

 **CANCER RESEARCH UK:**

# **ASSESSMENT OF CANCER STRATEGY PROGRESS HALFWAY THROUGH**

**FEBRUARY 2018**



**CANCER  
RESEARCH  
UK**

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# EXECUTIVE SUMMARY

When the cancer strategy was published in 2015 it offered a blueprint to develop truly world-class cancer services in England. It set out plans to close the survival gap in comparison to other countries, to improve patient experience, and ultimately to save an additional 30,000 lives every year.

Cancer Research UK (CRUK) is the world's largest cancer charity dedicated to saving lives through research. We fund research into all aspects of cancer and all cancer types through the work of over 4,000 scientists, doctors and nurses. In 2016/17, we spent £432 million investing in medical research. We receive no funding from the Government for our research and rely on the generosity of the public.

1 in 2 people diagnosed with cancer in the UK currently survive for 10 years or more. CRUK's vision is for this to reach 3 in 4 people by 2034. National cancer strategies are critical in optimising the use of resources in the NHS to improve cancer services and drive improvements. The implementation of the cancer strategy in England is essential to transforming NHS cancer services and providing a basis for high quality, sustainable services beyond 2020.

This report provides Cancer Research UK's analysis of progress halfway through delivery. We also make recommendations where further emphasis is needed to ensure full delivery of the cancer strategy by 2020.

Some good progress has been made over the past two and a half years in delivering the strategy. In particular, welcome investments have been made, such as £130 million to update radiotherapy machines and improve access to modern treatment<sup>i</sup>, and £200m of transformation funding to improve early diagnosis, deliver recovery packages and stratified follow-up<sup>ii</sup> within Cancer Alliances. Progress has also been made in developing leadership in cancer transformation with the establishment of Cancer Alliances and additional resource being allocated to NHS England's Cancer Team.

Despite this, CRUK believes more needs to be done to ensure that delivery of the strategy remains on track. A number of issues threaten to undermine progress and make the complete delivery of the cancer strategy to planned timelines difficult, including:

- **Public Health:** Public health budgets have been cut significantly both at the national level and from local authority budgets. While we welcome publication of strategies to address smoking and obesity, funding cuts are undermining efforts to deliver a radical upgrade in cancer prevention at a local level, particularly in the provision of stop smoking services.
- **Workforce:** While staff in cancer services are working hard to ensure patients get the best care, workforce shortages are impinging on these efforts, meaning services are failing to keep pace with growing demand. This is particularly stark in diagnostic services and has impacted on the NHS's ability to meet cancer waiting times, optimise screening programmes, such as the Faecal Immunochemical Test (FIT) for bowel cancer, and will undermine efforts to diagnose more cancers at an earlier stage if there is insufficient diagnostic capacity to follow NICE's suspected cancer referral and recognition guidance (known as NG12).
- **Improving services nationwide:** There is still regional variation in the delivery of the cancer strategy. While we welcome the efforts that NHS England has made, more could be done to

support Cancer Alliances to share best practice and consistently raise standards of care throughout the country.

The NHS is also under considerable pressure due to rising demand and limited resources. NHS staff are working harder than ever to keep pace with growing demand, but shortages in the workforce and limited funding are creating significant pressure in the system. These pressures make it more vital than ever to transform cancer services to make them sustainable for the future but undermine the capacity of the NHS to deliver change.

The cancer strategy set out a number of key metrics against which to judge its success. For a number of these we do not have recent enough data to judge progress. For example, it will be some time before we understand the impact on long-term survival. Instead, we have illustrated current trends for these metrics in Appendix 1.

However, there are a number of key metrics for which we do have more recent data and through which we can draw some tentative conclusions about performance; for example, data on cancer waiting times, smoking rates, emergency presentation and screening uptake. The recent decline in performance against the 62 day wait has been of particular concern, highlighting the capacity issues in diagnostics we mention above. However, we note that progress is now being made to improve performance against this target and we welcome this effort.

Another key finding is that progress in improving bowel screening uptake has been inconsistent, with performance in the first year of the cancer strategy below that of the preceding year. Concerted action should be taken to improve this. The introduction of FIT offers an opportunity to increase the promotion of bowel screening, and ahead of its introduction, options and timelines for increasing uptake when it is rolled out should also be considered.

## RECOMMENDATIONS

To ensure that the cancer strategy is delivered by 2020, providing the basis for world class services now and transformation beyond 2020, concerted action is required to address the issues identified above. CRUK believes the following should be prioritised:

1. The Government must halt cuts to the Public Health Grant and give councils the funding they need to deliver vital support to help more smokers quit. The Government should also commit to a timeline for reducing smoking prevalence to just 5% of the population, and to ensure every socioeconomic group is targeted to achieve this aim.
2. The Government should provide adequate support for Health Education England's (HEE) phase one cancer workforce plan, including Department of Health action and immigration and visa support from the Home Office.
3. The Government must also fund the additional investment to meet staff demand beyond 2021, which will be calculated in the phase two plan, due to be published in the summer.
4. It is essential that current efforts to improve early diagnosis are continued and expanded. To achieve this, the Government and NHS should:
  - a. Ensure that future investment in diagnostic capacity is transparent and sufficient to meet future demand. Ring-fenced funds as part of CCG budgets should be available from 2018/19 onwards so that CCGs are required to increase staff and kit levels.
  - b. Urgently evaluate implementation of the updated NICE referral guidelines, identifying if any further action needs to be taken to improve comprehensive uptake, by the end of 2017/18.

- c. Provide guidance to Cancer Alliances as soon as possible setting out how they should improve early diagnosis, including primary care best practice (such as consistent use of NICE referral guidelines), awareness campaigns which encourage the public to seek help, screening programmes and increasing diagnostic capacity.
  - d. When the Faster Diagnosis Standard is introduced, it should reflect the cancer strategy intention to include *all* cancer patients. This means measurement for the Faster Diagnosis Standard *must* go beyond the narrow 'urgent referral' group and include everyone who is referred using the NICE suspected cancer recognition and referral guidelines (NG12). This would include people who are referred on the urgent referral (two week wait) pathways, but also those who receive direct access and routine diagnostic tests.
- 5. The Government, NHS England and Public Health England should:
  - a. Continue to take steps to ensure a good transition to, and timely implementation of, HPV as the primary test in the cervical screening programme, aiming to start this in April 2019. In the meantime, mitigation efforts should continue to prevent continuing failure to meet turnaround times.
  - b. Set a clear ambition to implement FIT into the bowel screening programme at a gradually more sensitive threshold by 2021 and plan to increase workforce capacity to enable this to happen.
  - c. Include bowel screening promotion in Be Clear on Cancer from 2018 onwards, following a positive evaluation in 2017.
  - d. Explore funding models to incentivise CCGs to reach the 75% bowel screening uptake ambition. Given the urgency of the 2020 target these models should be explored and piloted as soon as possible.
- 6. NHS England should continue to develop innovative approaches to improving earlier diagnosis of cancer, ensuring that:
  - a. Expertise and leadership from across the wider cancer community helps shape initiatives such as the 28 day standard to enable the culture change required to transform care
  - b. There is a roadmap for evidence from pilots feeding into routine practice
- 7. NHS England, in consultation with NHS Digital and Public Health England, should provide a plan detailing how, by 2020, all consenting patients will have the ability to access all test results and other communications involving secondary/tertiary care providers online.
- 8. When considering the future of the radiotherapy service NHS England should provide an update on plans to introduce a rolling programme of upgrades for radiotherapy machines as a sustainable solution that would future-proof the radiotherapy service.
- 9. NICE and NHS England should come together with stakeholders to develop fit for purpose systems to get the best value and provide flexibility in access to medicines in the future, including mechanisms such as outcomes-based pricing. CRUK is commissioning a research project to explore the potential for outcomes-based pricing over the next few years.
- 10. NHS England should ensure plans to deliver panel testing for cancer molecular diagnostic tests move at pace so that patients benefit from the latest in drug development and the NHS adequately supports access to clinical trials in precision medicine.
- 11. NHS England, working with NHS Improvement, should provide a comprehensive support package which facilitates the sharing of best practice, networking and buddying between Alliances.
- 12. The Government and NHS England should seek to secure long-term, stable funding for Cancer Alliances.

13. NHS England should take further steps to increase the number of patients who have a discussion about taking part in research.
14. NHS England and National Institute for Health Research (NIHR) should ensure that the new arrangements for meeting ETCs are implemented from April 2018 and that they meet the six principles recently set out.
15. The Government must prioritise alignment with the EU Clinical Trials Regulation (CTR) during Brexit negotiations and commit to adopting the EU CTR when implemented, ensuring that UK-EU clinical trials can continue.

These recommendations emerge from our analysis of the progress made to date in delivering the cancer strategy and are intended to address specific issues CRUK has identified. More detailed analysis is contained in the body of this report, along with several further recommendations that we feel should be adopted to drive forward the delivery of the cancer strategy.

# INTRODUCTION

The cancer strategy for England was published in July 2015 as the report of the Independent Cancer Taskforce. The Taskforce was set up at the request of the Prime Minister and the Chief Executive of NHS England, and it was chaired by CRUK Chief Executive Sir Harpal Kumar. The Taskforce made a number of recommendations to improve cancer care in England. These recommendations were accepted by the Five Year Forward View Board of Arm's Length health bodies<sup>1</sup> and the Government and form the basis of efforts to transform the delivery of cancer services in England. The most relevant of those recommendations to this assessment are set out in Appendix 2.

This paper assesses the progress that has been made to date in delivering the cancer strategy in six key areas: workforce; prevention and public health; early diagnosis; access to treatments; commissioning, accountability and provision; and research.

Using the most recent data and evidence available to us we have made an assessment of the current delivery of the cancer strategy in each of the priority areas we identify above. These findings are set out by theme below. In conclusion, we make a series of recommendations for the Government, NHS England and other Arm's Length Bodies to ensure these areas of the strategy are delivered in full by 2020.

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<sup>1</sup> At the time, the board was made up of NHS England, Health Education England, Public Health England, the Care Quality Commission, Monitor, and the Trust Development Authority.



# ASSESSMENT OF PROGRESS

## KEY PERFORMANCE METRICS

The cancer strategy set out a number of key metrics against which to judge its implementation. We do not yet possess the data to be able to judge progress against a number of these metrics, such as 5- and 10-year survival<sup>2</sup>, the proportion of cancers diagnosed at stage 1 or 2<sup>3</sup>, and the survival deficit for older people. Where we do not have the necessary data, the most recent trends against these targets are illustrated in the Appendix, with the cancer strategy target illustrated if applicable.

The absence of more recent survival data is a particularly significant gap when trying to measure the progress of the cancer strategy, which states clear ambitions for cancer survival. As more recent data becomes available we will be much better equipped to judge the impact the cancer strategy has had on cancer survival in England.

In order to better equip the Government and the NHS to measure progress against the targets set out in the cancer strategy and identify areas where mitigating action needs to be taken, it is essential that the necessary data is available as soon as possible. NHS Digital, Public Health England and others should consider how they can improve the timeliness of data and analysis.

There are nevertheless a number of metrics in the cancer strategy for which we do have more recent data and with which we can therefore tentatively judge how successful the cancer strategy has been in these areas to date. These metrics are:

- Cancer waiting times standards
- Adult smoking rates
- The proportion of cancers diagnosed via emergency presentation
- Screening uptake

## CANCER WAITING TIMES

Cancer waiting times standards provide a useful barometer of the performance of cancer services in the NHS. In England, eight waiting times standards exist<sup>4</sup>, with three of them (covering the widest set of patients) depicted below. These metrics give us a sense of how cancer services are coping with patient demand and where pressure is being experienced in the system.

Cancer waiting times also help to ensure that the NHS maintains a strong focus on improving cancer services, in the absence of more timely outcomes data.

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<sup>2</sup> Survival data is calculated by following up patients 1, 5 and 10 years after their diagnosis. The latest data for 5-year survival, for example, is for those diagnosed in 2010.

<sup>3</sup> Though staging data is included in the CCG Improvement and Assessment Framework, this data does not include all cancers. The staging data included in the CCG IAF also includes cases with unknown stage. CRUK calculates the proportion of cancers with known stage that are diagnosed early. Staging data for all cancers is published annually and the latest available data is from 2015.

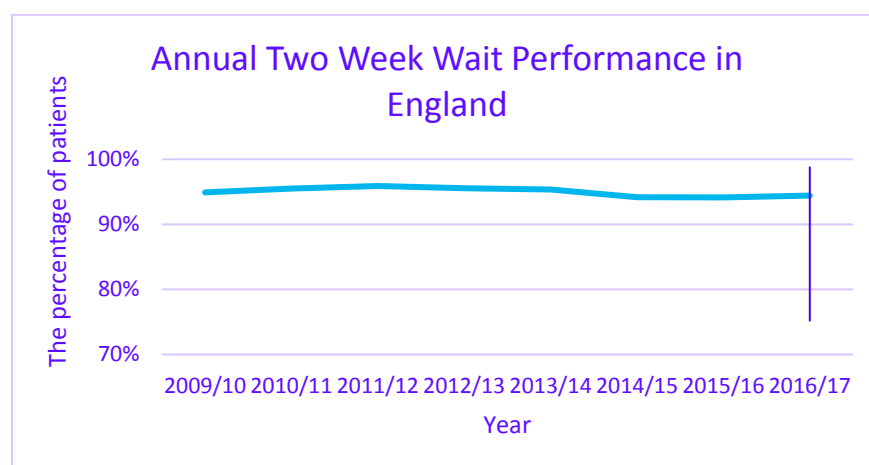
<sup>4</sup> The eight standards are: the two-week wait for suspected cancer (with a separate target for breast cancer); the 31 day wait between a diagnosis of cancer and the first definitive treatment (with separate targets for the second definitive treatment and for the first treatment of rarer cancers); and the 62 day wait between an urgent GP referral for cancer and the first definitive treatment (with separate targets for a referral from NHS screening programmes and for a consultant upgrade to suspected cancer).

The cancer strategy recommended the creation of an additional metric – the 28 day waiting time standard. This metric will measure the time between referral and a patient receiving a definitive diagnosis or exclusion of cancer. We discuss progress with developing this metric below.



FIG 1: THREE KEY CANCER WAITING TIMES IN ENGLAND

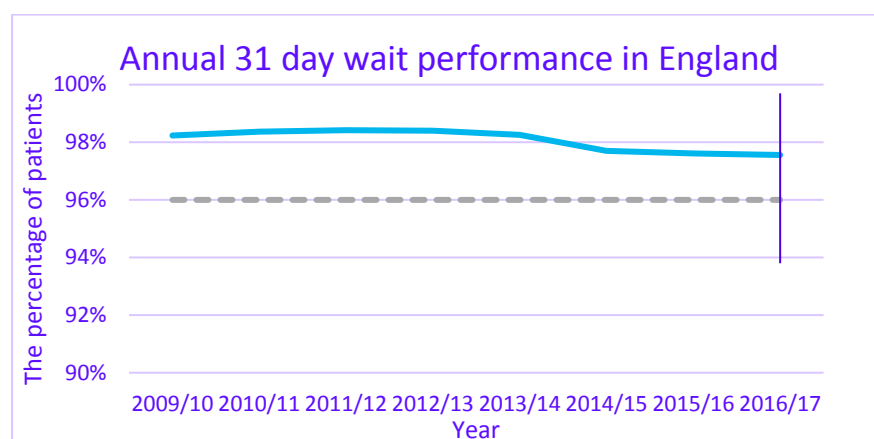
FIG 2: TWO WEEK WAIT<sup>iii5</sup>



The two-week wait target (Fig 2) measures the proportion of patients who see a specialist within two weeks of an urgent referral for suspected cancer – with a target of 93% of patients. Though performance remains above the target of 93%, there is a small decline in recent years, with 94% achieved in 2016/17 compared to an average of over 95% from 2010-2014.

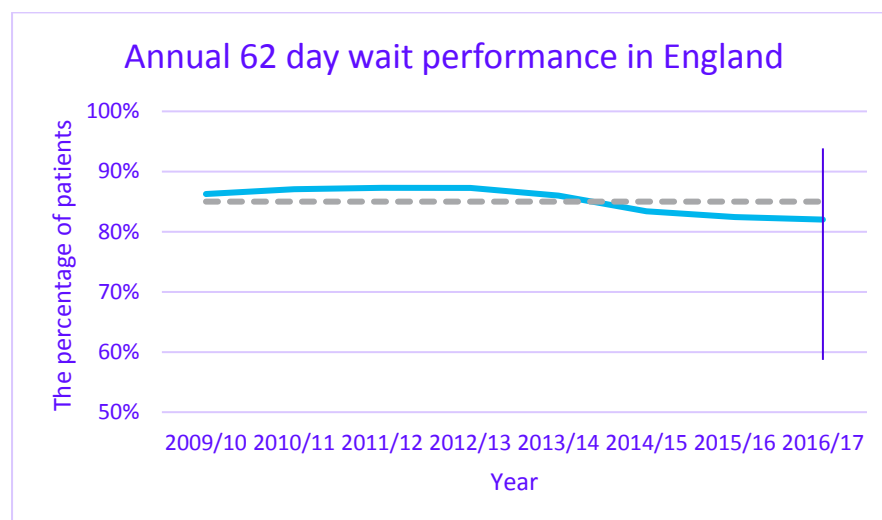
<sup>5</sup> Percentage of patients who were seen by a specialist within 14 days of being urgently referred for suspected cancer by their GP. Range shown for Clinical Commissioning Groups in England for latest year of data available.

FIG 3: 31 DAY WAIT<sup>iv6</sup>



The 31 day wait target (Fig 3) measures the proportion of patients who receive their first definitive treatment for cancer within 31 days of receiving a cancer diagnosis. The target is for 96% of patients to receive their first treatment within this window. As the graph above demonstrates, the target of 96% is consistently being met. Nonetheless, there is a decline in performance over the same period as the two week wait. While in 2010/11 performance was 98.4% against the target, by 2016/17 this had declined to 97.6%. Both this and the two week wait will need to be closely monitored to ensure performance does not deteriorate.

FIG 4: 62 DAY WAIT<sup>v7</sup>



Performance against the 62 day wait target shows a similar pattern. This is the target of at least 85% of patients beginning their first definitive treatment for cancer within 62 days of an urgent GP referral. As the graph above shows, performance against this target has also declined in recent

<sup>6</sup> Percentage of patients receiving a first definitive treatment for cancer who began that treatment within 31 days of a decision to treat. Range shown for Clinical Commissioning Groups in England for latest year of data available.

<sup>7</sup> The percentage of patients who received a first treatment for cancer within 62 days following an urgent GP referral for suspected cancer. Range shown for Clinical Commissioning Groups in England for latest year of data available.

years. While the target was being met up to 2013/14, it has now been breached for three years in a row, reaching its lowest level in 2016/17 at 82%. The impact of this performance on patients should not be underestimated. Waiting for a diagnosis and subsequent treatment is an extremely anxious time. Every effort should be made to reach these targets.

These graphs demonstrate that the performance of cancer services in the NHS has declined in recent years. In particular, the 62 day waiting time standard has now been breached three years running. However, we note that significant effort is now being placed in ensuring that performance against these targets substantially improves, which is welcome. The most recent figures available, for December 2017, saw performance against the 62 day wait target rise to 84.2%, just below the 85% target<sup>vi</sup>. This paper makes a number of recommendations to improve diagnostic capacity and ensure that this upward trend continues.

The fact that the 62 day wait is being breached, but the 31 day wait is holding up, indicates that there is a significant bottleneck in the time it takes to diagnose patients. We go into more detail about why this is in later sections. This also suggests that declining performance against the 62 day wait is not simply, as some have suggested, because of increasing numbers of people in the system but because there are specific problems with diagnostic capacity. Declining performance against these standards is also indicative of wider pressures in the NHS, which are well-documented. The NHS is under strain due to the competing factors of financial strain, workforce shortages and unprecedented demand – demand which is only set to grow as the population grows and ages. These pressures must be addressed if the NHS is to be able to achieve the ambitions set out in the cancer strategy.

## THE NEW 'FASTER DIAGNOSIS STANDARD'

The cancer strategy set out an ambition for all patients to receive a diagnosis of cancer, or have cancer excluded, within 28 days of referral. Pilots for this standard have now started, which is welcome news. This is a significant change, allowing the system and patients to assess performance on reaching a diagnosis (which is not currently measured). It is also a patient-centred recommendation, recognising that people may 'ping pong' between primary and secondary care for investigations but without a resolution of a cancer diagnosis or exclusion.

The development of the Faster Diagnosis Standard is a great opportunity. But we are concerned that this opportunity will be missed by the narrow cohort of patients who are currently due to be included in the measure. Measurement does shape practice and this runs the risk of disadvantaging some patients who should be referred for a direct access test, as per NG12 guidelines; or the many patients who are diagnosed outside of the two-week wait pathways.

This is not simply about measuring another process in the NHS - it has the potential to fundamentally shift the culture and relationship between primary and secondary care when it comes to diagnosing cancer and to encourage more real-time action to be taken in primary care when primary care receives a notification that a patient has been diagnosed. We urge NHS England to fully consider the potential of this recommendation, with a clearer vision of the change this could achieve beyond just a new waiting times metric.

## WORKFORCE

In 2014 there was a reported overall staffing shortfall in the NHS of around 5.9%, equating to a gap of around 50,000 clinical staff in the NHS in England<sup>vii</sup>. More recent data suggests there are more than 86,000 vacant clinical posts<sup>viii</sup>. Many of these roles play a crucial role in cancer services. On this basis, the cancer strategy made a number of important recommendations for the cancer workforce (83, 84, 86).

Initial baseline figures from Health Education England suggest that there is at least a 10% current vacancy level for diagnostic radiographers (10%), radiologists (11%), gastroenterologists (13%) and histopathologists (11%), and these vacancies are almost certainly underestimates<sup>ix</sup>. These professional groups are just some of the professionals who play a crucial role in providing and interpreting diagnostic tests – and demand on these services is going to increase. While some of this demand could be met by improved workforce planning, ultimately the workforce will need to be increased to be able to meet the extent of increase demand.

Imaging activity has been increasing at 5.8% per year, for example<sup>x</sup>. CRUK also commissioned modelling suggesting that the NHS will need to perform more than 750,000 additional endoscopies every year by 2020<sup>xi</sup>, not including an additional 230,000 colonoscopies which would be required to make FIT in bowel screening as effective as possible<sup>xii</sup>.

The diagnostic workforce must be increased and properly planned for to ensure that this rising demand is met. A lack of capacity in the current workforce is having a negative impact on cancer diagnosis and treatment. For example, limited endoscopy capacity is already driving the introduction of FIT into bowel screening at a lower, and less effective, level of sensitivity than international comparisons.

The publication of HEE's phase one workforce plan is a welcome first step to addressing some of the current shortages in the cancer workforce, particularly in the diagnostic workforce. The implementation of this plan must now be a priority. Cancer Alliances hold a significant amount of responsibility for delivering these plans. They must be supported effectively by NHS England and HEE to be able to develop credible plans for their local workforce.

Workforce capacity is also a problem in the cancer treatments workforce, as our recently published report into the non-surgical oncology workforce, *Full Team Ahead*, found<sup>xiii</sup>. It is welcome that key elements of the treatments workforce such as medical and clinical oncologists, therapeutic radiographers and clinical nurse specialists are identified as priority areas in HEE's phase one workforce plan.

## RECOMMENDATIONS

1. The Government should provide adequate support for Health Education England's (HEE) phase one cancer workforce plan, including Department of Health action and immigration and visa support from the Home Office.
2. Cancer Alliances must be supported and held to account by NHS England and HEE to create and implement their own workforce plans. To address data gaps and inaccurate workforce planning, Cancer Alliances must ensure that accurate information based on realistic forecasted demand, rather than forecasted budget availability, is being recorded and communicated to Local Education and Training Boards.
3. The Government must also fund the additional investment to meet staff demand beyond 2021, which will be calculated in the phase two plan, due to be published in the summer.

## PUBLIC HEALTH AND PREVENTION

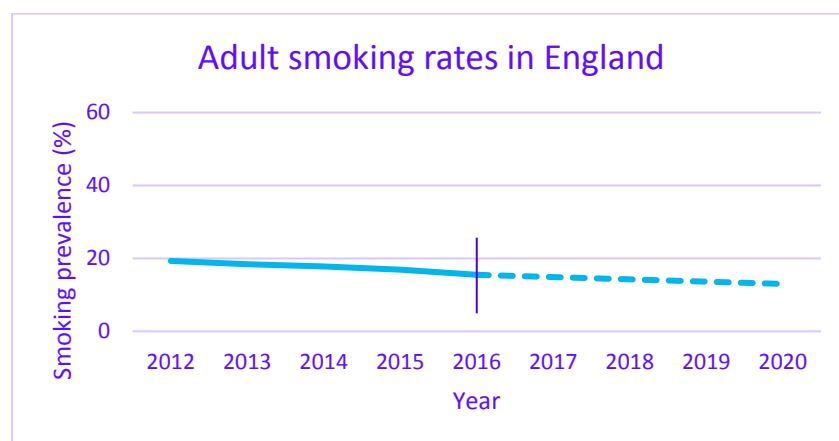
More than 40 per cent of all cancers diagnosed in the UK are attributable to lifestyle and environmental factors<sup>xiv</sup>. In recent years the importance of addressing rates of cancer through mitigation of these influencing factors has been increasingly recognised. We were very pleased that the cancer strategy highlighted the need to spearhead a radical upgrade in prevention and public health, echoing the ambition of the Five Year Forward View.

Aiming to see a discernible fall in age-standardised incidence in the long term is an ambitious goal from the cancer strategy but it is crucial to reduce the growing number of cancer cases. The cancer strategy had several recommendations to help achieve this goal (2, 3, 5, 6, 7).

## TOBACCO

Smoking is the leading preventable cause of cancer<sup>xv</sup>. The publication of the new Tobacco Control Plan is welcome<sup>xvi</sup>. However, the realisation of its ambitious five-year targets depends on there being a plan for funding. In particular, a sustainable solution for funding local public health services is desperately needed.

FIG 5: ADULT SMOKING RATES<sup>xvii</sup> 8



The graph above shows the progress that has been made in recent years in reducing smoking prevalence in England. Between 2015 and 2016 there was a welcome reduction in adult smoking prevalence from 16.9% to 15.5%, which is a significant drop and in line with the kind of reduction we need to see for adult smoking prevalence to reach 13% by 2020.

While this trend is positive, continued effort is needed to bring smoking levels down further. Public health suffered a £200m cut in 2015 and since then has seen average real-terms cuts of 3.9% per year, continuing until 2020/21 when the Public Health Grant is itself scheduled to be phased out<sup>xviii</sup>.

<sup>8</sup> Prevalence of cigarette smoking among persons 18 years and over in England. Range shown for local authorities in England for latest year of data available. Range shown for local authorities in England for latest year of data available. The dashed line indicates the progress that would need to be made in the coming years to achieve the target in the Cancer Strategy (13% by 2020).

Plans to replace it with a business rates retention scheme have not been progressed and local councils are currently faced with having no available public health funding after 2021.

Using smoking cessation services is the most effective way to give up<sup>xix</sup>, but the provision of these services is in decline. A recent CRUK/ASH report has shown cuts in services in 5 out of 10 local authorities – cuts to public health funding are widely cited as the cause<sup>xx</sup>. This is a significant concern.

CRUK believes the Government should halt cuts to the Public Health Grant to maintain funding in the short term, and in the longer term should consider other options to fund smoking cessation measures, such as the introduction of a £500 million levy on the Tobacco Industry.

## OBESITY

Obesity is the biggest preventable cause of cancer after smoking in the UK. It is linked to 13 different types, including two of the most common – bowel and breast cancer – and two of the hardest to treat – pancreatic and oesophageal cancer<sup>xxi</sup>. Unless action is taken to reduce current trends, our analysis finds obesity could cause 670,000 cases of cancer in the UK over the next twenty years<sup>xxii</sup>.

Some welcome progress has been made on obesity, for example the publication of the Childhood Obesity Plan and the introduction of the Soft Drinks Industry Levy. The Government has indicated that this is only the start of the conversation, which is positive. We encourage the Government to consider whether further action is necessary, particularly to reduce stark inequalities in childhood obesity. For example, the Government should consider the role Ofcom could play in restricting the advertising of junk food in broadcast media.

## HPV

The human papillomavirus (HPV) is linked to various cancer types, including cervical, penile, anal and oral cancers<sup>xxiii</sup>, and therefore is a significant cause of morbidity and mortality in the UK. HPV is linked to cancers in both men and women. There is evidence that vaccinating boys as well as girls would further reduce HPV infection in the population compared to vaccinating girls alone<sup>xxiv xxv</sup>.

The Joint Committee on Vaccination and Immunisation (JCVI) has made an interim recommendation not to extend HPV vaccination to adolescent boys<sup>xxvi</sup>. CRUK is disappointed by both the recommendation and the process by which it was reached, which lacked transparency. Extending the HPV vaccination to adolescent boys would help reduce the risk of HPV-related cancers for the whole population.

## CHEMOPREVENTION

Chemoprevention – the use of cancer-preventing drugs – is a relatively new form of cancer prevention, but it also has the potential to save many lives by stopping cancers developing in the first place.

CRUK commissioned a study of GP attitudes towards chemoprevention earlier this year which found that many GPs are unaware of NICE guidance relating to evidence-based chemoprevention. For example, it found that 24% of GPs were aware of NICE familial breast cancer guidelines, with the result that nearly half (48%) of GPs were unaware the drug tamoxifen could be used for prevention of breast cancer among women with a clear family history of the disease.

More needs to be done to promote evidence and guidance on chemoprevention. NICE and NHS England should develop a programme of work to increase GP awareness of existing guidelines

relating to tamoxifen. NICE should also update their guidance to reflect the use of aspirin to prevent bowel cancer, and ensure this guidance is effectively promoted to GPs.

## RECOMMENDATIONS

1. The Government must halt cuts to the Public Health Grant and give councils the funding they need to deliver vital support to help more smokers quit. The Government should also commit to a timeline for reducing smoking prevalence to just 5% of the population, and to ensure every socioeconomic group is targeted to achieve this aim.
2. The Government should continue to develop its strategy to tackle the nation's growing obesity problem, including considering the role Ofcom could take to restrict advertising in broadcast media.
3. The Government and Joint Committee on Vaccination and Immunisation should explore all possible avenues to make HPV vaccination for boys cost-effective for the NHS.
4. NHS England and NICE should ensure that the latest evidence-based chemoprevention drugs are included in guidance and that this guidance is effectively promoted to GPs.



## EARLY DIAGNOSIS

Despite improvements in cancer services, international comparisons suggest that survival in the UK<sup>9</sup> lags behind other comparable countries<sup>xxvii</sup>. More recent analysis showed that, although England was improving, between 2010-2012 cancer survival in England had still not caught up to the performance those other countries demonstrated between 2005-2009.<sup>xxviii</sup> A significant driver of this survival gap is because England (and the rest of the UK) is poor when it comes to diagnosing cancer early.<sup>xxix</sup>

The earlier a cancer is diagnosed the more likely it is to be treated successfully. For example, if you diagnose bowel cancer at an earlier stage, 9 in 10 people will survive. But under half of people are diagnosed with bowel cancer this early. When they're diagnosed late (at stage 4) only 1 in 10 people will survive. Right now, just over half of people are diagnosed with cancer early in England. Across the country, the proportion diagnosed at stages 1 and 2 varies – it can be as low as 46% in some CCGs compared to 61% in others.

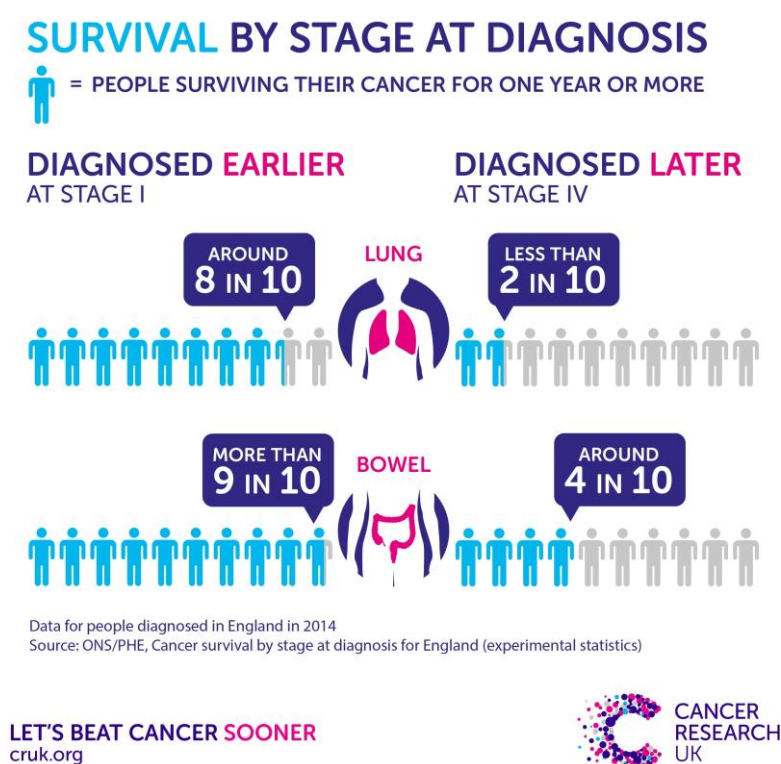


FIG 6: SURVIVAL BY STAGE AT DIAGNOSIS

The cancer strategy for England made several key recommendations to improve early diagnosis and in doing so improve cancer survival (10, 11, 15, 16, 17, 19, 24).

<sup>9</sup> For ICBP phase one, this measured survival in England, Northern Ireland and Wales. Scotland was not included.

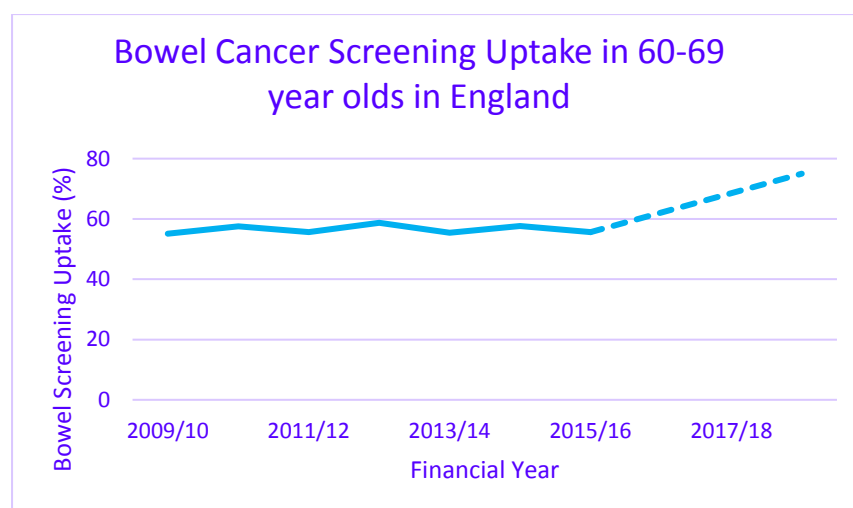
## SCREENING

Cancer screening is just one route into a cancer diagnosis. Screening involves testing apparently healthy people for signs of disease. It can save lives by finding cancers at an early stage, or even preventing them.

### BOWEL SCREENING

We welcome the commitment to introduce new tests to improve bowel screening and cervical screening. However, their impact could be undermined because of workforce shortages. Staff shortages are impacting on the most optimal adoption of the Faecal Immunochemical Test (FIT) into the bowel screening programme. FIT is planned to be introduced in bowel cancer screening in 2018. However, we expect FIT to be introduced at a relatively low level of sensitivity compared to other countries because of limited endoscopy capacity. This could lead to the failure to diagnose thousands of bowel cancers through screening every year. As yet, there is no public commitment to improve and reach optimal sensitivity of FIT in the future, alongside necessary workforce growth.

FIG 7: BOWEL SCREENING UPTAKE<sup>xxx 10</sup>



The graph below demonstrates that over the past 7 years bowel screening uptake has remained fairly static at just below 60% and has shown no marked improvement. In 2015/16 the rate of bowel screening uptake was 58.5%, lower than the previous year. This varies between 36% and 67% across CCGs<sup>xxxi</sup>. It currently appears highly unlikely that the 2020 target of 75% will be achieved unless significant action is taken. More needs to be done to increase uptake of bowel screening and to resolve unacceptable levels of variation.

<sup>10</sup> Bowel cancer screening uptake for gFOBT within 6 months of invitation in those aged 60-69 years old in England by year. The programme rolled out to 60-74 year olds in 2014 so data prior to this not available for current eligible age group. The dashed line indicates the progress that would need to be made in the coming years to achieve the target in the Cancer Strategy (75% uptake of FIT).

We were therefore pleased to have partnered with Public Health England to pilot a marketing campaign in the North West to promote bowel screening using the Be Clear on Cancer (BCOC) brand. Following a positive evaluation in autumn 2017, support should be provided for BCOC to adopt and expand this campaign.

### CERVICAL SCREENING

Changes to cervical screening are due to take place in 2019, with the introduction of the HPV test as the primary test. This is a welcome change; however, reconfiguring this service is currently having a detrimental effect on cervical screening, where the cytologist workforce is severely depleted in anticipation of the change to HPV as the primary test. The introduction of HPV as the first test will negate this problem to a certain extent but there needs to be widespread mitigation efforts to prevent women waiting too long for their results.

### SYMPTOMATIC DIAGNOSIS

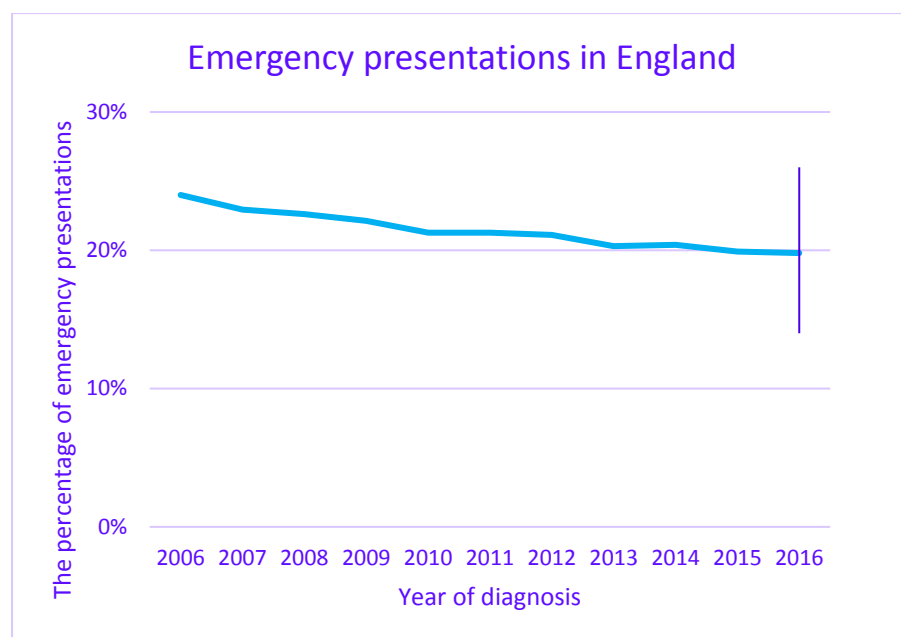
#### EMERGENCY PRESENTATION

A reduction in the proportion of cancers diagnosed by emergency presentation is a useful proxy for judging efforts to improve early diagnosis. The graph below demonstrates that over the past 10 years there has been a gradual decline in the percentage of cancers diagnosed by emergency presentation. This is positive news; we would hope to see this percentage reduced further over the remaining years of the cancer strategy. However, pressures elsewhere in the system may have an adverse impact in reducing emergency presentations, for example if patients are unable to get appointments to see their GP.

**FIG 8: EMERGENCY PRESENTATION**<sup>xxxii11</sup>

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<sup>11</sup> *Proportion of all cancers diagnosed by emergency presentations in adults aged 15-99 by year. Data for 2014 to 2016 is annual average estimated proportion of all malignant cancers (excluding non-melanoma skin cancer) that present as an emergency using first hospital admissions as a proxy for diagnosis. Range shown for Clinical Commissioning Groups in England.*



## FUNDING AND NEW INITIATIVES

Several funds to improve earlier diagnosis have been announced, including ‘up to £300m extra per year’ to be devolved to CCGs by 2020; a £12m Diagnostic Capacity Fund in 2016/17; and £200m distributed to Cancer Alliances to increase diagnostic capacity and roll out both the recovery package and the stratified pathway from 2017 to 2019.

Cancer Research UK welcomed NHS England and the Government’s 2015 commitment to increase funding for diagnostic capacity. This included ‘up to £300m more on diagnostics every year’ by 2020. Growth was modelled (for the Five Year Forward View) as a 7% increase in overall diagnostic activity year on year to 2020/21. It is important to note that neither this £300m increase, nor the 7% activity projections, are likely to fulfil the growth in cancer diagnostics. Improving earlier diagnosis will increase demand for tests and so this funding is not sufficient if we are going to meet our ambitions to improve survival. We recommend that the Department of Health ensures that funding for diagnostic capacity is sufficient to meet future demand. It therefore needs to increase investment and ring-fence this additional funding so it can be clearly demonstrated that it has been used for its intended purpose.

CRUK has learnt through our network of Strategic GPs that GP direct access to key investigative tests for suspected cancer is still subject to some variation across the country. These issues need to be resolved as soon as possible so that all GPs nationwide have direct access to diagnostic tests, thereby allowing GPs to follow the NICE suspected cancer referral and recognition guidance.

As previously mentioned, we welcome the start of pilots to trial the new 28 day wait standard and hope that NHS England will fully consider the transformative potential of this standard while running trials, and will include all patients in the measurement of this standard.

The findings of the second wave of the Accelerate, Coordinate and Evaluate (ACE) programme<sup>xxxiii</sup> should be used to inform the development of the new Rapid Diagnostic and Assessment Centres as

pledged in the *Next Steps on the Five Year Forward View*, as Multidisciplinary Diagnostic Centres are being analysed by the ACE programme.

## RECOMMENDATIONS

1. It is essential that current efforts to improve early diagnosis are continued and expanded. To achieve this, the Government and NHS should:
  - a. Ensure that future investment in diagnostic capacity is transparent and sufficient to meet future demand. Ring-fenced funds as part of CCG budgets should be available from 2018/19 onwards so that CCGs are required to increase staff and kit levels.
  - b. Urgently evaluate implementation of the updated NICE referral guidelines, identifying if any further action needs to be taken to improve comprehensive uptake, by the end of 2017/18.
  - c. Provide guidance to Cancer Alliances as soon as possible setting out how they should improve early diagnosis, including primary care best practice (such as consistent use of NICE referral guidelines), awareness campaigns which encourage the public to seek help, screening programmes and increasing diagnostic capacity.
  - d. When the Faster Diagnosis Standard is introduced, it should reflect the cancer strategy intention to include *all* cancer patients. This means measurement for the Faster Diagnosis Standard *must* go beyond the narrow 'urgent referral' group and include everyone who is referred using the NICE suspected cancer recognition and referral guidelines (NG12). This would include people who are referred on the urgent referral (two week wait) pathways, but also those who receive direct access and routine diagnostic tests.
2. The Government, NHS England and Public Health England should:
  - a. Continue to take steps to ensure a good transition, and timely implementation of, HPV as the primary test in the cervical screening programme, aiming to start this in April 2019. In the meantime, mitigation efforts should continue to prevent continuing failure to meet turnaround times.
  - b. Set a clear ambition to implement FIT into the bowel screening programme at a gradually more sensitive threshold by 2021 and plan to increase workforce capacity to enable this to happen.
  - c. Include bowel screening promotion in Be Clear on Cancer from 2018 onwards, following a positive evaluation in 2017.
  - d. Explore funding models to incentivise CCGs to reach the 75% bowel screening uptake ambition. Given the urgency of the 2020 target these models should be explored and piloted as soon as possible.
3. NHS England should continue to develop innovative approaches to improving earlier diagnosis of cancer, ensuring that:
  - a. Expertise and leadership from across the wider cancer community helps shape initiatives such as the 28 day standard to enable the culture change required to transform care
  - b. There is a roadmap for evidence from pilots feeding into routine practice

4. NHS England, in consultation with NHS Digital and Public Health England, should provide a plan detailing how, by 2020, all consenting patients will have the ability to access all test results and other communications involving secondary/tertiary care providers online.

## ACCESS TO TREATMENTS

To improve cancer survival it is crucial that the NHS provides all cancer patients with the best treatment for their specific condition. Increasing cancer incidence and improvements in early diagnosis will mean more patients will require access to treatments that will provide them with the best outcome, with timely access to more curative forms of treatment like surgery and radiotherapy becoming ever more important.

We know that survival in England lags behind that of other comparable countries. Research by the ICBP also showed that treatment-related factors contributed more to survival differences than had previously been expected, indicating that we are not providing an equally high standard of care as other countries with comparable healthcare systems<sup>xxxiv</sup>. This may be due to international differences in availability or quality of treatment. Or it may be that there is inequitable provision of treatments that are available in England, resulting in some groups of patients missing out on the best treatment for them.

Improving cancer treatment was a key feature of the recommendations of the cancer strategy (29, 31, 37). Below we explore progress in a number of priority areas for CRUK.

### RADIOTHERAPY

Radiotherapy is a vital part of treatment for many patients. Improvements in radiotherapy treatments, driven by research, mean this type of treatment is more sophisticated and precise, leading to better patient outcomes.

Significant progress has been made in modernising access to radiotherapy since the strategy was published, and we welcome the priority that NHS England has attached to radiotherapy services. The £130m investment made towards upgrading radiotherapy machines is hugely positive, but it must be utilised to achieve its stated goal to pay for over 100 replacements or upgrades of radiotherapy machines. If this cannot be achieved then more funding must be provided. NHS England must also ensure that the second half of the radiotherapy modernisation is also backed by investment and must develop a sustainable funding solution to ensure that our radiotherapy equipment remains as modern as possible in the long term.

We welcome the current review of the organisation of radiotherapy services, which offers a good opportunity to improve access to modern types of treatment such as Intensity Modulated Radiotherapy (IMRT). Around 50% of patients receiving curative radiotherapy should receive IMRT, but the latest data shows that this varies from 23% to 69%<sup>xxxv</sup> across England.

CRUK supports the principles behind NHS England's ongoing review of the radiotherapy service to support better patient access to modern treatments and research. We will be working to support this programme of work over the coming months.

### CANCER DRUGS

We welcome the changes made to the Cancer Drugs Fund (CDF) which was previously unfit for purpose<sup>xxxvi</sup>. The move to the CDF acting as a managed access fund should better support patient access and NICE decision making about what drugs should be made routinely available. Since these reforms, 75% of drugs made available through the previous form of the CDF have now been approved for routine use in the NHS, which is welcome progress<sup>xxxvii</sup>.

In recent months we have also seen a number of innovative cancer drugs enter the new CDF. Over the next couple of years data will be collected to help NICE make final decisions as to whether these drugs should be available to all future cancer patients. As more cancer drugs enter the new CDF, CRUK will continue to monitor patient access.

We are also reassured to see NHS England's move to create a Strategic Commercial Unit, to negotiate prices for drugs at an earlier stage. This is an important step towards a more flexible approach to getting value for money for drugs.

## MOLECULAR TESTING

We welcome the creation of NHS England's new Genomic Medicine Service and its ambition to close the 'testing gap' our research has previously identified<sup>xxxviii</sup>, through a national approach to testing delivered via regional hubs. We are pleased that cancer testing will be largely panels-based initially. The move towards larger panels and whole genome sequencing must be done on a timescale that is clinically appropriate and reflects patient benefit rather than political imperative.

It's vital that NHS England develop data infrastructure to effectively monitor the use of molecular diagnostic tests and build up a picture of activity within each of the seven Genomics Laboratory Hub regions, in order to be able to act quickly to rectify any emerging discrepancies in access or uptake. It's also critical that patients are able to access tests which would determine their eligibility for targeted medicines currently undergoing clinical trials, as well as treatments already approved by NICE.

## RECOMMENDATIONS

1. When considering the future of the radiotherapy service NHS England should provide an update on plans to introduce a rolling programme of upgrades for radiotherapy machines as a sustainable solution that would future-proof the radiotherapy service.
2. NICE and NHS England should come together with stakeholders to develop fit for purpose systems to get the best value and provide flexibility in access to medicines in the future, including mechanisms such as outcomes-based pricing. CRUK is commissioning a research project to explore the potential for outcomes-based pricing over the next few years.
3. NHS England should ensure plans to deliver panel testing for cancer molecular diagnostic tests move at pace so that patients benefit from the latest in drug development and the NHS adequately supports access to clinical trials in precision medicine.



## COMMISSIONING, ACCOUNTABILITY AND PROVISION

Local structures in the NHS are complicated, with NHS England local area teams, local authorities, CCGs, STPs and Cancer Alliances all holding some responsibility for driving transformation in prevention, diagnosis and cancer services. Some also have responsibility for commissioning services and delivering funding. This leaves commissioners with little clarity as to which body is responsible for transforming services and makes it difficult to know where accountability ultimately lies.

The cancer strategy stated that Alliances should be the main vehicle for local service improvement and accountability in cancer and made a number of important recommendations to improve commissioning of cancer services (76, 77, 78).

### CANCER ALLIANCES

The establishment of 16 Cancer Alliances and 3 cancer vanguards is welcome in an attempt to cut through local complexities and deliver change. We welcome the priority that NHS England has given to the establishment of Cancer Alliances and to providing them with support. It is essential that Cancer Alliances are well resourced both in funding and personnel and are given strong mandates and guidance from NHS England centrally.

Cancer Alliances must all be supported to develop good data standards to be able to identify and address variation within their footprints as well as inform workforce planning. The establishment of the Cancer Alliance Data, Evidence and Analysis Service (CADEAS) is welcome in this regard.

It is also essential that Cancer Alliances are supported to be able to share learnings and best practice between themselves to ensure that care is improved across the board. At present the strong feedback we have received from Cancer Alliances is that they are not being adequately supported by NHS England to be able to share best practice, particularly on an ongoing basis.

### RECOMMENDATIONS

1. NHS England, working with NHS Improvement, should provide a comprehensive support package which facilitates the sharing of best practice, networking and buddying between Alliances.
2. The Government and NHS England should seek to secure long-term, stable funding for Cancer Alliances.

## RESEARCH

The Cancer Strategy recognised that developing and maintaining a thriving research culture is essential to improving cancer outcomes in England and made a number of key recommendations to achieve this (50, 51).

### DEVELOPING A STRONG RESEARCH CULTURE IN THE NHS

Not only is developing a strong research culture essential for developing and implementing new, more effective treatments, but research by the NIHR has also shown that research-active NHS trusts deliver better outcomes for current patients<sup>xxxix</sup>.

A key recommendation in the cancer strategy was to incentivise NHS commissioners and providers to ensure as many patients as possible have the opportunity to take part in research. Results from the national Cancer Patient Experience Survey show that not enough progress has yet been made. In 2015 the proportion of patients who reported having a discussion about taking part in cancer research was 28.3%<sup>xl</sup>. In 2016 this had increased only slightly to 28.5%<sup>xli</sup>.

NHS England has now published its research strategy which sets out its commitment to promoting research. We welcome the publication of this plan and await further detail of how NHS England plans to improve the percentage of cancer patients who report having a discussion about taking part in cancer research.

### CLINICAL TRIALS

The cancer strategy also recommend that NHS England should publish guidance for commissioners about covering excess treatment costs (ETCs) from clinical trials and that it should create a national fund for covering the excess treatment costs for radiotherapy trials. While progress against this recommendation has been slow, we are pleased that NHS England and the National Institute for Healthcare Research (NIHR) have now set out the principles for a set of revised arrangements to meet the costs of ETCs from April 2018<sup>xlii</sup>.

In particular, we welcome the commitment to consistency, simplicity and transparency in the principles for the new arrangements, as well as the move to put the process for meeting ETCs on a more regional footing by utilising 15 NIHR Local Clinical Research Networks. We would welcome confirmation that all ETCs will be treated equally in this new process, including ETCs from radiotherapy clinical trials.

The cancer strategy recognises the essential role that clinical trials play in research. As the UK exits the European Union, it's vital that the ability to run trials and collaborate across the EU is maintained. 28% of trials funded by CRUK involve patients from at least one other EU country, and between 2004 and 2016 more than 4,800 UK-EU trials took place<sup>xliii</sup>. Working collaboratively across borders is particularly vital in rare and paediatric cancer research to ensure trials have enough participants. We therefore call on the UK Government to prioritise alignment with the EU Clinical Trials Regulation during negotiations on our future relationship with the EU and commit to adopting the EU CTR when it is implemented in 2019.

### RECOMMENDATIONS

1. NHS England should take further steps to increase the number of patients who have a discussion about taking part in research.

## Assessment of cancer strategy progress halfway through

2. NHS England and NIHR should ensure that the new arrangements for meeting ETCs are implemented from April 2018 and that they meet the six principles recently set out.
3. The Government must prioritise alignment with the EU CTR during Brexit negotiations and commit to adopting the EU CTR when implemented, ensuring that UK-EU clinical trials can continue.

## CONCLUSION AND FULL LIST OF RECOMMENDATIONS

Overall, there has been some good progress made in delivering the cancer strategy in England. We particularly welcome the progress that has been made in modernising radiotherapy services in England. However, despite the best efforts of NHS England and other Arms' Length Bodies, there are at present some very serious risks to delivery which threaten to undermine this progress.

As well as the delivery of £130m to upgrade radiotherapy machines, welcome developments include the establishment of the National Cancer Team led by Cally Palmer, the establishment of Cancer Alliances, and the commitment to deliver £200m of transformation funding to the Alliances.

Of the current risks to the delivery of the cancer strategy, the two most serious are workforce shortages and the lack of a sustainable solution to public health funding. The workforce is currently failing to keep pace with growing demand, leading to declining performance in NHS cancer services. The crisis in the workforce is most acute in the diagnostic workforce, putting efforts to improve the early diagnosis of cancer in jeopardy. For example, we anticipate FIT in bowel screening to be introduced at a lower level of sensitivity due to shortages in the endoscopy workforce.

We welcome the publication of HEE's phase one workforce plan as a first step towards progress in this area. Implementing this plan at the national and regional level must now be a priority. The Government must also ensure that the long-term phase two plan is sufficiently supported by additional investment if necessary.

Despite the cancer strategy promising a radical upgrade in prevention and public health, the lack of a sustainable solution for public health funding makes this extremely difficult. Public health budgets have been cut consistently for several years running and beyond 2020/21 there is no plan to replace the Public Health Grant to ensure councils have the funding they need to deliver public health services. Stop smoking services are particularly at risk, undermining the Government's ambition to one day achieve a smokefree generation.

In order to address these problems and bring the delivery of the cancer strategy back on track, we make the following recommendations of the Government, the NHS and its associated bodies:

1. The Government must halt cuts to the Public Health Grant and give councils the funding they need to deliver vital support to help more smokers quit. The Government should also commit to a timeline for reducing smoking prevalence to just 5% of the population, and to ensure every socioeconomic group is targeted to achieve this aim.
2. The Government should continue to develop its strategy to tackle the nation's growing obesity problem, including considering the role Ofcom could take to restrict advertising in broadcast media.
3. The Government and Joint Committee on Vaccination and Immunisation should explore all possible avenues to make HPV vaccination for boys cost-effective for the NHS.
4. NHS England and NICE should ensure that the latest evidence-based chemoprevention drugs are included in guidance and that this guidance is effectively promoted to GPs.
5. The Government should provide adequate support for Health Education England's (HEE) phase one cancer workforce plan, including Department of Health action and immigration and visa support from the Home Office.
6. Cancer Alliances must be supported and held to account by NHS England and HEE to create and implement their own workforce plans. To address data gaps and inaccurate workforce planning, Cancer Alliances must ensure that accurate information based on realistic

- forecasted demand, rather than precasted budget availability, is being recorded and communicated to Local Education and Training Boards.
7. The Government must also fund the additional investment to meet staff demand beyond 2021, which will be calculated in the phase two plan, due to be published in the summer.
  8. It is essential that current efforts to improve early diagnosis are continued and expanded. To achieve this, the Government and NHS should:
    - c. Ensure that future investment in diagnostic capacity is transparent and sufficient to meet future demand. Ring-fenced funds as part of CCG budgets should be available from 2018/19 onwards so that CCGs are required to increase staff and kit levels.
    - d. Urgently evaluate implementation of the updated NICE referral guidelines, identifying if any further action needs to be taken to improve comprehensive uptake, by the end of 2017/18.
    - e. Provide guidance to Cancer Alliances as soon as possible setting out how they should improve early diagnosis, including primary care best practice (such as consistent use of NICE referral guidelines), awareness campaigns which encourage the public to seek help, screening programmes and increasing diagnostic capacity.
    - f. When the Faster Diagnosis Standard is introduced, it should reflect the cancer strategy intention to include *all* cancer patients. This means measurement for the Faster Diagnosis Standard *must* go beyond the narrow 'urgent referral' group and include everyone who is referred using the NICE suspected cancer recognition and referral guidelines (NG12). This would include people who are referred on the urgent referral (two week wait) pathways, but also those who receive direct access and routine diagnostic tests.
  9. The Government, NHS England and Public Health England should:
    - a. Continue to take steps to ensure a good transition, and timely implementation of, HPV as the primary test in the cervical screening programme, aiming to start this in April 2019. In the meantime, mitigation efforts should continue to prevent continuing failure to meet turnaround times.
    - b. Set a clear ambition to implement FIT into the bowel screening programme at a gradually more sensitive threshold by 2021 and plan to increase workforce capacity to enable this to happen.
    - c. Include bowel screening promotion in Be Clear on Cancer from 2018 onwards, subject to evaluation in 2017.
    - d. Explore funding models to incentivise CCGs to reach the 75% bowel screening uptake ambition. Given the urgency of the 2020 target these models should be explored and piloted as soon as possible.
  10. NHS England should continue to develop innovative approaches to improving earlier diagnosis of cancer, ensuring that:
    - a. Expertise and leadership from across the wider cancer community helps shape initiatives such as the 28 day standard to enable the culture change required to transform care
    - b. There is a roadmap for evidence from pilots feeding into routine practice
  11. NHS England, in consultation with NHS Digital and Public Health England, should provide a plan detailing how, by 2020, all consenting patients will have the ability to access all test results and other communications involving secondary/tertiary care providers online.
  12. When considering the future of the radiotherapy service NHS England should provide an update on plans to introduce a rolling programme of upgrades for radiotherapy machines as a sustainable solution that would future-proof the radiotherapy service.

13. NICE and NHS England should come together with stakeholders to develop fit for purpose systems to get the best value and provide flexibility in access to medicines in the future, including mechanisms such as outcomes-based pricing. CRUK is commissioning a research project to explore the potential for outcomes-based pricing over the next few years.
14. NHS England should ensure plans to deliver panel testing for cancer molecular diagnostic tests move at pace so that patients benefit from the latest in drug development and the NHS adequately supports access to clinical trials in precision medicine.
15. NHS England, working with NHS Improvement, should provide a comprehensive support package which facilitates the sharing of best practice, networking and buddying between Alliances.
16. The Government and NHS England should seek to secure long-term, stable funding for Cancer Alliances.
17. NHS England should take further steps to increase the number of patients who have a discussion about taking part in research.
18. NHS England and NIHR should ensure that the new arrangements for meeting ETCs are implemented from April 2018 and that they meet the six principles recently set out.
19. The Government must prioritise alignment with the EU CTR during Brexit negotiations and commit to adopting the EU CTR when implemented, ensuring that UK-EU clinical trials can continue.

## APPENDIX 1: GRAPHS ILLUSTRATING CURRENT TRENDS AGAINST KEY CANCER STRATEGY METRICS

As this paper has previously mentioned, there are a number of key metrics contained in the cancer strategy that we cannot yet measure progress against as we lack the necessary data. For 5- and 10-year survival this is because not enough time has elapsed to possess the data since 2015. For other metrics such as the percentage of cancers diagnosed at stage 1 or 2, there is some data available but the best possible data is not yet available post-2015. The current trends against these metrics are illustrated below to indicate the current direction of travel, and where applicable the targets set out in the cancer strategy are plotted.

FIG 9: INCIDENCE<sup>xliv 12</sup>

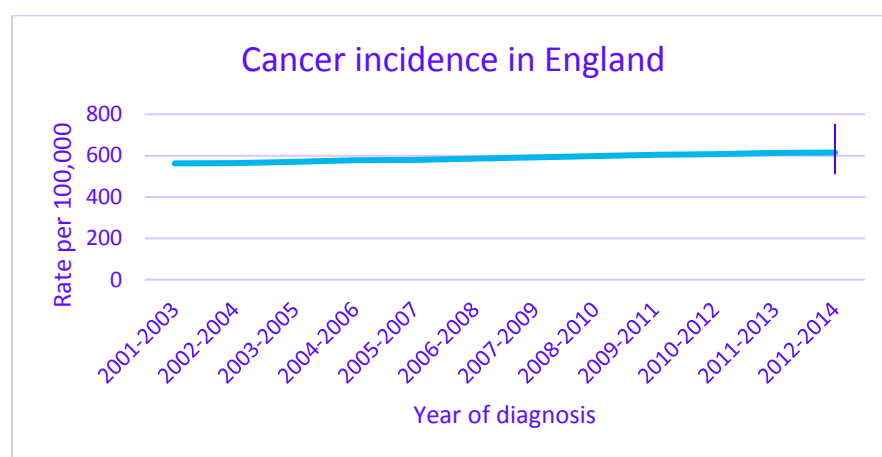
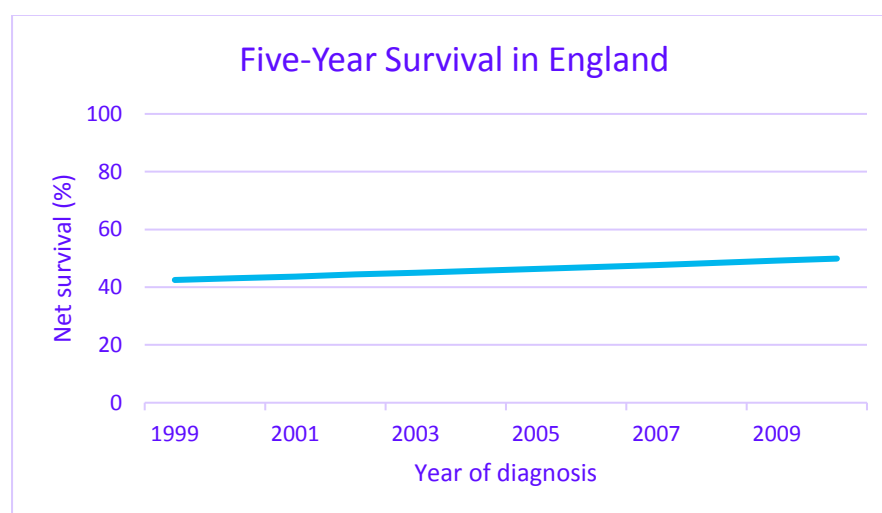


FIG 10: FIVE-YEAR SURVIVAL<sup>xlv 13</sup>



<sup>12</sup> European age-standardised incidence rates for all cancers excluding non-melanoma skin cancer ((C00-C97 Excl. C44)) in England. Range shown for Clinical Commissioning Groups in England for latest year of data available.

<sup>13</sup> Age-standardised five-year net survival index (%) for all cancers excluding non-melanoma skin cancer (C00-C97 Excl. C44) in all adults (aged 15-99 years) in England by calendar year of diagnosis (1991-2014).

FIG 11: TEN-YEAR SURVIVAL<sup>xlvi 14</sup>

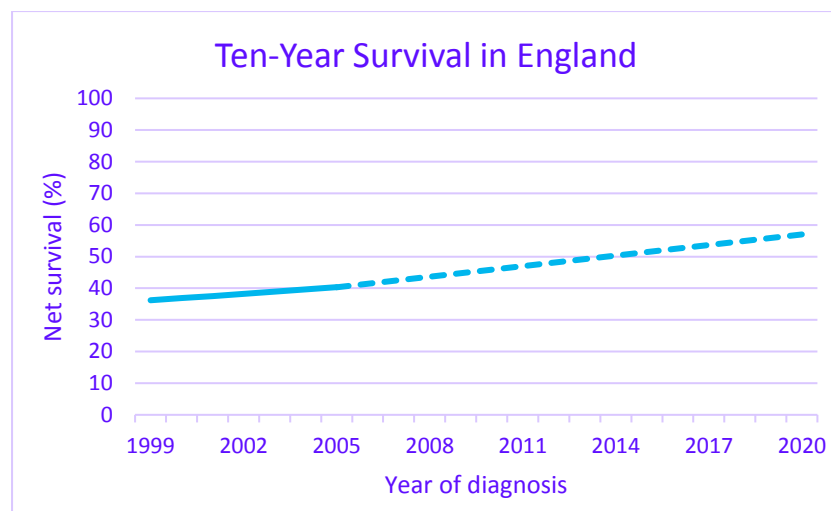
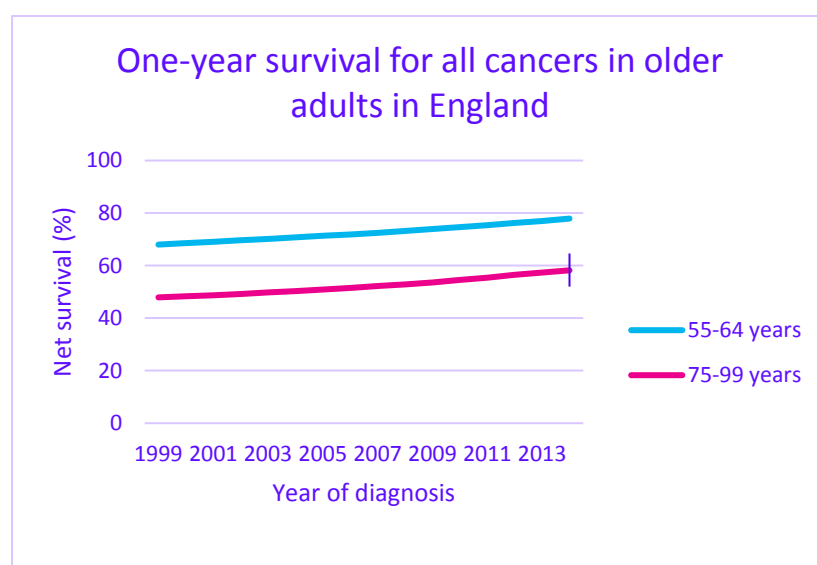


FIG 12: ONE-YEAR SURVIVAL IN OLDER ADULTS<sup>xlvi 15</sup>

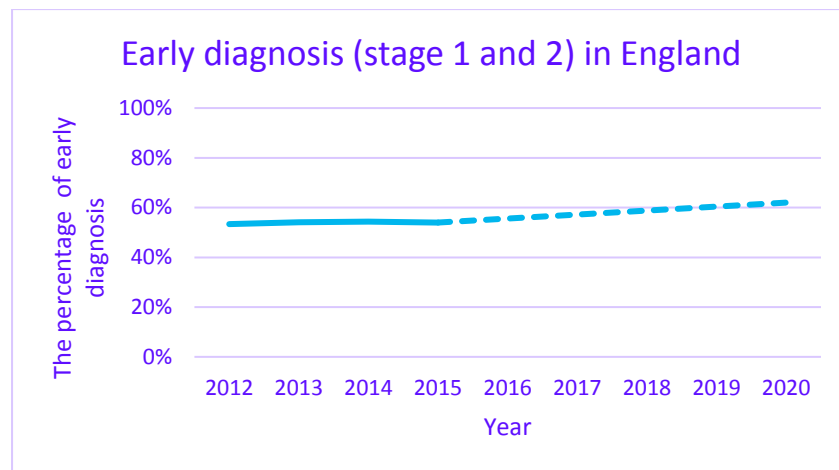


<sup>14</sup> Age-standardised ten-year net survival index (%) for all cancers excluding non-melanoma skin cancer (C00-C97 Excl. C44) in all adults (aged 15-99 years) in England by calendar year of diagnosis (1991-2014). The dashed line indicates the progress that would need to be made in the coming years to achieve the target in the Cancer Strategy.

<sup>15</sup> One-year (five-year and ten-year survival index (%) for all cancers combined also available), by calendar year of diagnosis in adults aged 55 to 64 years and 75 to 99 years. Range shown for Clinical Commissioning Groups in England in 2014 for those aged 75-99 years.

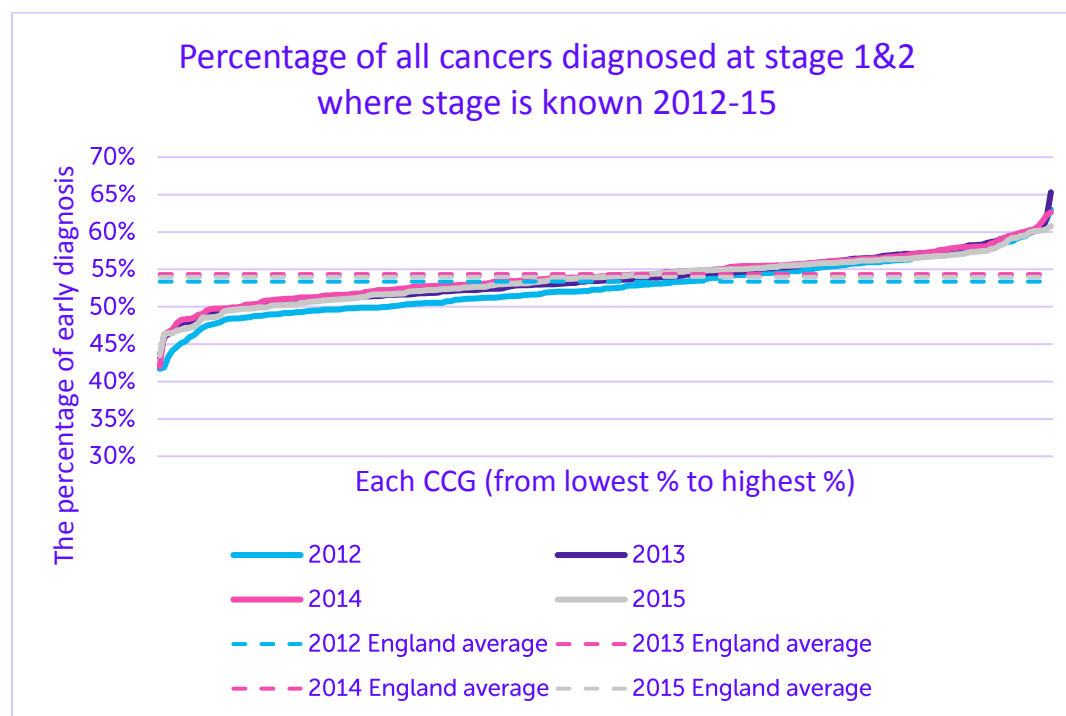


FIG 13: EARLY STAGE AT DIAGNOSIS<sup>xlviii 16</sup>



<sup>16</sup> Proportion of all cancers diagnosed early at stage 1 and 2 of those with known stage for 2012 to 2015. In 2015, stage is recorded for 80% of all cancer cases. Staging completeness has increased over time with improvements in recorded stage and therefore improvements in early diagnosis over time would need to be interpreted with caution. It is not known how improvements in data completeness will have affected the proportion diagnosed early after excluding unknowns. The dashed line indicates the progress that would need to be made in the coming years to achieve the target in the Cancer Strategy.

FIG 14: CANCERS DIAGNOSED AT STAGE 1 & 2<sup>xlix 17</sup>



<sup>17</sup> The proportion of all cancers diagnosed at stage 1 and 2 where stage is known annually from 2012 to 2015 by CCG. Staging completeness has increased over time with improvements in recorded stage and therefore improvements in early diagnosis over time would need to be interpreted with caution. It is not known how improvements in data completeness will have affected the proportion diagnosed early after excluding unknowns. **It's important to be cautious in comparing early diagnosis at CCG level, as completeness varies widely and the impact is not clear. Differences in case mix will also affect the proportion diagnosed early.**

## ANNEX 2: KEY CANCER STRATEGY RECOMMENDATIONS BY AREA

### WORKFORCE

Recommendation 83: Health Education England should work with NHS England, charities and others to develop a vision for the future shape and skills mix of the workforce required to deliver a modern, holistic patient-centred cancer service. This review should consider training needs for both new and existing NHS staff and should report by the end of 2016.

Recommendation 84: Health Education England should support improvements in the earlier diagnosis of cancer by:

- Working with the Royal College of Radiologists (RCR) and diagnostic experts in NHS England to review, on an annual basis, the number of radiology, diagnostic radiographers and nurse endoscopy training positions required to meet projected needs, and act urgently to address these needs.
- Work with the RCR to understand better a predicted workforce deficit in breast radiology and develop a plan to address this.
- Work with DH and the SCoR to make sonography a separate registration.
- Ensure that the quality of training is not compromised in the urgency to increase staff numbers.

Recommendation 86: Health Education England should support improvements in the treatment of cancer by:

- Reviewing its modelling processes to reflect better the workforce needs required to deliver a high-quality, patient-centred service, using international benchmarks where necessary.
- Once the need has been more clearly delineated, increasing the number of clinical oncology, medical oncology, medical physics, therapy radiography and CNS training positions with immediate effect to address this need.

### PREVENTION AND PUBLIC HEALTH

Recommendation 2: Government should work with Public Health England and NHS England to publish a new tobacco control plan within the next 12 months. The ambition should be to reduce adult smoking prevalence to less than 13% by 2020 and less than 5% by 2035, and reduce smoking among routine and manual workers to 21% by 2020. The plan should include a full range of actions, such as a tobacco industry levy, a tax escalator, payment based incentives to ensure smoking cessation services are strengthened and a focus on groups where smoking rates remain high, including social marketing campaigns where appropriate. It should highlight the importance of NHS action in primary and secondary care, in particular among those with long-term conditions.

Recommendation 3: Public Health England should work with the Government and a wide range of other stakeholders to develop and deliver a national action plan to address obesity, including a focus on sugar reduction, food marketing, fiscal measures and local weight management services. Within this there should be a strong focus on children. Implementation of the programme should be supported by PHE, aligned with the physical activity strategy 'Everybody active, every day'.

Recommendation 5: By December 2016, PHE should determine the level at which HPV vaccination for boys would be cost-effective. JCVI should make a final decision by 2017. Assuming a cost-effective price can be achieved, national roll-out should take place by 2020.

Recommendation 6: NHS England should work through CCGs to ensure that GPs are appropriately prescribing chemo-preventive agents to reduce the risk of invasive breast cancer where their use is established through NICE guidelines.

Recommendation 7: NHS England should commission NICE to develop updated guidelines for the use of drugs for the prevention of breast and colorectal cancers. Updated guidelines should consider the use of aromatase inhibitors for untreated post-menopausal women at high risk and the use of aspirin for individuals with HNPCC. Once these guidelines are published, CCGs should ensure that GPs appropriately implement them.

## EARLY DIAGNOSIS

Recommendation 10: Assuming a positive recommendation by the NSC, PHE and NHS England should roll out FIT into the BCSP, replacing gFOBt as soon as possible. NHS England should incentivise GPs to take responsibility for driving increased uptake of FIT and bowel scope in their populations, with an ambition of achieving 75% uptake in all CCGs by 2020.

Recommendation 11: Assuming a positive recommendation by the NSC, PHE and NHS England should drive rapid roll-out of primary HPV testing into the cervical screening programme, with an aim of commencing roll-out by 2016 and full national coverage by 2020. The NSC should also regularly review whether the upper age limit for cervical screening remains appropriate.

Recommendation 15: Public Health England should continue to invest in “Be Clear on Cancer” campaigns to raise awareness of possible symptoms of cancer and encourage earlier presentation to health services. Campaigns should include lung, breast over 70s, and other cancer types where pilots prove effective. PHE should also explore the use of this brand to improve uptake of screening programmes, particularly amongst disadvantaged groups. NHS England, Public Health England and the Department of Health should jointly plan campaigns to ensure an integrated roll-out across the service, with a minimum of two national campaigns each year.

Recommendation 16: We recommend the following to take forward the new NICE guidelines:

- NICE should work with organisations such as Cancer Research UK, the Royal College of GPs and Macmillan Cancer 30 Support to disseminate and communicate the new referral guidelines to GP practices as quickly as possible.
- By mid-2016, NHS England should evaluate implementation of the new NICE referral guidelines through 2-3 vanguard sites, to assess impact and ensure they are deliverable.
- From mid-2016 onwards, subject to there being adequate diagnostic capacity, NHS England should ensure that GPs and other front line primary health services assess the risk of symptoms which could be cancer. They should instigate investigations or referral to diagnostic services in line with the new NICE guidelines. CCGs will also need to ensure that GP clinical judgement is regarded as an acceptable ‘flag’ e.g. if a GP is concerned about a patient whose symptoms nevertheless do not fit within the new NICE criteria.

Recommendation 17: NHS England should mandate that GPs have direct access to key investigative tests for suspected cancer – blood tests, chest x-ray, ultrasound, MRI, CT and endoscopy – by the end of 2015.

Recommendation 19: NHS England should establish a national diagnostic capacity implementation fund to unlock the significant increase in diagnostic capacity required to implement higher levels of investigative testing.

Recommendation 24: By the end of 2015, NHS England should develop the rules for a new metric for earlier diagnosis measurable at CCG level. Patients referred for testing by a GP, because of symptoms or clinical judgement, should either be definitively diagnosed with cancer or cancer excluded and this result should be communicated to the patient within four weeks. The ambition should be that CCGs achieve this target for 95% of patients by 2020, with 50% definitively diagnosed or cancer excluded within 2 weeks. Once this new metric is embedded, CCGs and providers should be permitted to phase out the urgent referral (2-week) pathway.

## TREATMENTS

Recommendation 29: From autumn 2015, NHS England should commence a rolling programme of replacements for LINACs as they reach 10-year life, as well as technology upgrades to all LINACs in their 5th year. All LINACs that are already ten years old should be replaced by the end of 2016 at the latest. This should be driven through a national capital fund, overseen in the first 2-3 years by a small implementation team, who will also need to ensure that equipment is geographically distributed to serve local populations optimally.

Recommendation 31: NHS England should work with NICE, the Government, the pharmaceutical industry and cancer charities to define a sustainable solution for access to new cancer drugs. This updated process should enable NHS England to confirm clinical utility, whilst managing within a defined budget, and should be aligned with NICE appraisal processes. The new process should be published for consultation in summer 2015, with a view to implementation from April 2016. The solution should set out reforms to NICE processes to make them more flexible for cancer drugs.

Recommendation 37: NHS England should transform access to molecular diagnostics to guide treatment for cancer:

- NHS England should nationally commission access to molecular diagnostic tests to guide treatment, starting with the following cancer types in 2016: melanoma, lung, colorectal, breast and all paediatric cancers. This would be in addition to haematological cancers, with a further broadening out to all cancer types where treatments are already subject to a molecular diagnostic test by 2020.
- Use of molecular diagnostic tests by providers should be added to the COSD data set.
- NHS England should undertake a year by year review of molecular diagnostics capacity given the pace of scientific and technological advance.
- NHS England should develop plans to move to a validated multiplex molecular diagnostic panel by end 2016.

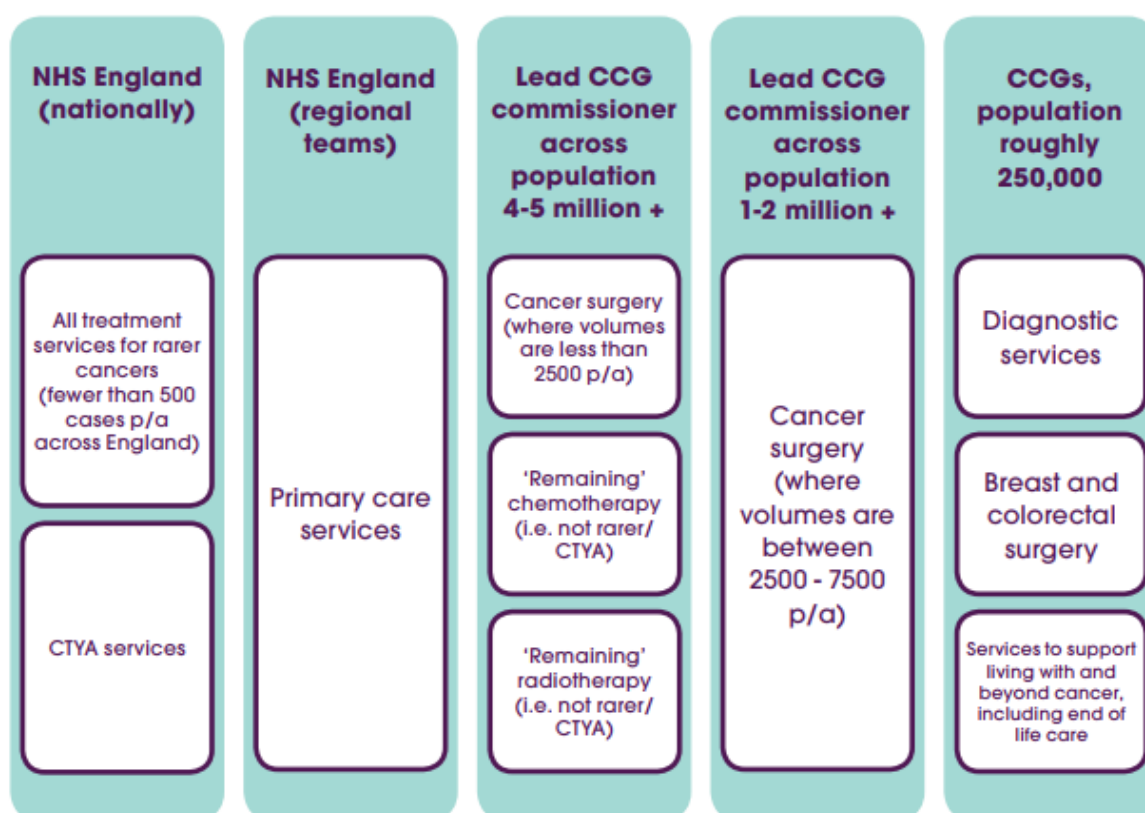
## COMMISSIONING, ACCOUNTABILITY AND PROVISION

Recommendation 76: By the end of 2015 NHS England should set out clear expectations for commissioning of cancer services. All commissioners should commission to NICE guidelines and **CRG**-approved service specifications as a minimum. The following principles should form the basis of the new cancer commissioning landscape, to be clearly defined in national guidance from NHS England:

- All treatment services for rare cancers (fewer than 500 cases per annum across England, including all paediatric, teenage and young adult services) should be commissioned nationally.

## Assessment of cancer strategy progress halfway through

- Other cancer treatment services (cancer surgery where national volumes are less than 2,500 per year, all remaining radiotherapy, and all remaining chemotherapy) should be commissioned by a lead commissioner across populations of 4-5 million or more.
- Cancer surgery where national volumes are between 2500 and 7500 per year should be commissioned by a lead CCG commissioner for populations of 1-2 million or more.
- Breast and colorectal cancer surgery should be commissioned at CCG level.
- Diagnostic services to confirm or exclude cancer should be commissioned at CCG level, including a range of blood tests, chest x-ray, ultrasound, CT, MRI, endoscopy and biopsy.
- Primary care services should be commissioned by NHS England Regional Teams or through CCGs via delegated responsibility where appropriate.
- Services to support living with and beyond cancer, including end of life care, should be commissioned by CCGs with support from HWBs.



Recommendation 77: NHS England should work with Monitor to pilot the commissioning of the entire cancer pathway in at least one area. Ultimately, this should include investigation, through diagnosis and treatment, living with and beyond cancer, and end of life care. The pilot should test a fully devolved budget for that population, to be delivered over multiple years. Commissioning of services should be based on a pre-specified set of clinical and patient experience outcomes.

Recommendation 78: NHS England should set expectations for and establish a new model for integrated Cancer Alliances at sub-regional level as owners of local metrics and the main vehicles for local service improvement and accountability in cancer. We advise that Cancer Alliances should be co-terminus with the boundaries of Academic Health Science Networks (AHSNs), although in some large

AHSN geographies there may be a need for two Alliances. Alliances should be properly resourced and should draw together CCGs and encourage bimonthly dialogue with providers to oversee key metrics, address variation and ensure effective integration and optimisation of treatment and care pathways. Cancer Alliances should include local patients and carers, nurses and Allied Health Professionals.

## RESEARCH

Recommendation 50: NHS England should ensure commissioners and providers are incentivised to maintain the UK's world-leading position in cancer studies and applied health research. This should ensure that as many patients as possible have the opportunity to be part of a study, including in smaller stratified trials.

Recommendation 51: By the end of 2015, NHS England should publish clear guidance that commissioners must meet excess treatment costs for clinical trials accepted on to the NIHR portfolio as part of routine business. ETCs for radiotherapy trials should be distributed through a national fund held by NHS England to ensure high quality clinical trials are developed and delivered optimally.

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