

Report

by the Comptroller and Auditor General

Department of Health & Social Care and NHS England

NHS waiting times for elective and cancer treatment

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Department of Health & Social Care and NHS England

NHS waiting times for elective and cancer treatment

Report by the Comptroller and Auditor General

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Sir Amyas Morse KCB Comptroller and Auditor General National Audit Office

20 March 2019

This report examines current waiting time standards for elective and cancer treatment and factors associated with performance in meeting waiting times standards. We also examined NHS England's and NHS Improvement's current approaches to improve performance against waiting times standards.

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Key facts

Elective care

4.2m

number of patients waiting for elective care at November 2018 87.3%

proportion of patients on the waiting list for elective care who had been waiting for less than 18 weeks in November 2018, against a standard of 92% 44%

proportion of NHS trusts and NHS foundation trusts (trusts) that met the waiting times standard for elective treatment in November 2018

17%

increase in the estimated number of annual referrals for elective treatment between the 12 months to March 2014 and the 12 months to November 2018

£700 million

estimated additional one-off cost to reduce the 18-week elective care waiting list to the size last seen in March 2018, based on current trends

Cancer care

1.94m

number of patients with suspected cancer that were referred urgently for diagnosis in 2017-18 78.6%

proportion of patients who were treated within 62 days of an urgent GP referral for suspected cancer in July to September 2018, against a standard of 85% 38%

proportion of trusts that met the 62-day waiting times standard from referral to cancer treatment in November 2018

94%

increase in the number of urgent referrals made by a GP for

suspected cancer between 2010-11 and 2017-18

38%

proportion of all patients diagnosed with cancer in 2016 who were

urgently referred, up from 31% in 2010

Summary

- 1 Under the NHS Constitution, NHS patients have the right to receive consultant-led elective treatment within 18 weeks of being referred for treatment (usually by a GP), unless they choose to wait longer, or it is clinically appropriate to do so. Elective care is the treatment of non-urgent conditions. In contrast to emergency care, the treatment is not usually provided at the same time as the decision to treat is made. It covers a wide variety of treatment specialties, including general medicine, neurosurgery, ophthalmology and orthopaedics. For urgent referrals for suspected cancer, patients have the right to a first outpatient appointment within two weeks.
- 2 To ensure patients' rights to timely access to care, the Department of Health & Social Care (the Department) has set various waiting times performance standards (**Figure 1**). These describe the percentage of patients that NHS bodies must treat within maximum waiting times. Three-quarters of outpatient referrals, as well as many admissions to hospital, are covered by waiting times standards for non-urgent (elective) and cancer care.

Figure 1

Key NHS waiting times standards for elective and cancer patients

The Department of Health & Social Care has set waiting times performance standards to ensure patients' rights to timely access to care

Scope	Maximum waiting times	Standard
Elective treatment	Patients have a <i>right</i> to start consultant-led treatment within a maximum of 18 weeks from referral for non-urgent conditions.	92% of patients
Cancer assessment	Patients have a <i>right</i> to be seen by a cancer specialist within two weeks of a GP referral for urgent referrals where cancer is suspected.	93% of patients
Cancer treatment	The government has <i>pledged</i> that patients should wait a maximum of 62 days from urgent referral for suspected cancer to first treatment for all cancers.	85% of patients

Notes

- 1 A 'right' is the maximum wait to which patients are entitled under the NHS Constitution. A 'pledge' is the maximum wait to which the NHS has committed to achieving.
- 2 There are a further six cancer waiting times pledges in addition to those listed above.

Source: NHS England

- 3 The Department holds NHS England to account for national performance against waiting times standards, through its annual mandate. NHS England then holds clinical commissioning groups (CCGs) to account for meeting the standards for their local populations. The 195 CCGs are responsible for commissioning elective and cancer care locally. They enforce waiting times standards through contracts with service providers (mostly acute and community NHS trusts and NHS foundation trusts (trusts)). NHS Improvement also has a role in regulating and supporting trusts to achieve waiting times standards for their patients.
- 4 NHS England is currently undertaking a clinically led review to consider the current performance standards, which is likely to result in changes to the waiting times standards. We therefore considered that it was a good time to draw together existing evidence and analysis and build on this evidence base to examine the dynamics that affect waiting times performance to help inform the current debate on this topic.

Focus of this report

- 5 This review presents data on the NHS's performance against current waiting times standards for elective and cancer care in England, and some of the factors associated with that performance. We chose elective and cancer care because they offer different insights into waiting times:
- for cancer, the health sector has placed considerable focus on improving early referral and diagnosis, leading to more appointments; and
- for elective care, when the health system is under considerable strain, such as
 during peak winter periods, delays may occur, because the effects of these
 delays are likely to be less damaging for patients than delays to emergency care.

The report does not cover waiting times standards for accident and emergency (A&E), ambulance and mental healthcare services.

- **6** This report draws together existing evidence and analysis by the Department, NHS England, NHS Improvement and other stakeholders. We build on this evidence base with our own analysis to provide added insight into:
- changes in waiting times performance, and variations in that performance;
- the impact of waiting times performance on patients;
- the factors that influence waiting times performance; and
- NHS England's and NHS Improvement's approach to managing and improving waiting times performance.

7 Part One of the report provides an overview of waiting times. Part Two covers elective waiting times and Part Three covers cancer waiting times. Our audit approach and methods are set out in Appendix One, Appendix Two and Appendix Three, including our approach to data quality issues. Appendix Four provides details of the best- and worst-performing CCGs.

Key findings

Trends and current performance

- **8** The 18-week elective care standard (92%) was last met nationally in February 2016. Following the introduction of a waiting times standard for elective care there were improvements in waiting times but standards are not routinely being met anymore. The government introduced waiting times standards for elective care in 1991, to improve patients' outcomes and patients' satisfaction. At the time it was not uncommon for people to wait more than 12 months for admission to hospital. In August 2007, when comparable national data first became available, only 57% of patients on the list had been waiting less than 18 weeks for treatment. By 2012-13, this had risen to 94%. However, the 18-week elective care standard (92%) was last met nationally in February 2016. In November 2018, only 44% of trusts met this standard and only 87.3% of patients on the waiting list for elective care had been waiting for less than 18 weeks (paragraphs 1.2, 2.2 to 2.4, 2.7, and Figures 8 and 10).
- 9 The elective care waiting list is growing, and patients are increasingly waiting longer for their care. Between March 2013 and November 2018, the average number of people treated each month increased from 1.2 million to 1.3 million. In addition, the average number of patients treated within the waiting times standard for elective care increased slightly over this period. Despite, these increases, between March 2013 and November 2018, the number of people still waiting for their treatment grew from 2.7 million to 4.2 million, and the number waiting more than 18 weeks grew from 153,000 to 528,000 (paragraph 2.3, and Figures 8 and 9).
- 10 Most standards for cancer care have been met until recently. Although performance against cancer waiting times standards has declined since 2013-14, seven of the eight cancer standards were met nationally until the end of 2017. However, the 62-day standard (85%) has not been met for any quarter since the end of 2013. In November 2018, only 38% of trusts met this standard and between July and September 2018, 78.6% of patients were treated within 62 days of an urgent GP referral for suspected cancer (paragraphs 3.4 to 3.6, and Figures 22 and 23).

- 11 Waiting times performance varies significantly across geographical areas, providers and specialties.
- Geographical: In 2017-18, the proportion of patients waiting less than 18 weeks
 for their elective care varied between 75% and 96% across CCGs. For cancer,
 the percentage of patients treated within 62 days following a GP referral varied
 from 59% to 93% (paragraphs 2.5 and 3.6, and Figures 12 and 24).
- Specialties: Trusts are not required to meet waiting times standards by specialty. Some specialties are less likely than others to meet the standards for clinical reasons, such as ease of diagnosis. For elective care, general medicine specialties tend to meet the standards, but many surgical specialties do not. For cancer, performance for lung, lower gastrointestinal, and urological cancers was significantly lower than for other cancers (paragraphs 2.6 and 3.7, and Figures 14 and 25).
- **Demographic groups:** NHS England and NHS Improvement do not monitor waiting times performance across demographic groups for elective and cancer care (paragraphs 2.5 and 3.6).

Factors associated with waiting times performance

- 12 The NHS's inability to keep up with the growing number of referrals is causing performance against waiting times standards for elective and cancer care to decline. A range of factors contribute to increasing referrals: increasing need from a growing and ageing population; increasing supply of new technologies and new treatment; and NHS policies to improve health outcomes.
- Elective care. Between the 12 months to March 2014 and the 12 months to November 2018, the number of referrals for elective treatment increased by 17%. However, for the majority of months since April 2013, the NHS has treated fewer elective care patients than the number of patients referred. We found that a growing and ageing population only accounts for a quarter of the increase in referrals for elective care. What is driving the increase in elective referrals is not well understood.
- Cancer care. Between 2010-11 and 2017-18, the number of patients referred urgently for suspected cancer increased by 94%, but the percentage treated within the standard has reduced over time. We found that a growing and ageing population only accounts for around one-tenth of the increase in cancer referrals. The major contributing factor to the increase in cancer referrals is likely to be NHS England's policy of encouraging more urgent referrals to improve early cancer diagnosis (paragraphs 2.11, 2.13, 3.2, 3.3 and 3.10, and Figures 15, 21 and 23).

- 13 Waiting times performance is closely associated with constraints on capacity in the NHS. Of the 43 trusts whose board papers we reviewed, 27 reported constraints on capacity, including lack of finance, staff and beds, as contributing to delays to treatment. Clinicians also reported that 25% of delays to cancer treatment are due to a lack of capacity. We found that, although the number of consultants has broadly gone up in line with activity levels, there have been persistent staff shortages in diagnostic services, and a widening gap between demand for diagnostic services and the number of staff working in this area. Trusts also reported that competing pressures from emergency services have contributed to patient delays. Our regression analysis supports these factors and indicates that trusts tend to perform more poorly on waiting times for both cancer and elective services when, all things being equal, they have:
- a lower proportion of patients seen within six weeks for diagnostic services; and
- a lower proportion of patients meeting waiting times standards for emergency services (**Figure 2**) (paragraphs 2.12 to 2.16, 2.20, 3.9 and 3.10, and Figures 16, 17 and 27).

Figure 2

Statistical association between factors relating to trusts' capacity and their performance against key waiting times standards

A number of factors related to trusts' capacity are associated with their performance against waiting times standards

Factors related to trust capacity	Elective	Cancer
Diagnostic services	Consistently significant	Consistently significant
Pressure on resources from emergency services	Consistently significant	Consistently significant
Trust finance (deficit/surplus)	Consistently significant	Significant but not consistent
Bed occupancy	Consistently significant	Significant but not consistent
Consultant	Significant but not consistent	Significant but not consistent
Operating theatres	Significant but not consistent	Inconclusive

Notes

- The factors that we have identified as correlated with performance are based on regression analysis using data from a range of sources, including: waiting times, hospital activity and bed statistics published by NHS England; NHS workforce and Hospital Episode Statistics data from NHS Digital and NHS trusts' financial data from NHS Improvement. We carried out several different approaches to our regression analysis taking account of the data we collected (for example, multiple linear regression analysis and panel data regression analysis). For elective care, the waiting times standard we examined was the standard for patients still waiting for their treatment; for cancer, the standard we examined was the 62-day standard from GP referral to treatment.
- 2 If a factor is significantly correlated with waiting times performance across all the models we tested at a 10% confidence level, we described it as "consistently significant"; if only for some models but not for others, we described it as "significant but not consistent"; if it is significant at a 10% confidence level, but the direction of correlation changes, we described it as "inconclusive". We set out the direction of the association in Figures 16 and 27, which provide more detail.
- 3 Consultants are measured against the level of activity at trusts (see Appendix Three for more details). Diagnostic services are measured by the proportion of patients receiving their diagnostic tests within six weeks and emergency pressures measured by performance against A&E waiting times standards.

Source: National Audit Office regression analysis

- The association between capacity constraints and waiting times performance is stronger for elective services than for cancer services (Figure 2). Trusts in a poorer financial position or with a higher level of bed occupancy are consistently associated with poorer performance against elective waiting times standards, both across trusts and for the same trusts over time. Although these factors are also associated with cancer waiting times performance, the associations are not always consistently significant in our analysis.¹ Financial difficulties or a lack of available beds can affect elective care waiting times more, as given limited capacity trusts will treat emergency and cancer patients first due to the urgent nature of the treatment. We found that bed occupancy has increased in recent years and an increasing number of trusts now routinely operate with a bed occupancy rate well above 90%. The number of beds in the NHS has reduced by 7% (8,000) since 2010-11. While reducing excess beds may create efficiencies, after a certain point the capacity constraints this will introduce will impact on other resources such as staff and theatre usage (paragraphs 2.14, 2.17, 2.19 and 3.11, and Figures 16 and 27).
- Administrative issues or patients choosing to delay treatment are unlikely to be the cause of deteriorating performance against elective and cancer care waiting times standards. Analysis by NHS Improvement found that the number of appointments a cancer patient has before treatment and whether they have missed appointments are linked to delays in treatment. Around 14% of delays in cancer treatment were reported to be due to patient choice or administrative issues. However, we found no evidence that these issues have got worse over time and therefore they are unlikely to be one of the factors contributing to the falling performance. For example, the percentage of patients who do not attend their appointments has remained stable, at around 9% of all appointments. Several recent initiatives, established by NHS England and NHS Improvement, aim to improve or streamline processes along patient pathways and improve waiting times. These include rolling out e-referrals and introducing rapid diagnostic centres for cancer patients (paragraphs 2.21 to 2.23, 3.11 to 3.13, and Figures 19 and 26).

Implications and impact of the current standards

For cancer care, an increasing number of urgent referrals has improved early diagnosis of cancer but can have an adverse impact on meeting waiting times standards. The introduction of waiting times standards for cancer care and the policy of encouraging more referrals more quickly has improved early diagnosis of cancer. For example, the proportion of all cancer patients diagnosed through this programme increased from 31% in 2010 to 38% in 2016 (the latest data available). We found that areas referring more patients through the urgent referral route tend to have better survival rates. However, areas with a high urgent referral rate tend to perform more poorly against the two-week wait standard than those with a low referral rate. This is consistent with recent research which found that meeting cancer waiting times standards did not lead to improved one-year survival rates (paragraphs 3.2 and 3.8).

If a factor is significantly correlated with waiting times performance across all the models we tested at a 10% confidence level, we described it as "consistently significant".

- The clinical priorities of emergency care and cancer services means that practically the Department and NHS England have focused more on those than on elective care. Facing rising demand while under increasing financial constraints, national bodies have focused on stabilising NHS finances and emergency care. While there has been no explicit policy to deprioritise elective care, incentives for achieving waiting times standards for elective care have been weakened or removed over the past few years. This includes, for most trusts, the removal of sanctions for breaching elective care waiting times standards. In Next Steps on the Five Year Forward View, published in 2017, NHS England signalled that it expected some provider waiting times for elective care to increase. In February 2018, NHS England and NHS Improvement asked trusts to ensure that in March 2019 their waiting lists for elective care would be no larger than at the end of March 2018, rather than explicitly requiring them to meet the 18-week standard as in previous years. From 2019-20, the NHS plans to reintroduce financial penalties for both providers and commissioners in cases where patients wait longer than 52 weeks for treatment (paragraphs 1.11 to 1.13, and Figure 7).
- There is a risk that longer waiting times may lead to patient harm and negligence claims against the NHS but the NHS's understanding in this area is limited. For many people, longer waits result in inconvenience and the discomfort associated with living with a medical condition. But for others their condition may deteriorate and a longer wait for treatment may cause them harm. The NHS has a national incident reporting system to collect and review evidence of patient harm. However, analysis to show the extent to which patient harm has occurred as a result of long waiting times is not available. In addition, trusts are also required to review whether harm has been caused to patients who have waited more than 52 weeks for elective care, but these data are not collected nationally. A few trusts have reported harm for a small number of patients due to long delays. Given that 40% of clinical negligence claims are brought because of delays in diagnosis or treatment, there is a risk that longer waiting times may lead to an increasing number of future claims (paragraphs 2.8 to 2.10).

Action taken and future opportunities

Significant additional investment will be required to meet the existing waiting times standards again. NHS England and NHS Improvement have taken action to improve performance against waiting times standards, focusing on reducing avoidable referrals, reducing the patient's length of stay to release hospital beds and improving processes. They also publish reports on waiting times performance over time, and variations across organisations and geographical areas; and have developed a range of toolkits to help trusts manage waiting lists. Despite these efforts, performance against waiting times standards continues to decline, and, as underlying demand continues to grow, it is hard to see how the NHS will be able to improve waiting times in the short term without significant investment in additional staffing and infrastructure capacity to support the NHS to see more patients. We estimate that it would cost an extra £700 million to reduce the waiting list to the size last seen in March 2018, based on current trends. The NHS long-term plan notes that some of NHS England's additional funding (a £20.5 billion increase by 2023-24) will be used to increase the number of planned surgeries, to help address long waits, but no details are yet given (paragraphs 1.8, 2.22 to 2.25, and Figures 13 and 19).

20 The clinically led review provides an opportunity to improve the waiting times standards. The current review provides the opportunity to make sure that any future waiting times standard ensures that those patients who need access quickly for clinical reasons are seen quickly. However, it also needs to ensure that those who are not a clinical priority do not experience long delays before they are treated (paragraph 1.14).

Conclusion

- 21 At a time of financial restraint, the NHS has responded to growing demand for elective and cancer care by increasing the amount of treatment it provides. However, this has not been sufficient to maintain performance against waiting times standards, and some standards have not been met for some years. Cancer performance has been affected by increasing referrals resulting from the desirable choice to improve early diagnosis and survival rates. While increased demand and funding constraints affect the entire system, other factors are linked with differences in performance both over time and across trusts. These include staff shortages for diagnostic services, a lack of available beds, inefficient processes and, in some cases, patient choices.
- 22 The NHS Long Term Plan commits to reducing face-to-face outpatient visits by one-third. Such a reduction would have a significant impact on elective care performance, as it is currently measured. The plan also commits to increasing the proportion of patients diagnosed with cancer at early stages from 50% to 75% by 2028. The NHS is now preparing local implementation plans for these new commitments. It is hard to see how the NHS will be able to recover its position on waiting times in the near future without significant investment in staffing and infrastructure.

Recommendations

- By October 2019, NHS England and NHS Improvement should clearly set out their objectives for waiting times and explain how they will address declining performance. This should include putting the right incentives and support in place and clarifying how they will ensure that local bodies and partnerships have the right resources and capacities to meet their waiting times objectives.
- b Our analysis has identified gaps in the understanding of variations in waiting times performance, how waiting times performance impact on patient experience and outcomes, and how waiting times performance is influenced by factors related to hospital capacity constraints. By October 2019, NHS England and NHS Improvement should carry out further research to better understand:
 - the impact of waiting times on patients' experience, patients' outcomes and urgent services;
 - variations in performance against the waiting times standards across specialties and across different population groups;
 - the impact of staff shortages by specialty on performance; and
 - the impact of bed occupancy on delays to treatment, and its links to other variables such as staff numbers and theatre usage.

Part One

Overview of waiting times

- **1.1** This part of the report introduces waiting times for elective and cancer care and covers:
- the maximum lengths of time patients should wait for care and how these are measured;
- the operational standards for measuring the waiting times performance of the NHS; and
- responsibilities for waiting times performance, and incentives for organisations to meet waiting times standards.

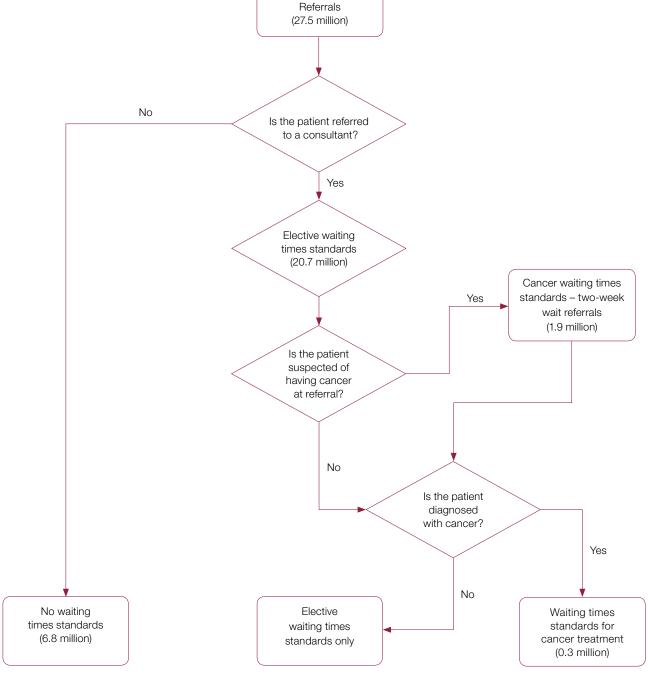
Maximum waiting times

- 1.2 The government introduced waiting times to help improve patients' satisfaction with the NHS as well as patients' outcomes. In 1990, over one-fifth of patients to wait more than 12 months for their hospital admissions. Maximum waiting times for elective care were first introduced in 1991. Elective care is the treatment of non-urgent conditions. In contrast to emergency care, the treatment is not usually provided at the same time as the decision to treat is made. It covers a wide variety of treatment specialties, including general medicine, neurosurgery, ophthalmology and orthopaedics. Not all elective care is covered by waiting times: referrals for assessment and treatment led by a hospital consultant are included but, for example, referrals to a physiotherapist are not. Currently, three-quarters of all outpatient referrals are measured against maximum waiting times (Figure 3). From 2000, several maximum waiting times for cancer services were also introduced to help improve early diagnosis and survival rates of cancer patients.
- 1.3 The NHS Constitution, first published in 2009, established the principles and values of the NHS in England. It sets out rights to which patients, the public and staff are entitled, and pledges that the NHS is committed to achieving, together with responsibilities that the public, patients and staff owe to one another to ensure that the NHS operates fairly and effectively. The Secretary of State for Health & Social Care, all NHS bodies, private and voluntary sector providers supplying NHS services, and local authorities in the exercise of their public health functions are required by law to take account of this Constitution in their decisions and actions.

Figure 3

The number of referrals covered by cancer and elective waiting times standards, 2017-18

Three-quarters of referrals were subject to maximum waiting times and waiting times standards, in 2017-18



Notes

- The number of referrals for cancer is based on the number of patients treated and reported in the cancer waiting times statistics.
- The number of elective referrals is based on the number of first appointments by consultants and other staff.

Source: NHS England analysis of its SUS (Second User Statistics) dataset and waiting times statistics

- **1.4** Since 2010, the NHS Constitution has included these waiting times:
- **elective treatment** patients have the right to start consultant-led treatment for non-urgent conditions within a maximum of 18 weeks from referral; and
- cancer diagnosis and treatment there are four maximum waiting times
 governing the length of time it takes for patients to receive cancer treatment,
 including the right to be seen by a cancer specialist within a maximum of two
 weeks from an urgent GP referral where cancer is suspected.
- **1.5** The Department of Health & Social Care (the Department) sets the standards for the maximum time that a patient should wait for treatment. It is required by legislation to review the NHS Constitution handbook that describes maximum waiting times every three years, and to consult widely when changing them.

Measuring waiting times for elective and cancer care

1.6 Patients requiring elective and cancer care are usually referred by their GP to a hospital consultant but can also be referred by a hospital consultant or another clinician. The waiting time for elective care starts when a hospital receives notice of a referral and it stops when the patient first receives treatment or when a decision is made not to treat the patient. Cancer waiting times measure the time to complete various elements of the care pathway, as well as the time from referral to first cancer treatment. These elements include referral to first appointment and decision to treat to first treatment. Figure 4 sets out how elective and cancer care waiting times are measured.

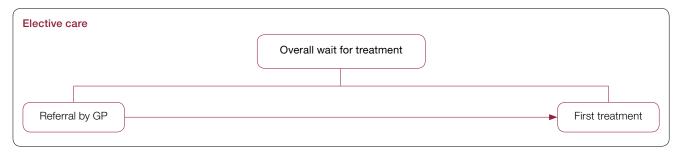
Operational standards

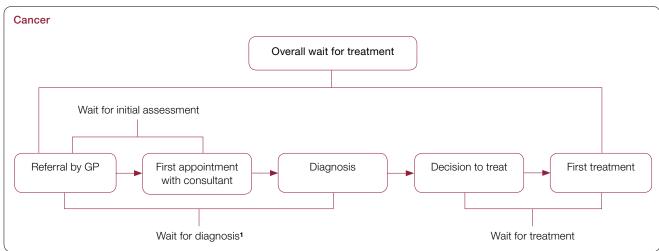
- 1.7 To ensure that patients' rights on maximum waiting times are met, the Department, and NHS England, also set out operational standards for NHS organisations (Figure 5 on page 18). For example, at any point in time, 92% of patients who have not yet received elective care following a GP referral should have been waiting less than 18 weeks. The Department does not expect all patients to be treated within maximum waiting times, recognising that:
- some patients may choose to wait longer or miss an appointment; and
- in some cases, treating patients within maximum waiting times would be clinically inappropriate.

Figure 4

Measuring elective and cancer care waiting times

Waiting times for cancer care are measured in a more detailed way than those for elective care





Notes

- 1 For cancer, the waiting time from referral to receiving a diagnosis will be measured from April 2020.
- 2 Most referrals are by GPs but patients can also be referred by other medical professionals.

Source: National Audit Office analysis of NHS England documents

Figure 5

Current maximum waiting times and operational standards for elective and cancer care

There is one waiting times standard for elective care but there are eight standards for cancer care

Maximum waiting times set out in the NHS Constitution

Operational standard (the percentage of patients the NHS must see, assess or treat within maximum waiting times)

Elective

18 weeks from GP referral to first consultant-led treatment.

92% of patients who are still waiting for their treatment

following a referral.

Cance

Two weeks from urgent referral by a GP to first appointment with a consultant.

93% of patients urgently referred by a GP for suspected cancer.

93% of patients urgently referred with breast symptoms (where cancer was not initially suspected).

31 days from decision to treat to first definitive treatment.

96% of patients diagnosed with cancer.

31 days from decision to treat to subsequent treatment.

98% of patients requiring anti-cancer drugs.

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94% of patients requiring surgery.

94% of patients requiring radiotherapy.

62 days from referral to treatment.

85% of patients urgently referred by a GP for suspected

cancer and who require treatment.

90% of patients attending a national screening service

and who require treatment.

Notes

- 1 For elective waiting times, the NHS defines patients who are still waiting for their treatment as "incomplete" and those who have already received their treatment as "completed". Two elective waiting times standards for patients who had already completed their treatment were abolished in June 2015.
- 2 In March 2019, NHS England published Clinically-led Review of NHS Access Standards: Interim Report from the NHS National Medical Director. The report sets out a proposal to remove the 18-week waiting times standard for elective care and replace it with an average waiting times standard. For cancer care, proposed changes include replacing the two weeks waiting time standard for urgent referral for cancer with a 28-day from referral to diagnosis waiting times standard from April 2020 and simplifying the 31-day and 62-day waiting times standards.

Source: National Audit Office review of NHS England documents

Accountability for waiting times performance

- 1.8 The accountability framework for waiting times performance is set out in Figure 6 overleaf. The Department holds NHS England to account for achieving waiting times standards at a national level. Since 2013-14, the Department has set out NHS England's objectives through its annual mandate. NHS England, supported by NHS Improvement and other national bodies, is responsible for monitoring and ensuring the performance of clinical commissioning groups (CCGs) as well as service providers for the services it directly commissions. The 195 CCGs are responsible for commissioning elective and cancer care locally. CCGs set their expectations for waiting times standards when contracting with service providers, normally acute and community NHS trusts and NHS foundation trusts (trusts). They commission services from trusts through the NHS standard contract and monitor their performance against the standards within it.3 NHS England publishes reports on waiting times performance over time, and variations across NHS trusts and CCGs.
- 1.9 NHS Improvement is responsible for supporting trusts to achieve waiting times standards. Together with NHS England, NHS Improvement monitors trusts' waiting times performance using a single oversight framework. In addition, the Care Quality Commission assesses whether people access care and treatment in a timely way when inspecting providers of NHS services. It also carries out regular surveys of hospital patients that include questions on patients' satisfaction with waiting times. NHS England also carries out a survey of cancer patients on their satisfaction with cancer waiting times.
- 1.10 NHS England is increasingly expecting partnerships of local commissioners, service providers and local authorities to work together to achieve waiting times standards. NHS England told us that this is done through 42 sustainability and transformation partnerships covering England, which were set up to improve health and care in the areas they serve, and within these areas 14 integrated care systems where partnership working is most advanced. To support the delivery of cancer waiting times standards, NHS England also works with 19 cancer alliances. These alliances bring together clinical and managerial leaders from different trusts and other health and social care organisations within geographical areas.

Incentivising good waiting times performance

- **1.11** The Department and NHS England have made a series of changes to the operational standards for waiting times in recent years (**Figure 7** overleaf). In 2009, the standard to treat 95% of cancer patients within 62 days of an urgent referral was reduced to 85%. However, the NHS's strategy for 2015–2020, the *Five Year Forward View*, set improving cancer services as one of its priorities. The NHS is seeking to improve cancer outcomes by promoting earlier detection of cancer. It is doing this through increasing early referrals, in line with guidance from the National Institute for Health and Care Excellence.
- **1.12** The Department and NHS England have also made a series of changes to elective care standards (Figure 7). In October 2015, two operational standards for elective care that measured waiting times for patients who have already received their treatment were abolished. In 2017, *Next Steps on the Five Year Forward View* explained that, given limited funding, pressures on waiting times for elective care would continue and some providers' waiting times would be likely to grow.⁵
- 1.13 The NHS standard contract, used by CCGs to contract with service providers, sets out the financial sanctions for breaching waiting times standards, but these financial consequences have gradually been removed since 2015-16. NHS England told us that this was part of a wider decision to help transform and integrate services across local health economies. In winter 2017-18, NHS England recommended that trusts considered deferring elective operations where this would support access to emergency services. Finally, in their planning guidance for 2018-19, NHS England and NHS Improvement no longer required trusts to meet the 18-week standard explicitly, but instead asked them to ensure that their waiting list for elective care in March 2019 be no larger than at the end of March 2018. The Government expects the NHS to deliver these actions as key steps towards fully recovering performance against access standards. Going forward, the NHS Long Term Plan, published in January 2019, committed to reintroducing fines for both CCGs and trusts if their patients waited more than 52 weeks for their treatment.
- **1.14** The NHS Long Term Plan also commits to significant redesign of its elective care pathways, reducing face-to-face outpatient appointments by one-third. If it is successful in doing so, it will need to redescribe its waiting times standards. It is currently undertaking a clinically led review of waiting times standards, which aims to improve clinical outcomes and consider how waiting times performance should be calculated going forward. Its initial findings were published in March 2019.⁷

⁴ NHS, Five Year Forward View, October 2014.

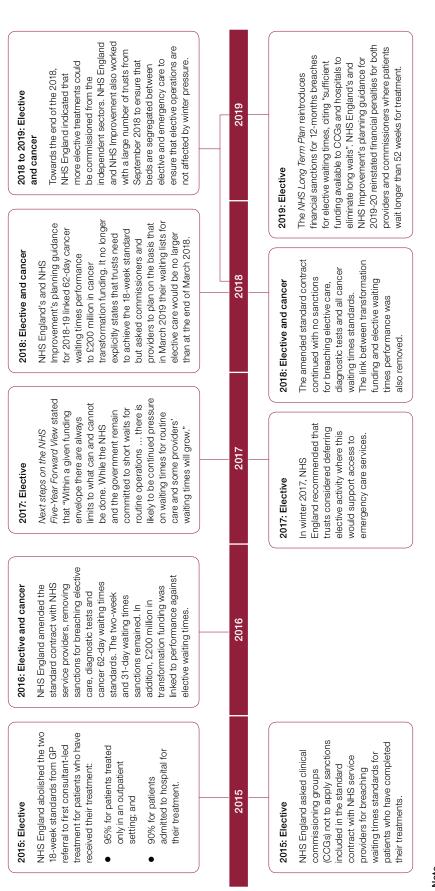
⁵ NHS, Next Steps on the Five Year Forward View, March 2017.

⁶ NHS England and NHS Improvement, Refreshing NHS plans for 2018-19, February 2018.

NHS England, Clinically-led Review of NHS Access Standards: Interim Report from the NHS National Medical Director, March 2019.

Change in waiting times standards and financial incentives related to waiting times, 2014 to 2019 Figure 7

Incentives for maintaining waiting times performance have gradually weakened or been removed but the NHS Long Term Plan has committed to reintroducing them from 2019-20



There is currently one waiting time standard for elective care and eight standards for cancer care.

Source: National Audit Office review of NHS England documents

Part Two

Waiting times for elective treatment

2.1 This part of the report discusses the NHS's performance in meeting waiting times standards for elective care. It covers performance trends, variations and the impact of waiting times performance on patients. It also explores factors influencing the NHS's performance and the actions it has taken in response.

Performance as at November 2018

2.2 The NHS has set a standard that 92% of patients on the waiting list for elective care should have been waiting for less than 18 weeks to start consultant-led treatment following their referral. In November 2018, the NHS failed to meet that standard, as only 87.3% of patients had been waiting for less than 18 weeks for treatment.

Performance trends from 2013

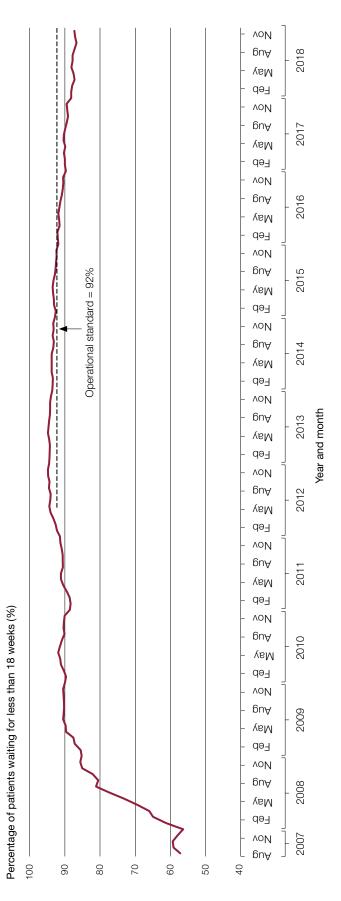
- **2.3** The average number of people treated each month increased from 1.2 million for the 12 months to March 2013 to 1.3 million for the 12 months to November 2018. The average monthly number of people treated within the waiting times standard increased from 1.13 million to 1.14 million over this time. However, waiting times performance for elective care has declined over this period:
- the proportion of patients waiting less than 18 weeks for their treatment decreased by seven percentage points from 94.2% to 87.3% (Figure 8 overleaf);
- the number of patients waiting for their treatment increased by 56% from 2.7 million to 4.2 million (Figure 8); the size of the waiting lists in recent months has been the highest since August 2007; and
- the number of patients waiting more than 18 weeks for their treatment increased from 153,000 (5.8% of the total waiting list) to 528,000 (12.7% of the total waiting list), and the number of patients waiting more than 52 weeks increased from 473 to 2,432 (**Figure 9** on page 25).

The standard of 92% of patients on the waiting list waiting no more than 18 weeks from their referral has not been met since February 2016.

Figure 8

Percentage of patients meeting the waiting times standard for elective care, for patients who are still waiting for treatment, August 2007 to November 2018

Waiting times performance for elective care peaked around 2012-13 and 2013-14 and has been declining since



- Waiting time standard for patients still waiting for their treatment

Note

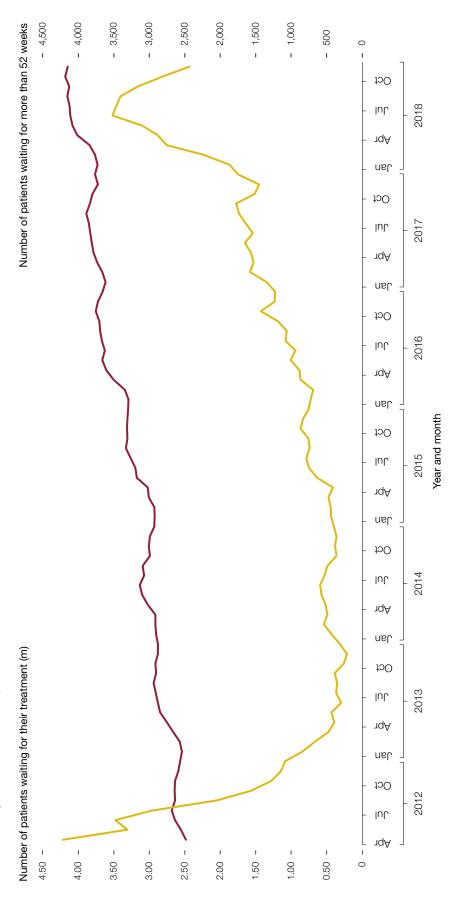
1 The standard of 92% of patients waiting no more than 18 weeks between referral and consultant-led treatment was introduced in 2012. It applies to people who are still waiting for their treatment at the date of measurement.

Source: National Audit Office analysis of NHS England waiting times data, Hospital Episode Statistics and Payment by Results data from NHS Digital

⁻⁻ Operational standard

Figure 9

The number of people waiting for their elective care treatment, and those waiting for more than 52 weeks, April 2012 to November 2018 The overall number of people waiting for their elective treatment has risen over the period. The number of people waiting more than 52 weeks for their elective treatment had also been rising since 2013 but has improved in the last five months.



Number of patients waiting for their treatment (m)

Source: National Audit Office analysis of NHS England waiting times data

Number of patients waiting for more than 52 weeks

- **2.4** There are other indications of increasing pressure on waiting times:
- the number of NHS trusts and NHS foundation trusts (trusts) that are meeting the 18-week waiting times standard for elective care is declining (Figure 10), with only 44% of trusts meeting the standard in November 2018; and
- an increasing proportion of patients on the waiting list are waiting longer (Figure 11 on page 28). Median waiting times for patients still on the waiting list have increased by almost 25%, from 5.5 weeks in March 2013 to 6.9 weeks in November 2018.

Variation in performance

Variation by geography and demographics

- **2.5** Waiting times performance varies significantly across commissioning areas and service providers (**Figure 12** on page 29). In 2017-18, on average across 12 months, against the 18-week standard for patients still waiting for their treatment:
- performance varied from 75% to 96% across all clinical commissioning groups (CCGs). Only 29% (61 out of 207 in 2017-18) of CCGs met the 18-week waiting times standard of 92%;⁸ and
- performance varied from 73% to 100% across trusts.

It was not possible to look at variation in waiting times between demographic groups, because NHS England does not collate these data.

toO լոր 2018 ηdΑ ารม JOO Proportion of trusts meeting the waiting times standard for elective care, April 2013 to November 2018 2017 lυς ηdΑ ารม The proportion of providers meeting the waiting times standard for elective care has declined in the last five years toO 2016 lυc Year and month ηdΑ ารม Proportion of trusts meeting the 18-week referral to treatment waiting times standard (%) toO 2015 lυL ηdΑ ารม toO 2014 lυL ηdΑ ารม toO 2013 Figure 10 lυς 9 0 90 10 80 70 9 20 40 30 20

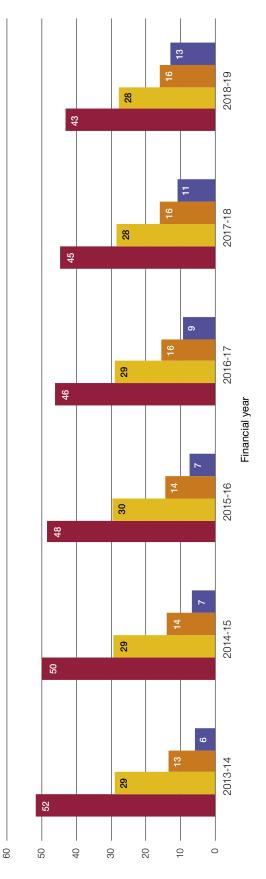
The waiting times standard for elective care requires that, for each trust, at least 92% of their patients waiting for elective treatment should have waited for less than 18 weeks.

Source: National Audit Office analysis of NHS England waiting times data

The distribution of patients still waiting for their elective treatment, 2013-14 to 2018-19 Figure 11

An increasing proportion of patients on the elective waiting list are waiting longer





0 to 6 weeks

- Over 6 weeks to 12 weeks
- Over 12 weeks to 18 weeks
- Over 18 weeks

Notes

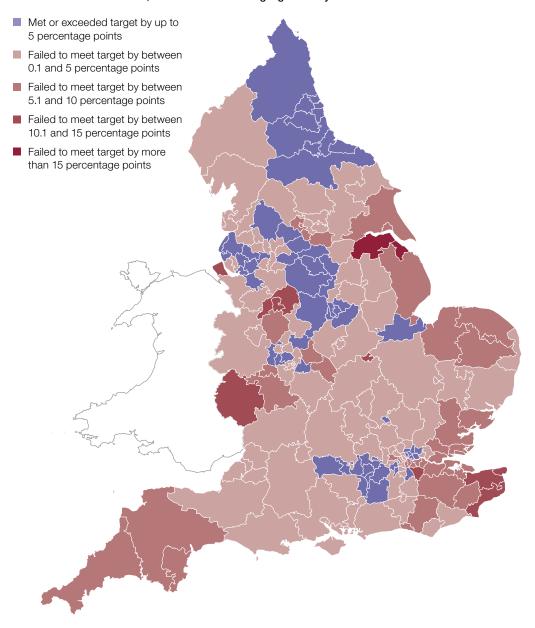
- 1 Waiting times data are reported monthly at the end of each calendar month and the distribution of patients for each financial year is the average across 12 months within each financial year. Data for 2018-19 are for the period April 2018 to November 2018 only.
- Percentages may not add to 100% due to rounding.

Source: National Audit Office analysis of NHS England waiting times data

Figure 12

Proportion of patients waiting less than 18 weeks for their elective treatment by clinical commissioning groups, 2017-18

Some areas are meeting the standard that 92% of patients should be waiting less than 18 weeks for their elective treatment, while others are falling significantly short of it



Note

1 In 2017-18, there were 207 CCGs. Some of them have since merged and there are now 195 CCGs. There is also a national commissioning group, commissioning services nationally which is not included in the map.

Source: National Audit Office analysis of NHS England waiting times data

Variation by type of treatment required

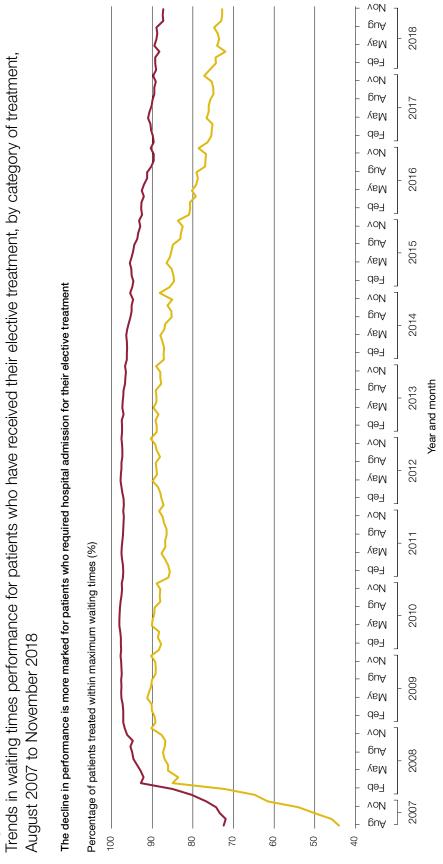
- 2.6 Waiting times performance also varies significantly between the type of treatment required and clinical specialty.
- In 2017-18, patients requiring admission for their treatment (about one-fifth of the total) were 2.4 times more likely to wait longer than 18 weeks. Since March 2013, the decline in performance in the proportion of people treated within 18 weeks of their referral was 60% more for patients who required hospital admission for their treatment than it was for those who did not. The proportion of patients requiring hospital admission who waited fewer than 18 weeks dropped by 16 percentage points, from 89% in March 2013 to 73% in November 2018 (Figure 13).
- Performance for surgical specialties tends to be poorer. In 2017-18, many surgical specialties, such as trauma and orthopaedics and general surgery, performed more poorly against the waiting times standard for elective care than non-surgical ones (Figure 14 on page 32). Although data are collected by specialty, trusts are not required to meet waiting times standards by specialty.

Impact of elective care waiting times performance

- 2.7 The introduction of waiting times for elective care from 1991 helped to improve access to services. Before waiting times rights and standards were introduced, some patients had very long waits for elective care. For example, in August 2007, when comparable national data first became available, only 57% of patients on the list had been waiting less than 18 weeks for treatment. By 2012-13, this had risen to 94%.
- 2.8 However, the recent decline in waiting times performance may lead to declining patient experience on waiting times. Unsurprisingly, we found that areas with longer waiting times tended to have lower patient satisfaction scores for this aspect of their care. Patients who wait longer for treatment will experience the symptoms of their conditions for longer, which may lead to a reduced quality of life. Some conditions, for example some heart conditions, may worsen over time if not treated, and may lead the patient to require emergency treatment.
- 2.9 Longer waiting times could, in some cases, lead to patient harm, if earlier medical treatment would improve the chances of a positive outcome. Trusts are required to report patient harm and there is a national incident reporting system hosted by NHS Improvement, although this is voluntary for some types of incident. The NHS undertakes clinical reviews of the most serious incidents recorded. However, analysis to show the extent to which patient harm has occurred while patients are waiting for their treatment is not available. NHS England requires trusts to review and report internally on whether patients have suffered harm because of waiting longer than 52 weeks. However, neither NHS England nor NHS Improvement monitor whether this has been carried out by trusts, nor do they collect these data nationally. Our document review, including of 43 trust board papers, highlighted examples of trusts raising concerns about potential harm caused to patients because of long waiting times.

NHS waiting times for elective and cancer treatment Part Two 31

Trends in waiting times performance for patients who have received their elective treatment, by category of treatment, Figure 13



- Percentage of patients who completed their treatment in an outpatient setting only

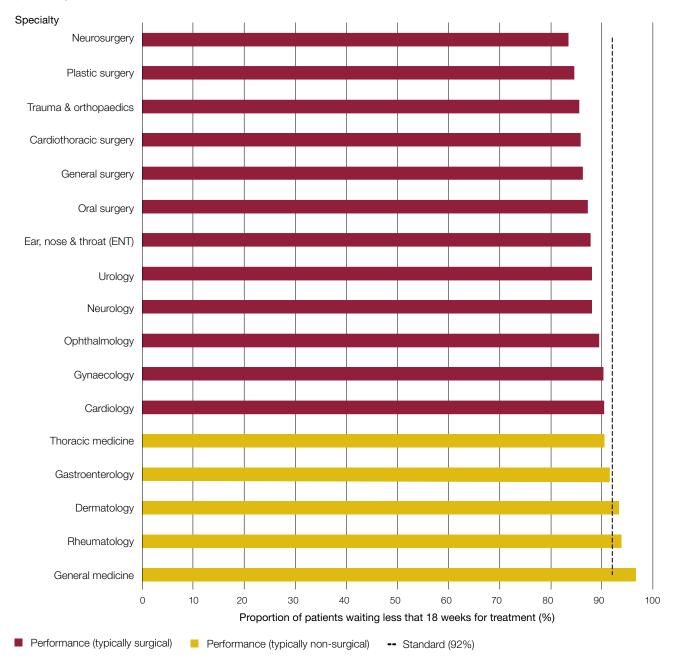
- Percentage of patients who completed their treatment following admission to hospital

Source: National Audit Office analysis of NHS England waiting times data

Figure 14

Proportion of patients waiting less than 18 weeks for their elective treatment by specialty, 2017-18

Performance for elective waiting times ranges from 83% to 96% for individual specialties, with specialties typically requiring surgery performing worse



Note

About 20% of patients are grouped into a category 'other', which is not included here.

Source: National Audit Office analysis of NHS England waiting times data

2.10 Long waiting times may lead to an increased risk of more negligence claims against the NHS. Almost 40% of such negligence claims against the NHS are related to failures or delays in diagnosis or treatment. However, it is not possible to identify whether delays were due to long waiting times or whether due to other factors such as missed diagnoses. Excluding maternity, ambulance and emergency cases, which are not usually related to elective care, in 2017-18 about 3,000 such claims were resolved by NHS Resolution. Damages were paid in 56% of these cases, at a total cost of some £600 million.

Factors influencing waiting times performance

2.11 The decline in waiting times performance against the 18-week standard and the rising waiting list is due to the mismatch between the number of patients referred and the number of patients the NHS could treat. Between the 12 months to March 2014 and the 12 months to November 2018, the number of people referred for elective treatment increased by 17%, while the number of people treated increased by 16%. The number of patients treated has been fewer than the number of patients referred in the majority of months (**Figure 15** overleaf).

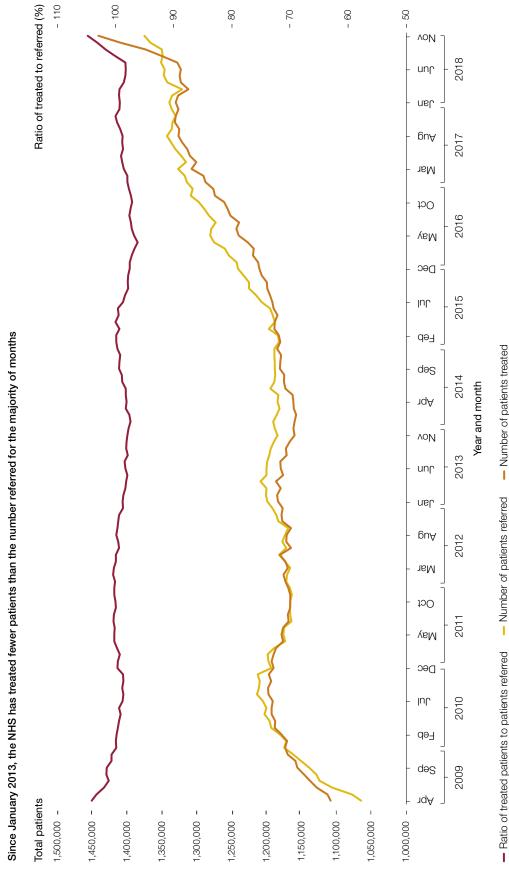
2.12 Several factors may be contributing to this increased pressure on waiting times. Our review of board papers at 43 trusts between September and November 2018 identified the following factors:

- general increase in demand including increasing referrals (23 trusts);
- capacity constraints including financial constraints, lack of staff and lack of available beds (27 trusts);
- pressures from other services, including pressures from A&E and emergency admissions (13 trusts); and
- patient pathways, for example, booking appointments, patient choice and cancellations.

We explored the extent of association between some of these factors and performance against waiting times using a number of statistical methods, including regression analysis (paragraphs 2.14 to 2.22).

⁹ These estimates were calculated by NHS England, using published waiting times statistics, adjusting for missing data and the number of working days each year.

Number of referrals and the number of patients treated for elective care, April 2009 to November 2018 Figure 15



1 The number of patients represents a rolling average for the year.

Source: National Audit Office analysis of NHS England waiting times data

Increased demand

2.13 Higher demand is placing pressure on waiting times but what causes rising demand is not always well understood. A range of factors contribute to increasing referrals: increasing need from a growing and ageing population; increasing supply of new technologies and new treatment; and NHS policies to improve access to services and health outcomes. Only around a quarter of this increase can be attributed to the growing and ageing population. NHS England and other NHS bodies have not evaluated and quantified the impact of the other factors.

Capacity constraints

2.14 We conducted regression analysis to identify factors associated with waiting times performance from a range of NHS data. Our analysis indicated that a range of constraints on capacity are correlated with performance in waiting times. These include a trust's financial performance, the number of beds available, the number of consultants and the capacity of diagnostic services relative to their level of activity (**Figure 16**).¹⁰

Figure 16

Statistical association between factors relating to trusts' capacity and their waiting times performance for elective care

Trusts with capacity constraints tend to perform poorer in waiting times performance for elective care

Factors related to trust's capacity	Statistically significant	Direction of association with elective waiting times performance (over time for the same trusts and across different trusts)
Diagnostic services	Consistently significant	Trusts with a lower proportion of patients seen within six weeks perform poorer.
Pressures from emergency services	Consistently significant	Trusts with a lower proportion of patients seen within four hours in their A&E perform poorer.
Finance	Consistently significant	Trusts with a higher level of deficit relative to their income tend to perform poorer.
Bed occupancy	Consistently significant	Trusts with a higher level of bed occupancy tend to perform poorer.
Operating theatre	Significant but not consistent	Trusts with a higher number of admissions for surgical specialties per operating theatre tend to perform poorer.
Consultant	Significant but not consistent	Trusts with a higher number of appointments per consultant tend to perform poorer, in particular, for admitted patients.

Notes

- 1 The factors that we have identified as correlated with performance are based on regression analysis using data from a range of sources, including: waiting times, hospital activity and bed statistics published by NHS England; NHS workforce and Hospital Episode Statistics data from NHS Digital and NHS trusts' financial data from NHS Improvement. We carried out several different approaches to our regression analysis taking account of the data we collected (for example, multiple linear regression analysis and panel data regression analysis). For elective care, the waiting times standard we examined was the standard for patients still waiting for their treatment; for cancer, the standard we examined was the 62-day standard from GP referral to treatment.
- 2 If a factor is significantly correlated with waiting times performance across all the models we tested at a 10% confidence level, we described it as "consistently significant"; if only for some models but not for others, we described it as "significant but not consistent"; if it is significant at a 10% confidence level, but the direction of correlation changes, we described it as "inconclusive".
- 3 Consultants are measured against the level of activity at trusts (see Appendix Three for more details). Diagnostic services are measured by the proportion of patients receiving their diagnostic tests within six weeks and emergency pressures measured by performance against A&E waiting times standards.

Source: National Audit Office regression analysis

¹⁰ For activity, we used a range of proxy measures depending on the setting and data availability, including referrals, admissions or outpatient appointments.

Staffing levels and diagnostic services

- 2.15 Variations in waiting times performance are also closely associated with the level of consultants. Trusts with a low number of consultants relative to their activity perform worse, on average, against the waiting times standards that we examined. However, the level of available consultants is not as statistically significant as some other factors (see Figure 16). The number of medical staff in the NHS, particularly consultants, has gone up broadly in line with the level of activity at a national level.
- 2.16 Worse waiting times performance is also associated with poorer performance in diagnostic services. Based on our regression analysis, a higher proportion of patients completing their diagnostic test within six weeks is associated with a higher proportion of patients waiting less than 18 weeks. However, there are widely reported staff shortages in specific specialties including pathologists, radiologists and radiographers, all of which are involved in diagnostics tests. For example, the number of radiographers per 10,000 magnetic resonance imaging (MRI) and computer tomography (CT) scans has decreased from 12.4 in 2010-11 to 8.3 in 2017-18 (Figure 17).

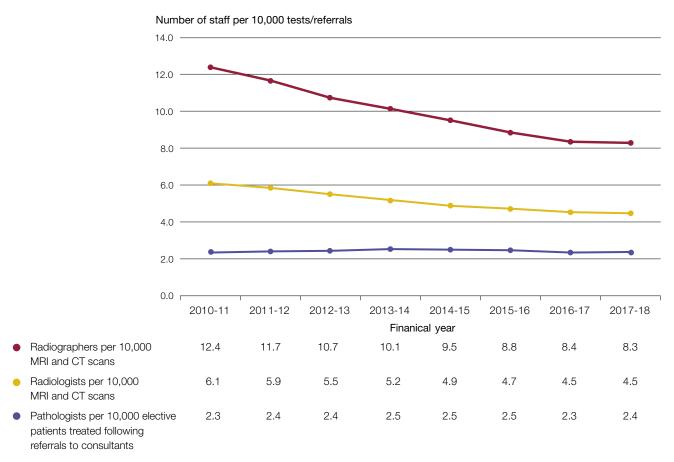
Hospital beds and operating theatres

- 2.17 Hospitals with a higher level of bed occupancy are more likely to perform poorly against the 18-week waiting times standard. This remains true for the same trusts over time. Bed shortages particularly affect the patients from surgical specialties, who often require admissions to hospital for their treatment. In recent years, performance for admitted patients has deteriorated by 16 percentage points, compared with a deterioration of 10 percentage points for those patients not requiring hospital admission.
- 2.18 Patients admitted to hospital account for only around one-fifth of patients treated but they tend to have more complex needs and require more intensive intervention. On average, a patient admitted to hospital costs 10 times more than a patient treated in an outpatient setting only. There are also knock-on effects of elective care, which may require a range of staff as well as theatres and beds to be available for patients to be treated as planned.

Figure 17

Diagnostic staff per 10,000 elective referrals and 10,000 diagnostic tests carried out, 2010-11 to 2017-18

The ratio of diagnostic staff to number of tests carried out has decreased for several specialties, increasing pressure on diagnostic services



Notes

Source: National Audit Office analysis of NHS Digital workforce data and NHS England waiting times data

¹ CT: Computer Tomography; MRI: Magnetic Resonance Imaging;

² Pathologists are defined as qualified doctors who work primarily in the area of pathology, regardless of the specialty in which they were qualified.

Radiographers are defined as scientific or technical clinical staff who qualified in the speciality of diagnostic radiography, whether they primarily work in the area of imaging or not. Clinical radiologists are defined as doctors who qualified in the specialty of clinical radiology but may work in all areas of the NHS.

2.19 Between 1990-91 and 2009-10, the number of available beds in the NHS reduced by 25% (41,000). Over this period, waiting times performance improved. But in the past seven years, a further reduction in the number of available beds appears to have coincided with declining waiting times performance. Between June-September 2010 and June-September 2018 the number of available beds in the NHS has reduced by 7%, from 108,300 to 100,400 (Figure 18).11 According to data published by the Organisation for Economic Co-operation and Development (OECD), the NHS in England now has the lowest number of hospital beds per person among developed countries.¹² Our analysis has highlighted a small but significant association between bed occupancy and waiting times performance, but further work needs to be carried out to establish whether there is a causal link (Figure 16). A large proportion of trusts are now routinely operating with a bed occupancy rate of more than 90%. While it may create efficiencies to reduce the number of beds to a certain level, after a certain point the capacity constraints this will introduce will impact on other resources such as staff and theatre usage. However, the NHS, including both NHS England and NHS Improvement, does not yet understand what the optimal level of beds is for the population as a whole, and for trusts to operate most efficiently.

Pressures on capacity from other services

2.20 Elective waiting times performance is also affected by pressures from urgent and emergency activities. Trusts performing less well against accident and emergency (A&E) waiting times also tend to perform worse against elective waiting times (Figure 16). These services often share common resources such as beds and operating theatres. It is likely that when a trust's A&E department is under pressure from urgent and emergency care, it will prioritise urgent and emergency care over elective services. This also happened at a national level during winter 2017-18, when NHS England recommended that trusts considered deferring elective operations where this would support access to emergency services.

Process efficiency and patient factors

2.21 Patient waiting times are also affected by the processes put in place by trusts and factors due to patients. Trust processes include the administration of appointments and coordination of various parts of the diagnostic and treatment elements along patient pathways. Delays can also be caused by last-minute cancellations either by trusts or patients, or by patients not turning up for their appointments as planned. Treatment can also be delayed for clinical reasons due to patient frailty or the complexity of their conditions.

¹¹ The number of available beds refers to general and acute beds only. It does not include maternity beds and beds specifically for patients with learning disabilities and mental illness.

¹² Organisation for Economic Co-operation and Development, Health care resources - hospital beds, Available at: https:// stats.oecd.org/index.aspx?queryid=30183, accessed in October 2018.

2018-19

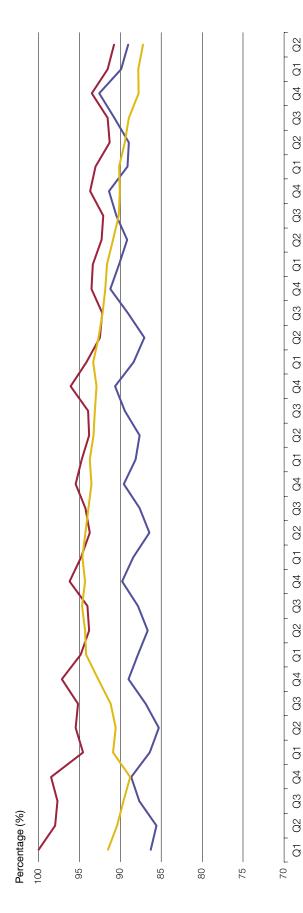
2017-18

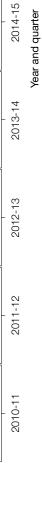
2016-17

2015-16

Figure 18

Overnight beds, average bed occupancy rates and performance against the waiting times standard for elective care, April to June 2010 to July to September 2018 The number of available beds has reduced, and the occupancy rates of these beds has increased. Over the same time period, waiting times performance has deteriorated





- Index for available beds (April to June 2010 is 100%)

Proportion of patients waiting less than 18 weeks for their treatment

Bed occupancy rate

1 Index for available beds is calculated as a percentage by dividing the number of beds for each quarter by the number of beds available between April and June 2010.

Source: National Audit Office analysis of NHS England bed availability and occupancy data

Actions to improve performance

2.23 NHS England and NHS Improvement have taken a range of actions to support trusts to improve performance against waiting times standards. **Figure 19** on pages 41 and 42 summarised the main actions taken over the past few years. These actions include:

- understanding performance and performance drivers. NHS England and NHS Improvement established joint datasets to monitor performance and carried out joint analysis to better understand variations in waiting times performance and the reasons for them. NHS England has also taken action to help improve the quality and completeness of the waiting times data. This includes issuing guidance on reporting waiting times and supporting trusts to comply with reporting standards;
- managing demand for elective referrals. NHS England has focused on managing the level of referrals to acute services through its Elective Care Transformation Programme. For example, it has rolled out musculoskeletal triage services to help ensure that patients access the most appropriate services the first time. It also published a good practice guide to help reduce inappropriate consultant-to-consultant referrals in 2018. The latest data suggest that these interventions may have started to slow down growth in elective referrals, particularly GP referrals. In 2016-17, referral growth by GPs slowed to 1.2% from 6.1% in 2015-16; and in 2017-18, GP referrals fell by 1.1%;
- making the most use of existing capacity. NHS England has an ambitious programme to release the equivalent of 4,000 beds by reducing the number of patients who stay in hospital for an extended period of time by 25%. By doing so it hopes to reduce the risk of those patients suffering declining physical and cognitive abilities. It told us that by September 2018, 13% of the 25% had been achieved. Part of this programme overlaps with its focus on reducing delayed discharges from hospitals. NHS Improvement also runs programmes to help trusts make more efficient use of their operating theatres; and
- improving efficiency in patient pathways. NHS England and NHS Improvement also support trusts to improve the efficiency of their operations in relation to waiting times. NHS Improvement has developed a range of toolkits to help trusts manage waiting lists. Due to limited resources, it has mainly targeted its support at trusts with the poorest performance.

Actions and future plans by NHS England and NHS Improvement to improve elective and cancer waiting times

NHS England and NHS Improvement monitor performance against waiting times standards by NHS trusts and NHS foundation trusts (trusts) and clinical commissioning groups (CCGs) and support trusts to improve waiting times

Area of actions	Actions and plans to monito	or and improve performance
	NHS England	NHS Improvement
Strategy	Five Year Forward View (2014) and Next Steps on the	NHS Five Year forward View (2017).
	Achieving world-class cancer outcomes: a strategy fo	r England 2015–2020 (2015).
	A joint governance arrangement bringing together regand NHS England.	ional and national leads across NHS Improvement
	NHS Long Term Plan (2019).	
	Reduce demand through managing how patients are referred into services to support local commissioners and providers to achieve the 92% waiting times standard. Increase cancer referrals to improve early diagnosis. The cancer alliance is leading the implementation of the cancer strategy, including improving cancer waiting times and early diagnosis.	Providing advice and guidance to trusts to help manage demand, capacity and improve operational efficiency at important steps in the elective and cancer care pathways.
Incentives	Removal of financial sanctions for cancer and elective waiting times in 2016-17 and sanctions for cancer and diagnostics in 2017-18 but plans to introduce financial sanctions for 12 month breaches from 2019.	No changes to NHS Improvement regulation.
	Linking cancer waiting times performance to transformation funding managed by cancer alliance in 2017-18.	
Understanding performance, performance drivers and	Common data sets and joint reporting on waiting time	es. Established a joint analytical team.
identifying risks	Collects and publishes waiting times data, monitors performance against waiting times standards by trusts and by clinical commissioning groups. It also links waiting times performance data with data on treatment activities to identify risk areas through its joint activity report for elective care and heat maps for cancer. It routinely monitors the number of long waiters (52 weeks or more for elective patients and 104 days or more for cancer).	Undertaken a number of statistical analyses and modelling to understand variations in performance and performance drivers for elective care and cancer waiting times at a national level.
Understanding impact on patient outcomes and patient experiences	Limited.	Limited.

Actions and future plans by NHS England and NHS Improvement to improve elective and cancer waiting times

Area of actions Actions and plans to monitor and improve performance NHS England **NHS** Improvement Interventions to improve performance Demand for services Established a number of initiatives to Developed tools to help model demand reduce demand for acute services, such as: and capacity. musculoskeletal triage services to ensure patients access the most appropriate services; consultant-to-consultant good-practice guide and national roll-out of capacity alerts to divert patients away from hospitals with little capacity. Capacity: Bed and Has focused on making the best use of available Theatre productivity programme. beds through reducing length of stay and delayed operating theatre discharges from hospital to free up bed capacity and national roll-out of capacity alerts to divert patient away from hospitals with little capacity. Capacity: diagnostic As part of its cancer strategy, NHS England has invested around £200 million to increase services and workforce diagnostic capacity. It also works with Health Education England to train an additional 300 radiographers and 200 endoscopists. During winter months pressure, NHS England has Pressures from emergency asked trusts to prioritise emergency services and services cancel elective operations. Operational efficiency Limited. Developed a range of toolkits to support trusts (patient flows) (working with NHS Improvement as part of the to manage waiting lists. Due to limited resources, joint programme). it has targeted support to help trusts in crisis to

Future plans/directions

Applying a new cancer diagnosis standard from April 2020, designed to ensure that patients find out whether or not they have cancer within 28 days of their initial appointment with a specialist.

manage patient pathways.

The NHS Long Term Plan committed to:

- rolling out new Rapid Diagnostic Centres across the country from 2019 and also committed to increase the proportion of patients diagnosed early from 50% to 75% by 2028, meaning more early referrals;
- reducing up to one-third of outpatient appointments, through investment in community and primary care, and new models of care;
- continuing to roll out capacity alerts to provide patients with wider options for quick elective care and
 anyone who has been waiting for six months given the option of faster treatment at an alternative
 provider; and
- more funds over the next five years to grow the amount of planned surgery year-on-year.

Source: National Audit Office review of policy documents, performance reports, board papers from NHS England and NHS Improvement

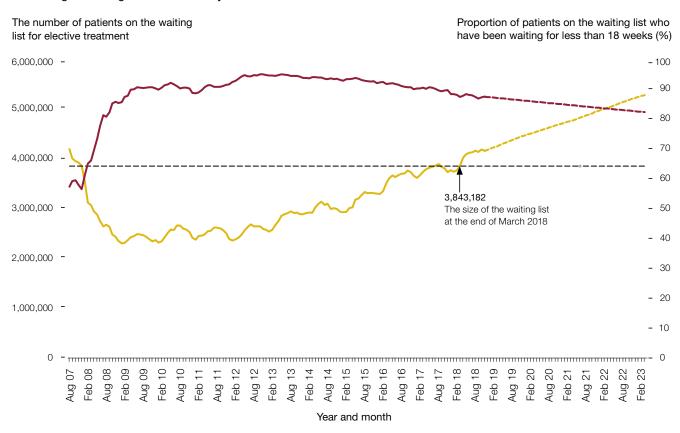
Potential costs

2.24 The NHS is no longer meeting its performance standard for elective care and it is unlikely that it will achieve the 92% waiting times standards again in the short term. If current trends continue, we estimate that the waiting list could grow to 4.5 million by March 2020 (**Figure 20** overleaf). This is one million more than when the 92% standard was last met. Even if there is capacity in the system, we estimate that it would cost an additional $\mathfrak{L}700$ million to reduce the waiting list to the level last seen in March 2018, based on current trends.

2.25 The NHS will receive an extra £20.5 billion of funding per year by 2023-24, an average annual real-terms increase of 3.4% between 2019-20 and 2023-24.13 The NHS Long Term Plan notes that some of the additional funds will be used to grow the amount of planned surgery year-on-year, to cut long waits, and reduce the waiting list, but does not set out how much will be used. Local partnerships (sustainability and transformation partnerships and integrated care systems) are developing five-year plans by autumn 2019 that aim to set out how they will improve local services and deliver the commitments set out in the NHS Long Term Plan.

NHS waiting list size and waiting times standard for elective care, August 2007 to November 2018, and forecasts to March 2023

The waiting list could grow to 4.5 million by the end of March 2020 if the current trend continues



- Percentage of patients on the waiting list who have waited less than 18 weeks trend
- Percentage of patients on the waiting list who have waited less than 18 weeks forecast
- -- March 2018 waiting list
- Patients still waiting for their treatment (waiting list) trend
- -- Waiting list forecast

Notes

- 1 NHS England's and NHS Improvement's stated aim in its 2018-19 planning guidance is to keep the waiting list at the end of March 2019 no larger than it is at the end of March 2018.
- The forecast for the five years from March 2018 is based on current trends for elective waiting times referrals, the number of people treated and waiting times performance for elective waiting times using the latest data available.

Source: National Audit Office analysis of NHS England waiting times data and NHS Digital Payment by Results data

Part Three

Waiting times for cancer treatment

- **3.1** This part of the report sets out the NHS's performance in meeting waiting times standards for cancer care. It covers performance trends, variation, the impact of waiting times performance on patients, and the factors associated with performance. We focus on three key standards:
- two-week wait from referral to first appointment;
- 31 days from decision to treat to first treatment; and
- 62 days from referral to treatment.

Policy objectives for cancer care

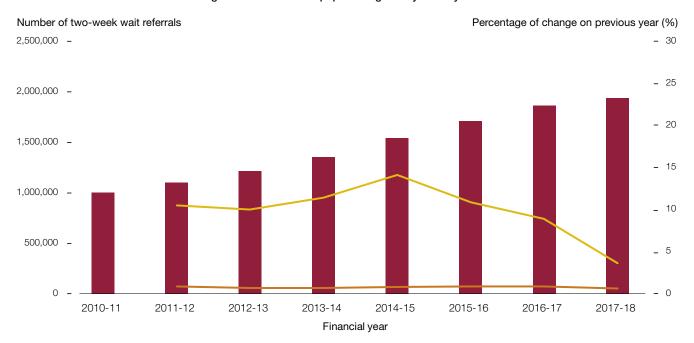
- **3.2** The NHS is seeking to improve its performance on cancer outcomes. Cancer survival rates in England have improved each year since 2000, although there remains a gap between England's performance and that of the best performing countries with a similar income to the UK.
- 3.3 To support further improvement, the NHS has taken a policy decision to promote earlier and faster detection of cancer through making a higher number of early referrals, in line with guidance from the National Institute for Health and Care Excellence (NICE). Performance against cancer waiting times standards needs to be seen in the context of this wider policy decision. The number of people now referred through the two-week wait urgent pathway has increased by 94%, from 1 million in 2010-11 to 1.94 million in 2017-18 (Figure 21 overleaf).

Performance at September 2018

3.4 Against its operational standards for cancer waiting times, the NHS's performance in 2018 was mixed (**Figure 22** on page 47). The 62-day referral to treatment standard is the most important, as it measures the entire patient pathway, but the NHS is not currently meeting this target.

Total two-week referrals for suspected cancer patients and rate of change on previous year, 2010-11 to 2017-18

Two-week referrals have been increasing at a faster rate than population growth year-on-year



- Two-week wait referrals
- Referrals growth on previous year
- Population growth rate

Note

1 Data do not include two-week referrals for patients urgently referred with breast symptoms (where cancer was not initially suspected).

Source: National Audit Office analysis of NHS England monthly cancer waiting times data

Figure 22

Performance against operational standards for cancer waiting times, July to September 2018

The NHS is meeting some waiting times standards for cancer but not others

Operational standard	Number of patients in 2017-18	Performance July to September 2018 (%)	Last met
Two weeks from urgent referral by a GP to first appointment with a consultant			
93% of patients urgently referred by a GP for suspected cancer	1,900,000	91.6	January to March 2018
93% of symptomatic breast cancer patients urgently referred by a GP but where cancer was not initially suspected	193,000	90.2	October to December 2017
31 days from decision to treat to treatment			
96% of patients diagnosed with cancer	281,000	96.9	Currently met
98% of patients requiring anti-cancer drugs	92,000	99.4	Currently met
94% of patients requiring surgery	93,000	93.5	April to June 2018
94% of patients requiring radiotherapy	56,000	96.9	Currently met
62 days from referral to treatment			
85% of patients urgently referred by a GP for suspected cancer and who require treatment	147,000	78.6	October to December 2013
90% of patients attending a national screening service and who require treatment	20,000	89.3	October to December 2017

Notes

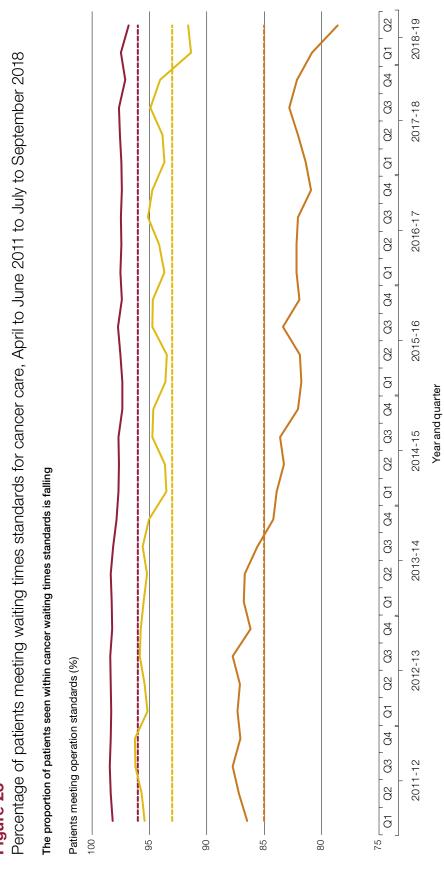
- 1 Performance is measured quarterly.
- 2 NHS England plans to introduce a new '28 days from referral to diagnosis' waiting times standard in 2020.

Source: National Audit Office analysis of NHS England quarterly cancer waiting times data

Performance trends over time

- **3.5** Waiting times performance for cancer care has been declining in recent years (**Figure 23** overleaf). In particular:
- performance against the high-profile two-week wait standard has reduced, from 95.4% between April and June 2011 to 91.6% between July and September 2018. However, this standard was not been breached until April 2018, despite the increase in the number of people referred during this period. NHS England told us that the decline in performance since April to June 2018 was due to an unprecedented increase in the number of referrals a 14% increase for the three months between April and June 2018 compared with the previous quarter. In contrast, the average increase was 2% over the past three years; and
- although the NHS has met its performance standard for patients diagnosed with cancer to wait no more than 31 days from decision to treat to treatment, it has not met the 62-day standard since October to December 2013.

Figure 23



31 days wait from a decision to treat to a first treatment for cancer

Source: National Audit Office analysis of NHS England waiting times data

⁻⁻ Operational standard for 31 days wait (96%)

Two-week wait from GP urgent referral to first consultant appointment

⁻⁻ Operational standard for two-week wait (93%)

 ⁶² days wait from GP urgent referral to a first treatment for cancer

⁻⁻ Operational standard for 62 days wait (85%)

Variations in performance

Variation by geography and demographics

- **3.6** Waiting times performance for cancer varies significantly across clinical commissioning groups (CCGs) and providers. In 2017-18:
- the percentage of patients treated within 62 days following a GP referral varied across CCGs, from 59% to 93% (Figure 24 overleaf); and
- the percentage of NHS providers that did not meet the waiting times standard for referral to treatment on average across the year was 49%. In 2018-19, performance worsened: since June 2018, only around one-third of trusts have been able to meet the standard, with a slight improvement in November 2018 when 38% of trusts met the standard.

It was not possible to look at variation in waiting times between demographics, because NHS England does not collate these data.

Variation by cancer type

3.7 Although the waiting times standards do not differentiate by cancer type, we found that performance against standards varies by cancer type. Generally, those cancer types that have simpler diagnostic and treatment pathways are more likely to meet the standard (**Figure 25** on page 51). For breast cancer, which is often diagnosed in one-stop clinics, 94% of patients were treated within 62 days. For urological cancer, where the diagnostic path is more complex, 78% of patients were treated within 62 days.

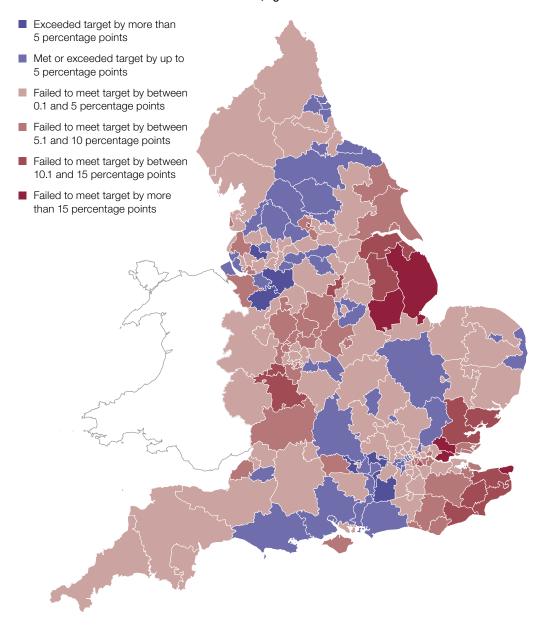
Impact of the cancer care waiting times standards

3.8 The NHS has encouraged more referrals of patients with suspected cancer and earlier diagnosis of cancer. Analysis by Cancer Research UK found that, for most cancer types, the average time to diagnosis for patients diagnosed through the urgent two-week wait route is half the length of those diagnosed through the routine GP referral routes. Between 2010-11 and 2017-18, the number of people referred through this programme increased by 94% (Figure 21). The proportion of people diagnosed with cancer through the programme has also increased from 31% in 2010 to 38% in 2016. We found that CCGs with a higher level of referral in comparison to their new cancer cases tend to perform more poorly against the two-week wait standard; however, patients from these areas also tend to be diagnosed at earlier stages of their cancer development, are less likely to be diagnosed following emergency presentations and have better survival rates. Recent research found that meeting cancer waiting times standards did not translate into improved one-year survival rates. ¹⁴

¹⁴ C. Di Girolamo et al., Can we assess cancer waiting time targets with cancer survival? A population-based study of individually linked data from the National Cancer Waiting Times monitoring dataset in England, 2009–2013, PLoS, August 2018.

Percentage of patients meeting the 62-day waiting times standard by clinical commissioning groups (CCGs), 2017-18

Across CCGs, the percentage of patients meeting the 62-day standard following a GP referral varied from less than 75% to more than 90% in 2017-18, against a standard of 85%



Note

1 In 2017-18, there were 207 CCGs. Some of them have since merged and there are now 195 CCGs. There is also a national commission group, commissioning services nationally, which is not included in the map.

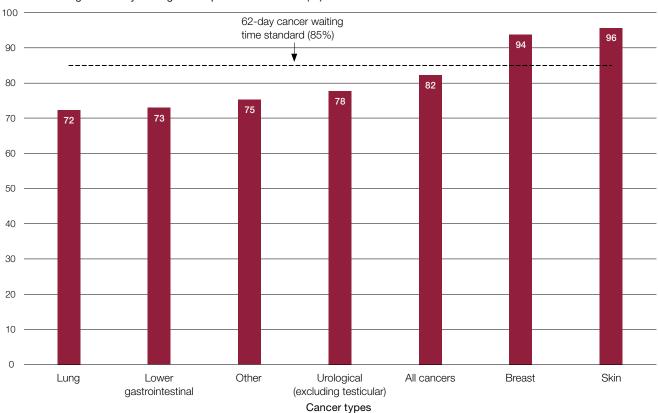
Source: National Audit Office analysis of NHS England cancer waiting times data

Figure 25

Percentage of patients meeting the 62-day waiting times standard by cancer type, 2017-18

The NHS is meeting standards for cancer types that have simpler diagnostic and treatment pathways

Patients meeting the 62-day waiting times operational standard (%)



Performance

-- Standard

Note

1 Patients with breast and skin cancers are generally considered to have simpler treatment pathways than other types of cancer.

Source: National Audit Office analysis of NHS England quarterly cancer waiting times data

Factors relating to cancer waiting times performance

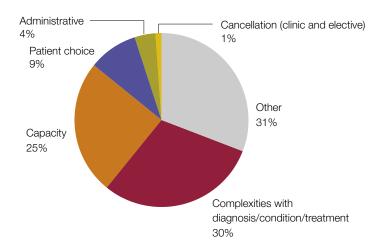
3.9 Many of the factors associated with waiting times performance for elective care described in Part Two also affect cancer waiting times. According to data collected by clinicians, constraints on capacity are one of the main factors leading to delays for cancer patients (Figure 26).

Demand

3.10 Most of the increase in cancer referrals can be attributed to NHS England's policy to encourage urgent referrals to improve early diagnosis of cancer. Of the 69% overall increase in referrals between 2011-12 and 2016-17, only eight percentage points of that increase can be attributed to a growing and ageing population, or to the likelihood of people developing cancer. Most of the remaining 61% increase is likely to be attributable to NHS England's policy to encourage urgent referrals of patients with suspected cancer to improve early diagnosis and patient outcomes. The proportion of people diagnosed with cancer following a two-week wait referral has decreased from 9.5% in 2012-13 to 7.7% in 2017-18. The number of referrals is likely to increase significantly further assuming GPs follow the NICE guidelines and refer patients when they believe their chances of having cancer are greater than 3%.15 The trend in increasing numbers of early referrals is likely to continue as the NHS Long Term Plan committed to increasing the proportion of patients diagnosed at early stages (stages 1 and 2) from 50% to 75% by 2028.

Figure 26 Factors leading to delays to cancer patients' treatment, 2017-18

Clinicians reported that constraints in capacity was one of the main factors leading to delays in cancer treatment in 2017-18



Note

There is no further information available on what the 'other' category comprises.

Source: NHS England analysis of patient-level waiting times data

¹⁵ A lower ratio is a good thing because it indicates that cancer is being caught earlier through other routes.

Capacity

3.11 Performance in meeting cancer waiting times standards is also correlated with pressures from urgent and emergency activities. Trusts performing less well against A&E waiting times also tend to perform worse against cancer waiting times (**Figure 27** overleaf). Staff shortages in diagnostic specialties is a concern for cancer waiting times. NHS England's analysis of patients' journeys through the health system has identified delays in diagnosis as the main reason for delays to cancer treatments. Unlike elective care, other capacity-related factors, including trusts' level of bed occupancy and their financial position, are not always significantly associated with cancer waiting times performance.

Process efficiency and patient factors

3.12 NHS Improvement analysis also found that the more appointments and service providers involved, the more likely it is that a cancer treatment is delayed. Delays can also be caused by last-minute cancellations either by trusts or patients, or by patients not turning up for their appointments as planned.

Actions to improve performance

3.13 Most of the actions taken by NHS England and NHS Improvement to improve elective care waiting times (paragraph 2.23) also apply to cancer waiting times. In addition, to meet its commitment to encourage GPs to refer more patients with suspected cancer, NHS England has committed up to £200 million to help improve cancer diagnostic services. It is also working with Health Education England to train additional staff including endoscopists, histopathologists and radiographers. To help improve cancer waiting times performance in the future, NHS England plans to apply a new cancer diagnosis standard from April 2020. It is designed to ensure that patients find out whether they have cancer within 28 days of their initial appointment with a specialist. NHS England is also planning to roll out rapid diagnostic centres across the country as part of its long-term plan.

Statistical association between factors relating to trusts' capacity and their performance in meeting their 62-day cancer waiting times standard

Trusts with constraints in their diagnostic services and those facing greater pressures from emergency services tend to perform poorer in cancer waiting times performance

Factors related to capacity	Statistically significant	Direction of association with 62-day cancer waiting times performance (over time for the same trusts and across different trusts)
Diagnostic services	Consistently significant	Trusts with a lower proportion of patients seen within six weeks also tend to perform poorer.
Pressures from emergency services	Consistently significant	Trusts with a lower proportion of patients seen within four hours in their A&E tend to perform poorer.
Finance	Significant but not consistent	Trusts with a higher level of deficit tend to perform poorer but this is sensitive to the model used.
Bed occupancy	Significant but not consistent	Trusts with a higher level of bed occupancy tend to perform poorer but the association is sensitive to the model used.
Consultant ³	Significant but not consistent	Trusts with a higher number of referrals per consultant tend to perform poorer but the association is sensitive to the model used.
Operating theatre	Inconclusive	Not clear whether trusts with a higher number of admissions for surgical specialties per operating theatre tend to perform better or not.

Notes

- 1 The factors that we have identified as correlated with performance are based on regression analysis using data from a range of sources, including: waiting times, hospital activity and bed statistics published by NHS England; NHS workforce and Hospital Episode Statistics data from NHS Digital and NHS trusts' financial data from NHS Improvement. We carried out several different approaches to our regression analysis taking account of the data we collected (for example, multiple linear regression analysis and panel data regression analysis). For elective care, the waiting times standard we examined was the standard for patients still waiting for their treatment; for cancer, the standard we examined was the 62-day standard from GP referral to treatment.
- 2 If a factor is significantly correlated with waiting times performance across all the models we tested at a 10% confidence level, we described it as "consistently significant"; if only for some models but not for others, we described it as "significant but not consistent"; if it is significant at a 10% confidence level, but the direction of correlation changes, we described it as "inconclusive".
- 3 Consultants are measured against the level of activity at trusts (see Appendix Three for more details). Diagnostic services are measured by the proportion of patients receiving their diagnostic tests within six weeks and emergency pressures measured by performance against A&E waiting times standards.

Source: National Audit Office regression analysis

Appendix One

Our audit approach

- 1 Under the NHS Constitution, patients have the right to be seen by a hospital specialist (consultant) following a referral by their GP or another clinician. To ensure patients' rights, the Department of Health & Social Care (the Department) has introduced various waiting times standards for NHS commissioners and service providers for elective and cancer care. The Department has also set waiting times standards for accident and emergency, ambulance and mental healthcare services but we have excluded these from the scope of this report.
- 2 This report draws together existing evidence and analysis by the Department, NHS England, NHS Improvement and other stakeholders. We build on this evidence base with our own analysis to provide added insight into:
- changes in waiting times performance over time, and variations in that performance;
- the impact of waiting times performance on patients;
- the factors that influence waiting times performance; and
- NHS England's and NHS Improvement's approach to managing and improving waiting times performance.
- 3 Our 2014 report on waiting times, highlighted that trusts record waiting times data in different ways, and sometimes incorrectly. We found that errors were not particularly skewed towards meeting targets, so this report does not re-evaluate the quality of waiting times data. However, we reviewed the actions taken by NHS England to improve data quality and completeness since 2014. We also reviewed the quality of the datasets used in our analysis and sought to ensure that our findings were as robust as possible. For example, we excluded outliers and carried out extensive sensitivity analysis.
- 4 We also highlighted the gaps in the NHS's understanding of waiting times performance and identified areas for NHS England and NHS Improvement to focus on for further insights. We have not sought to evaluate whether the management of waiting times by the NHS achieves value for money. As such, we did not use evaluative criteria to reach a conclusion but sought to present what is known about waiting times performance and the factors associated with it.
- 5 Our audit approach is summarised in **Figure 28** overleaf. Our evidence base is described in Appendix Two.

Our audit approach

The objective of government

The government aims to treat all those requiring NHS medical treatment within an appropriate timeframe. The NHS Constitution (2015) sets out patients' rights to timely access to care within maximum waiting times. These include referral for elective treatment and cancer services.

How this will be achieved

The Department of Health & Social Care (the Department) has set waiting times performance standards for NHS commissioners and service providers, describing the percentage of patients that NHS bodies must treat within maximum waiting times. It uses these standards to encourage and incentivise bodies to manage their performance against the standards accordingly.

Our study

This study examines current waiting times standards for elective and cancer treatment and factors associated with performance in meeting waiting times standards. We also examined NHS England's and NHS Improvement's current approaches to improving performance against waiting times standards.

Our evaluative criteria

How has waiting times performance changed and how does it vary between NHS bodies? What is known about the impact of waiting times performance on patients? What is known about the factors that influence waiting times performance?

How do NHS England and NHS Improvement manage and improve performance?

Our evidence

(see Appendix Two for details)

We assessed waiting times performance, its impact on patients, factors affecting performance and the role of NHS bodies through:

- analysis of available national datasets;
- review of documents provided by NHS England, NHS Improvement, the Department and other stakeholders and a random sample of board papers from NHS trusts and NHS foundation trusts (trusts); and
- interviews with people involved in the management of waiting times and a range of other stakeholders.

Our conclusion

At a time of financial restraint, the NHS has responded to growing demand for elective and cancer care by increasing the amount of treatment it provides. However, this has not been sufficient to maintain performance against waiting times standards, and some standards have not been met for some years. Cancer performance has been affected by increasing referrals resulting from the desirable choice to improve early diagnosis and survival rates. While increased demand and funding constraints affect the entire system, other factors are linked with differences in performance both over time and across trusts. These include staff shortages for diagnostic services, a lack of available beds, inefficient processes and, in some cases, patient choices.

The NHS Long Term Plan commits to reducing face-to-face outpatient visits by one-third. Such a reduction would have a significant impact on elective care performance, as it is currently measured. The plan also commits to increasing the proportion of patients diagnosed with cancer at early stages from 50% to 75% by 2028. The NHS is now preparing local implementation plans for these new commitments. It is hard to see how the NHS will be able to recover its position on waiting times in the near future without significant investment in staffing and infrastructure.

Appendix Two

Our evidence base

- 1 We present our independent evidence on the performance of the NHS on waiting times for elective care and cancer services after analysing evidence we collected between July and December 2018. Our audit approach is outlined in Appendix One.
- 2 We interviewed officials across the Department of Health & Social Care (the Department), NHS England and NHS Improvement. This was to help us understand how the Department is holding the NHS accountable for meeting waiting times standards, how NHS England and NHS Improvement are setting their priorities and how they are working together to monitor and improve performance against the waiting times standards.
- 3 We interviewed and consulted a range of stakeholders to understand how waiting times are being managed by commissioners and providers locally and what analyses have been carried out. These included Cancer Research UK, the Health Foundation, the King's Fund, NHS Gooroo, NHS Providers, the Nuffield Trust and Public Health England. We also visited a clinical commissioning group (CCG) and interviewed a provider to understand how waiting times are managed on the ground and the challenges they face.
- 4 We reviewed policy documents and published literature from NHS England, NHS Improvement, the Department, Public Health England, think tanks, NHS trusts and NHS foundation trusts (trusts), and other stakeholders. These included policy documents, progress reports and board papers, as well as reports published by stakeholders on specific issues relating to waiting times. For trusts, we obtained the published board papers of 43 trusts we randomly selected and reviewed their latest minutes of board meetings, integrated performance reports and board assurance frameworks between September and November 2018. This document review allowed us to gain an understanding of the reasons for poor performance, the specialties that were particularly affected, and how they monitor harm or negative patient experiences relating to delays.
- We reviewed and carried out extensive analysis of performance data on waiting times. Most of the data we reviewed and analysed can be obtained publicly from NHS England's and NHS Digital's websites. These datasets include: elective waiting times; cancer waiting times; accident and emergency waiting times and diagnostic waiting times. We also obtained and analysed unpublished data collected by NHS England, NHS Improvement and NHS Digital.

- 6 We also reviewed and analysed datasets from NHS England, NHS Digital, the Care Quality Commission, Public Health England, NHS Improvement, the Office for National Statistics, NHS Resolution and the Organisation for Economic Co-operation and Development (OECD). These datasets included: hospital episode statistics; NHS reference costs (average unit costs of NHS care); NHS workforce; overnight beds and occupancy rates by trusts; cancelled operations; missed appointments; delayed discharges of care, trusts' surpluses and deficits; hospital surveys; cancer patient surveys; population estimates for England; cancer incidence both nationally and by CCGs; clinical negligence claims and the number of beds per person across OECD countries.
- 7 We carried out a range of regression analyses to identify factors associated with performance in meeting waiting times standards. These included multiple linear regression analysis, panel data analysis and logistic regression analysis. These analyses helped us to understand the statistical associations between performance in waiting times and a range of factors (see Appendix Three).
- 8 We estimated the potential additional cost to NHS commissioners to reduce the elective care waiting list over the next few years. Our analysis assumed that the current trend in referrals and treatment activity continues. The additional cost to the NHS is calculated, on a one-off basis, as the cost to reduce the waiting list size to the level last seen in March 2018. In doing so, we analysed the trends in referrals, treatment activities and waiting times performance from NHS England, and payment by results data for outpatients and inpatients provided by NHS Digital. We also consulted with analysts from NHS England, NHS Improvement and the Department and used unit costs data provided by NHS England and the Department throughout our analyses.

Appendix Three

Regression analysis

Rationale

1 From our literature review and analysis of patient-level cancer waiting times data, we identified several factors that were reported to be related to delays to treatment. These included: rising demand; financial constraints; capacity constraints including bed occupancy and staff; emergency pressures and patient pathway management. We carried out a range of regression analyses to explore whether and to what extent the association between those factors and the performance in waiting times standards could be supported by existing data. Our regression analyses were also informed by regression analyses carried out by NHS Improvement on waiting times.

Types of regression analysis

2 To ensure that our findings were not skewed by a particular regression model selected, we explored a range of regression models for the data we collected. These models included multiple linear regression analysis, panel data regression analysis and logistic regression analysis. These analyses helped us to understand the statistical associations between performance in waiting times and a range of variables we reviewed, both over time and across NHS trusts and NHS foundation trusts (trusts) and clinical commissioning groups (CCGs).

Data sources, sensitivity testing and model exploration

3 Many of the datasets we used were collected for existing administrative purposes and not collected specifically for our regression analysis. These datasets are described in paragraphs 5 and 6 of Appendix Two. These datasets are of variable quality and completeness. We reviewed, but did not validate, these datasets in this study. Where there are known data issues, we have taken a conservative approach wherever possible, for example, by excluding outliers from our analysis.

4 Given the limitations in the data, both in terms of quality and availability, we explored a wide range of model constructs to ensure that our findings were not skewed by a particular model selection. To make comparisons across trusts more meaningful, we had to standardise some of the variables used, for example, the level of consultants for each trust to reflect their varying level of activity. We used several measures for activity - the number of referrals, the number of admissions and the number of appointments. For example, for the level of consultants, depending on the performance indicators examined, in some models we use the number of referrals per consultant, in some we use the number of admissions per consultant and in others we use the number of appointments per consultant. In addition to the three types of regression models tested, we also explored different approaches to standardisation for some of the variables used in our model and the sensitivity of the model to these standardisations. We selected our final approach to standardisation following these explorations and discussions with analysts from the Department of Health & Social Care, NHS England and NHS Improvement. In addition, we tested our regression models for a number of indicators of how trusts are performing against waiting times. For example, for elective care, we tested the performance against elective waiting times standards for all patients still waiting for their care, for those patients requiring admissions and for those patients from surgical specialties only.

Models selected for final report

For the final regressions used in our report, the dependent variable for elective waiting times was the proportion of patients on the waiting list who had waited less than 18 weeks each month by trusts. For elective waiting times, the final models selected were panel regression models as we found the results were consistent between panel data models and multiple linear regression models and we have collected data for five years. Our final models selected also included models both with and without seasonality variables (month and year) as explanatory variables. This is to account for the correlation between some of the independent variables we tested, for example, bed occupancy, with time variables (month and year). For cancer, the dependent variable was the proportion of patients treated within 62 days of GP referral on an annual basis. We selected both multiple linear regression with pooled data across three years and panel data analysis. This was because we only had limited data points as we only collected annual data for three years and the power of the panel data analysis may be restricted by the limited data we have.

Reporting

6 In reporting our findings (Figures 2, 16 and 27), we reflected both the statistical significance and the consistency of our findings across the final regression models selected. If a factor was significantly correlated with waiting times performance across all the models we tested at a 10% confidence level, we described it as "consistently significant"; if only for some models but not for others, we described it as "significant but not consistent"; if it is significant at a 10% confidence level, but the direction of correlation changes, we described it as "inconclusive". These findings have helped to inform our understanding of some of the issues related to waiting times performance. However, due to data constraints, these results are only indicative. They helped us to raise further questions and identify gaps in current understanding rather than providing definitive answers on the extent to which capacity factors explain the recent increases in waiting times.

Appendix Four

Best and worst performing clinical commissioning groups (CCGs)

1 Figures 29, 30, 31 and 32 on pages 62 to 65.

Figure 29

Twenty clinical commissioning groups (CCGs) with the highest proportion of patients waiting less than 18 weeks for their elective treatment, December 2018

For the 20 highest performing CCGs, 92% or more of their patients were waiting less than 18 weeks for their elective treatment in December 2018

Name of CCG	Percentage (%)
NHS Barnsley CCG	94
NHS Southport and Formby CCG	94
NHS Sheffield CCG	94
NHS City and Hackney CCG	94
NHS Newcastle Gateshead CCG	94
NHS West Lancashire CCG	94
NHS South Tyneside CCG	94
NHS St Helens CCG	94
NHS Nottingham North and East CCG	93
NHS Kingston CCG	93
NHS Warrington CCG	93
NHS Luton CCG	93
NHS Nottingham City CCG	93
NHS Rotherham CCG	93
NHS Nottingham West CCG	93
NHS Hartlepool and Stockton-on-Tees CCG	93
NHS Northumberland CCG	93
NHS Dudley CCG	92
NHS Wigan Borough CCG	92
NHS North Tyneside CCG	92

Source: National Audit Office analysis of NHS England waiting times statistics

Twenty clinical commissioning groups (CCGs) with the lowest proportion patients waiting less than 18 weeks for their elective treatment, December 2018

For the 20 lowest performing CCGs, 82% or less of their patients were waiting less than 18 weeks for their elective treatment in December 2018

Name of CCG	Percentage (%)	
NHS Canterbury and Coastal CCG	74	
NHS Thanet CCG	74	
NHS South Kent Coast CCG	75	
NHS Ashford CCG	75	
NHS North Lincolnshire CCG	75	
NHS Herefordshire CCG	77	
NHS North East Lincolnshire CCG	78	
NHS Barnet CCG	78	
NHS West Norfolk CCG	79	
NHS Enfield CCG	79	
NHS Brighton and Hove CCG	81	
NHS Northern, Eastern and Western Devon CCG	81	
NHS Isle Of Wight CCG	81	
NHS Stoke On Trent CCG	82	
NHS Wirral CCG	82	
NHS South Devon and Torbay CCG	82	
NHS Bromley CCG	82	
NHS Bradford City CCG	82	
NHS Blackpool CCG	82	
NHS Fareham And Gosport CCG	82	
Source: National Audit Office analysis of NHS England waiting times statistics		

Twenty clinical commissioning groups (CCGs) with the highest percentage of patients meeting the 62-day cancer waiting times operational standard, October to December 2018

For the 20 highest performing CCGs, 87% or more of their cancer patients were treated within 62 days following a GP referral between October and December 2018

Name of CCG	Percentage (%)
NHS Kingston CCG	97
NHS Wandsworth CCG	94
NHS Richmond CCG	94
NHS East Berkshire CCG	93
NHS Hambleton, Richmondshire and Whitby CCG	91
NHS West London CCG	91
NHS North East Hampshire and Farnham CCG	91
NHS Hammersmith and Fulham CCG	91
NHS Portsmouth CCG	90
NHS Sunderland CCG	89
NHS Dartford, Gravesham and Swanley CCG	89
NHS Guildford and Waverley CCG	89
NHS Central London (Westminster) CCG	89
NHS South Tyneside CCG	88
NHS Havering CCG	88
NHS Barking and Dagenham CCG	87
NHS Surrey Downs CCG	87
NHS Greater Preston CCG	87
NHS South Cheshire CCG	87
NHS Newham CCG	87

Note

Source: National Audit Office analysis of NHS England provisional quarterly cancer waiting times statistics

¹ Three CCGs (Bradford City, Surrey Heath and Corby) with less than or equal to 50 patients were excluded from the analysis due to their small numbers.

Twenty clinical commissioning groups (CCGs) with the lowest percentage of patients meeting the 62-day cancer waiting times operational standard, October to December 2018

For the 20 lowest performing CCGs, 71% or less of their cancer patients were treated within 62 days following a GP referral between October and December 2018

Name of CCG	Percentage (%)
NHS Thurrock CCG	58
NHS Bradford Districts CCG	63
NHS Wolverhampton CCG	64
NHS West Kent CCG	66
NHS Bury CCG	67
NHS Mid Essex CCG	68
NHS Knowsley CCG	69
NHS Southend CCG	69
NHS Liverpool CCG	70
NHS East Staffordshire CCG	70
NHS Eastbourne, Hailsham and Seaford CCG	70
NHS North Norfolk CCG	70
NHS South West Lincolnshire CCG	71
NHS Redditch and Bromsgrove CCG	71
NHS Enfield CCG	71
NHS Greenwich CCG	71
NHS Islington CCG	71
NHS North East Lincolnshire CCG	71
NHS Wyre Forest CCG	71
NHS Hastings and Rother CCG	71

Not

Source: National Audit Office analysis of NHS England provisional quarterly cancer waiting times statistics

¹ Three CCGs (Bradford City, Surrey Heath and Corby), with less than or equal to 50 patients were excluded from the analysis due to their small numbers.

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