

Men's Health Strategy - Call for Evidence

Cancer Research UK response

Introduction

Cancer Research UK (CRUK) welcomes the recognition of the importance of cancer within the Men's Health Strategy call for evidence.

Cancer is the leading cause of death in men in Englandⁱ. Nearly 170,000 men are diagnosed with cancer each year in Englandⁱⁱ, and the impact of cancer on society as a whole and on men is growing.

This parliamentary term will see an estimated 943,000 new cancer cases in men in England – a 13% increase on the previous parliamentary termⁱⁱⁱ. By 2040, the number of new cancer cases in men in England is estimated to increase by almost a quarter (23%) from around 181,000 in 2023–2025 to around 223,000 diagnoses annually^{iv}.

The impact of cancer in men also incurs a significant economic cost – in 2018, 2019 and 2021, there were around 49,800 cancer cases in men of working age (15–64 years) each year in England,^v and in 2021–2023, there were around 13,300 cancer deaths in men of working age each year in England^{vi}. In 2023, more than 164,000 economically productive years of life were lost in men in England due to cancer^{vii}.

Given the significant impact of cancer on individuals, health services and society, it is critical that cancer is at the heart of the Men's Health Strategy. Improving health outcomes for men relies on improving cancer outcomes.

The UK Government has set out the key shifts to the health system in England in the recently published 10 Year Health Plan, and later this year will set out how it will deliver on its manifesto commitment to reduce the lives lost to cancer^{viii} in the National Cancer Plan.

The Men's Health Strategy is an important opportunity to align with and support the wider strategic changes to the NHS and cancer services through targeted interventions which address the barriers men face to improved cancer outcomes, and ultimately ensure improved cancer outcomes for all.

To achieve this, Cancer Research UK recommends three key areas of focus:

- (1) **Reduce the prevalence of the biggest cancer risk factors**
 - Men are more likely to experience greater prevalence of overweight and obesity^{ix}, higher rates of smoking^x, and alcohol use^{xii}, all key cancer risk factors and significant drivers of a range of preventable illnesses.

- The Men's Health Strategy should focus on addressing the barriers to smoking cessation and weight management services, which evidence suggests that men are less likely to utilise, and integrate them with measures set out in the 10 Year Health Plan to support these public health services. The UK Government should also commit to public health campaigns that target attitudes and health literacy gaps among populations with higher prevalence of smoking and overweight and obesity, including men.

(2) Drive reduction of later stage diagnoses of cancer

- Reducing the number of cancer patients diagnosed at a later stage is vital to improving cancer outcomes for all patients, including men who experience barriers to earlier diagnosis including lack of symptom awareness, beliefs and health behaviours around risk.
- The upcoming National Cancer Plan must drive earlier diagnosis through an ambition to reduce late-stage cancer diagnoses; the Men's Health Strategy can support this through improving symptom awareness, reducing barriers to help-seeking and screening, and supporting research and innovation where effective interventions are not currently available.

(3) Reducing variation in access to optimal care

- There is variation in access to optimal treatment, but the drivers of this are complex and often not well understood. Inequalities across a range of demographic factors compound the variation in experience and outcomes experienced by men.
- The National Cancer Plan should include measures to reduce variation in access to optimal treatment; the Men's Health Strategy can synergise with this through supporting greater policy research to improving our understanding of how men access treatment services. The Men's Health Strategy should support efforts to improve data collection and linkage to improve understanding of cancer and health inequalities, support intelligent planning of interventions and facilitate research.

(1) Understanding and identifying areas where we can improve support for healthier behaviours

Please upload your contribution of data, research and other reports relevant to this topic of men's health: understanding and identifying areas where we can improve support for healthier behaviours.

Overview

Smoking, overweight and obesity and alcohol use all contribute to a higher risk of cancer, as well as other major conditions. Around 14% of the adult men in England smoke^{xiii} and 67% of men were classified as either overweight or obese^{xiv}.

The 10 Year Health Plan's shift from ill health to prevention presents a key opportunity to align with the Men's Health Strategy, by implementing interventions that target cancer risk factors prevalent among men. Thousands of cancer cases could be prevented over the next two decades through:

- Improving awareness of cancer risk factors
- Ensuring access to public health services for smoking, overweight and obesity and alcohol harms
- Introducing population level measures to reduce smoking and alcohol-related harms
- Encouraging vaccination against HPV

Smoking

Smoking is the biggest cause of cancer and death in England^{xvvi}, with 15% of all cancers in men attributable to smoking^{xvii}. The proportion of cancer cases in men attributable to smoking are more than 2 times greater in the most deprived communities, compared to the least deprived (25% vs 12%)^{xviii}.

Polling by CRUK found 45% of men who smoke want to reduce their smoking, and 26% want to stop smoking completely^{xix}. While men may be more likely to succeed in quit attempts through smoking cessation services^{xx}, they are less likely to engage due to barriers including fatalistic health views and negative past experiences^{xxi}. Tackling these barriers experienced by men is key to increasing engagement with these interventions and must be considered in service design.

CRUK welcomes the government's commitment to investing at least £80m per year for tobacco cessation programmes and enforcement to support delivery of the Tobacco and Vapes Bill. However, to achieve the government's smokefree ambition, they must go further, through funding campaigns to raise awareness of risk factors and tackle attitudes that reduce engagement with smoking cessation services. Swap to stop initiatives are

crucial to help people quit smoking and funding to fully roll out and integrate tobacco dependence treatment into routine care is vital.

Policy recommendation:

- DHSC should provide adequate and sustainable ringfenced funding for stop smoking services and deliver regular mass media campaigns that address attitudes and health literacy gaps toward smoking and smoking cessation services.

Overweight and obesity

It is estimated that around 5% of all cancer deaths in the UK are attributable to overweight and obesity^{xxii}. If current trends continue, overweight and obesity prevalence in men in England is projected to increase to 75%, around 18.7 million men, by 2040^{xxiii}.

Availability of NHS weight management services varies across the country. Engagement with NHS weight management services by men is limited, with men reluctant to attend services due to fear and attitudes around the service itself, e.g., stigma and shame^{xxiv}. It is vital that services incorporate these findings into service design, addressing stigma and fear to encourage participation and positive attitudes.

Policy recommendation:

- The UK Government should address barriers to men's engagement with NHS weight management services and ensure sufficient and sustainable funding and capacity to enable equitable access to treatment.

Alcohol consumption

Drinking alcohol is linked to an increased risk for several cancers. Around two thirds of alcohol-specific deaths in the UK are in men^{xxv}. Men drink at higher risk levels, with 32% of men drinking over 14 units in the last week^{xxvi}, the maximum advised drinking limit^{xxvii}. Of those surveyed by CRUK, 29% of men did not recognise drinking alcohol as a cancer risk^{xxviii}.

Men are more likely to experience greater harms from alcohol, so population wide health interventions that tackle alcohol harms broadly will also positively impact men.

Minimum Unit Pricing (MUP) is one of the most effective and cost-effective alcohol control measures.^{xxix} In Scotland, MUP has contributed to a significant reduction in alcohol-specific deaths, with initial exploratory research showing a possible impact on reducing some health inequalities^{xxx}. MUP targets stronger, cheaper alcohol, which is primarily consumed by those who drink the most^{xxxi}. Additionally, committing to long-term funding of proven and cost-effective early interventions and alcohol treatment services provide a join-up approach to reducing alcohol prevalence.

Policy recommendation:

- The UK Government should address drinking at harmful levels by introducing 65p minimum unit pricing in England (and embedding an automatic uprating review mechanism within the policy) and sustainably funding alcohol treatment services^{xxxiii}.

HPV

Vaccinating boys against HPV is crucial for protecting them from the types of HPV that can cause cancers of the mouth, throat and anus^{xxxiv}. However, the COVID-19 pandemic disrupted the school-based immunisation programme and coverage rates have not recovered. This disruption added to existing disparities in coverage in England. At a population level, vaccination coverage has been declining, however female coverage is consistently higher than male coverage across all cohorts. In England, only 68% of boys aged 12 to 13 years received 2 doses of the HPV vaccination in the 2023 to 2024 academic year^{xxxv}.

Policy recommendation:

- We welcome NHSE's Cervical Cancer Elimination Plan that outlines recommendations to increase HPV vaccination coverage. As the merger of NHSE/DHSC progresses, there must be appropriate governance and accountability to deliver the roll out and a focus on addressing disparities in uptake.

(2) Improving outcomes for health conditions that typically, disproportionately or differently affect men

Please upload your contribution of data, research and other reports relevant to this topic of men's health: improving outcomes for health conditions that typically, disproportionately or differently affect men.

Overview

One of the most powerful ways to improve cancer outcomes in men is to reduce the number of cancers diagnosed at a later stage. There is a significant burden of late-stage cancer diagnosis affecting men, when treatment options are limited and outcomes are poorer^{xxxvi}. A higher proportion of men are diagnosed through emergency presentation, which is associated with later stage diagnosis^{xxxvii}. Across seven key cancer sites, reducing late-stage cancer diagnosis in men and shifting diagnoses to the next lowest stage could lead to around 12,500 deaths being avoided within 5 years of diagnosis per year^{xxxviii}.

In order to improve outcomes, the government must address the barriers men face to informed screening uptake, symptom recognition and help-seeking behaviours. Action will require a tailored and joined-up approach across the cancer pathway, from health professionals, policy makers, academics and the wider health system.

The upcoming National Cancer Plan for England must set out ambitions for earlier and timelier cancer diagnosis through non-emergency pathways^{xxxix}. Prioritising earlier cancer diagnosis within the Men's Health Strategy, with interventions aligned with and delivered through the National Cancer Plan, will ensure cancer services are better equipped to address the specific barriers men experience to earlier and timelier cancer diagnosis and treatment.

Screening

Screening is one of the best interventions for driving earlier detection of cancers. Currently men are invited to take part in screening for bowel and lung cancer, but there is lower uptake in screening programmes by men, especially those from the most deprived areas.

Several barriers to attendance must be addressed to improve uptake among men. These include low awareness of screening programmes and misunderstanding their purpose, as well as emotional and psychological factors such as stigma, shame, cancer fear and fatalism^{xl}.

In a CRUK survey, only 63% of men believed that bowel cancer screening helped prevent cancer and only 53% thought that cancer screening was for people without symptoms^{xli} (screening is for asymptomatic people). This lack of understanding and engagement is likely to contribute to lower screening uptake.

Many men may also have a low perceived personal risk even if they are eligible for screening or may avoid appointments due to fear of a potential diagnosis^{xlii}. Practical barriers also play a role: travel distance, inconvenience and forgetting appointments can all contribute to lower attendance rates^{xliii}. These obstacles are often more acute in more deprived communities – bowel cancer incidence is higher in deprived populations^{xliv}, yet screening uptake is lower^{xlv}, which can further reinforce existing health inequalities^{xlvi}.

Improving screening uptake among men will require tailored interventions that tackle the barriers that prevent men accessing screening. This includes increasing public awareness, making appointments more accessible and addressing misconceptions and fears about cancer.

Symptom awareness

An important barrier to accessing care is that men are less likely to recognise potential symptoms or signs of cancer. A CRUK survey showed 5% of men did not recognise any symptom of cancer^{xlvii}. This trend is also seen for specific symptoms – for example, only 83% of men recognise persistent changes in bowel habits as a potential cancer symptom^{xlviii}.

The reluctance to act, even when symptomatic, reflects the need for the UK Government to put in place interventions to better support populations, including men, who have poorer health literacy, and face greater barriers to help seeking.

Policy recommendation:

- The UK Government and Department of Health and Social Care should commit to delivering annual public campaigns to improve health knowledge, enable access to primary care and encourage positive behaviours like screening uptake, especially in underserved populations. The Men's Health Strategy should ensure that targeted interventions address the barriers experienced by men.

Early detection & diagnosis research

Prostate cancer affects around 47,400 men and people with a prostate every year in England^{xlix}. When diagnosed with prostate cancer at the latest stage, around 2 in 10 (19%) survive their cancer for 10 years or more in England^l. But current tests still don't provide us with effective and reliable ways to detect the disease early. The UK National Screening Committee (UK NSC) conducted an independent, expert-led review of the potential benefits and harms of PSA testing on asymptomatic people with the overarching aim of saving lives in the most cost-effective way. They currently do not recommend screening for prostate cancer, which aligns with CRUK's assessment of the evidence, agreeing that that currently there would be more harm than benefit from prostate cancer screening, largely due to the limitations in accuracy of the current proposed screening test.

Improving health outcomes for men with prostate cancer requires better tools for earlier diagnosis. The TRANSFORM trial (set to begin in 2025) will evaluate different screening options including MRI, genetic testing and PSA. It intends to over-recruit black men, who are at a higher risk of developing prostate cancer compared to other ethnicities. Similarly, the IMProVE clinical trial will investigate whether a prostate screening programme that combines blood tests with MRI scans could prove effective, and if so, how it can be designed to reduce health inequalities.

It is vital that research is funded and protected in order to provide reliable and evidenced solutions to the complexities of prostate cancer. To produce better health outcomes for prostate cancer patients, more research is needed that can improve and innovate the diagnostic pathways. Where new interventions are proven, evidence based and considered appropriate for introduction, it is important that there is sufficient investment, so new pathways are appropriately resourced.

Policy recommendations:

- Cancer Research UK supports the UK National Screening Committee's approach to evaluating the effectiveness and evidence base for any current or proposed population screening programme. The UK Government should maintain its commitment to implementing the recommendations of the UKNSC, both where screening is or is not recommended.
- The UK Government should ensure that ongoing research to inform potential future screening approaches for prostate cancer are supported, so that evidence can inform any future changes to the earlier detection of prostate cancer.

(3) Improving men's access, engagement and experience of the health service

Please upload your contribution of data, research and other reports relevant to this topic of men's health: improving men's access, engagement and experience of the health service.

Overview

As also highlighted in the previous section, men consistently show lower levels of engagement with health services throughout the cancer care journey, from recognising symptoms and seeking help to accessing and navigating treatment. There is a mixture of behavioural and systemic barriers which increase health inequalities such as lower levels of health literacy and lower engagement with healthcare providers.

Directly addressing these factors could significantly improve men's participation in care, access to services and overall healthcare experience, resulting in earlier and faster diagnosis, better treatment outcomes and better experiences within the healthcare system.

Variation in access to optimal care

Significant numbers of men are being treated for bowel and lung cancer^{li} and so optimising their treatment and addressing barriers will produce better outcomes.

Access across the main types of cancer treatment (surgery, chemotherapy and radiotherapy) is variable, with factors ranging from patient choice, stage at diagnosis and geographical disparities in availability of services. Clinicians in areas with limited treatment options may only offer options available locally to patients, leaving them with narrower options compared to those in other areas^{lii}.

Much of this variation in access is unwarranted, limiting access to cutting-edge treatments and contributing to uneven treatment experiences and outcomes between the most and least deprived. A study into a minimally invasive surgery for colorectal cancer found wide variation in the use of the surgery throughout England^{liii}. Another study into organisation and delivery of support services for patients with prostate cancer also found considerable variation of onsite services across England and Wales^{liv}.

There is also inconsistency in the availability of supportive services, such as genetic counselling and onco-geriatric care, across institutions, which can affect both treatment planning and long-term outcomes, particularly for older or more complex patients.^{lv} Additionally, men with lower levels of health literacy may struggle to understand treatment options, follow medical instructions, or advocate for their care needs, which could contribute to differences in treatment uptake and outcomes^{lvi}.

Furthermore, factors like comorbidities and poorer health outcomes linked to higher levels of deprivation, reduce the chances of receiving surgery^{lvii}. Even when the cancer is potentially operable, possibly poorer outcomes from surgery due to higher health risks of the patient, hinder eligibility^{lviii}. Additionally, evidence looking at the association between deprivation and the receipt of surgery in non-small cell lung cancer patients, found that more deprived patients were less likely to receive early stage surgery, the most curative form^{lix}. These overlapping factors suggest that men, particularly those who are older, living in more deprived areas or in poorer health, are systematically less likely to access treatments that could significantly improve survival. More research is needed to understand how men from these backgrounds access treatment and how access can be improved.

Policy recommendation:

- The Men's Health Strategy and National Cancer Plan should align to ensure a strategic, data led approach to identifying and addressing unwarranted variation in access to treatment, through maintaining the 10 current cancer audits (NATCAN) and through improving our understanding of how men access treatment services through policy research. NHS providers and systems should be supported in implementing best practice.

Help-seeking & engagement

Evidence suggests men are less likely to use healthcare services for advice and may be less likely to attend an urgent cancer referral appointment^{lx}. Encouraging early engagement through better education and service design (e.g. flexible appointments, male-focused outreach) could play a role in reducing missed appointments and increasing continuity of care. Once engaged, men generally report positive experiences with health services, suggesting that improving access at the outset can result in sustained engagement and satisfaction^{lxi}.

The Cancer Patient Experience Survey found that males were more likely to speak to a healthcare professional 2-4 times about health problems caused by cancer before receiving a diagnosis^{lxii}. Primary care professionals surveyed by CRUK reported feeling like they have limited time to examine patients for signs of cancer^{lxiii}, which could be compounded by men having lower symptom awareness^{lxiv}, lower levels of screening uptake and being less able to identify and recall risk factors for cancer.

Policy recommendation:

- The UK Government and Department of Health and Social Care should commit to delivering annual public campaigns to improve health knowledge, facilitate access to primary care and encourage positive behaviours like screening uptake, especially in

underserved populations. The Men's Health Strategy should ensure that targeted interventions address the barriers experienced by men.

Data on inequalities

Inequalities compound the issues that affect cancer incidence and outcomes in men. Cancer incidence is around 16% higher in men in the most deprived quintile compared to the least deprived, and men in the most deprived areas face worse health outcomes than those in the least deprived.^{lxv} Men's experience within the health system is highly variable, with differences in age, sexuality, ethnicity and deprivation impacting experiences and behaviour. Throughout this submission we have identified a number of areas where this is the case, but significant gaps in data collection, quality and availability (beyond data on sex, which is more routinely recorded) hinder efforts to further intersectional research to better understand and target interventions to address inequalities. While this should not be seen as a barrier to addressing health disparities now, improving data collection and linkage is crucial in order to improve understanding of cancer and health inequalities, support intelligent planning of interventions and facilitate research.

Policy recommendation:

- The Men's Health Strategy should acknowledge issues in health data quality to support inequalities research and service improvement, and the UK Government should incentivise improved data collection and linkage to improve understanding of cancer and health inequalities.

References

ⁱ Deaths by ICD-10 Chapters, Males, England, 2023. ONS. [Mortality statistics](#) - underlying cause, sex and age. 2024

ⁱⁱ Based on the average annual number of new cases of all cancers (ICD C00-C97) diagnosed in England in the years 2018, 2019, and 2021. Data is from National Cancer Registration and Analysis Service (NCRAS), part of the National Disease Registration Service (NDRS) in NHS England, on request through the Office for Data Release, January 2023.

ⁱⁱⁱ Calculated by the Cancer Intelligence Team at Cancer Research UK (2024). Estimating the total number of cancer cases (ICD10 C00-C97, excl. C44) in males in the current parliamentary term (assumed to be July 2024 to July 2029); estimating the total number of cancer cases in males in the previous parliamentary term (December 2019 to July 2024); and calculating the differences between the periods in terms of total numbers, average per day numbers and age-standardised rates. For more information, see: [CRUK analysis brief: Projected UK cancer cases and deaths in the current parliamentary term](#).

^{iv} Calculated by the Cancer Intelligence Team at Cancer Research UK (2024). Estimating the total number of cancer cases (ICD10 C00-C97, excl. C44) in males in the current parliamentary term (assumed to be July 2024 to July 2029); estimating the total number of cancer cases in males in the previous parliamentary term (December 2019 to July 2024); and calculating the differences between the periods in terms of total numbers, average per day numbers and age-standardised rates. For more information see: [CRUK analysis brief: Projected UK cancer cases and deaths in the current parliamentary term](#).

^v Data are for England (ICD-10 C00-C97, excl. C44), 2018, 2019 + 2021 provided by the National Cancer Registration and Analysis Service (NCRAS), part of the National Disease Registration Service (NDRS) in NHS England, on request through the Office for Data Release, October 2024. Similar data can be found here: <https://www.cancerdata.nhs.uk/>.

- ^{vi} Data are for England (ICD10 C00–C97), 2021–2023, from the Office for National Statistics accessed from Nomis mortality statistics by underlying cause, sex, and age, November 2021: [Mortality statistics – underlying cause, sex and age](#)
- ^{vii} Calculated by the Cancer Intelligence Team at Cancer Research UK (2025). Productive Years of Life Lost (PYLL) quantifies the impact of premature cancer deaths on economic productivity by calculating the expected employment rate over an individual's estimated life expectancy and multiplying this by the number of cancer deaths in each five-year age band (ages 15–19 to 90+).
- ^{viii} Labour Manifesto, Build an NHS fit for the future, available here – <https://labour.org.uk/change/build-an-nhs-fit-for-the-future/>
- ^{ix} Cancer Research UK., 2022. [Overweight and obesity prevalence projections for the UK](#), England, Scotland, Wales, and Northern Ireland, based on data to 2019/20.
- ^x Office for Health Improvement & Disparities (2025). [Obesity profile: short statistical commentary, May 2025 – GOV.UK](#)
- ^{xi} Office for National Statistics (2024). [Adult Smoking Habits in the UK: 2023](#). [online] Ons.gov.uk.
- ^{xii} NHS England, Health Survey for England, 2022 Part 1, [Adult drinking – NHS England Digital](#), 2024.
- ^{xiii} Office for National Statistics (2024). [Adult Smoking Habits in the UK: 2023](#). [online] Ons.gov.uk.
- ^{xiv} NHS Digital. [Health Survey for England, 2022](#). 2024
- ^{xv} Brown KF et al. [The fraction of cancer attributable to known risk factors in England, Wales, Scotland, Northern Ireland, and the UK overall in 2015\(link is external\)](#). British Journal of Cancer 2018.
- ^{xvi} Institute for Health Metrics and Evaluation. [Global Burden of Disease. Number of deaths caused by smoking in the United Kingdom for 2021](#). Accessed 2024
- ^{xvii} Data is for the proportion of cases attributable to smoking in Men in England, (2023). Cancer Research UK, 2024. CRUK analysis brief: Smoking-attributable cancer cases in the UK, 2003–2023..
- ^{xviii} Payne NWS, Brown KF, Delon C, Kotrotsios Y, Soerjomataram I, Shelton J (2022) Socio-economic deprivation and cancer incidence in England: Quantifying the role of smoking. PLoS ONE 17(9): e0272202.
- ^{xix} Whitelock, V., (2023) Cancer Research UK's September 2023 Cancer Awareness Measure 'Plus' (CAM+)
- ^{xx} Murray, R.L, etc. (2024). Uptake and 4-week quit rates from an opt-out co-located smoking cessation service delivered alongside community-based low-dose computed tomography screening within the Yorkshire Lung Screening Trial. *European Respiratory Journal*, [online]
- ^{xxi} Smith, P et al, Barriers and Facilitators to Engaging in Smoking Cessation Support Among Lung Screening Participants, *Nicotine & Tobacco Research*, Volume 26, Issue 7, July 2024, Pages 870–877
- ^{xxii} The Institute for Health Metrics and Evaluation. Global Burden of Disease. 2023.
- ^{xxiii} Cancer Research UK. [Overweight and obesity prevalence projections for the UK, England, Scotland, Wales, and Northern Ireland, based on data to 2019/20](#). 2022.
- ^{xxiv} Elliott, M., Gillison, F. & Barnett, J. Exploring the influences on men's engagement with weight loss services: a qualitative study. *BMC Public Health* **20**, 249 (2020)
- ^{xxv} Office for National Statistics, [Alcohol-specific deaths in the UK – Office for National Statistics](#), 2022
- ^{xxvi} NHSE. Health Survey for England, 2022 Part 1. 2024. 2022 data.
- ^{xxvii} NHS, Alcohol units, available at – <https://www.nhs.uk/live-well/alcohol-advice/calculating-alcohol-units/>
- ^{xxviii} Whitelock, V., (2023) Cancer Research UK's September 2023 Cancer Awareness Measure 'Plus' (CAM+)
- ^{xxix} World Health Organisation. No place for cheap alcohol: The potential value of minimum pricing for protecting lives (2022)[9789289058094-eng.pdf](#)
- ^{xxx} Public Health Scotland. Evaluating the impact of minimum unit pricing for alcohol in Scotland: A synthesis of the evidence (2023) <https://publichealthscotland.scot/publications/evaluating-theimpact-of-minimum-unit-pricing-for-alcohol-in-scotland-a-synthesis-of-the-evidence/>
- ^{xxxi} Chick, J. et al. Strong cider sold in Scotland appears to be almost exclusively for dependent. *Clin Med (London)*, Volume 16, Issue 4 (2016) <https://doi.org/10.7861/clinmedicine.16-4-398>
- ^{xxxii} Anderson, P et al. Impact of minimum unit pricing on alcohol purchases in Scotland and Wales: controlled interrupted time series analyses. *The Lancet Public Health*, Vol.6, Issue 8, e557–e565 (2021) [https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(21\)00052-9/fulltext](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(21)00052-9/fulltext)
- ^{xxxiii} Public Health Scotland. Evaluating the impact of minimum unit pricing for alcohol in Scotland: A synthesis of the evidence (2023) <https://publichealthscotland.scot/publications/evaluating-theimpact-of-minimum-unit-pricing-for-alcohol-in-scotland-a-synthesis-of-the-evidence/>
- ^{xxxiv} Cancer Research UK, The HPV vaccine, available here – <https://www.cancerresearchuk.org/about-cancer/causes-of-cancer/infections-eg-hpv-and-cancer/the-hpv-vaccine>
- ^{xxxv} UK Health Security Agency. [Human papillomavirus \(HPV\) vaccination coverage in adolescents in England: 2023 to 2024](#). 2025.

- xxxvi [NHS Digital, Case-mix Adjusted Percentage of Cancers Diagnosed at Stages 1 and 2 in England, 2020](#)
- xxxvii National Disease Registration Service. Routes to diagnosis for all malignant neoplasms (excl. NMSC), England, 2019.
- xxxviii Calculated by the Cancer Intelligence team at Cancer Research UK. Based on Incidence by Stage (2018; NHS by request), 5-year net survival (2015-2019 and 2016-2020, NHS England). *Estimated by shifting all cancer cases from Stages II-IV one stage earlier and applying survival to the shifted stage.* 2025.
- xxxix [Cancer Research UK National Cancer Plan response](#)
- xl Cavers, Det al (2022). Understanding patient barriers and facilitators to uptake of lung screening using low dose computed tomography: a mixed methods scoping review of the current literature. *Respiratory Research*
- xli Sundareshan, M., (2024) Cancer Research UK's September 2024 Public Omnibus.
- xlii Cavers, D., et al. (2022). Understanding patient barriers and facilitators to uptake of lung screening using low dose computed tomography: a mixed methods scoping review of the current literature. *Respiratory Research*,
- xliii Cavers, Det al (2022). Understanding patient barriers and facilitators to uptake of lung screening using low dose computed tomography: a mixed methods scoping review of the current literature. *Respiratory Research*
- xliv Cancer Research UK, [Cancer in the UK 2025 – socio economic deprivation](#), published February 2025
- xlv Gov.UK, Bowel Cancer Screening: Annual Report 2023 to 2024. Accessed via: [Bowel Cancer Screening: Annual Report 2023 to 2024 – GOV.UK](#)
- xlvi Cancer Research UK, [Cancer in the UK 2025 – socio economic deprivation](#), published February 2025
- xlvii Whitelock, V., (2023) Cancer Research UK's September 2023 Cancer Awareness Measure 'Plus' (CAM+)
- xlviii Whitelock, V., (2023) Cancer Research UK's September 2023 Cancer Awareness Measure 'Plus' (CAM+)
- xlx Cancer Research UK. Cancer in the UK 2025: Socioeconomic deprivation. Published February 2025
- ¹ Cancer Research UK–Public Health England partnership in collaboration with NCRAS. [\[Archived content\] Cancer survival by stage for patients diagnosed in the East of England, 2007 to 2017.](#)
- ⁱⁱ Cancer Research UK [Treatment Hub](#)
- ⁱⁱⁱ Aggarwal, A., Han, L., Tree, A., Lewis, D., Roques, T., Vijay Sangar and Jan (2022). Impact of centralization of prostate cancer services on the choice of radical treatment. *BJU International*,
- ⁱⁱⁱⁱ Taylor JC, et al ; YCR BCIP Study Group. Minimally Invasive Surgery for Colorectal Cancer: Benchmarking Uptake for a Regional Improvement Programme. *Clin Colorectal Cancer*. 2024
- ^{liv} Dodkins J, Cook A, Morris M, Nossiter J, Prust S, Waller S, van der Meulen J, Aggarwal A, Clarke N, Payne HA. Organisation and delivery of supportive services for patients with prostate cancer in the National Health Service in England and Wales: a national cross-sectional hospital survey and latent class analysis. *BMJ Open*. 2023
- ^{lv} Dodkins J, Cook A, Morris M, Nossiter J, Prust S, Waller S, van der Meulen J, Aggarwal A, Clarke N, Payne HA. Organisation and delivery of supportive services for patients with prostate cancer in the National Health Service in England and Wales: a national cross-sectional hospital survey and latent class analysis. *BMJ Open*. 2023
- ^{lvi} Simpson, R.M., Knowles, E. & O'Cathain, A. Health literacy levels of British adults: a cross-sectional survey using two domains of the Health Literacy Questionnaire (HLQ). *BMC Public Health* **20**, 1819 (2020)
- ^{lvii} Fowler, Het al. (2020). Comorbidity prevalence among cancer patients: a population-based cohort study of four cancers. *BMC Cancer*
- ^{lviii} Belot, A et al (2018). Association between age, deprivation and specific comorbid conditions and the receipt of major surgery in patients with non-small cell lung cancer in England: A population-based study. *Thorax*
- ^{lix} Belot, A., et al. (2018). Association between age, deprivation and specific comorbid conditions and the receipt of major surgery in patients with non-small cell lung cancer in England: A population-based study. *Thorax*,
- ^{lx} Sheridan, R., Oliver, S.E., Hall, G., Allgar, V., Melling, P., Bolton, E., Atkin, K., Denton, D., Forbes, S., Green, T., Macleod, U. and Knapp, P. (2019). Patient non-attendance at urgent referral appointments for suspected cancer and its links to cancer diagnosis and one year mortality: A cohort study of patients referred on the Two Week Wait pathway. *Cancer Epidemiology*,
- ^{lxi} NHS England. [National Cancer Patient Experience Survey 2023](#). 2024
- ^{lxii} Based on the proportion of men of speaking to the healthcare professionals compared to women. NHS England. [National Cancer Patient Experience Survey 2023](#). 2024.
- ^{lxiii} Needham, M.,(2024) Cancer Research UK 2023/2024 Primary Care Cancer Survey. Unpublished findings.
- ^{lxiv} Whitelock, V., (2023) Cancer Research UK's September 2023 Cancer Awareness Measure 'Plus' (CAM+)
- ^{lxv} Cancer Research UK. Cancer in the UK 2020: Socio-economic deprivation.