Progress in improving cancer services and outcomes in England
## Key facts

<table>
<thead>
<tr>
<th>£6.7bn</th>
<th>280,000</th>
<th>31%</th>
</tr>
</thead>
<tbody>
<tr>
<td>estimated cost to the NHS of cancer services in 2012-13</td>
<td>people diagnosed with cancer in 2012</td>
<td>of people diagnosed with cancer in 2012 died within a year</td>
</tr>
</tbody>
</table>

- **3-in-5** new cancers are diagnosed in people aged 65 or over
- **1-in-5** cancers were diagnosed via an emergency presentation at hospital between July and December 2012
- **62%** of newly diagnosed cancers in 2012 had a record of how far advanced the cancer was at diagnosis
- **51%** increase in urgent GP referrals for suspected cancer between 2009-10 and 2013-14
- **64** NHS trusts and NHS foundation trusts failed to meet the standard that 85% of patients should start cancer treatment with 62 days of referral by a GP between July and September 2014
Summary

1 More than 1-in-3 people in England will now develop cancer in their lifetime. In 2012, around 280,000 people were diagnosed with cancer and an estimated 133,000 people died from cancer. There are more than 200 different types of cancer, but cancers of the breast, prostate, lung and bowel account for more than half of all newly diagnosed cancer cases. More than 3-in-5 cancers are diagnosed in people aged 65 or over.

2 Cancer has been a priority for the Department of Health (the Department) since the publication of the NHS Cancer Plan in 2000. The Department’s current cancer strategy, published in 2011, set out an ambition to save an additional 5,000 lives a year by 2014-15 and halve the gap between survival rates in England and those in the best European countries.

3 In January 2015, as we finalised this report, NHS England announced that it had set up a taskforce to develop a 5-year action plan for cancer services by summer 2015, with the aim of improving survival rates. The taskforce will be chaired by the Chief Executive of Cancer Research UK and will work across the health system. It will cover different aspects of cancer care, including prevention, diagnosis and treatment.

4 Figure 1 overleaf outlines the main diagnosis and treatment pathways for people with cancer, together with the waiting time standards that the Department has set. We estimate that, in 2012-13, the NHS spent at least £6.7 billion on cancer services. The Department is ultimately responsible for securing value for money for this spending. Responsibility for commissioning cancer services is shared between the Department’s largest arm’s-length body, NHS England, and the 211 local clinical commissioning groups. Public Health England, another of the Department’s arm’s-length bodies, is responsible for piloting new cancer screening programmes.

Our report

5 We have reported 4 times on cancer services in the past 11 years, most recently in November 2010 on delivery of the Department’s 2007 Cancer Reform Strategy. The subsequent Committee of Public Accounts report, published in March 2011, concluded that the NHS had made significant progress in delivering important aspects of cancer services, with falling mortality rates and consistent achievement of the cancer waiting time targets. A significant increase in resources had contributed to the improvements, but the progress had also been achieved through clear direction and high-profile leadership. However, the Committee was concerned that there remained wide, unexplained variations in performance across the country and significant gaps in information about important aspects of cancer services.

Figure 1
Main cancer pathways to treatment and maximum waiting times

Referral route
- Urgent GP referral
  - 14 days (93%)
- Other GP referral
- Screen detected
  - Emergency presentation
  - Other outpatient
  - Inpatient elective

Diagnosis
- Various diagnostic tests
  - Imaging (for example, CT and MRI scans)
- Blood test
- Biopsy

First treatment
- 62 days (85%)
- Surgery
- Radiotherapy
- 31 days (96%)
- Chemotherapy

Subsequent treatment
- Surgery
- Radiotherapy
- Chemotherapy

Notes
1. 31 days for children’s cancers, testicular cancer and acute leukaemia.
2. 98% for second or subsequent treatment that is chemotherapy.
3. The days on the dashed arrows show the maximum waiting time and the percentage of cases that should meet this standard.
4. There are 2 other waiting time standards, which are not shown: 14-day wait for breast symptoms where cancer was not initially suspected (93%) and 62-day wait for first treatment following a consultant’s decision to upgrade the priority of the patient (no percentage specified).

Source: National Audit Office
In 2014, the Committee of Public Accounts asked us to review progress in improving cancer services and outcomes since we last reported. This report sets out the results of our review, which examined progress in implementing the Committee’s recommendations and progress against key measures of cancer services and outcomes. The report covers: roles and responsibilities (Part One); information and evidence (Part Two); and services and outcomes (Part Three). Appendix One gives a summary of the Department’s view on progress against the recommendations that the Committee made in 2011.

We set out our evidence base in Appendix Two. Our analysis of progress drew heavily on data that were already available. Appendix Three summarises performance against a range of indicators in 4 areas: incidence and outcomes; referrals and diagnosis; access to treatment; and service management. For each indicator, we highlight trends over time, variations by geographic area and demographic group, and international comparisons where data are available.

Key findings

Outcomes for cancer patients, including estimated survival rates, continue to improve. Since we last reported, national performance has improved against a range of indicators. For example, the proportion of people surviving for 1 year and 5 years after diagnosis has increased to 69% (for those diagnosed in 2012) and 49% (for those diagnosed in 2008) respectively. And cancer awareness campaigns have increased awareness of cancer signs and symptoms (paragraph 3.3).

However, there remains considerable scope to improve outcomes for cancer patients further. Of particular concern are that:

- 1-in-5 people are diagnosed via an emergency presentation, as those diagnosed in this way are, on average, around twice as likely to die within a year compared with those diagnosed via an urgent GP referral, because their cancers are generally more advanced (paragraph 3.4); and

- the waiting time standard that 85% of patients should be treated within 62 days of being referred urgently by their GP has not been achieved since September to December 2013 (paragraph 3.5).

Significant variations and inequalities in outcomes and access to services persist. Outcomes and access to services are generally poorer for older patients, and those from more deprived socio-economic groups are more likely to experience worse outcomes compared with those from less deprived groups. For example, cancer patients aged 55–64 are 20% more likely to survive for at least 1 year after diagnosis than those aged 75–99. While survival rates for older people are expected to be lower, because, for example, they are frailer and less likely to cope with the treatment, this is unlikely to explain fully the significant variation between age groups. There would also be nearly 20,000 fewer deaths from cancer each year if mortality rates for all socio-economic groups were the same as for the least deprived (paragraph 3.7).
People in England are less likely to develop cancer than in other high-income countries in Europe but, according to the most recent data, cancer outcomes in England have generally been worse. Data on 5-year survival rates published in 2013 (for those diagnosed between 2000–2007) showed that, while survival rates in England have improved, they remained about 10% lower than the European average. Outcomes are particularly poor in relative terms for older patients. Benchmarking studies indicate that the worse outcomes in England may be due to poorer access to treatment or poorer quality of care, as well as lower rates of early diagnosis. Survival rates for children diagnosed with cancer in the United Kingdom and Ireland are close to the European average (paragraphs 3.9 to 3.13).

Better information is becoming available to strengthen the evidence base for cancer services. The Department, its arm's-length bodies and the NHS have made good progress in implementing the Committee of Public Accounts’ recommendations, including introducing new datasets and improving the coverage of existing datasets. For example, the proportion of newly diagnosed cancers with staging data (a record of how advanced a patient’s cancer is at diagnosis) increased from 33% to 62% of cases between 2007 and 2012 (paragraphs 2.3 to 2.5 and Figure 5).

However, important gaps in cancer data remain. Data on the cost and efficiency of cancer care have not improved in line with the development of data on cancer treatments and outcomes, and information on activity is not routinely linked to cost data for some cancer treatments. This means that commissioners still cannot make informed decisions about value for money. It also means there is limited assurance about whether resources are being used to best effect. Data gaps also make it difficult to evaluate in a meaningful way the £733 million spent through the Cancer Drugs Fund since October 2010 (paragraphs 1.11 to 1.13, 2.6 to 2.8 and Figure 4).

There is a risk that the significant progress that has been made in improving cancer services and information will stall as a result of recent changes and pressure on resources. The commissioning arrangements for cancer services are now more complex, and are still bedding in following the reforms to the health system in 2013. It is unclear how in practice NHS England is monitoring performance against the outcomes indicators relating to cancer. Organisations that we interviewed raised concerns that the health system does not have sufficient capacity to exploit the data that are available and that analysis and insight are being hampered because data are now flowing less freely around the health system. The Health and Social Care Information Centre tightened its data-sharing processes in 2014 following concerns about patient confidentiality (paragraphs 1.6, 1.7, 2.9 to 2.13 and Figure 3).
Conclusion

15 The Department, its arm’s-length bodies and the NHS have made progress in improving cancer services since we last reported on this subject in 2010. Overall, outcomes for cancer patients continue to improve. The better information that is becoming available to strengthen the evidence base for cancer services should support improvements in performance, although important gaps in data remain.

16 The significant variations within England indicate that there is considerable scope to improve cancer services and outcomes further. In addition, the most recent data (published in 2013) showed that the gap between England and the European average had not closed and 5-year survival rates for people diagnosed up to 2007 have remained well below the European average. Because of the time lag in survival data becoming available, it is too early to tell whether the improvements in cancer services, made since we reported in 2010, are helping to close the gap between England and the best performing European countries.

17 Addressing the significant variations that exist between different parts of the country and different groups of patients will be crucial to closing the gap between outcomes in England and those in better performing European countries. In addition to this, the Department, its arm’s-length bodies and the NHS need to work together to make sure that the momentum in service improvement is not lost as a result of the recent changes to NHS commissioning arrangements and the on-going pressure on resources.

Recommendations

a The Department, NHS England and Public Health England should investigate further the reasons for inequalities in outcomes and access to services between different groups of cancer patients. A good starting point would be to develop a better understanding of the nature of the variation between different age groups and to establish the scope for improvement. They should then set out the actions they will take to reduce these variations and a timetable by which these should be achieved.

b NHS England should improve the information that is available to support those who commission cancer services. Important cancer datasets, such as those for chemotherapy and radiotherapy, do not analyse or benchmark these treatments for each clinical commissioning group, although they have potential to do so. NHS England should work with Public Health England to ensure that analysis of these treatments meets the needs of commissioners. In addition, NHS England should work with Monitor to ensure that robust data on costs for all cancer treatments are available and routinely linked to data on outcomes so that commissioners can make informed decisions about value for money.
c  **NHS England and Public Health England should coordinate how they use their analytical staff with the aim of generating the most insight they can from the available data.** Greater pooling of resources should allow more and better analysis. In particular, there is scope to link more cancer datasets. For example, data on treatment and diagnostic activity recorded within hospital episode statistics and the Diagnostic Imaging Dataset could be linked to the outcomes data in the National Cancer Registration Service. This would help to assess which types of treatment are the most effective for patients.

d  **The Health and Social Care Information Centre should introduce a system through which it can be held to account for how effectively it is discharging its responsibility to disseminate data to help drive improvements in health and social care.** As a minimum, it should seek, and publish the results of, regular feedback from NHS data users. The effective flow of data around the system is important for strengthening the evidence base for cancer services and other healthcare. However, the Centre has to balance its obligation to disseminate data with the need to safeguard patient confidentiality.

e  **To support evaluation of the Cancer Drugs Fund, NHS England should check that NHS providers are recording details of the cancer drugs prescribed through the Cancer Drugs Fund within the chemotherapy dataset, managed by Public Health England.** In the year to March 2014, when the recording of these drugs in the chemotherapy dataset was not mandated, approximately half of patients receiving drugs paid for by the Cancer Drugs Fund were not recorded in this dataset.