1 in 2: Cancer Research UK priorities for the 2019 General Election manifestos

October 2019
Executive summary

*Cancer is the cause of 450 deaths in the UK every day.*

*More than 135,000 cancers in the UK could be prevented, every year.*

*115,000 people in England alone are diagnosed too late to secure the best chance of survival.*

*Survival from cancer in the UK lags behind comparable countries across the world.*

*We can, and we must, do better.*

The next Parliament presents an opportunity to drive up the UK’s cancer survival to be among the best in the world. With 1 in 2 people in the UK diagnosed with cancer at some point in their lifetime, this could improve millions of lives and touch every family in the country. At Cancer Research UK we’re resolute in our ambition to see 3 in 4 people survive cancer in the next 15 years. But this ambition will not be achieved without Government action to tackle the biggest preventable causes of cancer; diagnose more cancers at an early stage and ensure we can continue our pioneering research to transform the lives of patients.

Our healthcare system has historically been focused on treating people when they get sick, rather than stopping them from getting sick in the first place. The NHS needs a radical shift so that we can prevent many diseases from occurring in the first place, and detect more diseases at an early stage, when they are at their most treatable. This is the key to better outcomes for people affected by cancer, it is the only way to cope with the rising demand for care, and it is the most efficient approach long-term.

There is an opportunity for the UK to lead the way in improving cancer outcomes by making the most of our strengths. We have long been a world-leader in research and life sciences, and the NHS offers considerable benefit by providing a national system for data and clinical research, and a large pool of patients for trialling new innovations. The UK has a unique model for medical research, with charities funding 41% of all publicly funded medical research. In order to realise this potential, the Government must protect and nurture the NHS – but also the life sciences, academic and charitable sectors. We will only be a world-leading destination for medical research with collaboration from all four partners.

**Recommendations**

Cancer Research UK is calling on all political parties to adopt the policy proposals outlined below in their General Election manifestos. We need manifesto commitments for the millions of people across the country who are affected by cancer but don’t get the best diagnosis or treatment. We need manifesto commitments to establish the UK as the global leader for research, innovation and the pursuit of public wellbeing. We need a manifesto that drives UK cancer survival to amongst the best in the world.
To achieve this, we believe the next Government should:

- Invest in local public health services, including through a ‘polluter pays’ charge on tobacco company profits to fund the essential components of a tobacco control strategy needed to achieve a smoke-free nation;
- Commit to halving childhood obesity by 2030, and take the essential first step of protecting children from junk food marketing on TV, online, in-store and on the street;
- Invest in the long-term training and skills of the NHS workforce to deliver a transformational shift in early diagnosis from 2 in 4 to 3 in 4 cancer cases in the next ten years;
- Build the UK’s global reputation for science by committing to increase investment in R&D to 3% of GDP without delay - this includes uplifts to public funding that provides vital foundations for research in our universities and hospitals, namely quality-related (QR) and National Institute for Health Research (NIHR) funding;
- Ensure our relationship with the EU delivers for cancer patients and maintains our status as a world-leader in research, including remaining aligned with EU clinical trials regulations; prioritising swift access to new medicines through a close relationship with the EMA; and delivering an immigration system that works for research.

**Beyond cancer**

This is not just about cancer. We are suggesting each of these evidence-based policies because they will improve outcomes for cancer patients, but they will also provide hope to people with all kinds of diseases and bring benefits across the country, well beyond our health and research sectors. Better disease prevention, earlier diagnosis and even more pioneering research will lead to better survival for many diseases and increased wellbeing for everyone.

These commitments will also build pride in this nation’s science and research, generate prosperity across the country and reduce inequality. Taking action on smoking and childhood obesity is part of a wider moral commitment to tackle poverty and the associated poor health outcomes that leave so many people disadvantaged. Reinvesting in local public health will provide much-needed services for communities that need help the most and who feel they have been left behind or forgotten. Creating and investing in an NHS workforce fit for the future will deliver a more sustainable health service and provide skilled jobs across the country. And with steady increases to R&D funding and an immigration system that supports research, we can attract investment from around the globe and lead the world in science, innovation and discovery.
Prevention is better than cure

Reaching a smoke-free nation by 2030

After decades of successful action on tobacco control, only 14.7% of UK adults were smokers in 2018. Yet smoking continues to harm our economy: in England, the cost to society is around £12.6 billion per year, £2.5 billion of which falls on our NHS, £1.4 billion on social care and £8.6 billion as a result of lost productivity.

Smoking is also the single most important driver of health inequalities and a greater determinant of health inequality than social position. Given that tobacco accounts for around half the difference in life expectancy between the richest and poorest, the potential gains to be made in addressing health inequalities are substantial.

In 2017, the Government committed to becoming a smoke-free nation by 2030, which will be achieved when less than 5% of the population smoke across all socio-economic groups. We would like to see the next Government uphold this challenging ambition and deliver on it through national and local action, supported by appropriate funding.

Sustainable public health funding

Local stop smoking services, which provide smokers with a combination of specialist behavioural support and prescription medication, offer the best chance of successfully quitting. 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 – many have had to cut these services as they try to work with smaller public health budgets. This is exacerbating health inequalities and hitting hardest in areas of the country that already feel left behind.

Cancer Research UK, along with 80 other organisations across the health and local government sector, wants the Government to provide sustainable funding for public health as a matter of urgency. The King’s Fund and Health Foundation have stated that £1 billion is needed to restore funding across public health.

A Tobacco Control Fund, paid for by the tobacco industry

A Tobacco Control Fund, run by the Government and paid for by the tobacco industry, would provide the funds needed to achieve a smoke-free nation. This is particularly vital in the absence of sustainable public health funding. Tobacco manufacturers are increasingly advocating themselves as part of a smoke-free future. As the producers of such a harmful product, they should be required to pay for the costs of the damage they cause.

Fixing the Tobacco Control Fund to raise £270m per year, would cover funding for the most important components of a comprehensive tobacco control strategy in England:

- National functions including public education campaigns (£40m)
- Local authority functions including Stop Smoking Services (£177.9m)
- Regional functions including regional public education campaigns and enforcement
activity to combat illicit tobacco (£47.6m)

This could be uprated to £320m to Scotland, Wales and Northern Ireland, as well.

The funding should be targeted for the groups and areas that need is most, where smoking rates remain stubbornly high, and health inequalities are widening.

**Halving childhood obesity by 2030**

Overweight and obesity is the biggest preventable cause of cancer after smoking in the UK and causes around 22,800 cases of cancer each year. A child who is obese is five times more likely to be so as an adult, so acting early can protect them from a lifetime of avoidable ill-health and disease. This is also a significant driver of health inequalities, with obesity twice as prevalent among the most deprived 10% of children in England compared to the most affluent 10% -- and this gap is widening. We want to give children a better chance to eat healthily, stay a healthy weight and avoid cancer in later life.

In 2018, the UK Government committed to halving childhood obesity by 2030. We would like to see the next Government uphold this challenging ambition and deliver on it through timely national and local action, supported by appropriate funding.

To make progress requires a UK-wide, whole-systems approach. There is a clear role for government: it is not just about personal responsibility but requires strong political will and incremental policy change.

And it is more about what we eat than how much we move. The next Government should prioritise interventions aimed at reducing unhealthy choices in the obesogenic food environment. Stemming the tide of unhealthy food and drink will help level the playing field and make healthier habits easier to maintain.

Such population-wide measures also have an important role to play in reducing health inequalities. And, by reducing the pool of people who are obese, population-wide measures pave the way for more targeted interventions to come into play, just as we have seen within UK tobacco control.

**Restricting junk food advertising**

While there is no magic bullet, and we need action on all fronts, endless adverts for junk food are especially overwhelming for children, who are often directly targeted with these unhealthy messages.

Cancer Research UK recommends that the next Government implements a comprehensive 9pm watershed on adverts for junk food products across TV, catch-up and TV on-demand services, and restrictions on adverts online and on social media.

This would reduce children’s exposure, support parents to help keep their family healthy, provide a consistent approach for industry, and minimise the risk of displacing junk food marketing to other media. For similar reasons, there is a strong case to extend such
restrictions to cover cinema, radio, outdoor, direct and experiential marketing; as well as new rules about what is permissible on the packaging for foods high in fat, salt and sugar (HFSS).

If we’re going to halt the rising tide of childhood obesity, we need to give parents back the power to make healthy choices for their family. The current system pushes families towards unhealthy options, with children using pester power to influence their parents.

There is also a compelling argument that the UK’s reliance on self-regulation by industry and lack of real consequences for non-compliance is not fit for purpose. We would like to see robust independent monitoring and clear sanctions to ensure compliance with restrictions.

“When marketing to children, advertisers essentially use a two-pronged attack. They get children to pester their parents for a product, then make parents feel sufficiently assured to buy the product…… A 9pm watershed on junk food adverts obviously isn’t the whole solution, but it will radically change the conversation.”

Dan Parker, a former advertising executive turned campaigner

Creating healthier supermarkets
The current retail environment is skewed towards the promotion of unhealthy foods with strong evidence that price and location promotions encourage consumers to make less healthy choices. The Government should re-stack the odds in favour of healthy eating by requiring retailers to ensure that all volume-based price promotions on food and drink are on healthier products.

There should also be restrictions on junk food promotions in certain locations in the retail environment, including at store entrances, end of aisles and checkout areas. This will reduce mostly unplanned purchasing of typically unhealthy foods, saving families money and reducing excess sugar and calories consumed.

Boosting reformulation efforts
The Government should drive forward the efforts to reduce high levels of sugar and fat in our food, by getting tougher on companies not meeting the sugar and calorie reduction targets. This would provide a level playing field for all companies.

Fiscal and pricing policies are effective in promoting healthy behaviours, as tobacco and alcohol taxes, and more recently the sugary drinks tax, have shown. These policies also tend to have progressive health impacts because the consumption of unhealthy products tends to be more concentrated in disadvantaged socio-economic groups, and because those groups tend to be more responsive to financial incentives.

Supporting more informed choices
The UK Government should introduce mandatory front-of-pack colour-coded nutrition labelling, and mandatory calorie labelling for cafes, restaurants and other out-of-home food outlets. This would level the playing field and allow people to access consistent nutritional information.
Building an NHS fit for our future

Early diagnosis saves lives, but change is needed to meet targets
Diagnosing cancer at an early stage is critical to improving survival for people affected by cancer. But UK cancer survival continues to lag behind other comparable health systems, in large part because we tend to diagnose cancer later. While geographical variation in survival has reduced in England\textsuperscript{15}, inequalities persist – not just geographically, but also by cancer type, age and socio-economic status\textsuperscript{16, 17}. We can and must do better on early diagnosis for all people affected by cancer.

In 2018, the Government and NHS committed to diagnosing 75\% of patients early (stages 1 & 2) by 2028\textsuperscript{1}, up from just over 50\% currently. This has the potential to save thousands of lives and drive up the UK’s cancer survival to be among the best in the world and we believe it should remain a priority for the next Government.

To achieve this ambition, the NHS must be supported to transform so that it can detect thousands of more cancers at an early stage – the latest figures show that 115,000 people in England alone are diagnosed too late\textsuperscript{18}. Early diagnosis is multifaceted and needs world-class cancer screening services, sufficient investment in diagnostic scanners, high public awareness and access to primary care, and an NHS that can access the latest diagnostic research and tech. And the target will not be met without a plan to recruit more diagnostic staff, including endoscopists, pathologists and radiologists, and upskill cancer care.

Case Study – Kath, 59, Bolton
“I’d been experiencing blood loss, but I just put it down to menopause. My daughter urged me to get it checked as I’d missed my smear test earlier that year. So, I went to my GP and was referred to Royal Bolton Hospital where I had various tests, including a biopsy. After the biopsy, my consultant told me I had womb cancer. It was diagnosed at the earliest stage, which was good news. The operation removed all my cancer so I didn’t need radiotherapy or chemotherapy – I was very lucky.”

Staff shortages are affecting every part of the cancer pathway
Currently, 1 in 10 posts across the NHS are vacant, and it is estimated that without action, this rate will increase to more than 1 in 7 by 2023/24\textsuperscript{19}. Because of this, the NHS has been struggling to keep pace with growing demand for cancer diagnosis and treatment. In 2018 there were over 1.9 million urgent GP referrals for suspected cancer – 40\% higher than the equivalent period four years previously\textsuperscript{20}.

And demand for cancer services is only going to grow. An ageing and growing population will mean over 500,000 people will be diagnosed with cancer each year in the UK by 2035 (150,000 more than in 2015)\textsuperscript{21}. Moreover, as more cancers are diagnosed at an early stage, the treatments workforce must be staffed to deliver more curative treatment – for example, 70\% of patients diagnosed with stage 1 cancer receive surgery, compared to 13\% at stage 4\textsuperscript{22}.

\textsuperscript{1} This commitment is currently only for England
And new forms of treatment like advanced radiotherapy techniques and the growth of genomic medicine will have an impact on the workforce which needs to be understood.

Case study – Graham, Tatton

“The NHS has looked after me all my life for which I am very grateful. After retiring, the shock of cancer diagnosis was lessened knowing the NHS would be there to treat me. I recognise my early diagnosis was a key factor in prolonging my life and how essential this is to all cancer cases. I want everyone to receive the best possible outcome through early diagnosis. But this will only be possible if funding is available to build the diagnostic workforce which is currently hugely understaffed.”

Workforce planning must be based on patient need

The NHS has started to address staff shortages related to cancer in the short term through Health Education England’s (HEE) ‘phase 1’ cancer workforce plan and the Interim People Plan. However, we are yet to see a truly demand-led approach to planning the future workforce needed for cancer services, or long-term spending commitment for education and training to complement the uplift in NHS funding. Our own estimates suggest that we will need to double the NHS cancer workforce by 2027 just to meet rising demand\textsuperscript{xii}. We now need:

- The final NHS People Plan to contain a demand-led projection of staff numbers for cancer. HEE developed a ‘phase 2’ cancer workforce plan, which focussed on future needs and was a positive start. It is vital that this good work is not lost and is fed into the development of the People Plan.

- Government to be bold and provide sufficient funding for HEE to train the workforce we need for the future. HEE has suffered a real-terms budget cut of over £800m since 2015/16, including a nearly 10% budget cut in cash terms between 2017/18 and 2018/19\textsuperscript{xiv}. These cuts have meant significant reductions in workforce development and CPD budgets, which has particularly undermined HEE’s ability to increase retention in the short term, worsening the workforce crisis. While the recent Spending Round saw a small increase of 3.4% for 2019/20, previous real terms cuts to this budget means that HEE will not be able to fund necessary future increases in workforce numbers. To reverse these budget cuts and restore 2015 real-terms funding levels would require HEE to receive an additional £1bn by 2023/24\textsuperscript{xv}. But at the very least we believe training and education budgets should see the same growth as the investment in NHS services to be fit for the future.

This is not solely about increasing the number of staff – retention, new ways of working (including better use of skills mix), better use of technology and AI all have the potential to have a positive impact in time. However, ultimately, more staff are needed, not only to meet increasing demand but transform the NHS into a world-leading system for cancer survival.

This is a widely understood and accepted challenge for the NHS. There have been calls for a longer-term, demand-led, approach to NHS workforce planning for several years. In cancer,
the Cancer Strategy that was published four years ago made clear that the scale of the challenge in cancer was significant, and that action was needed, describing it as a “make or break” issue\textsuperscript{xxvi}. Unfortunately, not enough has changed over the last four years to adequately address this.

“\textit{Cancer Research UK has been calling for staff shortages to be addressed because, quite simply, it will give people a better chance of surviving cancer. It’s never been a more crucial time for government to put new money where it matters.}”

Sara Hiom, director of early diagnosis at Cancer Research UK

\textbf{Giving the NHS the right tools for the job}

As well as struggling with staffing capacity, the NHS is limited by increasingly outdated infrastructure. Though we welcome recent Government commitments, there has been a long-standing shortfall in capital investment, made worse by several years of capital budgets being raided to cover revenue. As a result, the NHS in England now has a £6bn backlog of estate repairs\textsuperscript{xxvii}. We have fewer scanners than comparable European countries\textsuperscript{xxviii} no sustainable solution for replacing radiotherapy machines, leading to many trusts relying on outdated equipment \textsuperscript{xxix}.

To achieve world-class cancer outcomes, we need world-class facilities and equipment. It is vital to ensure that NHS infrastructure – especially the equipment needed to diagnose and treat cancer – is fit for purpose, now and for the future. To achieve this, the NHS needs a comprehensive, far-sighted commitment for capital funding.

\textbf{Improving access to treatments so every patient has the best chance of a cure}

Every person diagnosed with cancer should have access to the best, evidence-based treatment that is appropriate for them. We want to see swift and equitable approval and uptake of the most innovative new treatments, so that people with cancer can benefit as quickly as possible.

The Cancer Drugs Fund has been a success over recent years, acting as a managed access fund for treatments with an uncertain benefit. But we need to make the system fit for the future. The NHS is in a strong position to lead the way in health innovation, as a single-payer system with a diverse population, and a proud history of leading the way in practice-changing clinical trials – especially in radiotherapy. A relatively small investment in data infrastructure would unlock our ability to assess the impact of new medicines, paving the way for more innovative approaches to drug pricing and approvals.

Decisions about treatment should be shaped around each patient’s individual circumstances, incorporating medical as well as social factors. Once a treatment has been approved, every person who could benefit should be able to access it and supported to access it if they choose. This is especially important for people with complex needs, including older patients – who are less likely to receive many different types of treatment\textsuperscript{xxx}. 
An opportunity to lead the world in science and research

Improving the health and wealth of the nation

A thriving research environment improves outcomes for patients and fuels economic growth. Every £1 invested in medical research delivers an economic return of around 25p every year forever. And patients cared for in research-active hospitals have better outcomes, with higher levels of research-activity leading to lower rates of patient mortality following emergency admissions.

The UK is already a global leader in science and there is an opportunity to build on this by going beyond the existing target to reach 2.4% of GDP invested in R&D by 2027. All elements of the UK’s diverse research ecosystem are needed to reach this target – including charities, industry and government. This diversity provides long-term financial stability, pools risks and draws on a variety of expertise to generate new ideas that advances research which makes a real difference to patients. Over the next few decades, we have the potential to deliver significant breakthroughs in early detection research and lead the world in our use of data and Artificial Intelligence.

Supporting science in our world-leading universities

Universities are a critical partner in delivering our research and their long-term sustainability is integral to our ambition to improve the lives of cancer patients. It is vital a proportion of the uplift to public funding to support the 2.4% target goes towards increasing underpinning QR funding including its charity element, the Charity Research Support Fund (CRSF). QR funding provides stability and autonomy to universities, sustaining the excellence of our science base, and the CRSF is necessary to cover the indirect costs of research that charities cannot pay.

Investing in health research

The National Institute for Health Research (NIHR) underpins the UK as an attractive destination for medical research. It funds high-quality research, provides world-class research infrastructure and supports health researchers through training. By enabling the NHS to support the research of universities and funders, such as Cancer Research UK, it encourages investment and growth from health research. This support is crucial if we are to reach the

Case Study – Alfred Samuels, 59, London

In 2012, when Alfred was diagnosed with advanced prostate cancer that had spread, he joined our STAMPEDE clinical trial. The trial is mainly funded by Cancer Research UK with support from four pharmaceutical companies.

‘When I found out I was eligible, I thought: ‘There’s something I can do’. Not just for myself, but for others too. For part of my trial, I have to take 4 tablets of abiraterone (Zytiga) a day and have an injection every 8 weeks. This is to reduce the testosterone in my body, as it makes the cancer cells grow faster. Now I’m here 5 years later, and I would never have thought that was possible.’
goal of making the UK’s cancer survival among the best in the world.

NIHR investment is particularly important if we are to attract further investment as the UK leaves the EU. The NIHR also plays a key role in the Industrial Strategy and Life Sciences Sector Deals. With an extensive clinical research portfolio and infrastructure, which is relied on by many clinical researchers, the NIHR Clinical Research Network (CRN) is vital to the ambition to strengthen the UK environment for clinical research.

Investing in the whole medical research pipeline, from basic to applied clinical research, is vital to reach the ambition to boost national investment in R&D. There have been welcome uplifts to publicly funded R&D initiatives, including through UK Research and Innovation (UKRI). While NIHR’s funding has increased slightly since 2010, it has not received the same uplift as UKRI and has instead remained steady since 2014. As a start, the next Government should increase NIHR investment so that it is in line with UKRI investment and inflation.

Using data to transform research and care
Used to its full potential, information routinely collected by the NHS, in national datasets and medical records, is an invaluable resource driving research into the causes of disease, improving the effectiveness of diagnosis and treatments and facilitating improvement across the NHS. This data, and data-driven technologies such as artificial intelligence, have the potential to transform outcomes for cancer patients in the NHS and keep UK research and innovation at the cutting edge of the global research community.

However, there is much more that we can do to ensure health data is being best used. Our NHS staff are often not trained with the right data skills and need extra support to upskill. Data analytics is under-resourced across the NHS, and more investment in IT infrastructure is needed to develop a joined-up system. For researchers, the current data access system can be costly and resource intensive, with a more transparent and consistent application process needed. Data is collected from patients for the benefit of patients, and thus throughout patients must remain at the centre of any decisions around how data is used and shared.

Building a strong charity sector
Charities play a critical role in the UK. For the sector to thrive, Government must provide a favourable fiscal and legislative environment for charities. Government should embed consideration of civil society as part of policy impact assessment across Government, to allow the sector to thrive and avoid any unintended impact of new policy.

Supporting charities is also critical in reaching the ambition to increase R&D spend: charities fund 41% of publicly-funded medical research in the UK. Charitable research funding leverages further investment from industry, bringing us ever closer to ambitions for increased spend.
Ensure the UK-EU relationship works for cancer patients and research

Cancer research, like all medical research, is inherently international. Close UK-EU collaboration on research has driven vital progress for patients here and across the continent. As a new Government works to enhance the UK’s science and innovation environment and seeks opportunities around the world, it must also protect the collaboration with European partners which has helped to cement the UK as a world-leader in research. Indeed, at latest estimate CRUK researchers were partnering with more than 400 different organisations in the EU27. Whatever the terms of the future relationship, it is essential such collaboration can continue.

Safeguarding cross-national clinical trials
Clinical trials are the gold standard in testing whether new medical interventions are safe and effective and provide patients with opportunities to access potentially lifesaving innovations at an early stage in their development.

UK-EU trials are an essential feature of our clinical research, and are particularly vital for rare and childhood diseases, where single countries may not have large enough patient populations to run trials alone. 28% of the trials CRUK supports take place with at least one other EU Member State, and overall 4,800 UK-EU clinical trials took place between 2004 and 2016.

It is essential for cancer patients, and the UK’s thriving research environment, that cooperation on clinical research continues. The EU is preparing to implement the new Clinical Trial Regulation, which UK research expertise was central in drafting. The next Government must ensure the UK aligns as closely as possible to this regulation, including negotiating access to the underpinning digital infrastructure, so UK researchers can continue to work on vital shared European clinical research projects.

My surviving Acute Myeloblastic Leukaemia was largely due to EU research programmes and environment. The UK leads in many bioscience fields because of the constant exchange with European partners, rich collaboration of minds and appropriately funded research studies.

Response to our survey of people affected by cancer, on the UK's future relationship with the EU

Securing patient access to medicines
A close relationship between the UK’s Medicines and Healthcare products Regulatory Agency (MHRA) and the European Medicines Agency (EMA) will ensure patients here and across
Europe continue to have swift access to the newest treatments.

The EMA evaluates applications for marketing authorisation (allowing a medicine to be sold in the EU). This certifies a medicine’s safety, efficacy, and manufacturing quality, before its cost-effectiveness is then evaluated at a UK level. And the MHRA is a leading part of its activities, acting as the lead assessor in around 20% of centralised EMA marketing authorisations between 2008 and 2016.

Leaving the EMA’s marketing authorisation arrangements could make the UK a lower-priority market for the launch of new medicines and ultimately delay patient access. The EMA covers an area responsible for 25% of global pharmaceutical sales; the UK makes up only 3%. For comparison, Switzerland’s independent medicines regulator has been found to approve medicines around 2-3 months later than the EMA.

Collaboration works both ways, and a reduced role for the world-leading MHRA in the EMA’s procedures could also affect patient access to new medicines in the EU. So we believe the MHRA and EMA should establish new ways of working, with an active role for the MHRA, to ensure patients in the UK and across Europe continue to benefit from their collaboration and have swift access to the newest medicines.

Protecting the mobility of researchers
A mix of domestic and international scientific talent underpins the UK’s world-leading position in the life sciences. At CRUK, 76% of post-Doctoral researchers at our institutes are not originally from the UK. This is also true of half of our PhD researchers - more than a third (35%) from the EEA.

We want to ensure the UK’s thriving research environment can continue to attract, recruit and retain global scientific talent at all levels, driving continued progress for patients and delivering significant economic benefit. The current non-EEA immigration system is costly, burdensome and doesn’t work for science, and if this system too is simply expanded to include EEA flows it could prove significantly detrimental to UK science.

It is essential that any new system ensures researchers and their families feel welcome in the UK, with full access to public services as they pursue their careers here. The system must minimise the bureaucracy faced by international researchers and employers, and ensure researchers are not inadvertently penalised by entry criteria. A salary threshold to encourage skilled migration, for example, risks excluding skilled research technicians who are the backbone of the research workforce, but whose pay often does not reflect this.

Shaping EU collaborative research programmes
Cancer Research UK receives no direct Government funding, from the UK or EU, but our core-funded institutes and the universities where we fund research receive significant support from EU grants. EU funding sources help support the UK’s thriving research environment and provide a framework under which vital cross-national collaboration can take place.

Horizon Europe, the forthcoming EU Research Framework Programme, is due to come into effect in 2021. It will include, for the first time, a ‘mission’ focus on cancer – coordinating
continental action to drive improvements in outcomes. The priority of the next Government should be to retain UK influence in and access to this programme to ensure it aligns with UK priorities and is awarded on scientific excellence. Our world-leading cancer research environment will provide benefit to, and derive benefit from, Horizon Europe association.

The UK has been a significant beneficiary of the EU’s Research Framework Programmes. In the last two such programmes, Framework Programme 7 (FP7) and Horizon 2020, the UK has had over 2,300 researchers in more than 1,000 health related projects, valued at €1.2 billion\textsuperscript{xxxvii}. The European Commission reports that for every €1 from FP7 the direct and indirect economic effects produce €11\textsuperscript{xxxviii}.

[UK negotiators should] make sure EU funding for science in the UK stays the same and collaboration between scientists within Europe remains optimal. Fighting cancer is a global fight.

Response to our survey of people affected by cancer, on the UK’s future relationship with the EU
Appendix: Immediately implementable: making change a reality

As a first step towards beating cancer, we are calling on the next Government to carry out the following policy changes as immediate priorities:

**Prevention is better than cure**

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<th>Policy solution</th>
<th>Why should it be a priority?</th>
<th>What would it cost?</th>
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<tr>
<td><strong>Sustainably fund public health services for stop smoking services</strong></td>
<td>• Public health funding is essential in providing local services such as smoking cessation support. We believe that there is now a crisis in public health funding – a view shared by 80 other organisations. Smoking causes over a quarter of cancer deaths in the UK. Smokers using Stop Smoking Services are around three times more likely to successfully quit than going cold turkey, and yet funding cuts have led to 4 in 10 local authorities not providing any services to smokers at all. Cutting public health funding is a false economy; every £1 spent on smoking cessation saves £10 in future health care costs and health gains. 88% of MPs agree that public health funding to encourage people to live healthier lives, such as through Stop Smoking Services, is important for ensuring the long-term sustainability of the NHS.</td>
<td>The King’s Fund and Health Foundation have stated that £1 billion is needed to restore funding across public health.</td>
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<td><strong>A Tobacco Control Fund, paid for by the tobacco industry</strong></td>
<td>• Tobacco companies are responsible for the greatest and most enduring man-made public health epidemic in history, yet they continue to profit from a product that kills one in two people who use it. It’s popular with the public: more than 7 in 10 adults in England said they’d support the polluter pays model. A similar approach been implemented in France and the USA, as recognised by the Government in its Prevention Green Paper. 76% of MPs think that the tobacco industry</td>
<td>The tobacco industry makes £1.5bn of profit every year in the UK. It would cost the tobacco industry £320m a year to cover funding for the most important components of a comprehensive tobacco control.</td>
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Implemention of the 9pm watershed on adverts for junk food products across TV, catch-up and TV on-demand services

- Rates of childhood obesity are at an all-time high in the UK, with 1 in 3 children aged 2-15 overweight or obese. Junk food advertising on TV is a clear, consistent and cumulative risk factor for high junk food consumption and increased weight amongst young people.
- Stopping junk food being advertised to children will give them a greater chance to eat healthily, stay a healthy weight and avoid cancer in later life.
- This measure would represent an important step towards the Government’s ambition to halve childhood obesity by 2030.
- 91% of MPs think the Government has a responsibility to implement evidence-led measures that are likely to help reduce childhood obesity.

Some stakeholders argue that by restricting HFSS advertisements to children, the broadcast industry would suffer. We challenge this. Only 3% of the £190m total advertising income in May 2018 across ITV, Channel 4, Channel 5 and Sky One was derived from HFSS adverts shown between 6-9pm. What’s more, for over half (54%) of the HFSS products advertised before the watershed, there is already a non-HFSS alternative within the same brand that could be advertised instead.

Building an NHS fit for our future

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</table>
| Fund a long-term, demand-led cancer workforce plan | • Staff shortages are affecting every part of the cancer pathway and are a barrier even to providing effective care to patients today.  
• The Long Term Plan sets a bold ambition for the NHS to diagnose 75% of cancers at an early stage by 2028. Currently, just over half of patients are diagnosed at an early stage, so this represents a potentially transformational shift that could save thousands of lives and help the UK close the survival gap with comparable countries around the world.  
• We welcome the recent NHS capital spending commitments made by the Government. However, realising the maximum benefit of | We are still developing exact estimates for the investment required to deliver the cancer workforce. We do, however, already know that reversing overall budget cuts and restoring real-term funding to 2015 levels would require HEE to receive an additional £1 billion |
these investments requires sufficient staff to operate and run the buildings and machines

- 94% of MPs think we need a long-term plan for the cancer workforce so the NHS can meet future patient demand and adapt to new technologies, and 85% agree that the NHS needs more diagnostic staff to detect cancers earlier\(^\text{Iii}^\).

by 2023/24.

An opportunity to lead the world in science and research

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<th>Policy solution</th>
<th>Why should it be a priority?</th>
<th>What would it cost?</th>
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| A long-term plan for research and innovation investment up to 2030 | • The evidence is clear: investment in R&D drives productivity and raises living standards, benefitting people and communities across the whole of the UK.
• We need a roadmap to ensure the UK continues to build its position as the global hub for new world-leading technologies, to draw on its strengths across multiple disciplines, to attract talent from around the world and to promote British entrepreneurship. | The cost of investment is dependent on the scale. What we are clear on is that there are significant long-term benefits to investing in medical research; for every £1 spent by the Government on R&D, private sector R&D output rises by 20p per year in perpetuity\(^{IV}\). |

| Increasing investment in health research through the National Institute of Health Research (NIHR) | • The NIHR underpins the UK as an attractive destination for clinical research. It funds high-quality research, provides world-class research infrastructure and supports health researchers through training.
• NIHR’s budget has been flat for the last three years whilst there have been increases to Government R&D funding through UKRI, and an increase was recommended in the Life Sciences Industrial Strategy.
• Sufficient support for health research is needed to keep the NHS at the cutting edge of medical treatment and to support the Long Term Plan ambitions for research and innovation.
• Recent MHRA data for clinical trial applications suggest that clinical trial activity in the UK is declining\(^{IV}\). | A real-terms increase to the NIHR budget in line with increases to funding through UKRI. |
Ensure the UK-EU relationship works for cancer patients and research

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| Protect the mobility of researchers | • The movement of researchers across the EU has been crucial in working towards improving outcomes for cancer patients.  
• At CRUK, 76% of post-Doctoral researchers at our institutes are not originally from the UK. This is also true of half of our PhD researchers - more than a third (35%) from the EEA\textsuperscript{vi}.  
• It’s popular with the public: 86% of respondents to recent polls wanted a new immigration system to be designed to allow more cancer researchers to come to the UK to live and work\textsuperscript{vii}.  
• 96% of MPs think that UK medical research benefits from the international movement of researchers to and from the UK, and 85% agree that the important role of medical research staff should be explicitly recognised in the new immigration system\textsuperscript{viii}. | There are no likely costs associated with this policy proposal. |
| Safeguard cross-national clinical trials | • International trials are essential clinical research. This is particularly crucial for rare and paediatric cancers, where patient populations are often too small to run trials in the UK alone.  
• 28% of the trials CRUK supports take place with at least one other EU Member State, and overall 4,800 UK-EU clinical trials took place between 2004 and 2016.  
• The UK has the highest number of phase I trials in the EU, and the second-highest number of phase II and III trials after Germany\textsuperscript{ix}.  
• Our research has found that the UK has made significant contributions to medical progress for EU science, ultimately improving the health of patients and the public across the EU\textsuperscript{x}. It is essential that this continues. | There are no likely costs associated with this policy proposal. |
According to March 2019 polling by Censuswide, with 2001 respondents.

According to March 2019 polling by ComRes, with a sample size of 150 MPs in total. With a sample size of 150, the margin of error on results at a 95% confidence level is ±7.02.


Ibid