Cancer Research UK response: House of Lords Select Committee on the long-term sustainability of the NHS

September 2016

Summary

1. Cancer Research UK is pleased to provide a written submission to this inquiry following the informal evidence session in July. Having an NHS that is free at the point of use and able to deliver care to everyone that needs it is a bedrock of our society. It’s vital we find a way to ensure the NHS is sustainable in the long term so that these principles are upheld. To meet this challenge the NHS must continue to adapt and innovate to provide the latest evidence-based care to patients.

2. The burden of cancer on the NHS is going to significantly increase over the next 20 years. More than 500,000 people in the UK are expected to be diagnosed with cancer per year by 2035. As survival continues to improve the NHS will also need to care for increasing numbers of people living with and beyond cancer.

3. Research is going to deliver a range of benefits to patients in the coming decades. While it is difficult to predict what research will make its way through to clinical practice that far into the future, it is realistic to expect that we will be able to:
   - Better predict risk of disease at an earlier age and provide personalised prevention measures to keep disease at bay;
   - Provide a greater range of screening tests to detect, and in some cases prevent, cancer;
   - Better detect and diagnose cancer at an early stage;
   - Offer a greater range of effective treatments, including those that will be personalised to each patient; and
   - Monitor patients in real-time and provide personalised follow-up after treatment.

4. To capitalise on these developments and ensure a sustainable NHS we believe there are some key aspects that the Government needs to prioritise:
   - **A radical upgrade in prevention:** The Government’s recent obesity strategy fails to live up to expectations – fresh ambitions and mandated measures are urgently needed, including removing junk food marketing before the 9pm watershed on TV. A sustainable solution to fund Stop Smoking Services is needed, with the introduction of a ‘levy’ on the tobacco industry as one option.
   - **Greater investment in early disease detection.** Innovative ways of detecting cancer, such as identifying circulating tumour DNA and blood based tests, will improve our ability to intercept disease at a treatable stage. This will improve outcomes for patients and save NHS money by diagnosing patients earlier.
   - **Support swift adoption of evidence based treatments:** the NHS must be in a position to capitalise on new technologies and techniques being developed in radiotherapy, surgery and cancer drugs, by adopting evidence-based innovations quickly and equitably.
   - **Develop new models of service delivery:** Programmes such as Accelerate, Coordinate and Evaluate (ACE), which is testing new pathways to diagnose cancer including through multi-disciplinary diagnostic centres, should be built upon. The NHS should also explore configuration of services, such as lead provider models to better coordinate services and break down boundaries across geographical areas to meet needs of a population.
• **Provide and act on real time data**: The NHS must better utilise data to inform research, how services are delivered, drive value by commissioning based on outcomes and empower patients by giving them access to their records.

• **A re-modelled and larger workforce**: The way we plan for workforce changes must be adaptive: as innovation becomes usual practice, we need to keep up with those new areas with the right numbers of skilled health professionals.

• **Embed a research culture within the NHS**: The NHS should be an adaptive, learning organisation with research at its core. By embedding research in everyday practice, we can make these strides at a faster pace.

### The burden of cancer on the NHS

5. Vast improvements in cancer survival have been seen in the UK - 2 in 4 patients now survive the disease for 10 years or more compared to 1 in 4 in the 1970s. However, we must strive for better as UK cancer survival remains lower than in Australia, Canada, and several comparable European countries. Cancer Research UK believes that by 2034, 3 in 4 people can survive their cancer for ten years. Having high quality and sustainable NHS cancer services is crucial if we are to reach this goal.

6. However, there are substantial challenges to achieving this. Lifetime risk of cancer is higher than ever and cancer incidence is set to increase. There were around 361,000 cases of cancer in the UK in 2014. By 2035, it has been projected that there will be over 500,000 cancer cases in the UK per year. The expected rise in cancer incidence is mainly due to a growing and ageing population, but preventable risk factors such as smoking and obesity play a big role. This increase will undoubtedly place greater pressure on NHS services.

### A radical upgrade in prevention and public health (question 6)

7. More than four in ten (42%) cases of cancer in the UK are preventable – around 150,000 cases every year. We believe the warning in NHS England’s Five Year Forward View, that ‘the health of millions of children, the future sustainability of the NHS and the economic prosperity of Britain all now depend on a radical upgrade in prevention and public health’ must be heeded. Action to prevent disease must be at the forefront of any approach to ensure the NHS is sustainable in the long-term.

8. Tobacco use remains the UK’s single greatest cause of preventable illness and avoidable death – 100,000 people die each year from smoking-related diseases, including cancer. After smoking, obesity is the single biggest preventable cause of cancer - if current trends continue obesity could cause 670,000 cases of cancer over the next 20 years.

9. As well as the health implications, tobacco use and obesity present a huge financial burden.
   - The total cost of tobacco use to society in England is £13.8 billion a year; this includes a cost of approximately £2 billion to the NHS of treating diseases caused by smoking in England. In contrast, tobacco duty receipts in England in 2014/15 were less than £7.5 billion, meaning the net societal costs of tobacco use in England alone is more than £6 billion.
   - It has been estimated that obesity costs the NHS £5.1 billion a year. An economic analysis has found the total loss to the UK society from obesity was £47 billion in 2012. The Chief Executive of NHS England has also stated that if unabated, obesity could ‘bankrupt the NHS’.
What should be the role of the state, the individual and local and regional bodies (6b)

10. More than one in five children in England enter primary school overweight or obese, and this increases to around one in three children by the time they leave. Obese children are five times more likely to become obese adults, placing them at risk of preventable cancers. However, existing approaches, including the Government’s Childhood Obesity Plan, have fallen short of public health objectives.

11. To effectively reduce levels of children’s obesity, we need to see comprehensive restrictions to marketing of foods high in fat, sugar and salt, including closing existing loopholes to protect children by removing such marketing before the 9pm watershed on TV. The evidence base, including ample systematic reviews and meta-analyses, is clear that commercial cues and exposure to junk food marketing has a substantial impact on increasing the amount of food that children eat, as well as what brands they prefer, and what types of food they choose to consume. Marketing restrictions are not included anywhere in the Government’s plan.

Funding and delivery of public health and prevention (6c)

12. We believe it is imperative for the Government to find a sustainable funding solution for tobacco control services. These include Stop Smoking Services, mass media campaigns, and action to tackle the illicit trade in tobacco. Investment must be in place to ensure that local authorities are sufficiently resourced to guarantee delivery of standards consistent with NICE guidance.

13. The cuts to public health budgets seriously undermine these initiatives, and the negative consequences of this are becoming apparent. Recently published research by ASH and Cancer Research UK, carried out in Summer 2016, shows that for the 2016-17 financial year, 59% of local authorities have reported a cut in their smoking cessation budget (including almost half who reported a cut of more than 5%) and 45% reported a cut in their wider tobacco control budget.

14. An option to provide sustainable funding for tobacco control includes the introduction of a financial ‘levy’ on the tobacco industry (more detail on this in paragraph 16).

15. In terms of obesity, there is a clear imbalance between funding on prevention versus treatment. The Health Select Committee has identified that the cost of obesity to the NHS (£5.1bn a year) and wider society (£27bn a year) dramatically outweighs funding for obesity prevention programmes (£638m a year), by eight and 42 times respectively. The NHS is spending more on bariatric surgery for obesity than a national roll-out of lifestyle intervention programmes. In addition, warm words through plans and strategies has not predicated action, and meant levels of overweight and obesity remain staggeringly high.

Should the Government legislate for greater industry responsibility to safeguard national health? (6d)

16. Cancer Research UK remains clear that, in accordance with Article 5.3 of the Framework Convention of Tobacco Control of which the UK are a signatory, the tobacco industry should have no role in the development of public health policy-making.

17. We believe a £500 million financial levy on the tobacco industry should be implemented to fund tobacco control. The levy liability for each company should be based on market share – calculated on the basis of volumes cleared in the previous year. £500m approximately equates
to one pence per stick sold per annum. The return and payment of the levy will be administered through the corporation tax system – consistent with the administration of the levy on financial institutions (‘the bank levy’). The progressive impact price rises can have on tackling smoking-related inequalities means that even if the levy cost is passed onto consumers – rather than absorbed by the liable companies – the benefit for tobacco control services and its deliverables will still be realised. The levy is our preferred option, but we also support the option of increasing the annual tobacco tax escalator on cigarettes from 2% to 5% above inflation and a tax escalator on hand rolled tobacco (HRT) at 10% above inflation.

18. The soft drinks industry levy is a tried, tested and popular measure that can have an impact on levels of obesity, and research by Cancer Research UK has found a levy could prevent 3.7 million people being obese by 2025. Effective reformulation to reduce levels of sugar, fat, and salt in food is also required, with targets that are Government-led and enforceable.

Greater investment in early detection

19. The Government must strive to invest more in the early part of the patient pathway, namely services to help prevent and quickly diagnose diseases like cancer. We know early diagnosis can make a big difference – around 9 in 10 patients diagnosed with stage 1 bowel cancer survive 10 years or more, compared to just 1 in 10 diagnosed at the latest stage.

20. Not only does early diagnosis have the potential to improve the lives of many cancer patients, there is also some evidence that this could save the NHS money through averting the costs associated with treating cancer at a more advanced stage. For example, research has suggested that achieving the level of early diagnosis comparable with the best localities in England for the cancers featured (colorectal, non-small cell lung and ovarian) could provide treatment savings of over £44 million, benefitting nearly 11,100 patients.

21. Ways to detect cancer are becoming more sophisticated. Research is helping us to inch closer to much of this as a reality, and is something that Cancer Research UK is prioritising. This will be a huge area of expansion over the next couple of decades and will require investment.
   - Advances in technology are already emerging such as new, more sensitive tests being introduced to the bowel screening programme.
   - Imaging technology is getting more advanced and will likely transform diagnosis and treatment.
   - The prospect of liquid (blood based) biopsies to detect circulating tumour DNA is not far away. This will give us greater ability to detect, monitor effects of treatment, and pick up recurrence quickly.

Support swift adoption of evidence based treatments

22. The future of treatments in cancer is greater precision – new technologies, better techniques, more targeted drugs and using our own immune system to kill cancer cells, will all provide better chances for cancer patients. The NHS must be in a position to adopt these innovations as and when evidence proves them effective.

23. Surgery and radiotherapy remain the most clinically effective treatments in cancer. They are also the most cost effective. Developments in these areas are moving fast and, as the major funder of research in these areas, we believe there are exciting innovations on the horizon.

24. In surgery, we will likely see increased use of robotics and non-invasive techniques – not only providing better outcomes, but less time in hospitals for patients. New radiotherapy techniques
are becoming ever more precise, with the ability to deliver more radiation to the tumour and less to healthy tissue surrounding it, meaning fewer side-effects. Radiotherapy is also becoming even more cost-effective as research leads to giving fewer, higher dose treatments – better for the patient in terms of travelling for treatment, and better for the NHS as this would free up resource. Investment in up to date radiotherapy equipment now will be important to ensure this becomes a reality.

25. The future of cancer medicine is also about precision - providing the right patient with the right drug based on the genetic make-up of their disease and unlocking our immune systems to kill cancer cells. While we cannot say this will be cost saving at this time, if done correctly it will improve patient outcomes and optimise resources in the NHS.

26. We already are making huge strides in precision medicine with the emergence of targeted cancer drugs and immunotherapies giving more patients better chances. There are many more treatments like this in the research pipeline that will emerge over the next 10-20 years. The way drugs are assessed for routine funding must adapt to reflect the changing nature of drug development.

27. We must also act to ensure the NHS is set up to support the delivery of precision medicines to the right patients. We believe a nationally commissioned molecular diagnostics service, using a panel approach that can test samples for lots of genetic faults in one go is needed. Establishing this now would support patient access to approved medicines and support precision research to develop new treatments.

**Models of service delivery (question 5)**

28. The NHS must look to optimise care pathways over the coming decades and reduce bureaucracy. Cancer Research UK is taking the lead in this area, particularly in diagnostic pathways to improve early diagnosis of cancer. Jointly with NHS England and Macmillan we fund the Accelerate, Coordinate, Evaluate (ACE) programme.

29. The ACE programme is testing new ways of working in the NHS such as a multi-disciplinary diagnostic centres hold the potential to speed up the diagnosis of patients that go to the doctor with vague symptoms. This models looks at having a ‘one-stop-shop’ for those patients and no more going back and forth between primary and secondary care. If proven effective this model should be rolled out across the NHS.

30. As set out in the cancer strategy, the NHS should also look at how services are configured and commissioned – such as using lead provider models to better coordinate services and break down boundaries across geographical areas to meet needs of that population. This would make the most of NHS workforce capacity, ensuring expertise is concentrated in the right places, and dispersed in others, to deliver the highest quality care.

**Data (question 8)**

31. Data is, and will continue to be, essential for the NHS. The information routinely collected by the NHS, in national datasets and in medical records, is vital – for research into the causes of disease, the effectiveness of treatments and interventions, and evaluating the quality of services. The NHS could do a lot more to realise the potential of the vast amounts of data it collects, and use this data to inform how services are best commissioned.
32. Big Data presents an exciting opportunity, particularly in genomics where new technologies enable rapid analysis of vast amounts of genetic material from tumours. These developments will lead to fundamental discoveries about the nature of disease and to the development of new targeted treatments.

33. With the NHS as a single provider, and with a large, socially and ethnically diverse population, the UK has the potential to become a world-leading centre for innovative digital healthcare. If successful, this movement could increase efficiency, attract investment, create jobs and improve patient experience. It has also been found that digitally facilitated research can lead to substantial efficiency savings. We support the recommendations of the Wachter review and its overall messages that successful digitisation requires careful planning and investment, as well as a strong informatics workforce.

34. As these areas advance, it is important that the legal and regulatory framework governing data access keeps up with the pace of discovery and that a balance is maintained between sharing data and maintaining privacy. New initiatives must be planned carefully, with strong and transparent governance.

35. A strong and transparent governance framework is essential for ensuring that patients, health professionals and the public have trust in the organisations using their data. Ensuring public trust in data initiatives must be front of mind for the Government and the NHS; engagement with patients and health professionals, and carefully planned communications, are key to ensuring support. We support the emphasis placed on building public Trust in the National Data Guardian’s recent review and urge the Government to produce a comprehensive implementation plan that allows sufficient time for public trust to be improved.

Workforce (questions 3 & 4)

36. As set out in the cancer strategy, ‘the sustainability of the NHS is critically dependent on having sufficient capacity and the optimal skills mix in its workforce’. This includes ensuring that we are addressing current workforce gaps with short-term solutions, while also developing a workforce equipped with skills and knowledge for the NHS in the future.

37. We are experiencing severe workforce gaps in the NHS. Not only in medical and clinical oncology, but within several key cancer professions, including clinical radiologists, radiographers, nurses and pharmacists. Developing a plan to address these gaps includes looking at new ways of working, changing models of care and methods of attracting and retaining the future workforce to hard-to-fill positions. This may need to consider options like international recruitment, new ways of working and the use of the workforce across Trust boundaries. It involves looking beyond the potential short term cost of making sustainable changes to enable long-term gain and planning ahead and thinking innovatively.

38. We recognise that long-term workforce planning is difficult due to the ever-changing nature of the NHS. Part of the problem is that we plan for the perpetuation of the current situation and we are therefore unable to deal with major impactful changes. For example, we could not predict 15 years ago that findings from new research would lead to the introduction of a national bowel cancer screening programme which would challenge the delivery of an effective and timely endoscopy service.

39. Workforce planning for the long-term sustainability of the NHS must therefore be flexible enough to incorporate future changes and adopt new approaches and innovative models. These future changes can be informed by current efforts: for example, will increased survival of cancer
patients mean we need more workforce available to deal with long-term effects of treatment? Will efforts to improve earlier diagnosis of cancer increase the need for diagnosticians or surgeons, if a cancer is operable at an earlier stage?

40. We must also look beyond roles and focus on skills. Training and education cannot only be focused on the clinical skills needed for certain professions. Non-clinical skills, behaviours and values must also be included in how we understand education and training, and we must look beyond the professional siloes that have been created.

41. Given it takes more than ten years of medical training to become a specialist and more than three years to train nurses and allied health professionals, any changes made to education and training will not have an immediate impact on services. However, it highlights the importance of considering the future impact on the NHS of changes made now.

Embedding a research culture in the NHS

42. Research continues to be pivotal to developing our understanding of preventing, managing and curing cancer. It is at the heart of our progress in doubling cancer survival over the past 40 years. Underlying progress in all areas is an active and vibrant research culture in the NHS. The future should be an NHS that is an adaptive, learning organisation with research at its core. By embedding research in everyday practice, we can make these strides in all the areas described in this response.

43. A research led NHS will help UK maintain its position as a leader in life sciences, attract investment from pharmaceutical companies, and most importantly accelerate access to innovative interventions to improve patient outcomes.

44. At this stage, we want NHS England to provide stronger leadership to support and promote research in the NHS – we believe it needs a strategic plan for research of its own. All of the innovations we will see over the next couple of decades will be because of research - without this commitment we will not make the progress we need.

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9 HMRC. A disaggregation of HMRC tax receipts between England, Wales, Scotland and Northern Ireland. Methodology note. October 2015
24 ASH and CRUK (2016). Cutting down: the reality of budget cuts to local tobacco control.
27 ASH, Smoking Still Kills, June 2015
28 Cancer Research UK and the UK Health Forum. (2016). ‘Short and sweet: why the Government should introduce a sugary drinks tax’. (website)
29 Incisive Health report for Cancer Research UK (September 2014). Saving Lives, Averting Costs