance levels for this indicator: a 'standard' of 100% and a 'lower threshold' of 90%. The lower threshold has been met since 2016-17, but the standard has never been met. In 2017-18, performance was 92%, meaning that there had been a gap of more than 36 months between screenings for 8% of women screened (paragraphs 2.11, 2.12 and Figure 12).
- **At least 98% of women should receive their results within 14 days of their cervical screening appointment, but this target has not been met since November 2015.** In March 2018, 33% of women were getting their results on time. This improved to 55% by December 2018. In October 2018, there was a backlog of 97,628 samples waiting to be tested. NHS England told us that it is working to reduce the backlog (paragraphs 2.11, 2.14 to 2.16 and Figure 14).

The oversight of health screening programmes

**7 NHS England has delegated responsibility for managing the performance of screening providers to local teams.** Local NHS England commissioners are responsible for managing the performance of local screening providers in accordance with national targets. They manage providers' performance against these targets at their own discretion. Local commissioning teams can encourage providers to improve their performance by applying financial penalties, or as a last resort, by terminating a contract. NHS England has told us this is difficult to do however due to market conditions (paragraphs 3.2 to 3.5).

**8 Public Health England reviews screening quality but does not have the power to enforce recommended changes.** Public Health England conducts quality assurance reviews of screening providers every three to five years. These result in reports with recommendations to screening providers and local NHS England commissioners which are publicly available. During 2017-18, Public Health England reviewed 91 providers across the four health screening programmes we examined. Local NHS England commissioners and providers have discretion to decide whether to adopt recommendations, and Public Health England has no power to enforce change. NHS England expects local providers to act on the recommendations made and has told us that its local teams are expected to track progress with implementing the recommendations (paragraphs 3.6 to 3.8 and Figure 18).

**9 The events reported to Parliament in 2018 have raised concerns about the effectiveness of the governance arrangements, which assume that all the eligible population have been invited for screening.** NHS England told us that omissions on the scale of the breast screening and cervical screening events are unlikely to be identified through the national level performance data that is used to monitor the programmes. The breast screening event came to light because Public Health England was conducting a separate analysis exercise, related to a clinical trial. The cervical screening event was identified by a hospital manager in the North East of England who raised concerns about women not being invited for screening. Currently NHS England monitors delivery of the overall screening programmes through its regional and local teams. NHS England has concluded that the cervical screening event has raised questions about the effectiveness of its governance arrangements (paragraphs 3.9 to 3.16).

### Implementing change in screening programmes

**10 Delivery of health screening is subject to significant and ongoing change.**

In addition to addressing issues such as ageing IT and variable performance, between 2016-17 and 2018-19, NHS England has been working with Public Health England to make 16 changes to the screening programmes we examined. Some of these changes are to improve the way the programmes operate, such as improving IT systems on the breast screening programme. Others, such as the change to primary human papillomavirus (HPV) testing on the cervical screening programme, seek to take advantage of continuing advancements in research and stem from recommendations made by the UK National Screening Committee (paragraph 4.1 and Figure 19).

**11 The roll-out of primary HPV testing was announced in 2016 and is not expected to be fully introduced until December 2019.**

The change will mean that samples collected from women will be tested for HPV first, to identify those which would benefit from further testing. The changes will reduce the number of laboratories needed to analyse results from 48 to 9. Some staff have left the laboratories since the announcement was made, resulting in a backlog of 97,628 samples awaiting analysis (paragraphs 4.5 to 4.7).

**12 Public Health England and NHS England has succeeded in implementing bowel scope screening with 64 out of 65 screening centres operational at the end of 2016-17.** However fewer people than expected were receiving bowel scope screening in 2016-17 because only 3,162 out of 7,649 GP practices were linked to a screening centre that was delivering the screening service. By September 2018, 166,043 people had been invited for bowel scope screening against a target of 499,877 (33%) (paragraphs 4.2 and 4.3).

# Part One

## Delivery of health screening programmes

### The aims of health screening

**1.1** Screening is a way of identifying apparently healthy people who may have a higher risk of developing a particular condition, so that they can be offered early treatment or given information to help them make informed choices.

**1.2** There are 11 national screening programmes in England. In this investigation, we have focused on the four health screening programmes that offer screening based on a person's age rather than because they have a particular condition or are pregnant. These are for abdominal aortic aneurysm (AAA), breast cancer, bowel cancer and cervical cancer (**Figure 1**).

### Roles, responsibilities and funding for health screening in England

**1.3** The Health and Social Care Act 2012 provided for widespread reform of the health system in England. It allowed the Secretary of State for Health and Social Care to delegate public health functions, including health screening, to other bodies including NHS England. These delegated functions are known as section 7A services.

**1.4** The Department for Health & Social Care (the Department) delegates responsibility for delivering screening services to NHS England via the public health functions agreement, which it agrees with NHS England each year. The Department retains overall accountability for NHS England and holds other health bodies to account for their performance. NHS England is responsible for commissioning screening services.

**1.5** Public Health England was created as an executive agency of the Department in April 2013. Its health screening functions include supporting the Department and NHS England with information and expert advice at a national and local level; analysing and producing data; managing some of the IT that supports the delivery of the programmes; and undertaking quality assurance.

**Figure 1**

## The programmes we have examined

The programmes we examined conducted almost 8 million screenings in 2017-18

Programme	Nature and purpose of screening	Who the programme covers <sup>1</sup>	Year national programme introduced	Number screened in England in 2017-18
Abdominal aortic aneurysm	Uses ultrasound to check if there is a bulge or swelling in the main blood vessel that runs from your heart down to your tummy. The purpose is to minimise the risk of the aorta rupturing, which may be life-threatening.	Men are invited for a once-only screening during their 65th year. Men over 65 may self-refer.	2009	221,954
Breast cancer	X-ray is used to detect abnormalities, that may be early signs of breast cancer.	All women registered with a GP are automatically invited for breast screening every three years from the age of 50 to their 71st birthday. <sup>2</sup>	1988	1,791,520
<b>Bowel (two elements):</b>				
Bowel scope	A flexible camera is used to look for small growths called polyps in the bowel. The polyps, which could eventually turn into cancer, are removed.	Men and women in their 56th year are offered a once-only screening. Men and women aged between 55 and 60 have the option to self-refer.	2013	149,375
Bowel cancer	Uses a home testing kit to check for traces of blood in faeces to identify whether someone needs further tests to look for signs of bowel cancer.	Men and women aged 60 to 74 are invited every two years. Men and women aged 75 and over have the option to self-refer.	2006	2,534,258
Cervical cancer	Cells are collected from a woman's cervix and tested for abnormalities, that may be early signs of cervical cancer. <sup>3</sup>	Women are first invited six months before their 25th birthday, then at three-yearly intervals between the ages of 25 and 49 and at five-yearly intervals between the ages of 50 and 64.	1988	3,181,762

**Notes**

- 1 For all screening programmes, only people registered with a GP will be invited.
- 2 A trial is ongoing to assess the benefits and risks of offering an extra screen to women aged 47 to 49, and, separately, of offering additional screening to women after age 70.
- 3 In 2019, the way samples are tested will change, so that they are initially tested for the human papillomavirus (HPV), which is the cause of most cervical cancers. Only if HPV is detected will the sample be tested further.

Source: NHS England and Public Health England

**1.6** The Department funds health screening through the money it provides to NHS England for all section 7A services. NHS England has responsibility for making decisions about how to allocate the funding between services. In 2017-18, NHS England's section 7A funding was £1.152 billion. It spent £423 million of this on the four screening programmes we have examined. Public Health England budgeted £48.5 million for undertaking its functions in relation to section 7A services, of which it spent £23.6 million on these four health screening programmes in 2017-18. **Figure 2** shows spending over the past five years on the four screening programmes.

## Figure 2

### NHS England and Public Health England spending on adult health screening programmes 2013-14 to 2017-18 (2017-18 prices)

**Twice as much is spent on bowel screening and breast screening than on cervical screening. Spending on bowel screening has increased by £57.5 million since 2013-14**

Screening programme	Organisation	2013-14 (£000)	2014-15 (£000)	2015-16 (£000)	2016-17 (£000)	2017-18 (£000)
Abdominal aortic aneurysm	NHS England	Unknown <sup>2</sup>	13,065	12,943	13,552	13,080
	Public Health England	1,175	1,617	1,129	1,237	1,200
	<b>Total</b>	<b>Unknown<sup>2</sup></b>	<b>14,682</b>	<b>14,072</b>	<b>14,789</b>	<b>14,280</b>
Bowel screening <sup>7</sup>	NHS England	85,603	116,223	118,092	171,073	184,420
	Public Health England	45,025	18,442	34,393	1,658	2,771
	<b>Total</b>	<b>130,628</b>	<b>134,664</b>	<b>152,485</b>	<b>172,731</b>	<b>187,191</b>
Breast screening	NHS England	165,782	163,461	164,323	165,469	161,070
	Public Health England	16,780	14,843	18,109	17,473	17,943
	<b>Total</b>	<b>182,562</b>	<b>178,304</b>	<b>182,432</b>	<b>182,941</b>	<b>179,013</b>
Cervical screening	NHS England <sup>4,5,6</sup>	61,570	62,743	62,740	62,423	64,913
	Public Health England	4,987	1,058	1,746	1,991	1,734
	<b>Total</b>	<b>66,557</b>	<b>63,801</b>	<b>64,486</b>	<b>64,414</b>	<b>66,647</b>

#### Notes

- Figures are given in 2017-18 prices using the December 2018 HM Treasury GDP deflator.
- NHS England has been unable to provide spend on the abdominal aortic aneurysm programme in 2013-14.
- Spending is as reported by NHS England and Public Health England.
- NHS England cervical screening programme spend excludes spend on colposcopies which are paid for by clinical commissioning groups.
- From 2014-15 to 2016-17 colposcopy costs are estimated to be £62.7 million across all clinical commissioning groups. Based on data submitted to NHS England by local commissioners in 2015.
- In 2017-18 colposcopy costs were estimated to be £47.5 million. Based on data submitted to NHS England by local commissioners in 2018.
- Bowel screening includes both bowel cancer and bowel scope screening. Responsibility for bowel scope screening moved from Public Health England to NHS England in 2016-17.
- Amounts may not sum due to rounding.

Source: National Audit Office analysis of NHS England and Public Health England data

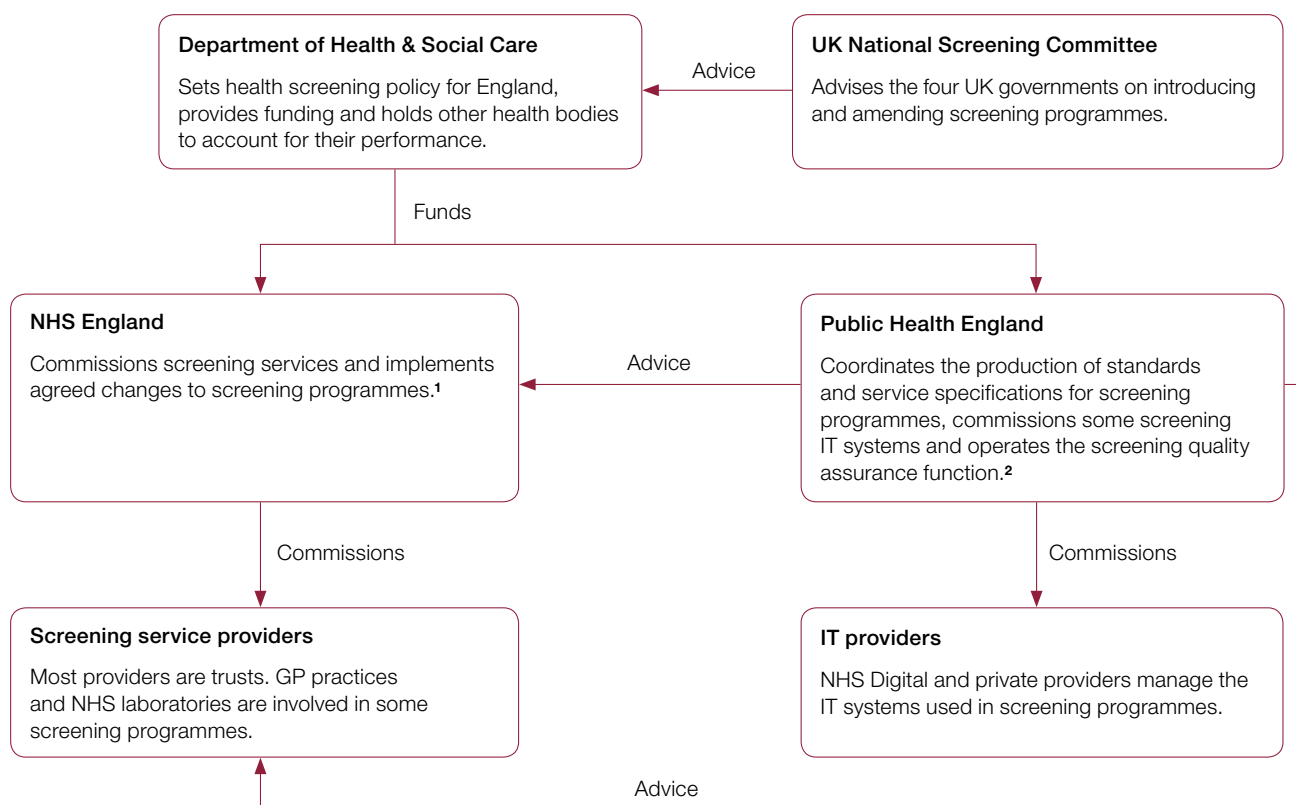
## How screening programmes are delivered

**1.7** A large number of organisations are involved in delivering screening services, ranging from the Department to local screening providers, which are primarily NHS trusts and NHS foundation trusts (trusts) (**Figure 3**).

**Figure 3**

Organisations involved in delivering screening programmes as at February 2019

The Department funds and oversees screening, NHS England commissions screening service providers, and Public Health England commissions screening IT providers



### Notes

- 1 NHS England's responsibilities for screening and other section 7A services are set out in the annual NHS public health functions agreement. This includes agreeing the national service specifications that Public Health England coordinate the production of.
- 2 National Health Application and Infrastructure Services (NHAIS) is a system of 83 databases of local GP registrations. It is used across the NHS, including for the invite system in cervical screening, and for identifying the eligible population in the four screening programmes we have examined. This is commissioned by NHS England.
- 3 The commissioning of IT systems is variable across screening programmes. Screening IT systems are commissioned by Public Health England and NHS England.

Source: National Audit Office analysis

**1.8** The annual public health functions agreement sets out NHS England's objectives for health screening. These are to:

- commission high-quality public health services in England, with efficient use of section 7A resources, seeking to achieve positive health outcomes and to promote equality and reduce health inequalities; and
- implement planned changes in section 7A services in a safe and sustainable manner, promptly and thoroughly (this is discussed in Part Four).

**1.9** Public Health England coordinates the production of national specifications each year which are agreed with NHS England. The national specifications are intended to ensure that there is a consistent and equitable approach to providing and monitoring screening services. They set out the specific policies, recommendations and standards that NHS England expects providers to meet. This includes who to invite for screening; how often to invite them; and how the screening is to be conducted. Each programme has its own process that guides patients through the screening experience, known as a screening pathway (**Figure 4**).

**1.10** All the programmes rely on a system of 83 databases of GP registrations, collectively known as National Health Application and Infrastructure Services (NHAIS).<sup>6</sup> The data in NHAIS is used to identify people eligible for screening and invite people to their screening appointments. The management of patient registration data on NHAIS was outsourced to Capita in September 2015.

**1.11** In 2011, the Department concluded that NHAIS was not fit for purpose for screening programmes because, for example, it is hard to track screening histories when people move across boundaries. NHS England planned to replace NHAIS by March 2017. The project is currently 22 months behind schedule. This has resulted in concerns that NHAIS "cannot be maintained effectively or be kept operational without significant additional investment". NHS Digital has estimated it will cost £13.9 million to maintain NHAIS up to 2020-21. In 2018, when transferring patient records to its new system, NHS England discovered errors with 122,419 records. NHS England declared a serious incident in June 2018 to deal with this and to assess the impact on services being delivered to patients. This means that some patients may not have been invited to attend an abdominal aortic aneurysm, bowel, breast or cervical screening appointment. NHS England has told us it is committed to replacing NHAIS in a safe and effective way as soon as is practical.

**1.12** Public Health England is responsible for many, but not all, of the IT systems that support the patient pathways for each programme. Local trusts are responsible for locally based IT systems, such as those that test screening samples in the cervical or bowel screening programmes. Other IT systems are managed by NHS Digital, or trusts. The IT systems vary in their age and complexity from more than 30 years old on the cervical programme to less than 10 years old on the abdominal aortic aneurysm programme.

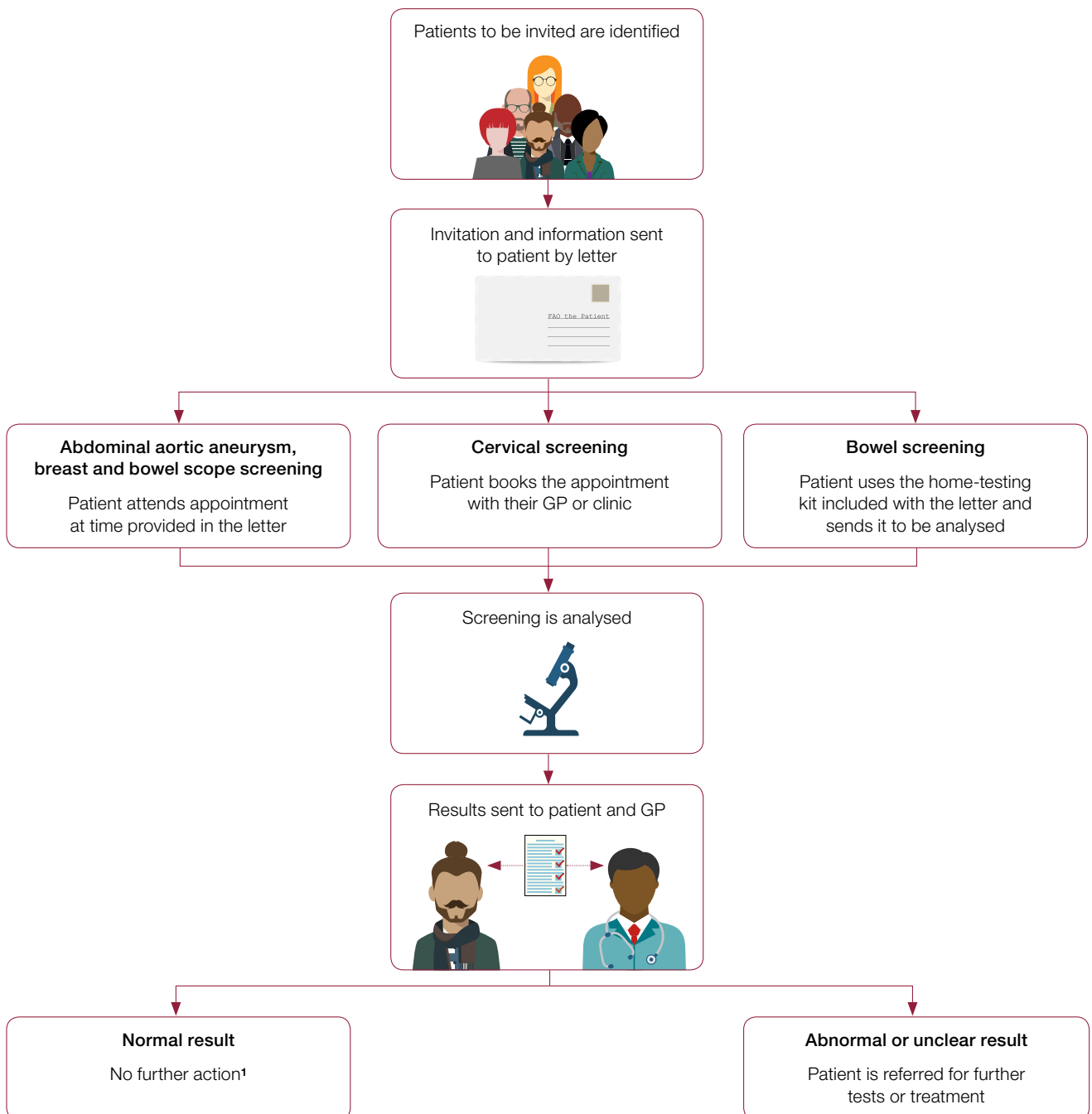
<sup>6</sup> NHAIS is used throughout the NHS to support a variety of functions including paying GP practices.



**Figure 4**

## Screening pathway to identify and invite people to screening appointments

Each programme has its own screening pathway

**Notes**

- 1 For abdominal aortic aneurysm, breast, cervical and bowel cancer screening patients will be invited for further screens at intervals according to the specifications of each screening programme.
- 2 The eligible population for screening is identified using a system of 83 databases of GP registrations called National Health Application and Infrastructure Services (NHAIS) which is based on registrations at GP practices.

**1.13** The number and age of the IT systems varies by programme. The breast screening programme started in 1988, and was supported by the National Breast Screening IT system, in addition to relying on NHAIS to identify the eligible population for screening. This was supplemented by a further national system which was introduced in 2016. This new system allows Public Health England to conduct better analysis of the programme. However, the process still relies on 78 local copies of the National Breast Screening IT System to manage screening appointments and results. Public Health England has contracted with a private provider to manage this system.

**1.14** Cervical screening started in 1988 and relies on a large number of old systems. In 2011, the Department reported that some of the systems were around 30 years old.<sup>7</sup> In June 2018, Jo's cervical cancer trust estimated that there are around 350 different systems supporting the various stages of the cervical screening pathway.<sup>8</sup>

**1.15** The bowel and abdominal aortic aneurysm screening programmes, introduced in 2006 and 2009 respectively, have national IT systems which allow the full screening pathway for each programme to be managed within a single system. Public Health England has contracted a private provider to manage the abdominal aortic aneurysm system, and NHS Digital to manage the bowel screening system (Appendix Three).

<sup>7</sup> Department of Health, *An Intelligence Framework for Cancer*, December 2011, available at: [www.gov.uk](http://www.gov.uk)

<sup>8</sup> Jo's cervical cancer trust, *Computer says no*, June 2018, available at: [www.jostrust.org.uk](http://www.jostrust.org.uk)

# Part Two

## The performance of health screening programmes

### Coverage of screening programmes

**2.1** The public health functions agreement sets out the performance indicators and standards (targets) that the Department of Health & Social Care (the Department) uses to hold NHS England to account for the national performance of screening programmes. All the indicators in the agreement which apply to screening relate to coverage. Coverage is defined as the percentage of people in the total eligible population who have received an adequate screening.<sup>9</sup>

**2.2** Prior to 2017-18, programmes were set a single target based on their performance in a previous year.<sup>10</sup> Bowel screening did not have a target for coverage until 2014-15.<sup>11</sup> The public health functions agreement did not define coverage targets for the abdominal aortic aneurysm screening programme until 2017-18.

**2.3** In 2017-18, for the first time, the Department set two performance levels for coverage for each programme we have examined: the 'lower threshold' and the 'standard'. The lower threshold is the lowest level of performance that programmes are expected to attain. All programmes are expected to exceed the lower threshold. The standard target is the level at which programmes are likely to be running optimally. In 2017-18, none of the programmes met their standard target, although bowel screening achieved 59.6% coverage against a target of 60.0%. Bowel, abdominal aortic aneurysm and breast screening all met their lower threshold targets but cervical screening did not, with coverage of 71.7% against a lower threshold of 75% and a standard of 80% (**Figure 5** overleaf).

**2.4** Prior to the introduction of the lower and standard thresholds in 2017-18, the breast screening programme had not met its coverage target. Although the proportion of the eligible population screened for breast cancer has remained broadly static. The cervical screening programme has never met its coverage targets (**Figure 6** on page 19).

<sup>9</sup> The total eligible population is identified using the database of GP registrations known as National Health Application and Infrastructure Services (NHAIS).

<sup>10</sup> Not always the immediate prior year.

<sup>11</sup> In 2016-17, the abdominal aortic aneurysm screening programme used 'coverage of initial offer' as the programme's target. This measure was changed to 'coverage of initial screen' in 2017-18. The bowel screening programme had no target for 'coverage' until 2015-16. In 2013-14 there was no target for the bowel screening programme. In 2014-15, the target for the bowel screening programme was for 'uptake'.

**Figure 5**

The performance indicators used to hold NHS England to account, as at March 2018

Each programme has different national coverage targets

Screening programme	Performance indicator	Lower threshold (%)	Standard (%)	2017-18 performance (%)
Abdominal aortic aneurysm screening	Coverage of initial screen – the proportion of men eligible for abdominal aortic aneurysm screening who are conclusively tested.	75	85	● 77.6
Bowel screening	Coverage – the proportion of people eligible for bowel screening who were screened adequately within the previous two and a half years.	55	60	● 59.6
Breast screening	Coverage – the proportion of women eligible for breast screening who were screened adequately within the previous 36 months.	70	80	● 72.1
Cervical screening	Coverage – the proportion of women eligible for cervical screening who were screened adequately within the previous three and a half years (for women aged 25–49) or five and half years (for women aged 50–64).	75	80	● 71.7

● Not meeting lower threshold

● Meeting lower threshold but not the standard target

● Meeting the standard target

**Notes**

- 1 Performance against other metrics is also measured, but these do not form part of the public health functions agreement.
- 2 Lower threshold and standard targets were introduced in the 2017-18 public health functions agreement.
- 3 In 2017-18 the NHS England target metric for abdominal aortic aneurysm screening was changed from 'coverage of initial offer' to 'coverage of initial screen'.

Source: Department of Health & Social Care, *Public health functions agreement 2018-19*, March 2018

**Figure 6**

## Coverage of adult health screening programmes, 2013-14 to 2016-17

Performance has remained broadly static on the breast screening programme

Year	Abdominal aortic aneurysm screening (%)	Bowel screening (%)	Breast screening (%)	Cervical screening (%)
2013-14	77	56	72 ●	74 ●
2014-15	79	57 ●	72 ●	74 ●
2015-16	80	58 ●	73 ●	73 ●
2016-17	81	59 ●	72 ●	72 ●

● Not meeting the target

● Meeting the target

No highlight = No target for coverage exists

**Notes**

- 1 In 2017-18 the NHS England target metric for abdominal aortic aneurysm screening was changed from 'coverage of initial offer' to 'coverage of initial screen'. We have presented here the 'coverage of initial screen' for all years.
- 2 In 2014-15, the target for the bowel screening programme was changed from 'uptake' to 'coverage'. We have presented here the 'coverage' measure for all years.
- 3 Between 2014-15 and 2016-17, the targets for the bowel screening programme were, 55.8%, 55.4%, and 57.1% respectively.
- 4 Between 2013-14 and 2016-17, the targets for the breast screening programme were, 76.9%, 76.9%, 76.3%, and 75.4% respectively.
- 5 Between 2013-14 and 2016-17, the targets for the cervical screening programme were, 75%, 75.3%, 73.9%, and 73.5% respectively.

Source: National Audit Office analysis of Public Health England data

**2.5** NHS England reports data on coverage to the Department by clinical commissioning group (CCG). There are many factors which impact on coverage which may be outside of a provider's control. For example coverage can be influenced by social and demographic factors, and by patient choice.<sup>12</sup> Our analysis in Figures 7 to 10 shows that the level of coverage by CCGs in each of the four programmes was inconsistent in 2017-18 and that in some CCGs coverage was below 44% on the abdominal aortic aneurysm and bowel screening programmes. Figure 11 shows the geographical distribution of the CCGs that have the highest and lowest coverage across all four programmes.

<sup>12</sup> In March 2018, Public Health England published a screening inequalities strategy. It shows, for example, that people in more deprived groups are less likely to complete bowel screening, women in the most deprived group are less likely to attend cervical screening appointments, or participate in the breast screening programme, and within the abdominal aortic aneurysm programme, people experiencing social deprivation are less likely to participate in screening. The strategy can be found at: <https://phescreening.blog.gov.uk/>

### Abdominal aortic aneurysm screening

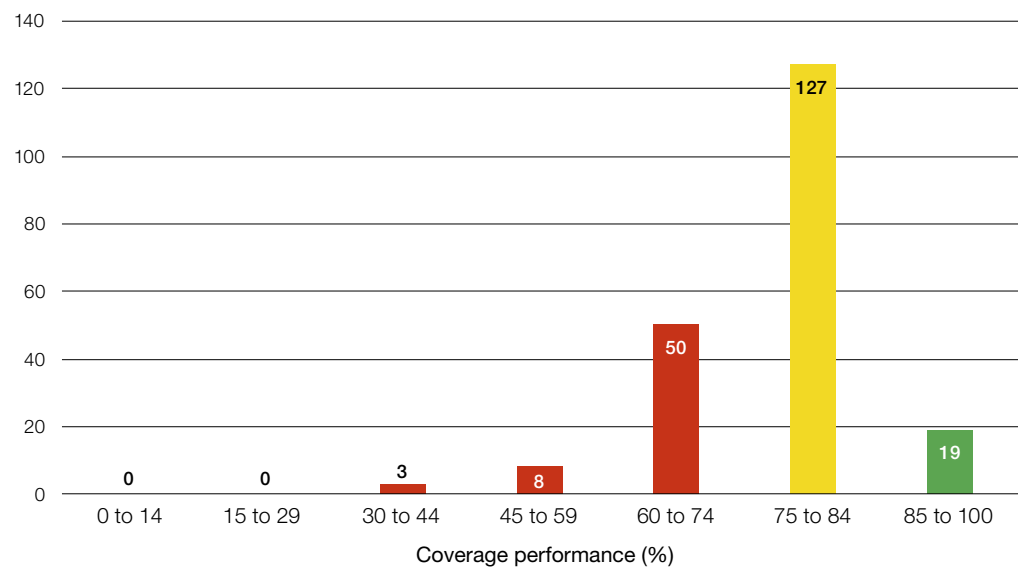
**2.6** In 2017-18, the lower threshold target of 75% coverage for abdominal aortic aneurysm screening programme was not met in 61 of 207 CCGs (**Figure 7**).

**Figure 7**

Number of clinical commissioning groups by percentage of eligible population screened for an abdominal aortic aneurysm in 2017-18

Lower threshold targets for coverage in the abdominal aortic aneurysm screening programme were not met in 61 of 207 clinical commissioning groups in 2017-18

Number of clinical commissioning groups



- Below lower threshold target of 75%
- Between lower threshold target of 75% and standard target of 85%
- Meeting standard target of 85%

**Notes**

- 1 The data shows the 207 clinical commissioning groups as reported in 2017-18. From 1 April 2018, 18 clinical commissioning groups merged into six.
- 2 Commissioning hubs were removed from the data to avoid double-counting.
- 3 The results exclude a group of 1,580 tests where no clinical commissioning group could be assigned.

Source: National Audit Office analysis of Public Health England data

## Bowel screening

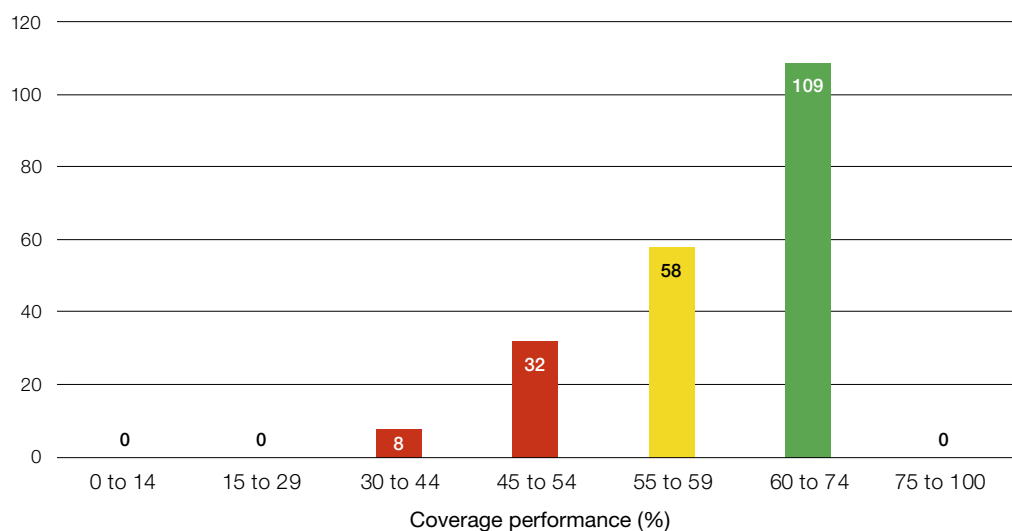
**2.7** Against a target of 60% of the eligible population being screened, in 2017-18, 60%–74% of the eligible population was screened in 109 of 207 CCGs. In eight CCGs, 30%–44% of the eligible population was screened (**Figure 8**).

### Figure 8

Number of clinical commissioning groups by percentage of eligible population screened for bowel cancer in 2017-18

Lower threshold targets for coverage in the bowel screening programme were not met in 40 of 207 clinical commissioning groups in 2017-18

Number of clinical commissioning groups



- Below lower threshold target of 55%
- Between lower threshold target of 55% and standard target of 60%
- Meeting standard target of 60%

#### Notes

- 1 In the bowel screening programme the Department of Health & Social Care has set NHS England targets for screening coverage in the public health functions agreements, but the national specifications for the bowel cancer screening programme does not set coverage targets for providers.
- 2 Data do not include coverage of bowel scope screening.
- 3 The data shows the 207 clinical commissioning groups as reported in 2017-18. From 1 April 2018, 18 clinical commissioning groups merged into six.

Source: National Audit Office analysis of Public Health England data

## Breast screening

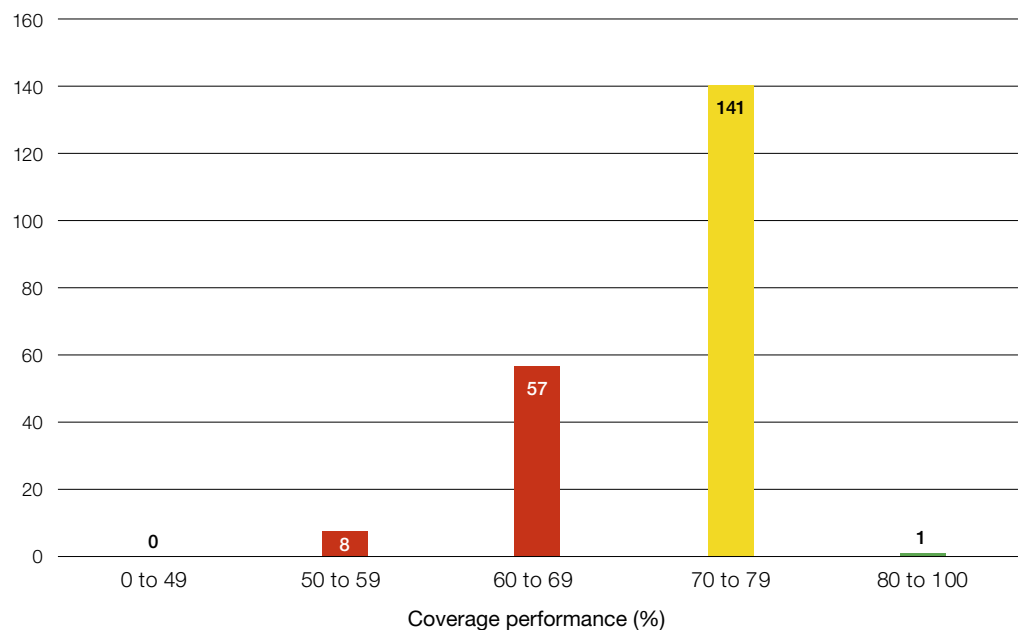
**2.8** In 2017-18, the standard target of 80% coverage for the breast screening programme was met in only one CCG out of 207 (**Figure 9**). In a further 141 CCGs, 70%–79% of the eligible population was screened. In the remaining 65 CCGs, reported coverage was below 69%, meaning around one-third of eligible people in these areas were not screened.

### Figure 9

Number of clinical commissioning groups by percentage of eligible population screened for breast cancer in 2017-18

**Lower threshold targets for coverage in the breast screening programme were not met in 65 of 207 clinical commissioning groups in 2017-18**

Number of clinical commissioning groups



- Below lower threshold target of 70%
- Meeting lower threshold target of 70% but not meeting standard target of 80%
- Meeting standard target of 80%

**Note**

1 The data shows the 207 clinical commissioning groups as reported in 2017-18. From 1 April 2018, 18 clinical commissioning groups merged into six.

Source: National Audit Office analysis of Public Health England data



## Cervical screening

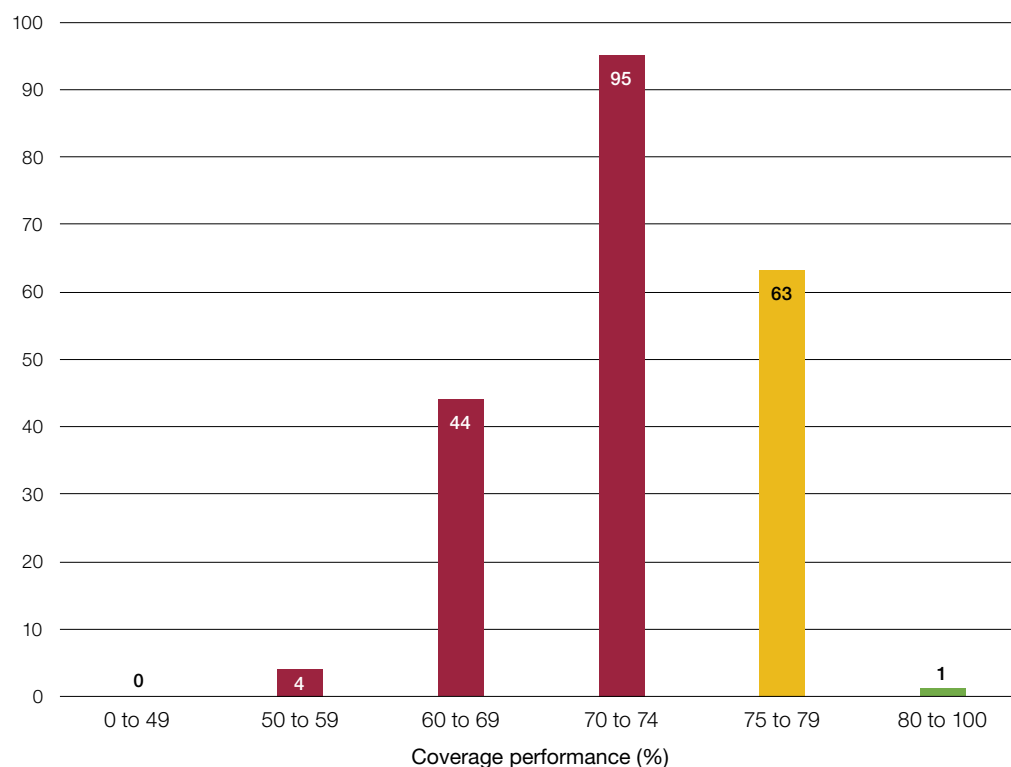
**2.9** In 2017-18, the standard target of 80% coverage for the cervical screening programme was met in only one CCG out of 207 (**Figure 10**). In a further 63 CCGs, 75%–79% of the eligible population was screened. In four CCGs, reported coverage was below 60%.

### Figure 10

Number of clinical commissioning groups by percentage of eligible population screened for cervical cancer in 2017-18

**Lower threshold targets for coverage in the cervical screening programme were not met in 143 of 207 clinical commissioning groups in 2017-18**

Number of clinical commissioning groups



- Below the lower threshold target of 75%
- Between the lower threshold target of 75% and the agreed standard target of 80%
- Meeting the agreed standard target of 80%

#### Notes

- 1 In the cervical screening programme the Department of Health & Social Care has set NHS England both the lower threshold and the standard targets for screening coverage in the public health functions agreements, but the national specifications for the cervical screening programme only sets the higher achievable coverage target for providers.
- 2 The data shows the 207 clinical commissioning groups as reported in 2017-18. From 1 April 2018, 18 clinical commissioning groups merged into six.

Source: National Audit Office analysis of Public Health England data

## Geographical distribution of coverage across the four screening programmes

**2.10** Across the four programmes that we looked at, CCGs in London consistently ranked among those with the lowest coverage for each of the screening programmes. **Figure 11** shows the geographical distribution of the CCGs that achieve the highest and lowest coverage across all four programmes.

**2.11** The Department also uses two additional measures to hold NHS England to account in regard to screening. These are not part of the public health functions agreement and directly measure provider performance:

- **Breast screening round length:** 100% of women should be offered their next screening within 36 months of their previous appointment. The lower threshold target is 90%. Performance is reported by screening provider because it relates to providers' ability to manage their workload.
- **Cervical screening turnaround times:** 98% of women should receive their screening results within 14 days of their appointment. This is both the standard and lower threshold target. Performance is reported by CCG because of the interdependencies between the different stages of the programme. For example meeting the turnaround time requires input from a GP, a laboratory and a private sector provider.

### Breast screening round length

**2.12** Round length is the time between a woman's screening appointments. The Department expects at least 90% of women to be invited for breast screening every 36 months.<sup>13</sup> **Figure 12** on page 26 shows that although NHS England has achieved this since 2016-17, at the end of 2017-18, 8% of women had waited longer than 36 months between screening appointments.

**2.13** In the breast screening programme women are expected to have screening appointments every 36 months. **Figure 13** on page 27 shows that, in 2017-18, 22 out of 79 providers did not meet the lower threshold target of inviting at least 90% of eligible women for a screening appointment within 36 months of their previous appointment.

### Cervical screening turnaround times

**2.14** Turnaround time is the time between a cervical screening appointment taking place and a woman receiving her results. In 2007, the NHS Cancer Reform Strategy stated that by 2010 all women should receive their cervical screening results within two weeks.<sup>14</sup> At least 98% of women should be sent their results within 14 days. NHS England has failed to meet this target since November 2015 (**Figure 14** on page 28).<sup>15</sup> During 2017-18, this target was not met in 189 out of 207 CCGs (**Figure 15** on page 29). By March 2018, 33% of women were getting their results within 14 days. This performance had improved to 55% by December 2018.

<sup>13</sup> But not less than 12 months, to maintain exposure to radiation from mammograms at safe levels.

<sup>14</sup> Department of Health, *Cancer Reform Strategy*, December 2007, available at: [www.nhs.uk](http://www.nhs.uk)

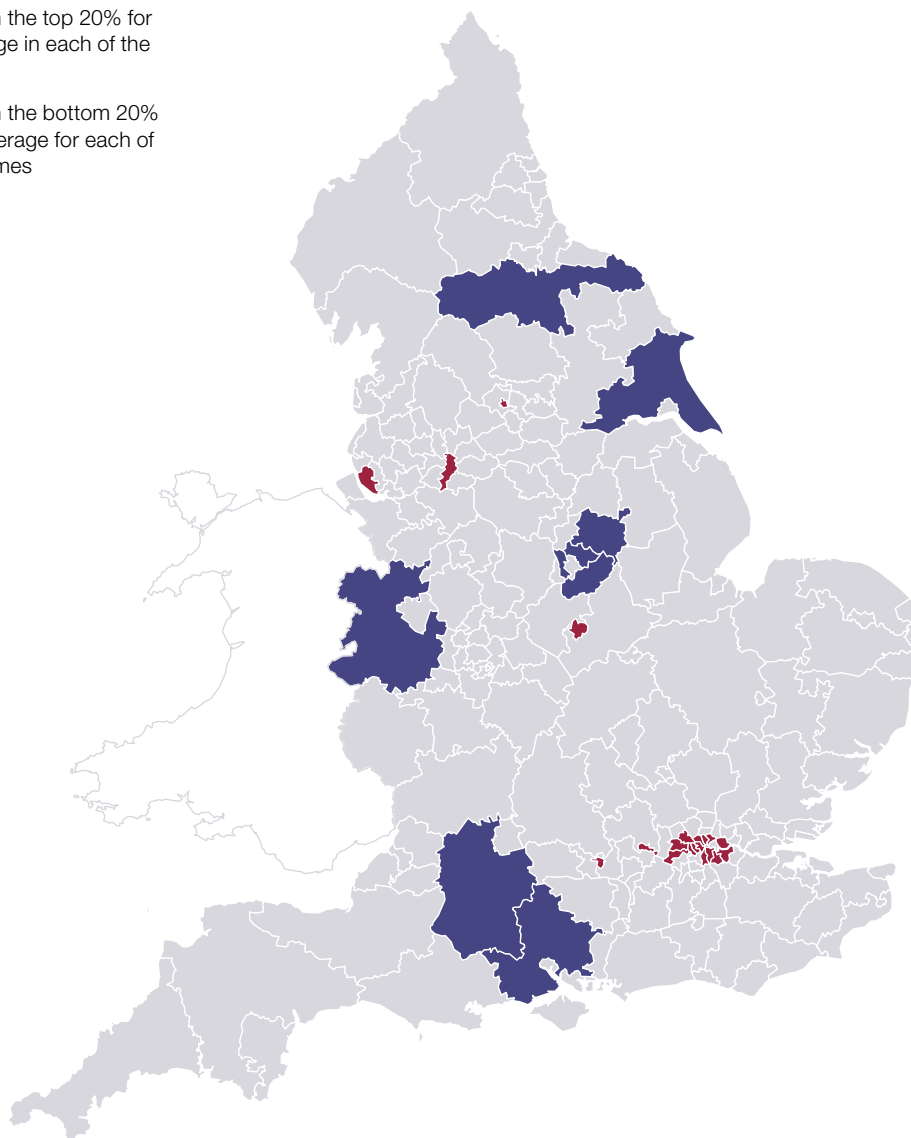
<sup>15</sup> The earliest data available is April 2015.

**Figure 11**

Clinical commissioning groups in England where coverage ranks consistently high or low across all four screening programmes, in 2017-18

**20 out of 207 clinical commissioning groups (CCGs) rank in the lowest 20% of clinical commissioning groups across all four programmes. 9 out of 207 clinical commissioning groups rank in the highest 20% across all four programmes**

- CCGs that rank in the top 20% for screening coverage in each of the four programmes
- CCGs that rank in the bottom 20% for screening coverage for each of the four programmes
- All other CCGs

**Notes**

- 1 We have ranked clinical commissioning groups in England by 2017-18 coverage statistics for each of the four screening programmes. Those clinical commissioning groups that are blue are consistently among the top 20% of clinical commissioning groups that have the highest coverage for each programme. Those clinical commissioning groups that are red are consistently among the bottom 20% of clinical commissioning groups that have the lowest coverage for each programme. Those in grey are neither consistently in the top 20% or in the bottom 20%.
- 2 Those in the top 20% achieved coverage of at least 85% in the abdominal aortic aneurysm screening programme, 64% in the bowel screening programme, 76% in the breast screening programme, and 76% in the cervical screening programme.
- 3 Those in the bottom 20% achieved coverage of no more than 54% in the abdominal aortic aneurysm screening programme, 49% in the bowel screening programme, 67% in the breast screening programme, and 67% in the cervical screening programme.
- 4 Data for each programme reported 207 clinical commissioning groups in 2017-18.

Source: National Audit Office analysis

**Figure 12**

Annual national performance in breast screening round length, since 2015-16

Lower threshold standards have been met since 2016-17

Year	National performance (%)
2015-16	87 ●
2016-17	90 ●
2017-18	92 ●

- Lower threshold of 90% not met
- Lower threshold met but not the standard target
- Standard target of 100% met

**Notes**

- 1 Targets based on the breast screening national specifications for the relevant year.
- 2 Targets in the national specifications are referred to as 'minimum' and 'standard'. We have used 'lower threshold' and 'standard' to maintain consistency through the report.
- 3 Round length is defined as the proportion of eligible women whose date of first offered appointment is within 36 months of their previous screening appointment. Women being screened for the first time are not included in the screening round length statistics.
- 4 Annual performance is reported as of 31 March each year.

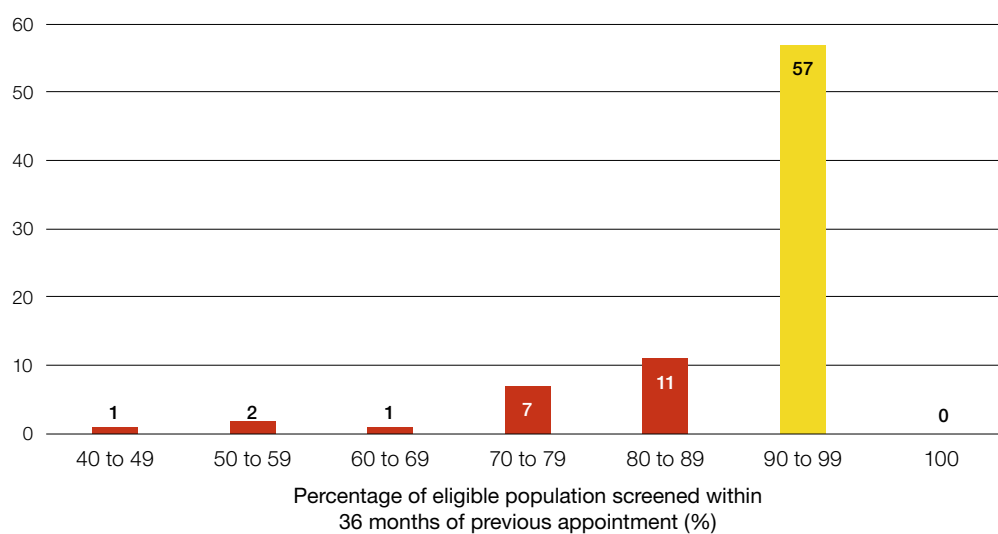
Source: National Audit Office analysis of Public Health England data

**Figure 13**

Number of screening centres by percentage of eligible population who were screened for breast cancer within 36 months of previous appointment in 2017-18

**22 of 79 providers delivering breast screening failed to meet targets for screening women within 36 months of their previous appointment**

Number of screening centres



- Below lower threshold target of 90%
- Meeting the lower threshold target of 90% but not meeting the standard target of 100%
- Meeting standard target of 100%

**Notes**

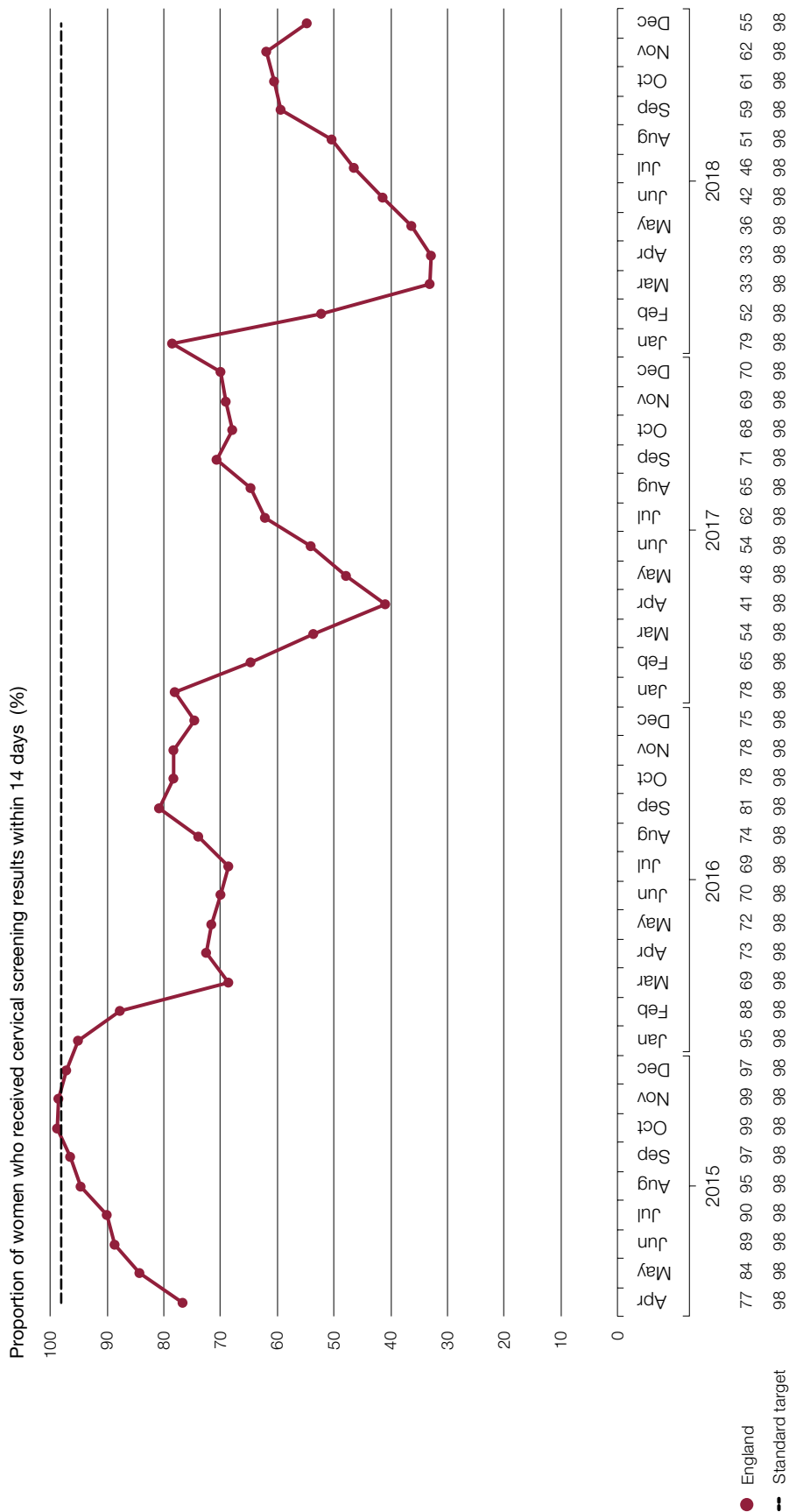
- 1 Round length is defined as the percentage of eligible women whose date of first offered appointment is within 36 months of their previous screen. Women being screened for the first time are not included in the screening round length statistics.
- 2 The data exclude self-referrals and GP referrals.
- 3 Data are not available by clinical commissioning groups. This metric relates to the capacity of the provider, and therefore Public Health England considers it most appropriate to be reported at this level.
- 4 There are 79 breast screening providers.

Source: National Audit Office analysis of Public Health England data

**Figure 14**

Monthly performance of the proportion of women who received cervical screening results within the 14 day target, April 2015 to December 2018

Targets have not been met since November 2015. In March and April 2018, 33% of women received results within 14 days against a target of 98%



**Notes**

- 1 Turnaround time is defined as the time from screening appointment to receipt of result letter as measured by the expected delivery date of the results letter.
- 2 The national policy is that all women should receive their cervical screening test results within 14 days of the sample being taken. The acceptable standard is that 98% of letters to be delivered within 14 days. Turnaround times are calculated by dividing the number of results letters delivered within 14 days by the number of letters sent to women.

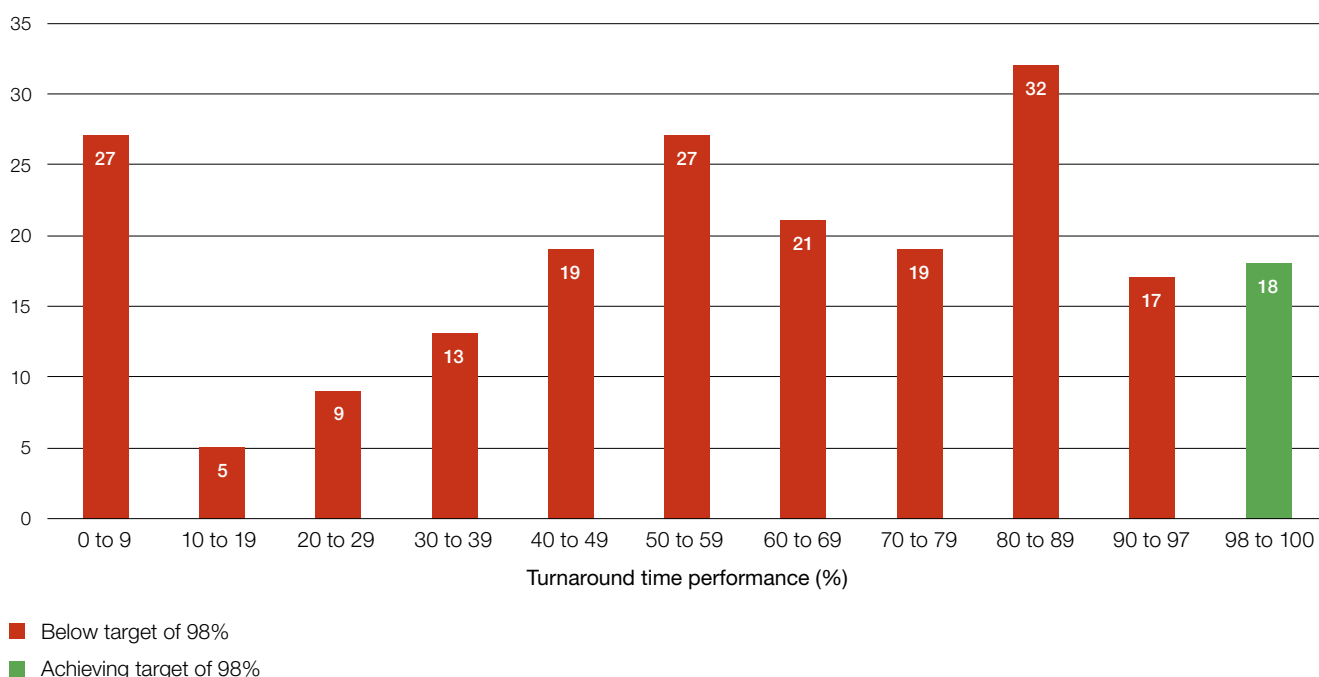
Source: National Audit Office analysis of the Department of Health & Social Care data

**Figure 15**

Number of clinical commissioning groups by proportion of women screened for cervical cancer who received screening results with 14 days in 2017-18

The target for delivering cervical screening results letters within 14 days was not met in 189 out of 207 clinical commissioning groups in 2017-18

Number of clinical commissioning groups

**Notes**

- 1 Turnaround time is defined as the time from screening appointment to receipt of results letter as measured by the expected delivery date of the results letter.
- 2 The national policy is that all women should receive their cervical screening test results within 14 days. The acceptable standard is that 98% of letters to be delivered within 14 days.
- 3 The data shows the 207 clinical commissioning groups as reported in 2017-18. From 1 April 2018, 18 clinical commissioning groups merged into six.

Source: National Audit Office analysis of Public Health England data

**2.15** In November 2017, NHS Digital reported that the recommendation by the UK National Screening Committee in 2016 to roll out primary human papillomavirus (HPV) screening had an impact on laboratory workforces, with staff leaving in search of greater job security, and has led to the decline in performance against turnaround time targets.<sup>16</sup>

**2.16** In October 2018, there was a backlog of 98,000 cervical screening samples waiting to be tested by laboratories across England. NHS England told us that it is working to reduce the backlog, which has been reduced from 152,742 in March 2018 by moving the analysis of samples around the country, to reduce the burden on those laboratories under most pressure.

## Part Three

### Oversight of health screening programmes

#### **The Department's oversight of screening performance at a national level**

**3.1** The Department for Health & Social Care (the Department) chairs a public health oversight meeting known as a section 7A accountability meeting where the performance of health screening programmes, and other public health services, are discussed every three months. These meetings are informed by issues discussed at earlier working-level meetings and are attended by the Department, NHS England, and Public Health England (**Figure 16**). The purpose of the meetings is to hold NHS England to account for delivering the public health functions agreement using performance against 38 indicators covering all section 7A services in England, of which four relate to the programmes we have examined.

**3.2** The Department does not monitor the performance of individual screening providers in these meetings, with NHS England responsible for picking this up as part of its contract management. This means the Department is not always aware of variations in performance because they are masked by the national picture. The Department expects NHS England to reduce variations in performance that exists across England as part of its work on section 7A.

#### **Oversight of local screening providers**

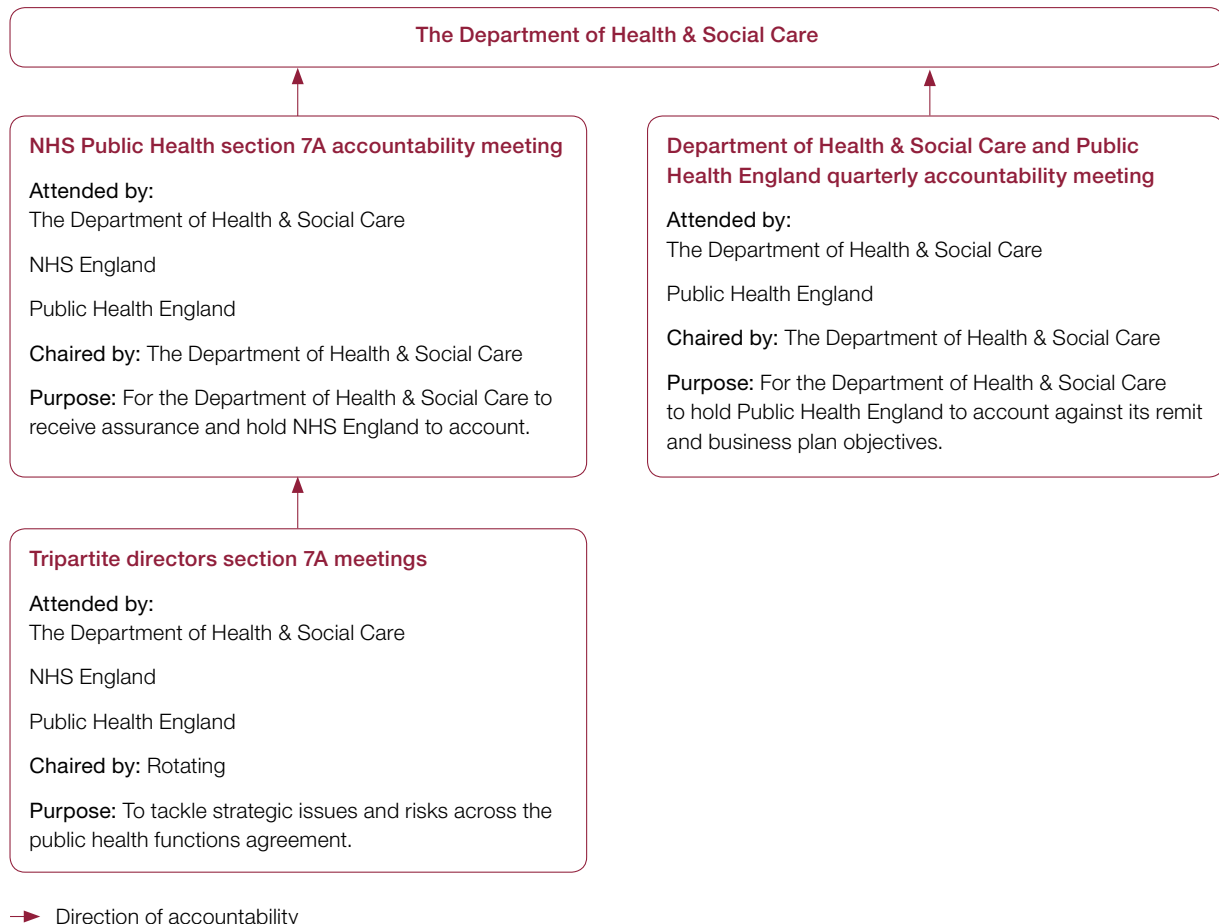
**3.3** Oversight of screening providers is conducted by NHS England as the commissioning authority, supported by Public Health England through quality assurance reviews, providing training and undertaking data analysis of the programmes. Fourteen local NHS England commissioning teams are responsible for commissioning screening services. Each team commissions screening services for a local area from a provider using a standard NHS contract. The national service specifications set out the required service standards, and form part of NHS England's contract with each provider. Screening providers are required by their contracts to meet the performance targets in the national specifications and to report performance to local NHS England commissioners.



**Figure 16**

## Governance and accountability landscape of section 7A service delivery

The Department holds NHS England and Public Health England to account



Source: NHS England and Public Health England

**3.4** NHS England local commissioners are responsible for managing performance against contracts and can penalise providers for not meeting the quality requirements in the national specifications at their own discretion. NHS England told us that it has delegated responsibility for managing the performance of screening providers to its regional and local teams. To encourage providers to improve performance, local commissioners can apply financial penalties and, as a last resort, they can terminate a contract. NHS England has told us this is difficult to enforce however because of market conditions.

**3.5** The number of performance indicators in each national service specification across the four screening programmes we examined varies (**Figure 17**). Performance indicators include whether a screening test is of good quality and the time taken to report results.

**3.6** Public Health England is responsible for providing assurance to NHS England and NHS trusts and NHS foundation trusts (trusts) that screening programmes are operating according to programme, professional and policy guidance. It undertakes quality assurance reviews of providers. Public Health England made 91 quality assurance visits to the four screening services we have examined in England during 2017-18 (**Figure 18**).

**3.7** As part of its quality assurance work, Public Health England makes recommendations to providers and NHS England on how to improve. Local NHS England commissioners and providers have discretion to decide whether to adopt the recommendations as Public Health England has no power to enforce changes. The reports are shared with NHS England for use in their contract management activities, and it expects providers to act upon the recommendations. NHS England has told us that its local teams are expected to track progress with implementing the recommendations.

**3.8** Public Health England maintains a database of all the recommendations made and analyses this annually to identify trends and emerging risks. In 2016-17 it made recommendations including that providers and NHS England needed to ensure systems are in place to accurately identify people to be screened; that screening results should be tracked to make sure that each person gets the right result; and that all screening staff have up to date knowledge and skills.

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### Figure 17

The number of performance indicators measuring providers' clinical and administrative processes, by screening programme, as at 2018-19

#### The number of providers and performance indicators varies by screening programme

Screening programme	Number of performance indicators	Number of providers
Abdominal aortic aneurysm screening	3	39
Bowel cancer screening	15	64
Bowel scope screening	None <sup>1</sup>	64
Breast screening	18	79
Cervical screening	7	46 <sup>4</sup>

#### Notes

- 1 Key performance and quality indicators for the bowel scope programme are being developed.
- 2 The key performance indicators measure providers' performance in carrying out clinical and administrative processes.
- 3 The number of providers is taken from the latest available data in 2018-19.
- 4 This number is based on the number of NHS trusts and NHS foundation trusts, and does not count other providers such as laboratories.

Source: National Audit Office analysis of Public Health England data

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**Figure 18**

Number of quality assurance visits made by Public Health England's screening quality assurance service in 2017-18

**Public Health England carried out more quality assurance visits on the cervical screening programme than the other screening programmes**

Region	Abdominal aortic aneurysm screening	Bowel screening	Breast screening	Cervical screening
London	1	2	2	5
Midlands and East England	4	4	10	9
North England	2	7	6	13
South England	4	5	6	11
<b>Total</b>	<b>11</b>	<b>18</b>	<b>24</b>	<b>38</b>

Source: Public Health England

**Oversight of recent screening incidents**

**3.9** During 2018, significant issues were reported with the breast screening and cervical screening programmes. The potential problem in the breast screening programme was identified through a data analysis exercise to inform decision-making about a clinical trial. Concerns that women were not being invited for cervical screenings were raised by a hospital manager in the North East of England who recognised that women were not being invited for screening. This has prompted a review, led by Professor Sir Mike Richards, into the effectiveness of oversight for cancer screening programmes.

**3.10** In May 2018, the former Secretary of State for Health and Social Care announced that there had been a failure in the system that selects women for breast screening. Around 196,000 women were initially contacted, and of these, 122,000 women are now believed to have been affected.<sup>17</sup> The failure led to an independent review, which was published in December 2018.<sup>18</sup> A change to the wording of the 2013 national specification to try and remove “ambiguity” around the definition of age for breast screening (and therefore the age at which to stop inviting women for screenings) had been made too late, and although not put into practice, was incorrect. It stated it was “unacceptable for there to be confusion about what women should expect from the breast screening programme”. The review concluded that the women who were contacted once the failure had been identified could be considered to have already had their final screen, depending on the status of the 2013 service specification. It concluded that those responsible for ensuring the national specification was accurate “did not notice and governance structures put in place to assure the specification did not identify the mistake”. The review recommended that the national specification be updated to clarify the age women should stop being invited and that this should then be published.

<sup>17</sup> Lynda Thomas, Professor Martin Gore, Peter Wyman, *The Independent Breast Screening Review*, HC 1799, 2018, available at: [www.gov.uk](http://www.gov.uk)

<sup>18</sup> See footnote 17.

**3.11** The review concluded that the breast screening programme had “relatively clear governance structures”, but it lacked a senior responsible owner to ensure the system was functioning correctly. The review went on to state that “governance did not function as intended”.<sup>19</sup> NHS England also failed to hold breast screening units to account for delivery against contracts which were based on service specifications. The review subsequently recommended that NHS England improve its contract management and that the governance should be considered as part of a future review of screening programmes (see paragraph 3.16).

**3.12** Of those women contacted following the identification of the failure, the review team identified a group of 5,000 women who had not been invited for their final breast screening appointment who should have. The IT systems for breast screening were found to be “dated and unwieldy” but they “broadly operated as they were designed to”. The review concluded that these 5,000 women were not invited due to errors in using “two separate and complicated systems, despite the best efforts of staff”. It was not due to a “systematic IT error”. The review went on to say there was a “lack of understanding of how the IT was designed and how it functions as a system”. It subsequently recommended that a review be undertaken to reduce the level of manual inputting required to the system and that an “overarching governance structure” be introduced if the IT continues to be operated and overseen by different organisations.

**3.13** In October 2018, NHS England declared a serious incident after concerns were raised that women were not receiving letters or reminders inviting them to cervical screening appointments. The issue was identified by a hospital manager who had concerns that women were not being invited for screening. Currently NHS England monitor delivery of the overall screening programmes through its regional and local teams. It has concluded that the incident has raised questions about whether the governance arrangements should prevent such issues.

**3.14** Capita is responsible for issuing invitation letters, reminders and test results to women in the cervical screening programme. In August 2018, Capita became aware of concerns that letters were not being sent. By October 2018 it knew that 43,220 women were not sent an invitation or reminder, and that 4,508 women did not receive their screening results. Capita told NHS England about this in October 2018 who then led an investigation supported by Public Health England and others. Capita has subsequently accepted full responsibility for the incident. A review of previous screening years has found that a further 1,700 invitation letters and 1,800 results letters were not sent in 2017.

<sup>19</sup> Lynda Thomas, Professor Martin Gore, Peter Wyman, *The Independent Breast Screening Review*, HC 1799, 2018, available at: [www.gov.uk](http://www.gov.uk)

**3.15** NHS England has concluded that the potential harm to women from this incident has been minimised because ‘fail safes’ in the system worked. Of the 43,220 women who were not invited or sent a reminder, 43,036 had had a recent screening test or were sent a letter earlier in the screening cycle. A further 182 women did not receive their screening results from Capita but needed follow-up treatment. NHS England believes its ‘fail safe’, to have women who need treatment contacted by Capita and also by another part of NHS England, means that these women were actually contacted, but we have not been able to confirm this.

**3.16** NHS England is planning to review and reform its governance arrangements to provide operational challenge, oversight and assurance of screening services. It has also asked Professor Sir Mike Richards to lead a review into national cancer screening programmes. The review will assess current screening programmes and recommend how they should be organised, developed and improved.

## Part Four

### Progress in implementing change in screening programmes

**4.1** Since 2016-17, the public health functions agreement has required NHS England, working with Public Health England, to implement 16 changes to the four screening programmes we have examined. These include operational changes such as improving IT systems, or because the UK National Screening Committee has recommended a change in policy, such as to take advantage of continuing advancements in research (**Figure 19**).

#### **Progress in implementing changes to the bowel screening programme**

**4.2** In 2011, the UK National Screening Committee recommended that one-off bowel scope screening should be introduced for people aged 55 years. It is complementary and additional to the existing bowel screening test. The change involved introducing 65 new screening centres to conduct scope screening and new arrangements to support inviting and managing patients. NHS England took responsibility for commissioning the new screening centres in April 2016 as part of its obligations under the public health functions agreement. Prior to this, Public Health England had been responsible for opening screening centres. Bowel scope screening was due to be implemented by December 2016. By the end of 2016-17, NHS England and Public Health England had succeeded in opening 64 out of 65 bowel scope screening centres.

**4.3** Fewer people than planned were receiving bowel scope screenings by July 2017, with only 3,162 out of 7,649 GP practices (41%) linked to a bowel scope screening centre.<sup>20</sup> By September 2018, 166,043 people (33%) had been invited for screening against a target of 499,877, 67% fewer invitations than expected.

<sup>20</sup> This is the number of GP practices as at July 2017. The number of GP surgeries as at January 2019 is 7,007.

**Figure 19**

## Required changes to screening programmes since 2016-17

Changes can be operational changes, or policy implementation changes

Year	Screening programme	Change NHS England is required to make
2016-17	Bowel screening	<ol style="list-style-type: none"> <li>1 Improve uptake of the programme by ensuring screening centres deliver an agreed level of activity.</li> <li>2 Ensure new screening centres are operational by the end of December 2016.</li> </ol>
	Breast screening	<ol style="list-style-type: none"> <li>3 Develop a single national IT database.</li> </ol>
2017-18	Bowel screening	<ol style="list-style-type: none"> <li>4 Continue to commission bowel scope screening centres to agreed levels.<sup>1</sup></li> <li>5 Take responsibility for commissioning new screening centres.</li> <li>6 Prepare for the implementation of the new bowel cancer test.</li> </ol>
	Breast screening	<ol style="list-style-type: none"> <li>7 Develop local action plans to improve uptake, including actions on addressing inequalities and promoting informed consent.</li> </ol>
	Cervical screening	<ol style="list-style-type: none"> <li>8 Develop mitigation plans to ensure screening is not interrupted during the introduction of primary human papillomavirus (HPV) testing.<sup>2</sup></li> <li>9 Develop local action plans to improve uptake, including actions on addressing inequalities and promoting informed consent.</li> </ol>
2018-19	Bowel screening	<ol style="list-style-type: none"> <li>10 Continue to commission bowel scope screening centres to agreed levels.</li> <li>11 Implement the new bowel cancer test.</li> </ol>
	Breast screening	<ol style="list-style-type: none"> <li>12 Develop local action plans to improve uptake, including actions on addressing inequalities and promoting informed consent.</li> </ol>
	Cervical screening	<ol style="list-style-type: none"> <li>13 Ensure mitigation plans to ensure screening is not interrupted during introduction of primary HPV screening.</li> <li>14 Ensure transition to primary HPV testing in 2019-20.</li> <li>15 Ensure the new IT requirements for cervical screening are delivered on time.</li> <li>16 Develop local action plans to improve uptake, including actions on addressing inequalities and promoting informed consent.</li> </ol>

**Notes**

1 Bowel scope screening was introduced in 2013 by Public Health England. In 2016-17 the responsibility for commissioning screening centres moved to NHS England.

2 In 2019, the way samples are tested will change, so that they are initially tested for the human papillomavirus (HPV).

Source: NHS England public health functions agreements 2016-17 to 2018-19

**4.4** In 2015-16, the UK National Screening Committee recommended changing the way bowel cancer screening is done. This meant ending the existing faecal occult blood test and introducing a new test called faecal immunochemical testing. The sample is taken by patients at home and then posted off for analysis. The change is due to be implemented by April 2019.

### **Progress in implementing changes to the cervical screening programme**

**4.5** The UK National Screening Committee recommended introducing primary human papillomavirus (HPV) testing in 2016. HPV is present in 99.7% of cervical cancers. Currently, a sample of cells is collected and then analysed in a laboratory to detect abnormalities. The change will mean that samples collected from women will be tested for HPV first, effectively making HPV a triage to identify those women whose samples would benefit from further testing and reducing the analysis needed by laboratories.

**4.6** The new arrangements will reduce the number of laboratories required to conduct analysis from 48 to nine. Currently, there are approximately 1,100 staff across the 48 laboratories testing cervical screening samples.<sup>21</sup>

**4.7** It is expected that primary HPV testing will be rolled out across England by December 2019. In April 2017, Public Health England estimated that, if not correctly managed, staff leaving the laboratories earlier than required could result in a backlog of 400,000 samples waiting to be tested by March 2018. Plans were put in place to mitigate this risk, including moving analysis around the country. In October 2018, the backlog of samples awaiting analysis stood at 97,628.

**4.8** During 2018-19, NHS England is required to ensure that new IT requirements for cervical screening are delivered on time. NHS England had planned to roll out a new system by August 2018 to manage the process of inviting women to screening appointments, but these plans are under review and the system has not been implemented yet.

<sup>21</sup> This is an estimate and may not include temporary consultants or staff that have left or been recruited since November 2018.



# Appendix One

## Our investigative approach

### Scope

1 We conducted an investigation into health screening in England. We have focused on the four health screening programmes that offer screening based on a person's age rather than because they have a particular condition or are pregnant: abdominal aortic aneurysm, breast, bowel and cervical.

2 Our investigation focuses on:

- delivery of health screening programmes;
- performance of health screening programmes;
- oversight of health screening programmes; and
- progress in implementing change in screening programmes.

3 This investigation does not evaluate the effectiveness or value for money of the screening programmes' administration, nor does it seek to assess the efficacy or clinical effectiveness of screening programmes.

### Methods

4 In examining these issues, we drew on a variety of evidence sources.

5 We interviewed key individuals involved in running health screening programmes from the Department of Health & Social Care, NHS England and Public Health England. In addition, we interviewed the UK National Screening Committee and those running a clinical trial, known as AgeX, on the breast screening programme.

**6** For each of the screening programmes we examined, we reviewed documents relating to the:

- specification for how the programme should be run;
- process that people experience when undergoing screening;
- governance arrangements in place; and
- contract arrangements in place.

We also reviewed the findings of the independent breast screening review, which was published in December 2018.<sup>22</sup>

**7** We carried out analysis of spend and performance data provided by NHS England and Public Health England.

<sup>22</sup> Lynda Thomas, Professor Martin Gore, Peter Wyman, *The Independent Breast Screening Review*, HC 1799, 2018, available at: [www.gov.uk](http://www.gov.uk)

# Appendix Two

## Health screening programmes in England

1 There are 11 health screening programmes in England, which we have grouped into four categories:

- Whole population adult screening programmes (examined in this investigation):
  - abdominal aortic aneurysm;
  - breast screening;
  - bowel screening; and
  - cervical screening.
- Screening for pregnant women:
  - infectious diseases in pregnancy, which screens for hepatitis B, HIV and syphilis;
  - sickle cell and thalassaemia screening; and
  - fetal anomaly screening, which screens for conditions such as Down's syndrome.
- Screening for newborn babies:
  - physical examination, which includes the eyes, heart, hips and testes;
  - blood spot, which tests for nine rare conditions; and
  - hearing test.
- Other screening programmes:
  - diabetic eye screening, which screens people with type 1 and type 2 diabetes.

# Appendix Three

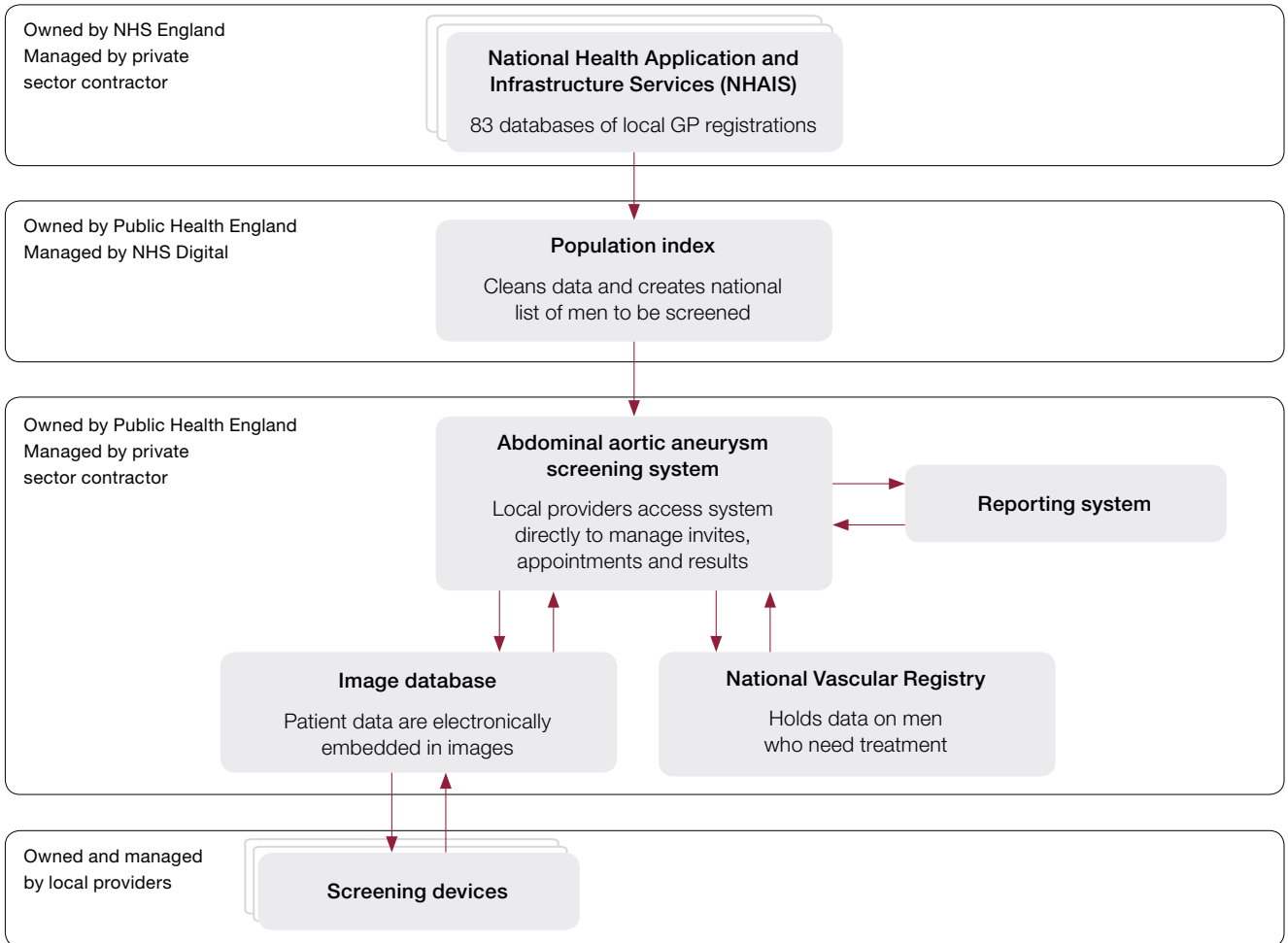
## IT systems to support the screening programmes

**1** The following diagrams show the IT systems that support each screening programme.

**Figure 20**

IT system to support the abdominal aortic aneurysm screening programme

The full screening pathway is managed in a single cloud-based system



→ Direction of data transfer

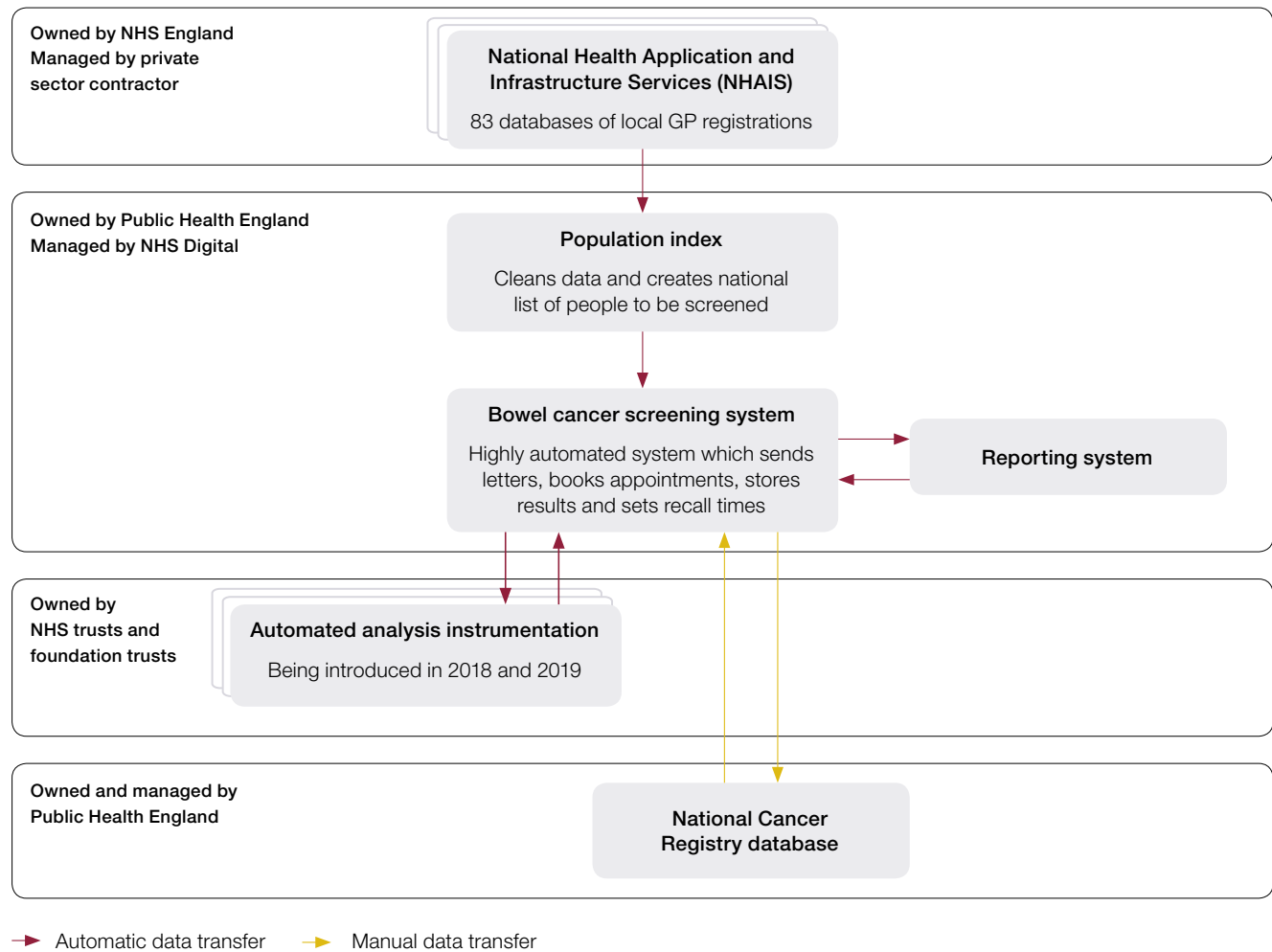
**Note**

1 Layered boxes indicate multiple systems held in multiple locations.

Source: Public Health England

**Figure 21**  
IT system to support the bowel screening programme

The screening pathway is managed in a single cloud-based system



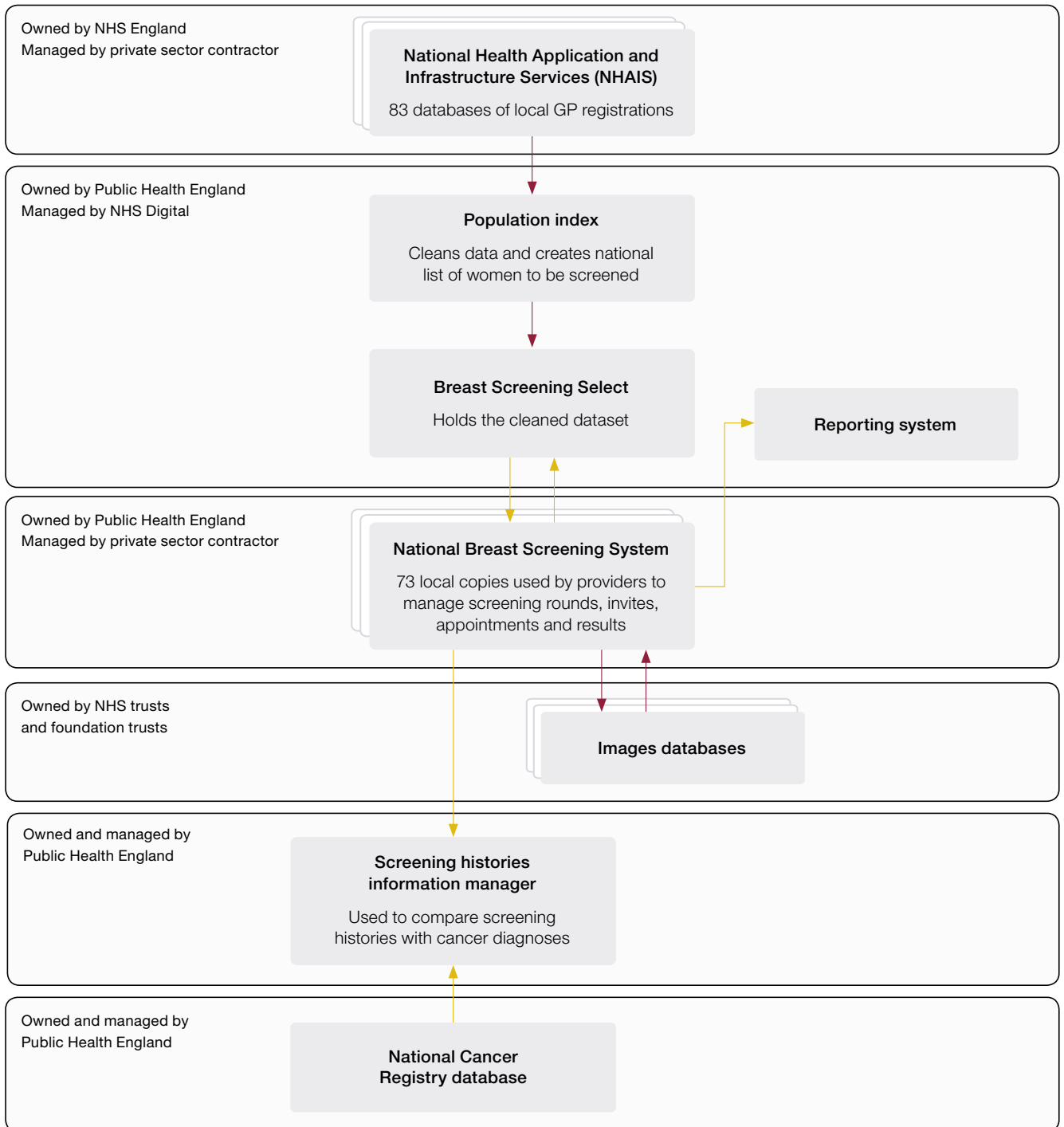
**Note**  
1 Layered boxes indicate multiple systems held in multiple locations.

Source: Public Health England

**Figure 22**

IT system to support the breast screening programme

The screening pathway is managed by a two systems, Breast Screening Select which is cloud-based, and National Breast Screening System which is held locally by breast screening providers



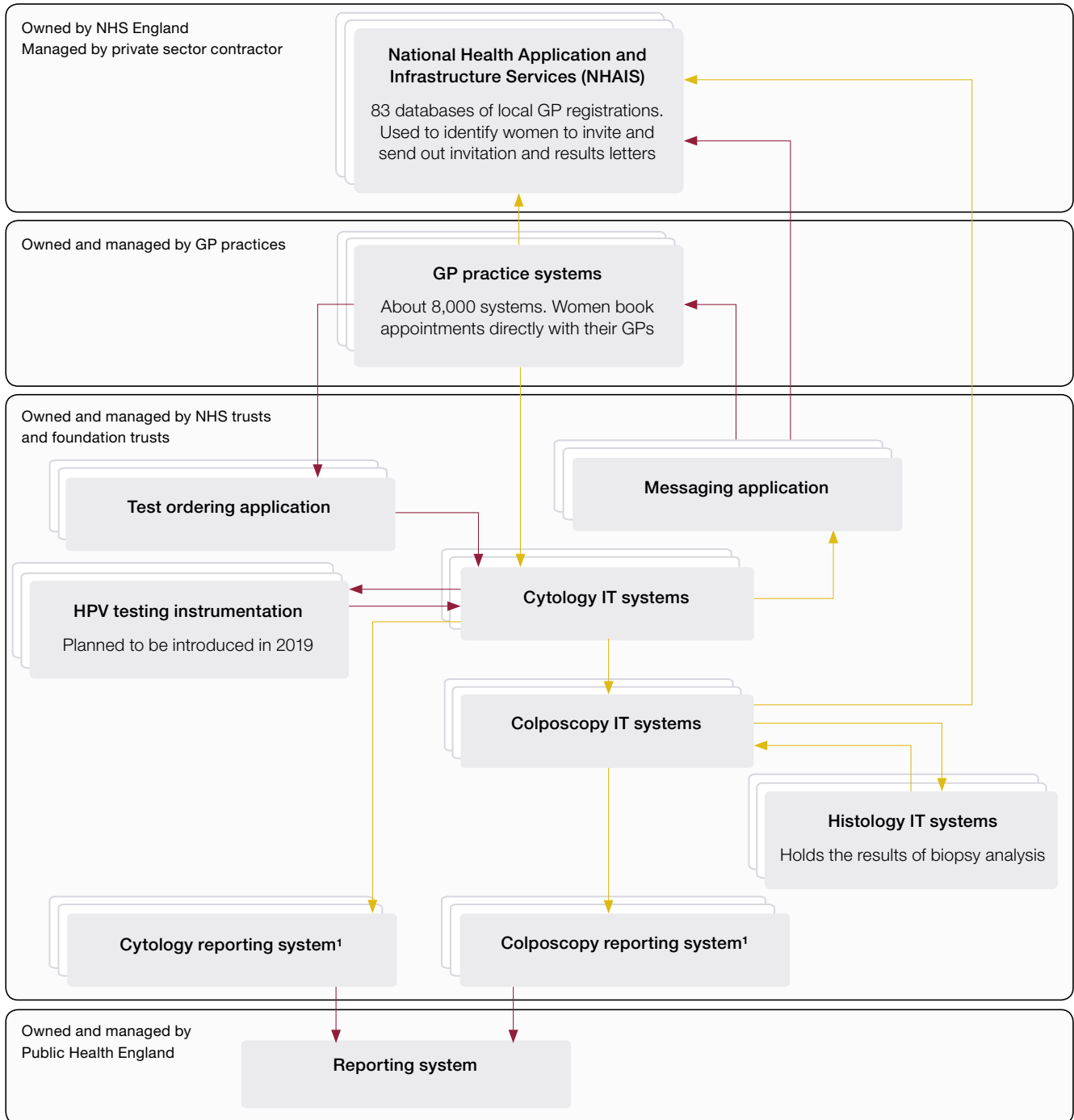
**Note**

1 Layered boxes indicate multiple systems held in multiple locations.

➡ Automatic data transfer  
➡ Manual data transfer

**Figure 23**  
IT systems to support the cervical screening programme

The screening pathway is managed across multiple systems, at multiple locations, by multiple providers



**Notes**

- 1 Cytology and colposcopy reporting systems are part-funded by Public Health England.
- 2 Layered boxes indicate multiple systems held in multiple locations.

- ➔ Automatic data transfer
- ➡ Manual data transfer



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