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Department of Health

Delivering the Cancer Reform Strategy

Summary

Introduction

1 Each year in England around 255,000 people are diagnosed with cancer and around 130,000 will die from the disease. More than one in three people will develop cancer during their lifetime, and it causes 28 per cent of all deaths. Survival varies by type of cancer and, for each cancer, by a number of factors including age, sex, treatment received and stage of disease at diagnosis. There are an estimated 1.7 million cancer survivors in England.

2 There are more than 200 different types of cancer, with breast, lung, colorectal and prostate cancer accounting for over half of all new cases. The risk of being diagnosed with cancer increases with age, with three quarters of cases diagnosed in people aged 60 and over, and more than a third of cases in people aged 75 and over. Although cancer occurs predominantly in older people, it is also the most common cause of death in people under the age of 60.

3 While the incidence rate for cancer has increased in recent years, mortality rates have fallen. This trend is not, however, consistent across all cancer types or between sexes. The overall age standardised incidence rate for cancer is predicted to reach a plateau by 2015, but with a rising population among the middle and older aged groups where incidence rates are higher, it is forecast that the number of new cases each year will continue to rise and will reach 300,000 by 2020.

4 In the 1990s, comparative data showed that England suffered higher cancer mortality rates and lower rates of long-term survival in comparison with most other European countries. In 2000, the Department of Health (the Department) published *The NHS Cancer Plan* (the Cancer Plan) which set out a 10 year strategy to improve cancer services. The Plan established cancer networks and introduced waiting times standards for diagnosis and treatment of cancer, such as GP urgent referrals (two week wait). It also set out plans to enhance cancer facilities and increase the cancer workforce, and committed additional funding of £570 million for cancer services.

5 Expenditure on individual aspects of NHS expenditure, including cancer services, was not monitored until 2003-04, but the Department calculated that between 2000-01 and 2003-04 cancer services received additional funds of £640 million, exceeding the £570 million committed by the Cancer Plan. The Department's cost data indicate that overall expenditure on cancer services increased from £3.4 billion in 2003-04 to £4.4 billion in 2006-07. The number of consultants in specialties with a major role in cancer also increased by 36 per cent from 9,700 to 13,100 between 2000 and 2006.

6 In 2007, the Department published its five year *Cancer Reform Strategy* (the Strategy) to refocus its efforts. The Strategy acknowledged that although improvements had been made in cancer services, the gap in survival rates between England and the best European countries had not been closed. The Strategy also identified that challenges remained in the shape of rising incidence; increasing numbers of survivors; and cost and capacity pressures. In order to build on existing progress and meet these challenges, it set out six actions to improve outcomes and four actions to drive delivery of these improvements (**Figure 1**).

The scope of our study

7 This report examines how effectively three of the Strategy's actions to drive delivery have been utilised to improve services for cancer patients:

- Improving the quality of information (Part 1).
- Strengthening commissioning (Part 2).
- Making better use of resources (Part 3).

8 This report does not examine the fourth action to drive delivery which focuses on cancer research and the development of the workforce which are long-term change agents. It also does not examine specific cancers, access to cancer drugs, or palliative care which was examined in our November 2008 report, *End of Life Care*.

Figure 1

The Cancer Reform Strategy's ten areas of action

Actions to improve outcomes

Prevention through encouraging lifestyle changes such as quitting smoking.

Earlier diagnosis and treatment through screening, improving public awareness and reductions in waiting times.

Access to cost-effective treatments, improved surgical techniques and increased radiotherapy capacity.

Improving patients' experience through better information and face-to-face communication with health professionals, and better coordination of care.

Reducing cancer inequalities for different groups in society.

Delivering care in the most appropriate setting by implementing new service models.

Actions to drive delivery

Better information focused on improved collection and publication of data on outcomes and public awareness.

Stronger commissioning of cancer services reflecting local needs.

Appropriate funding to build world class cancer services alongside effective commissioning to ensure **better use of resources**.

Building for the future through cancer research and the development of the cancer workforce.

Source: Department of Health, 2007

Key findings

On improving the quality of information on cancer

High quality information provides a basis for better decision-making and more effective assessment of performance. Aspects of cancer information have improved substantially since publication of the Strategy, but key gaps and limitations remain.

9 The National Cancer Intelligence Network (NCIN) has linked national data from a range of sources. The NCIN was established by the Department in 2008 to improve the collection and coordination of cancer data by bringing together data specialists, organisations and datasets. It has linked clinical, demographic and performance data from a range of sources and provided new analyses and reports on key cancer statistics, such as the first national analysis of incidence and survival by ethnic group. It has also developed a Cancer Commissioning Toolkit.

10 The Department has taken action to improve information on cancer. Since publication of the Strategy, the Department has established a national baseline on levels of cancer awareness and undertaken a Cancer Patient Experience survey with responses from 67,000 patients (the results will be published at the end of 2010). It has increased participation and data completeness in the five national clinical audits for cancer.

11 Key gaps remain in cancer information. Incomplete and inconsistent data on how advanced patients' cancers have become at the time they are diagnosed limit understanding of variations in outcomes and the effective allocation of resources. Data on radiotherapy activity are not yet publicly available. Data on chemotherapy activity and outcomes are poor, and the Department's planned introduction of a national chemotherapy dataset is two and a half years behind the commitment it made in its Strategy.

12 There is duplication in the publication of cancer data which leads to confusion. NCIN was established to ensure optimal use of all data currently collected and to identify and eliminate duplication of effort. Although NCIN brings together a broad range of cancer data, it does not always provide access to the most up-to-date data available, and other publicly funded organisations present the same data in different ways or for different time periods. This lack of consolidation leads to inefficiency in the publication of cancer data, and confuses commissioners about which data to use.

On strengthening the commissioning of cancer services

Commissioners are responsible for securing services to meet the health needs of their local population, monitoring performance of providers and evaluating the outcomes achieved for the resources used. Few commissioners, however, make best use of the information available when commissioning cancer services and most do not know whether their commissioning is cost-effective.

13 Many commissioners lack understanding of what drives costs and have not focused on improving value for money. Just 22 per cent of Primary Care Trusts (PCTs) had attempted to assess the value for money delivered by cancer service providers. Despite being a focus of the Strategy, only around half of PCTs had identified where expenditure which does not benefit patients could be eliminated and just 20 per cent had achieved quantified efficiency gains as a result of implementing the Strategy. PCTs that had attempted to reduce costs and improve value for money had most commonly done so by seeking to avoid unnecessary admissions and reduce length of stay for cancer patients.

14 Commissioners do not link cost and activity data to incidence, prevalence and survival data. Cost and activity data are usually available six months after the end of the financial year. The Department requires cancer registries to provide details of cancer cases in their region within 18 months of the end of the calendar year for collation by the Office for National Statistics (ONS). National outcomes data such as survival rates are then published at least two years after cost and activity data. Commissioners reported that these delays limit their usefulness for commissioning, as they are unable to link costs and activities during the preceding 12-18 months to outcomes.

15 Expenditure on cancer services is structured around complex payment mechanisms which largely fund activity in hospitals. Cancer services are commissioned using national tariff payments, block contracts and locally negotiated tariffs. Only around 40 per cent of hospital expenditure is covered by a national tariff. Commissioners reported difficulties in moving funds from hospitals to commission services in non-hospital settings, which may benefit patients and improve efficiency. Despite this being a focus of the Strategy, only 26 per cent of PCTs had carried out a cost benefit analysis comparing different ways of delivering cancer services.

16 Chemotherapy and radiotherapy, two of the main treatments for cancer, are excluded from the national tariff and there is poor understanding of costs and activity. In April 2009, the Department introduced a national dataset to improve understanding of radiotherapy treatment and outcomes, although data are not yet publicly available. Commissioners also lack information on the cost of services delivered by their providers. A review of hospital trusts' 2008-09 cost data for chemotherapy undertaken by the Audit Commission found that trusts measure chemotherapy activity in different ways and not all have systems in place to report costs consistently. As a result, reported unit costs varied widely between trusts from £43 to £4,300 and the review concluded that arrangements for capturing chemotherapy activity are poor. National work is underway to help hospitals improve coding and costing of chemotherapy and radiotherapy activity.

17 Commissioners have made progress in supporting the delivery of key commitments to improve cancer services, but shortcomings persist. There have been consistently high levels of achievement against cancer waiting times standards. The number of patients diagnosed through urgent referrals has also increased although the urgent referral rate varied almost fourfold amongst PCTs. There have also been improvements in the coverage of cancer screening programmes although variations persist between PCTs.

On the better use of resources

We estimate that NHS expenditure on cancer services in 2008-09 was around £6.3 billion and that there are opportunities to deliver better outcomes for patients whilst saving money and freeing up resources to meet the increasing demand for services.

18 The Department has not monitored the cost of implementing the Strategy and the data it collects on expenditure on cancer services include unexplained variations from one year to the next within and between PCTs. The Department has not evaluated the cost of implementation against its original expectations. There are also considerable variations in reported expenditure between PCTs and unexplained variations in this expenditure from year to year. The £5.1 billion cost of cancer services reported by the Department of Health in 2008-09 excludes costs of services (which may not result in a patient being diagnosed with cancer) such as diagnostics, screening, and activity in primary care; which we estimate cost an additional £1.2 billion.

19 Significant reductions have been made in inpatient hospital bed days for cancer. In 2006-07, inpatient care for cancer accounted for 9.9 per cent of all inpatient bed days in England, with cancer patients occupying 4.9 million bed days a year. By 2008-09, despite an increased incidence of cancer, inpatient cancer care had been reduced to 9 per cent of all inpatient bed days, which we calculate equates to a reduction of 281,000 inpatient bed days for cancer patients. This reduction was achieved through a combination of measures such as reducing length of stay for all admissions and increasing the number of patients treated as day cases.

20 Poor coding of outpatient activity makes it difficult to measure follow-up activity after treatment. Follow-up care for cancer patients has typically been through outpatient appointments in hospitals. The Strategy identified that improvements in the management of follow-up after treatment, for example, decreasing the ratio of new to follow-up appointments and using alternative approaches, were needed to respond to the increasing number of cancer survivors and release funds for other services to support cancer survivors. It is not yet possible to assess progress as insufficient information is available to understand the reason for an outpatient appointment or even whether the patient has cancer, with around 97 per cent of outpatient data not coded for a disease diagnosis.

21 The Strategy expected emergency admissions for cancer patients to be minimised and, while the rate of increase has been reduced, emergency admissions are still increasing. Emergency admissions for cancer may arise for a number of reasons including previously undiagnosed cancer, admissions for side-effects of treatment, or symptoms associated with the disease. Between 2006-07 and 2008-09, emergency admissions for cancer patients increased on average by 2 per cent per year, compared to an average of 3.8 per cent per year between 2000-01 and 2006-07. There is wide variation between PCTs in the extent of emergency admissions and poor understanding of the reasons for them.

22 Challenging existing resource use can deliver savings. Our analyses have identified three areas of potential savings:

- Use of radiotherapy machines varies over twofold per year, per machine, by centre. While there may be valid reasons for these variations, we identified the potential for existing capacity to be used much more productively.
- Inpatient admissions per new cancer diagnosis varied from 1.7 to 3.2 between PCTs in 2008-09. If every PCT met the inpatient admissions per new cancer diagnosis of the best performing quartile, 532,000 bed days could be saved; equivalent to around £106 million each year.
- Average length of stay for inpatient cancer admissions varied from 5.1 to 10.1 days between PCTs in 2008-09. If every PCT had the same length of stay as the average for PCTs in the best performing quartile, then even with no overall reduction in inpatient admissions, 566,000 bed days could be saved; equivalent to around £113 million each year.

Conclusion on value for money

23 The Department has made progress in improving key aspects of cancer services through strong direction and high profile leadership underpinned by increased resources. While there have been measurable improvements in efficiency by treating more people as day cases, and reductions in length of stay, there is substantial scope to make further improvements by tackling variations and raising performance to the standard of the best. The key driver of further improvements is high quality information. Although there have been improvements in some aspects of cancer information, commissioners' poor understanding of costs and outcomes mean that they do not know whether they are commissioning services which optimise outcomes for patients. Furthermore, the Department has limited assurance as to whether implementation of the Strategy is achieving value for money.

Recommendations

24 Improvements in cancer services will need to be delivered in the face of much tougher finances and an increase in the number of new cases each year from 255,000 to 300,000 by 2020. In July 2010, the Secretary of State for Health asked the National Cancer Director to review the Strategy to determine if it is the right strategy to deliver improved cancer survival rates. Our findings show that there is risk to the successful delivery of any future strategy unless there is considerable further improvement in the information used to support its implementation. As part of its review of the Strategy the Department should develop an action plan which identifies the roles, responsibilities and timelines for taking the following actions:

- a Variations in the measurement of cost and activity data for cancer services limits their usefulness.** The Department should develop a measurement strategy which includes common standards for the capture of cost and activity data to ensure that it is able to generate consistent data to measure progress in implementing the Strategy, including information on diagnosis and diagnostic tests.
- b Some cancer registries publish data more quickly than others.** The quickest cancer registries process all cancer registrations within six months of the end of the calendar year. In order to enable ONS to publish more timely cancer data, the Department should tighten its 18 month data submission requirement so that all registries are required to meet the performance of the quickest.
- c Data on how advanced patients' cancers are at diagnosis are incomplete.** To improve understanding of variations in outcomes and to facilitate better allocation of resources, commissioners should make the recording of these data a requirement in their contracts with providers.
- d NCIN should work with commissioners to maximise the usefulness of its outputs to support commissioning.** In doing so it should work with the Department to rationalise what information is produced by whom and when including taking action to reduce confusion and increase commissioners' confidence in the information NCIN provides.
- e There is inadequate information to understand variations in need for and the subsequent utilisation of radiotherapy machines.** Work that has already been commissioned to model needs should be supplemented by additional work to examine variations in productivity between centres to ensure that best practice is shared and existing capacity is effectively utilised.

- f** **There are inadequate data on activity, costs and outcomes for chemotherapy.** To enable commissioners to evaluate the cost-effectiveness of chemotherapy services, the Department should ensure that its planned chemotherapy dataset is expedited and contains information on activity, costs and outcomes.
- g** **Commissioners do not understand what is driving their emergency admissions for cancer patients.** Commissioners should benchmark their performance, and obtain a better understanding of the reasons for emergency admissions, and the extent to which they are arising from undiagnosed cancer and in particular, pre-existing diagnoses of cancer.
- h** **Commissioners are unable to measure the extent of outpatient follow-up for cancer patients.** Commissioners should make it a requirement in their contracts with providers that patients' diagnoses should be recorded for all outpatient activity.
- i** **Current NHS payment structures do not provide sufficient incentives to change the way cancer services are delivered.** The Department should develop tariffs for cancer that encourage adoption of best practice and reward activities which deliver efficiencies. It should also require commissioners to reduce the use of block contracts, and put in place disincentives to providing services which evidence shows do not benefit patients.