

Cancer Research UK Budget Representation 2018 – Investing in research, prevention, diagnosis and treatment of cancer to meet increasing demand

Summary

1. Cancer Research UK is the world's largest charitable funder of cancer research. One in two people will be diagnosed with cancer at some point in their lives. Currently, half of those people will survive. Our ambition is to accelerate progress and see three in four people with cancer surviving the disease by 2034. In 2017/18, we spent £423m on research across the UKⁱ. We receive no funding from the Government for our research and rely on the generosity of the public.
2. We welcome the Government's promise to provide an extra £20bn a year to the NHS by 2024. This funding settlement provides an opportunity to better resource cancer services to meet the needs of all patients and provide them with the best outcomes.
3. By 2035 there will be 500,000 new cancer cases each year in the UK an increase of 150,000 per year on 2015 levels, and equivalent to 1 every minuteⁱⁱ. Today, survival remains lower than the best performing countriesⁱⁱⁱ and around 4 in 10 cancers are preventable, equating to more than 135,000 cancer cases in the UK each year.
4. We therefore welcome the Government's intention to be ambitious about improving cancer outcomes. Our submission to the NHS 10-year plan set out three ambitions that we would like to achieve, that we believe are stretching but realistic, if substantial improvements to the provision of cancer care are made. In the next 10 years we should aim to:
 - Match the best cancer survival of comparable countries;
 - Reduce the number of cancers diagnosed at late stage by 25%;
 - Live in a smoke-free country (less than 5% of the adult population is a smoker).
5. Estimates suggest that we need to more than double the pace of improvement in 5-year survival for the UK to be among the best in 10 years' time^{iv}. Meeting these ambitions will therefore only be achievable with sufficient investment, to meet growing demand and transform the NHS to provide world-class outcomes. As such, the 10-year plan and extra NHS funding provide a fantastic opportunity to re-orient the NHS around prevention and early diagnosis of cancer, which will make the biggest different to survival, and to address chronic workforce shortages that impede progress.
6. Workforce shortages are undermining our ability to diagnose cancers earlier, resulting in worse outcomes for patients, greater inefficiency in the NHS and a failure to meet waiting times. As cancer cases increase, this problem is only going to get worse. **To address this, the Government and the NHS must bring forward a fully funded long-term plan for the cancer workforce.**
7. The NHS can play a leading role in reaching the ambition to live in a smoke-free country by 2028 by **implementing the Government's Tobacco Control Plan**. In addition, it's imperative that the NHS creates the right environment to reduce late stage diagnosis (stage 3 and 4) of cancer. Critical to this is providing sufficient staff capacity (as noted above) as well as a significant change in approach and culture towards an NHS that embraces the need for more diagnostic testing. **This will require investment in primary care and the introduction of specific interventions such as innovations in screening programmes.**
8. However, the NHS does not work in isolation from other aspects of the health service. If the additional funding is to significantly transform cancer outcomes and help deliver long-term sustainability, **we need a whole system approach supported by further funding settlements. This includes increased funding for public health (both the Public Health Grant and budget for Public Health England), for training the cancer workforce (through Health Education England and for wider workforce planning through universities and local employers) and for health research (through the National Institute of Health Research).**

9. If we are to realise the full benefit of extra NHS funding and service improvements, **it is imperative the Government finds a sustainable funding solution for public health.** To source additional funding, we suggest that the Government reconsider imposing a levy on the tobacco industry.
10. We welcome the Government's commitment to UK science and increased investment in research. **To reach the aim of 2.4% of GDP invested in research by 2027, the Government should publish a roadmap for how this will be achieved.** To improve medical research and innovation in the UK economy and the NHS, the Government should take forward the Life Sciences Industrial Strategy recommendation to **increase investment in health research through the National Institute of Health Research (NIHR).**
11. The recent uplift in underpinning quality-related (QR) research funding is very welcome. **It is vital that a proportion of the increased investment in science continues to support QR research in UK universities and charity funding in these institutions,** in order to maximise the impact of Government funding by attracting charity and industry investment in UK research.

Improving cancer services through a fully-funded workforce plan

12. The biggest challenge the NHS faces in improving cancer outcomes is workforce shortages. There is an average 9% vacancy rate across key professions in the cancer workforce^v, including histopathology, gastroenterology, clinical radiology, and clinical and medical oncology – and these are likely to be underestimates. In 2017, only 3% of NHS radiology departments and histopathology departments stated they had enough staff to meet demand within contracted hours^{viii}.
13. These shortages undermine our ability to diagnose and treat more cancers earlier. On average, a third of hospitals every month this year were in breach of the waiting time standard for endoscopy tests that could diagnose bowel cancer^{viii}. To address these shortages in the short and long-term, and therefore improve cancer outcomes, the NHS need to take a strategic approach to workforce planning. Estimates and conversations with Health Education England (HEE) indicate that in the next 10 years we will require 30-45% growth in the cancer workforce if we are to keep pace with growing demand and deliver improvements in cancer services, with an emphasis on early diagnosis.
14. The Government and the NHS must bring forward a long-term plan for the cancer workforce. This must involve national bodies as well as local organisations and consider all aspects of workforce planning, including the pipeline of medical training, new developments in technology and service provision, recruitment, retention and skills mix.
15. A new long-term plan for the workforce, including the cancer workforce, must be fully funded. Part of this investment should include increased funding for HEE. HEE's capacity to lead on strategic workforce planning and training medical staff has been undermined by real terms budget reductions which has seen their annual spend reduced from £4.91bn to £4.79bn from 2014-15 to 2017-18. The Budget should reverse this decline and provide a renewed funding settlement for HEE and for wider workforce planning through universities and local employers.

Supporting NHS sustainability through early diagnosis

16. Investing in early diagnosis is a cost-effective way to deliver improved outcomes for patients. For colon cancer, stage 1 treatment costs £3,373 per patient, whereas stage 4 treatment costs £12,519^{ix}. The figures are similar for rectal, lung and ovarian cancers. Taking these four cancers together, achieving the level of early diagnosis comparable with the best in England could benefit nearly 11,100 patients and deliver savings of over £44m (not taking into account the investment needed to enable early stage diagnosis)^x. Colon, rectal, lung and ovarian cancers account for approximately 21% of overall cancer diagnoses in England.

17. This transformation funding for early diagnosis should be supported by sufficient and sustainable investment in Cancer Alliances, which are critical vehicles to deliver improvements across geographical areas. Broad increases in funding for primary care will be particularly important to enable general practice to swiftly identify more patients with suspected cancer and refer them on for a specialist opinion. In addition, investment to support improvements to screening programmes, or the introduction of new screening programmes, must be secured.
18. Some ringfenced funding for early diagnosis initiatives may also be required. Previously NHS England released £200m of investment to improve early diagnosis; however, due to insufficient ringfencing and oversight, it is not clear how much of this funding has been used effectively^{xi}.
19. Additional funding for Public Health England (PHE) would support the early diagnosis agenda, allowing continued work on public health and cancer awareness campaigns, as well as providing adequate resource for statistical analysis of health and cancer data that informs progress.
20. Cancer Research UK has commissioned research exploring how to enable and incentivise more cost-effective upstream investment in early diagnosis and prevention at the local level – we will share more detail from this work soon.

Increasing public health funding to support NHS sustainability

21. 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^{xii}. As stated in the Tobacco Control Plan for England^{xiii}, tobacco usage presents a huge financial burden, costing the economy in excess of £11bn per annum. Smoking is also the single most important driver of health inequalities, and a greater determinant of health inequality than social position^{xiv}. A study funded by Cancer Research UK showed that, unfortunately, there has been no reduction in smoking inequalities in England, Wales or Northern Ireland in recent years^{xv}.
22. Although councils across the country recognise how efficient stop smoking services can be – every £1 spent on smoking cessation is estimated to save £10 in future health care costs and health gains^{xvi} – many have had to cut these services as they must work with smaller budgets. Research shows that, following reductions to the Public Health Grant in 2015, 2016 and 2017, stop smoking services were cut in 39%, 59% and 50% of local authorities respectively year-on-year^{xvii}. As a result, 4 in 10 local authorities are no longer able to offer a stop smoking service for all smokers in their area^{xviii}.
23. The cuts to the Public Health Grant since 2015 are impacting frontline prevention services. If the Government is to create a health and social care system that is sustainable for the future, which delivers an effective long-term plan in England, it is imperative that investment in the NHS comes alongside investment in public health.
24. To source additional funding, we suggest the Government considers further measures to make the tobacco industry pay for the damage their products cause. For example, a levy on the tobacco industry – with each tobacco manufacturer or importer made to pay a fixed amount proportional to their market share – could raise an additional £500m per year and support tobacco control activity.
25. Article 5.3 of the WHO Framework Convention on Tobacco Control^{xix} says that public health policies must be protected from the commercial and vested interests of the tobacco industry. However, in contravention of this, the UK has recently seen several instances of tobacco companies approaching public health bodies to offer financial support. For example, in July, Philip Morris International wrote to all NHS Trusts and CCGs offering support for NHS staff to quit smoking. These offers of financial support provide a precedent for a tobacco levy: a levy would generate vital public health funding from the tobacco industry, while at the same time protecting policies from their interests and influence.

Preventing more cancers through tobacco taxation

26. Raising tobacco taxes is one of the most effective mechanisms for reducing tobacco consumption^{xx}. Youth and low-income groups are most price sensitive, meaning they are most affected by increased tobacco prices, leading to a reduction in health inequalities caused by smoking^{xxi}. Reducing the affordability of tobacco through taxation should be a key plank of Government efforts to improve public health and tackle inequalities.
27. We urge the Government to increase the tobacco tax escalator for this parliament from 2% above inflation to 5% above inflation. Research from Cancer Research UK and the UK Health Forum reaffirms the economic benefits this change could bring – avoiding around £240m in health and societal costs of smoking annually from 2035, and 75,200 cases of preventable diseases over a 20-year period (calculated as 2015-2035)^{xxii}. In just a decade (calculated as 2015-2025), the change alone could decrease smoking prevalence by an additional 1.95% and 1.62% for adult male and female smokers respectively.
28. We would also like to see continued action to address the price differential between manufactured cigarettes and hand-rolled tobacco (HRT), and between cheap and expensive manufactured cigarettes. This will support smokers to quit smoking rather than downgrade to cheaper products. In particular, the Government should continue to increase taxes on hand-rolled tobacco above the escalator, by 15% above inflation, until, per typical cigarette, they are equivalent to those on manufactured cigarettes (taking into account the latest data on the quantity of tobacco used in HRT cigarettes). It should also uprate the Minimum Excise Tax at every budget to ensure that the minimum tax for tobacco products is the rate due for products sold at the weighted average price (WAP).

Tackling childhood obesity

29. Obesity is the biggest preventable cause of cancer in the UK after smoking. It is linked to 13 types of cancers, including two of the most common (bowel and post-menopausal breast) and two of the hardest to treat (oesophageal and pancreatic). Each year, it is estimated that obesity costs £5.1bn to the NHS and £27bn to the wider UK economy.^{xxiii}
30. We welcome the introduction of the Soft Drinks Industry Levy (SDIL), a world-leading step to decrease children's sugar consumption. The Levy has already delivered strong results and "turbo-boosted" reformulation efforts by industry. We look forward to the official evaluation of the Levy and hope initial analysis will be published at the earliest opportunity.
31. We urge the Government to bring forward its review of the exemption of milk-based drinks from the SDIL, many of which contain high levels of added sugar, so that the change can be brought in from April 2020.^{xxiv} Likewise, we recommend that the Government advances its review of the thresholds for the Levy bands and the tax level at each band, so that any changes can also be implemented from April 2020. These actions are an important way to support families to reduce children's sugar and calorie consumption, drive reformulation and create additional opportunities for revenue generation.

Supporting the UK's world-class research base and reaching 2.4%

32. We welcome the Government's intention to strengthen the global standing of UK research and its commitment to increase investment in research and development by £7bn between 2016 and 2021/22, through yearly increments^{xxv}. Involvement from across the whole research funding ecosystem will be needed to achieve this ambition, of which public funding is an important component. Medical research in the UK comes from a variety of sources including public funds, charities and the private sector. This diversity of sources is valuable to provide long term financial stability, enable the pooling of risks and to draw on different expertise to create a more competitive and high quality medical research environment^{xxvi,xxvii}.

33. To achieve ambitions set out in the Industrial Strategy to increase the proportion of GDP spent on research to 2.4% by 2027, the Government should publish a roadmap for how this will be achieved. This roadmap should include measures to effectively market UK science globally and strengthen our research collaborations internationally. The roadmap should set out how all the different elements of the research funding ecosystem will contribute to meeting the target, including public, charity and industry funding sources.
34. The Life Sciences Industrial Strategy (LSIS) identifies how to improve research and innovation in the UK economy and in the NHS. Implementing this strategy is essential to ensuring that we have a thriving life sciences sector. A key part of this will be taking forward the recommendation to increase investment in health research through the National Institute of Health Research (NIHR) in line with increases to funding through UK Research and Innovation (UKRI). The UK excels in recruiting cancer patients to clinical trials because of this infrastructure, which provides the foundations on which academia and industry can invest.
35. We welcome the recent uplift in underpinning quality-related (QR) research funding. It is vital that a proportion of Government's increased investment in science continues to support QR funding in UK universities as well as response-mode funding^{xxviii}. QR funding is essential to support the current growth of mission-led funding and Government must keep its commitment to increase support for QR funding through Research England as set out in the Industrial Strategy^{xxix}. For every £1 spent by the Government on R&D, private sector R&D output rises by 20p per year in perpetuity^{xxx}.
36. We welcome the 3% uplift to the charity support element of non-mainstream QR funding, the Charity Research Support Fund (CRSF). The CRSF plays an integral role in covering the indirect costs of research for those universities who receive charitable funding, as they can recover the indirect costs of research that charities cannot pay^{xxxi}. Government should continue to enhance support for the CRSF.
37. To incentivise partnerships between charities and other organisations, Government should consider opening the Research and Development Expenditure Credit (RDEC) scheme to independent charities not based at a Higher Education Institute. This would meet the scheme's original policy intention and, since any funds recuperated by medical research charities must be reinvested in research activity, would stimulate further R&D growth in the UK.
38. The extent to which charities and universities can currently collaborate with industry on medical research is limited by VAT rules on sharing of facilities, equipment and buildings. Publicly-funded research institutes are restricted to 5% commercial activity if they opt not to pay VAT or face significant tax costs co-locating their researchers with industry colleagues. Collaboration between industry and publicly funded researchers is crucial to research input, and the inability to collocate and share resources is a major barrier. Government should therefore review current rules on VAT exemption on the sharing of buildings, equipment and facilities for the purposes of R&D, to support collaborations and attract inward investment.

Building a supportive environment for the charity sector

39. As a charity, Cancer Research UK receive no funding from the Government for our research. Our ground-breaking work is therefore only possible because of the generosity of the public. A supportive fiscal environment for charities allows our supporters' generous donations to have the greatest impact possible on our research.
40. We highly value the current reliefs that are available to charities like Cancer Research UK; a consistent charitable tax relief system is especially valuable in times of economic uncertainty and volatile fundraising environments. Such investment also helps the British economy: each pound invested in cancer research by the taxpayer and charities returns around 25 pence to the economy year on year^{xxxii}. An ideal environment would include sector-wide measures, such as maintaining Gift Aid, as well as more specific fiscal incentives to encourage partnership between charities and other organisations – in our case, research partnerships.

41. It is reassuring that Government is taking steps to encourage people to declare Gift Aid on their donations, and to modernise Gift Aid so it remains fit for the future. Cancer Research UK is a significant claimer of Gift Aid, claiming £32.8m in the year to 31st March 2018 – almost our annual spend on breast cancer research^{xxiii}. Gift Aid is therefore a crucial funding stream that must be protected if we are to achieve our ambition of reaching 3 in 4 patients surviving their cancer by 2034.
42. We also welcome the recent Civil Society Strategy published by Department for Digital, Culture, Media & Sport (DDCMS), as well as their proposals for reforms to society lotteries. Increasing the sales limits on lotteries will enable us to raise more funds and will increase our efficiency, so that our supporters' generous donations can make an even greater impact.

ⁱ Cancer Research UK, Annual Report and Accounts 2017/18:

https://www.cancerresearchuk.org/sites/default/files/cruk_annual_report_2017_18_final.pdf

ⁱⁱ Smittenaar et al. (2016). 'Cancer Incidence and Mortality Projections in the UK until 2035'. British Journal of Cancer (2016.) DOI: 10.1038/bjc.2016.304

ⁱⁱⁱ Allemani C, Matsuda T, Di Carlo V et al (2018). Global surveillance of trends in cancer survival 2000–14 (CONCORD-3): analysis of individual records for 37 513 025 patients from 322 population-based registries in 71 countries. The Lancet 2018; S0140-6736(17)33326-3.

^{iv} Cancer Research UK analysis (2018), unpublished

^v Health Education England: Cancer Workforce Plan, Phase 1: Delivering the cancer strategy to 2021 (2017)

<https://hee.nhs.uk/sites/default/files/documents/Cancer%20Workforce%20Plan%20phase%201%20-%20Delivering%20the%20cancer%20strategy%20to%202021.pdf>

^{vi} Clinical radiology, UK workforce census 2017, Royal College of Radiologists (2018)

https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr185_cr_census_2017.pdf

^{vii} Meeting pathology demand: Histopathology workforce census, Royal College of Pathologists (2018)

<https://www.rcpath.org/discover-pathology/news/college-report-finds-severe-staff-shortages-across-services-vital-to-cancer-diagnosis.html>

^{viii} Call for ring fenced funding in budget as NHS hospitals breach waiting times for bowel cancer tests, Bowel Cancer UK (2018) <https://www.bowelcanceruk.org.uk/news-and-blogs/news/we-call-for-ring-fenced-funding-in-budget-as-nhs-hospitals-breach-waiting-times-for-bowel-cancer-tests/>

^{ix} Saving lives, averting costs, Incisive Health and cancer Research UK (2014)

https://www.cancerresearchuk.org/sites/default/files/saving_lives_averting_costs.pdf

^x Saving lives, averting costs, Incisive Health and cancer Research UK (2014)

https://www.cancerresearchuk.org/sites/default/files/saving_lives_averting_costs.pdf

^{xi} Capacity to Diagnose? An analysis of cancer diagnostic activity in England, Cancer Research UK (2018)

https://www.cancerresearchuk.org/sites/default/files/mar18_capacity_to_diagnose.pdf

^{xii} Peto, R et al. Mortality from smoking in developed countries 1950-2010. University of Oxford (2012). UK: pp.512-523.

^{xiii} Towards A Smokefree Generation: A Tobacco Control Plan for England:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/630217/Towards_a_Smoke_free_Generation_-_A_Tobacco_Control_Plan_for_England_2017-2022_2_.pdf

^{xiv} Effect of tobacco smoking on survival of men and women by social position: a 28 year cohort study, Gruer, L et al (2009) *BMJ* 2009, 338:b480; doi: 10.1136/bmj.b480

- ^{xv} Caroline Smith, Sarah Hill, and Amanda Amos (2018) Stop Smoking Inequalities: A systematic review of socioeconomic inequalities in experiences of smoking cessation interventions in the UK, Cancer Research UK (2018) https://www.cancerresearchuk.org/sites/default/files/stop_smoking_inequalities_2018.pdf
- ^{xvi} Public Health England Guidance – Health matters: tobacco standard packs (2017) <https://www.gov.uk/government/publications/health-matters-tobacco-standard-packs/health-matters-tobacco-standard-packs#invest-in-tobacco-control>
- ^{xvii} Feeling the heat: the decline of stop smoking services in England, Cancer Research UK and Action on Smoking and Health (2017) https://www.cancerresearchuk.org/sites/default/files/la_survey_report_2017.pdf
- ^{xviii} Feeling the heat: the decline of stop smoking services in England, Cancer Research UK and Action on Smoking and Health (2017) https://www.cancerresearchuk.org/sites/default/files/la_survey_report_2017.pdf
- ^{xix} National Institutes of Health & WHO Monograph 21: The Economics of Tobacco and Tobacco Control (2017) <https://cancercontrol.cancer.gov/brp/tcrb/monographs/21/index.html>
- ^{xx} Article 5.3 of the WHO Framework Convention on Tobacco Control http://www.who.int/tobacco/wntd/2012/article_5_3_ftc/en/
- ^{xxi} Chaloupka F. J., Straif K., Leon M. E. Effectiveness of tax and price policies in tobacco control. *Tob Control* (2010); 20:235–8.
- ^{xxii} Knuchel-Takano A, Hunt D, Jaccard A et al. Modelling the implications of reducing smoking prevalence: the benefits of increasing the UK tobacco duty escalator to public health and economic outcomes. (2017); manuscript under revision.
- ^{xxiii} Public Health England Guidance – Health matters: obesity and the food environment (2017) <https://www.gov.uk/government/publications/health-matters-obesity-and-the-food-environment/health-matters-obesity-and-the-food-environment--2>
- ^{xxiv} Hansard. Finance (No 2) Bill Debate, 25 April 2017, Jane Ellison MP, Column 1040 (2017) [https://hansard.parliament.uk/Commons/2017-04-25/debates/5594F8AC-8C9F-4BEE-80D6-5F4B9F1875AE/Finance\(No2\)Bill](https://hansard.parliament.uk/Commons/2017-04-25/debates/5594F8AC-8C9F-4BEE-80D6-5F4B9F1875AE/Finance(No2)Bill)
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- ^{xxxiii} Cancer Research UK, Annual Report and Accounts 2017/18: https://www.cancerresearchuk.org/sites/default/files/cruk_annual_report_2017_18_final.pdf