Cancer Research UK Submission to Spending Review 2015

Background

The Government has an unrivalled opportunity to influence the course of cancer survival in this country in the upcoming Spending Review. The new Cancer Strategy sets out a number of measures which will help to ensure England is delivering world-class cancer services. However, it is estimated that it will cost £400 million per year over five years to deliver these improvements. Making the financial commitments across the areas outlined below has the potential not only to save thousands of lives, but also to release cost savings further down the line.

Cancer Research UK is under no illusions as to the scale of the financial challenge facing the Government and the NHS. However, our cancer survival currently lags behind comparable countries and world-class cancer outcomes cannot be achieved without funding to match. While cancer incidence is increasing, funding has flat-lined. Failure to commit to increased funding now risks England falling even further behind, the financial burden of cancer rising uncontrollably in the future and, most importantly, will mean our cancer patients are being let down.

Cancer Prevention

Actions:

1. **Ensure tobacco control services are protected.** This could be financed via a levy for tobacco manufacturers and importers. Investment must be in place to ensure that local authorities are sufficiently resourced to guarantee delivery of standards consistent with NICE guidance.\(^1\),\(^2\),\(^3\)
2. **Protect weight management services.** Investment must be in place to ensure that local authorities are sufficiently resourced to guarantee delivery of standards consistent with NICE guidance.
3. **Continue funding for mass media campaigns** to increase awareness of the health harms of alcohol

We believe that the decision to make significant cuts to local authority public health allocations is both short-sighted and representative of a false economy in the long-term as investments in the prevention of disease has the potential not only to save lives, but to result in significant cost savings as well. Cuts of £200 million will undermine the opportunities to reduce the prevalence and associated cost of the UK’s leading public health issues – which are also among the leading preventable causes of cancer.

Tobacco Control

Tobacco use remains the UK’s single greatest cause of preventable illness and avoidable death, with 100,000 people dying each year from smoking-related diseases, including cancer.\(^4\) It also presents a huge financial burden, with research from Action on Smoking & Health (ASH) showing that the total cost of tobacco use to society in England is £13.8 billion a year\(^5\). By comparison, tobacco duty receipts in England in 2013/14 were only £7.6 billion\(^6\), meaning the net societal costs of tobacco use in England alone is more than £6 billion. A 2014 report (part-funded by CR-UK) found that of the £124bn Net Monetary Benefit gained from interventions resulting from cancer-related research (1991-2010), £80 billion (or 65%) arose from reductions in smoking.\(^7\) It is therefore clear that efforts to reduce smoking rates have considerable potential to save money as well as lives.

Modelling by the Local Government Association predicts that a funding gap in local government expenditure could grow to £12.4 billion by 2019/20. This shortfall is unacceptable. Local authorities must be resourced to ensure they can provide smokers with ‘gold standard’ stop smoking services. The combination of behavioural support and prescription medication offered through stop smoking services offers the best possible chance of quitting\(^8\),\(^9\). It is of concern that their attendance has decreased over
the previous two years\textsuperscript{10}. According to the National Institute for Clinical Excellence (NICE), every £1 spent on smoking cessation saves £10 in future health care costs\textsuperscript{11}.

A levy on tobacco manufacturers and importers could raise £500 million per annum to help fund stop smoking services; mass media campaigns and increased resources to tackle the illicit trade. The money would come directly from the tobacco companies – it is not an additional tax on the product – the proportion of payment could be based on the market share of each company.

**Obesity**

Obesity represents a serious and growing threat to the NHS, causing 18,100 cases of cancer each year as well as a range of other serious health conditions. It is estimated that excessive weight costs society approximately £16bn\textsuperscript{12} and the NHS £5.1bn directly per annum\textsuperscript{13}. CR-UK funded research from the UK Health Forum, using an updated model from the UK Foresight working group, shows the cost of diseases associated with excessive weight to the NHS will rise to £6.1bn annually from 2035\textsuperscript{14}. Tackling obesity will make a demonstrable cost saving: a 20% reduction in excess weight prevalence from current trend will avoid NHS costs of around £2.2bn, and societal costs of around £12bn, annually from 2035. To echo a recent report into the economic impact of obesity policies, the Government should aim to do ‘as much as possible as soon as possible’ through comprehensive policy interventions.\textsuperscript{15} This includes ensuring local authorities are properly resourced so that they can protect weight management services to a standard consistent with NICE guidance, leading to health and financial benefits.

**Alcohol**

The health harms from alcohol place a significant burden on the economy and the NHS. The Government estimates that the total cost of alcohol to society is £21bn a year\textsuperscript{16}. The direct cost to the NHS is estimated to be £3.5bn a year\textsuperscript{17} and the cost of alcohol-related cancers alone is estimated at £728m\textsuperscript{18}.

In addition, we are concerned that alcohol is now 61% more affordable than it was in 1980\textsuperscript{19}. There is a relationship between alcohol related mortality and socioeconomic status in England and Wales with progressively higher rates in more deprived areas.\textsuperscript{20} It has also been found that tobacco and alcohol related cancers in the UK are 2-3 times more common in areas of the most deprivation than the least\textsuperscript{21}. A survey of 4,000 people in Great Britain found that only 33% of respondents identified drinking alcohol frequently as a risk factor for cancer, compared to smoking (90%) and getting sunburnt (73%). Therefore it is important to continue funding for mass media campaigns to increase awareness of the health harms of alcohol. In particular health campaigns should aim to increase awareness of the risks of chronic disease such as cancer and the contribution of alcohol to calorie intake.

**Early Diagnosis**

**Actions:**

1. Ensure increased funding for diagnostic services, specifically for workforce and equipment, including a dedicated £125m fund over 5 years;
2. Provide the funding to introduce new screening tests into the bowel and cervical screening programmes;
3. Protect spending on Be Clear on Cancer awareness campaigns.

**Diagnostic Services**

The new Cancer Strategy estimates that 30,000 lives can be saved each year by 2020 if its recommendations are implemented, 11,000 of which would be down to diagnosing cancer earlier.\textsuperscript{22} Diagnostic services are stretched, with workforce shortages and out-of-date equipment common problems across the NHS. If we are to save these 11,000 lives each year, investing more in diagnostic
services will be essential. The new Cancer Strategy estimates we will need at least £229 million over the next five years, with upper estimates of £925 million. Cancer Research UK is calling for a dedicated £125 million fund over the next five years in addition to this increased investment. It would be held centrally and local areas would be able to bid for funding to increase their diagnostic capacity, similar to the Radiotherapy Innovation Fund which was introduced in 2013. Investing in our diagnostic services will benefit everyone who needs diagnostic tests, not just those who go on to be diagnosed with cancer, so the potential benefits are likely to far exceed the lives that can be saved from cancer.

Furthermore, there is evidence to suggest that diagnosing cancer earlier can also save money as well as lives, because the costs of treating cancer at a later stage are significantly higher. Taking colon, rectal, lung and ovarian cancers together, if these cancers were diagnosed as early as the best in England, this could save the NHS £44 million in treatment costs. If these savings were applied to all cancers, this could save just under £210 million per annum. The Cancer Strategy details how further considerable savings could be achieved on top of these amounts.

**Screening Programmes**

Screening programmes are vital for the early diagnosis of cancer. The National Screening Committee is currently consulting on an interim recommendation that the Faecal Immunochemical Test (FIT) should replace the current Faecal Occult Blood Test (FOBT) in the Bowel Cancer Screening programme. FIT is a more sensitive test and has the potential to reduce inequalities as well as save more lives, as more men and people from deprived groups are more likely to complete the test. The National Screening Committee consultation suggests that FIT is a more cost-effective test than FOBT: total costs for a FIT-based screening programme are estimated to be £613 million per year, in contrast to £633 million for FOBT. This works out as £28 cheaper for each person sent a pre-invite.

Early evidence from Scotland suggests even greater savings could be made when purchasing FIT in bulk than was previously thought (with a lower cost per kit than suggested in the cost-effectiveness analysis).

The National Screening Committee has also issued an interim recommendation that the HPV test should be used as the primary test in the cervical screening programme. Using HPV as the primary test provides a more definitive result than the current test, and this means that women may not have to be screened as regularly as at present, meaning fewer tests are necessary, saving money for the service. Introduction of HPV primary testing will result in annual cost reductions between 7 – 18% each year: saving up to £28 million per year. This saving will increase further when those vaccinated against HPV start to reach screening age.

Both these technologies have the potential to save money as well as lives. Cancer Research UK is calling on the Treasury to commit the funding for these tests in this Spending Review, so that they can be introduced swiftly following the National Screening Committee’s consultations.

**Awareness Campaigns**

Cancer awareness campaigns are a vital way of encouraging the public to identify symptoms and go to their GP quickly. The Be Clear on Cancer campaigns are effective: there were an estimated 700 additional lung cancers diagnosed during the period of the national Be Clear on Cancer lung campaign in England in 2012 compared to the same period the previous year. Approximately 400 more people had their cancers diagnosed at an earlier stage and around 300 additional patients had surgery as a first treatment for diagnosed lung cancer. However, we know that Public Health England (PHE) is facing funding pressures which may affect the Be Clear on Cancer campaigns. It is essential that PHE is sufficiently resourced to maintain the current level of funding for awareness campaigns – including the costs of evaluation - so that the public is aware of the signs and symptoms of cancer and more people have their cancer diagnosed at an earlier stage when it is easier to treat.
It is estimated that this will cost in the region of £6 million; £5.5 million for the campaigns and up to £500,000 for evaluation.

**Cancer Services**

**Actions:**

1. NHS England and the other arms length bodies\(^a\) should **dedicate resources to establish the National Cancer Team**, which will be responsible for implementing the cancer strategy.
2. Public Health England should invest £1.5 million per year over the next five years to **increase capacity in NCIN and NCRS to improve the provision of data**, link datasets across the cancer pathway and to create new metrics.
3. NHS England should dedicate £4.5 million per year over the next five years, over and above the Five Year Forward View baseline, **to pilot new ways of working**.

**Leadership**

The reorganisation of the NHS has led to a ‘vacuum’ of leadership at the national level needed to drive forward the cancer agenda\(^27\). A lack of basic support and resources for leading strategic developments is also a key issue at local level – the disbanding of cancer networks into strategic clinical networks (SCNs) a particular problem. NHS England should provide £3 million per year for the next five years, over and above the Five Year Forward View baseline, to establish regional Cancer Alliances and adequately support Clinical Reference Groups. Part of the total investment needed could be reallocated from existing activity of Clinical Networks and Academic Health Science Networks.

Better leadership and coordination across all health bodies is needed. We therefore support the recommendations of the cancer strategy to establish leadership responsibilities in the NHS to implement the strategy and lead improvements at a local/regional level.

**Data/metrics**

High-quality data and intelligence are vital to improving cancer services in the NHS. The completeness and accuracy of England’s cancer data is amongst the best in the world. However, further work is needed introduce new metrics, fill in gaps in our understanding and link datasets across the cancer pathway. Overall, greater resource is needed within PHE for the National Cancer Intelligence Network (NCIN) and the National Cancer Registration Service (NCRS) to improve the provision of cancer data in England.

To improve the speed of diagnosis the cancer strategy proposes a new 4-week cancer waiting time standard between urgent referral and a patient receiving their diagnosis; to eventually replace the 2 week urgent referral standard. We believe this new metric will be very important in measuring progress in diagnosing cancers at an earlier stage. Another area in need of development is metrics around quality of cancer surgery that patients receive.

**Piloting new ways of working**

New models of care should be explored to drive improvements and efficiencies in cancer services. For example, testing new ways to improve early diagnosis, and bringing various services together to improve the whole cancer pathway. The cancer strategy sets out a number of areas where pilots would be beneficial for NHS England and others to undertake, including (but not exhaustive):

- Devolving commissioning of the entire cancer pathway in at least one area;
- Multi-disciplinary diagnostic centres for vague or unclear symptoms in up to 5 vanguard sites and in conjunction with ACE wave 2;
- Patient self-referral for a first investigative test via a nurse telephone triage in areas where GP access is particularly poor.

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\(^a\) Public Health England, Monitor, Trust Development Authority, NICE, Health Education England and the Care Quality Commission.
The role of a cancer nurse specialist in large GP practices to coordinate diagnostics pathways and other aspects of cancer care.

A comprehensive cancer care pathway for older patients.

Access to treatments

Actions:

1. A capital fund of up to £275 million over five years should be established to replace 126 old linear accelerators (£252m) and upgrade 58 existing machines (£23m).

2. A further £20 million (inclusive of estates costs) is needed to invest in 15-20 dedicated MRI and PET imaging facilities in radiotherapy departments over the next five years.

3. Make at least £13 million per year available over the next five years to support the adequate provision of molecular diagnostic tests and to ensure all eligible patients have access to these tests in a timely manner.

Radiotherapy

Radiotherapy can cure cancer, is cutting-edge and is cost effective. It is second only to surgery in its effectiveness in treating cancer, and experts suggest around 4 in 10 patients whose cancer is cured receive radiotherapy. However, access to radiotherapy continues to remain below levels recommended and varies across the country.

Urgent action is needed to replace outdated linear accelerators (linacs) so that patients can receive the best, evidence-based treatments. It is recommended that linacs are replaced when over 10 years old. The cancer strategy states that 126 linacs will need replacing within the next 3 years, and those already over 10 years more urgently. A further 58 machines will need upgrading within that period to bring them up to date with the latest technology. While it is currently the responsibility of NHS Trusts to replace equipment, this clearly is not working well and we strongly support the strategy recommendation for a national fund to address this issue in the short term. Such a fund will need to be aligned with a national strategy which specifically considers where the greatest need for equipment lies across England, the nuance of those needs (i.e. kit will not simply be replaced ‘like for like’) and ensure that investment is directed to the right areas.

The greatest improvements in radiotherapy over the next ten years will be driven by advances in imaging technology, which will further improve the accuracy of radiotherapy. The strategy recommends that situating these machines in radiotherapy departments would be more efficient. It could therefore be more efficient to consider the funding and replacement of imaging and radiotherapy equipment concurrently. NHS England should develop innovative and sustainable funding models which provide Trusts with a long-term solution to updating equipment to keep pace with the latest technologies, so that this situation does not arise again.

Savings

The Cancer Strategy estimates that savings can be made in relation to radiotherapy. Specifically:

- Procurement savings for linacs. Assuming centralised procurement savings of 30% are achieved, this amounts to up to £82.5m over five years, or around £16.5m per annum;

- Obviating growth in linac capacity is estimated to save £50-60m over five years, or £10-12m per annum.

Molecular Diagnostics

Molecular diagnostic tests assess the makeup of a patient’s cancer to help identify the best course of treatment, including whether that patient is eligible for a targeted medicine. Recent research
commissioned by CR-UK on solid tumour testing showed that testing activity in England increased by 51% per year between 2011 and 2014. However, an estimated 24,000 tests were not undertaken in 2014 based on projected demand of 59,000 tests. This meant that around 16,000 suitable patients did not receive a test and an estimated 3,500 patients with colorectal or non-small cell lung cancers may have missed out on a targeted medicine which could have offered better survival and avoidance of side-effects from treatments that may not have worked.

We strongly support the strategy recommendation that NHS England should transform access to molecular diagnostic tests by establishing a national commissioning and funding structure for this service. This service would help future-proof the NHS for when further personalised medicines come on stream, and could facilitate recruitment to trials by identifying eligible patients helping to maintain the UK as a leader in health research.

The primary reason for the shortfall is testing is that there is no national tariff or approach to commissioning. Lack of dedicated funding for these tests leads us to believe that the costs outlined in the strategy are an underestimate. CR-UK estimates at least £13 million per year is needed to adequately provide this service. Ensuring patients receive the right treatments would be highly cost-effective for the NHS.

**Science and Research**

**Action**: it is vital that Government commits to protect the science budget across Government departments. Supporting research will also support the Five Year Forward View to improve the ability of the NHS to undertake research and innovate.

Cancer Research UK has set out an ambition to increase our total spend on research in the UK by 50% over the next five to 10 years in order to improve cancer outcomes – a vision shared by Government. Although we receive no Government funding for our research, we depend on Government’s support for UK science to realise the impact of our investment and ultimately deliver benefits to patients. Each £1 the public invests in cancer research returns 40p to the UK economy every year. This includes health benefits equivalent to around 10p plus a further 30p, which is the current best estimate of ‘spillover’ effects from research to the wider economy.

The UK’s position as a world leader in research has been maintained - despite difficult economic circumstances - due to the flat cash protection for science since 2010. Recent research commissioned by BIS suggests that protecting science budget has given rise to an estimated additional £1.2 billion of private sector investment that would not have occurred if the budget had been cut. However, sustained investment is needed to maintain the UK’s reputation, grow our scientific community and deliver both the health and economic benefits of scientific discovery to the whole population.

51% of productivity growth between 2000 and 2008 was due to innovation. Every £1 spent by the Government on R&D increases private sector R&D output by 20p per year in perpetuity. Furthermore, if the Government were to make a one-off increase in public spending on R&D of £450m, research suggests that market sector output would rise by £90m per year, every year.

By investing in science, the UK Government also leverages investment from charities and industry, generating further scientific and economic growth. In 2013, medical research charities funded £1.3 billion of health research, a third of all publically funded medical research. The Charity Research Support Fund (CRSF) is an example of how Government funding supports investment from the charity sector. The £198 million investment that Government made through the CRSF, leveraged £805 million spend by charities in English universities.
We believe that Government should continue to invest in science through the dual support system to ensure the high quality of infrastructure in UK higher education institutions. In addition to leveraging financial investment, Government funding through the Research Councils supports research partnerships that enhance progress through shared knowledge, resources and capabilities. MRC’s contribution to the Francis Crick Institute and the CRUK-EPSRC multidisciplinary awards are key examples of this concept.

Department of Health research budget
Science expenditure in other Government departments complements the science budget in the Department of Business, Innovation and Skills (BIS). Spending on research by the Department of Health through the National Institute for Health Research (NIHR) plays a vital role in providing the expertise and infrastructure to make the NHS research active, providing the evidence needed to transform services and improve outcomes. Government should protect the NIHR budget in the Department of Health to support the NHS' Five Year Forward View to improve its ability to undertake research and apply innovation.

http://www.cancerresearchuk.org/funding-for-researchers/our-funding-schemes/multidisciplinary-project-award
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