

Cancer in women – addressing unmet needs

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Key Messages:

On average in the UK, a woman is diagnosed with cancer every three minutes, and every seven minutes a woman dies from cancer.

This paper highlights the increase in cancer incidence in women and the projected rise in cancer cases over the next 20 years. It outlines preventable risk factors and differences in rates amongst more deprived women, including specific gynaecological cancers. Cancer is the most common cause of death in women but cancer treatment is more successful and survival higher when the disease is diagnosed at the earliest stage. We therefore highlight that:

- More focus is required to prevent cancers in women, especially through smoking cessation programmes and tackling rising obesity.
- It is imperative to have the right diagnostic capacity and resources for the projected rise in need for services to make sure this is not a cause of avoidable delays in their diagnosis and treatment.
- Health professionals have a crucial role to play in helping women to recognise signs and symptoms of cancer, to be aware of the benefits of the national screening programmes and encourage awareness and adoption of NICE guidelines amongst fellow professionals.

We must keep striving to reduce the impact of the disease; preventing cancer and diagnosing earlier to give the best chance of securing a curative treatment, long term survival and improved quality of life.

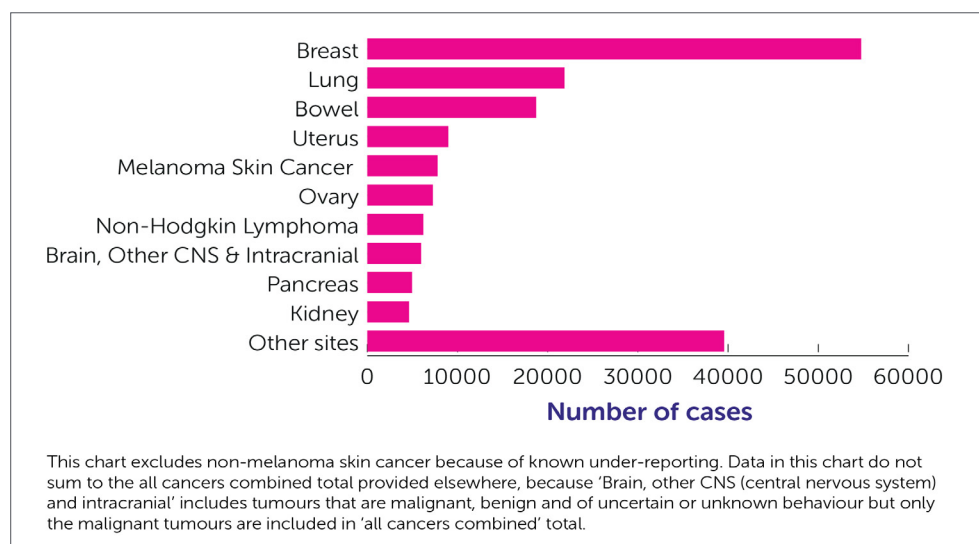
Cancer in Women¹

Incidence

In 2015, around 177,000 new cases of cancer were diagnosed in women in the UK. Breast, lung and bowel cancers together accounted for 54% of cases. Gynaecological cancers (cervix, uterus, ovary, vagina and vulva) accounted for 12% of cases.

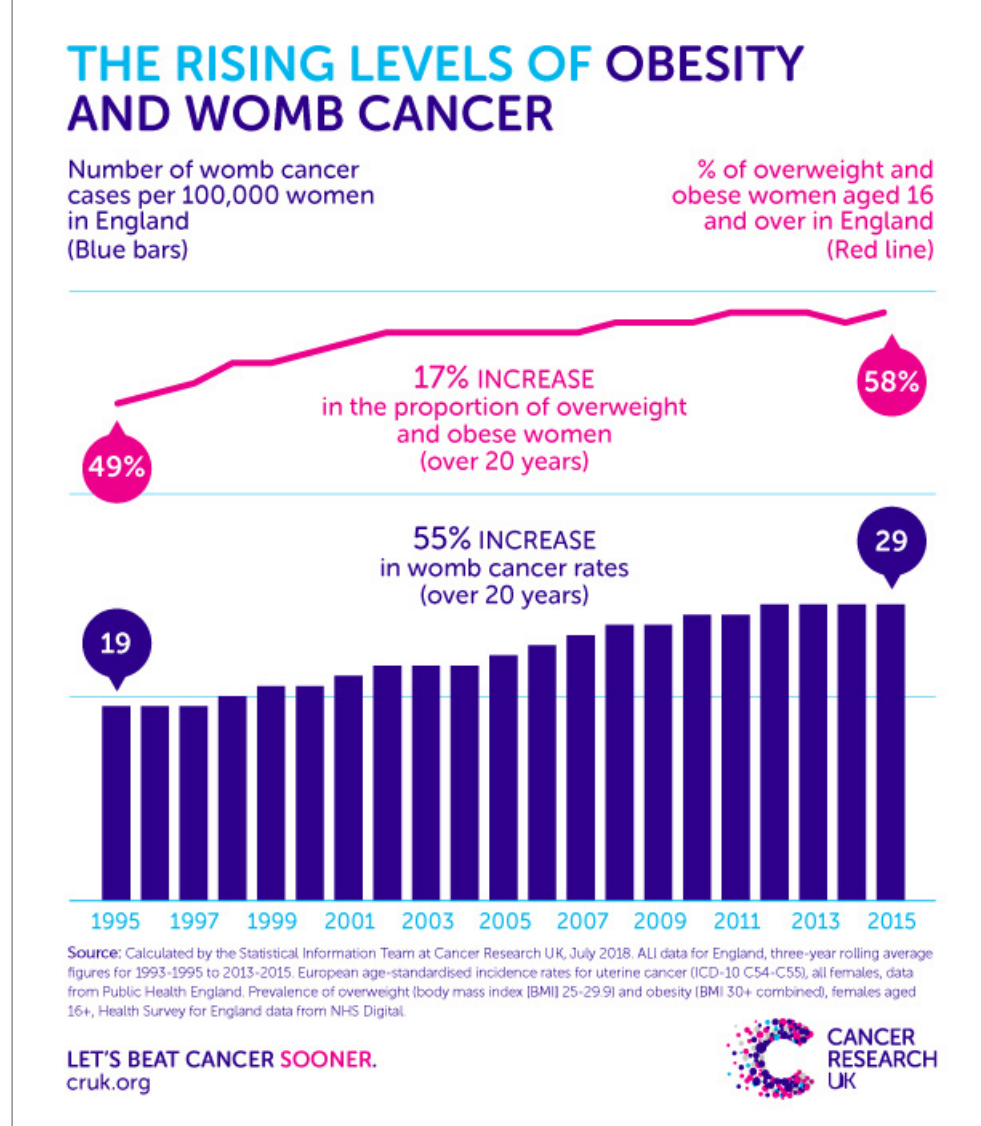
Age-standardised rates have increased over the last decade in the UK for the two most common cancers in women; by 6% for breast and 18% for lung.

Figure 1. Ten most common causes of cancer in women, UK, 2015



Cancers of the uterus and ovary are the 4th and 6th most common cancers in women respectively. Whilst ovarian cancer incidence rates have fallen slightly (5%) over the last 10 years, uterine (womb) cancer incidence is rising rapidly; rates increased by 56% over the last 20 years and 21% over the last decade. Along with the increase in obesity, increased use of tamoxifen and a decline in the rates of hysterectomies for sterilisation or treatment of heavy menstrual bleeding² are also contributors to this rise.

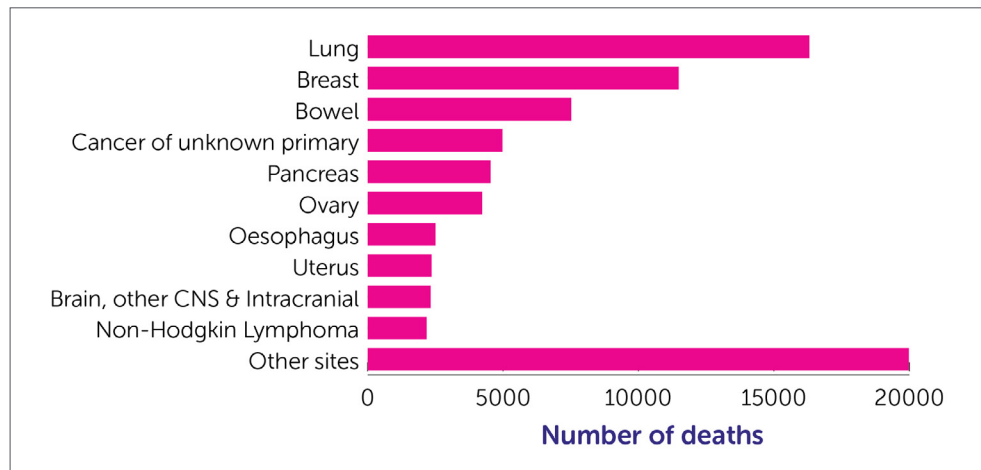
Figure 2. Womb cancer incidence rates and obesity prevalence, women, England, 1995 – 2015



Mortality

Cancer is the most common cause of death for women, causing 26.2% of deaths in 2016 in England and Wales³. It is the biggest cause of avoidable deaths in women, accounting for 40% of all deaths classified as avoidable and over 50% in women aged 15 and over in 2015.⁴ There were around 77,900 cancer deaths in women in 2016 in the UK. Lung cancer was the most common cause of cancer death, followed by breast and bowel.

Figure 3. Ten most common causes of cancer death in women, UK, 2016

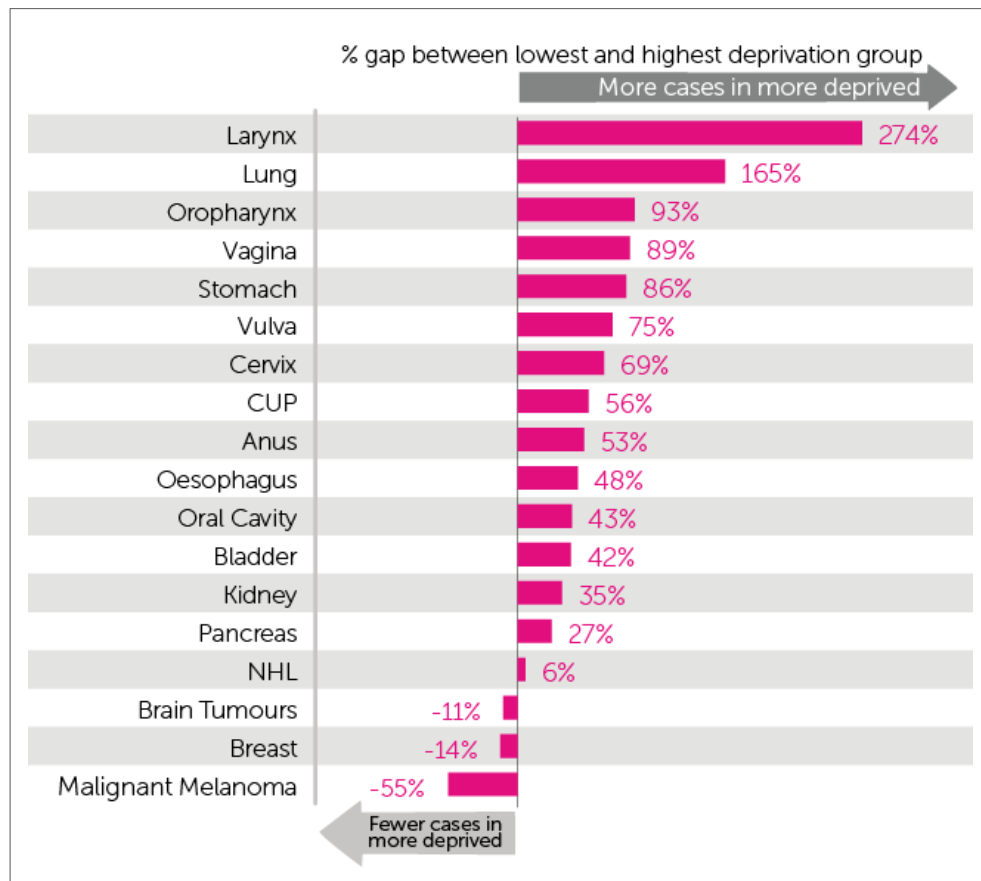


Gynaecological cancers accounted for 10% of cancer deaths (around 8,000). Reflecting the rise in incidence rates from the early 1990's, mortality rates from cancer of the uterus have increased by around 21% over the last 20 years. This is expected to continue to increase over the coming years and is projected to be the 6th most common cause of cancer mortality in women by 2035.⁵

Deprivation

Cancer incidence and mortality rates are higher amongst more deprived communities compared to the least deprived for many cancers in women. Risk factors contribute to differences by deprivation. The three cancer sites showing the largest difference between least and most deprived for both incidence and mortality all have smoking as a risk factor.⁶

Figure 4. Percentage Deprivation Gap in European Age-Standardised Incidence Rates, Statistically Significant Cancers, Women, England, 2006-2010



Incidence is lower for the more deprived for cancers of the brain, breast and skin. For breast cancer, age-standardised cancer incidence rates are 14% lower amongst the more deprived compared to the least deprived. Breast screening uptake plays a role in this difference with more deprived women less likely to attend breast screening.⁷ Screening uptake is also likely to contribute to the difference in the mortality rate for breast cancer by deprivation, with higher mortality observed for women who are more deprived, indicating a later stage disease diagnosed.

Survival

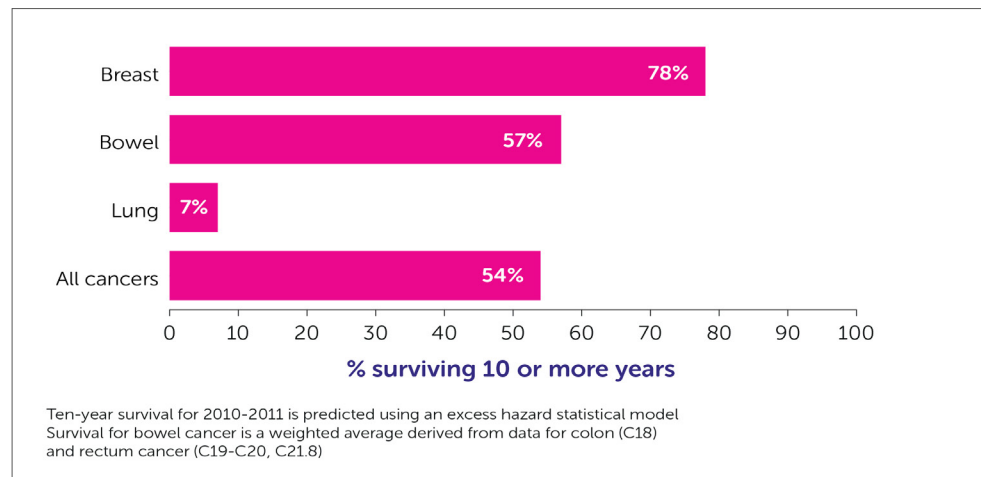
Trends in cancer survival can help to identify progress in diagnosis and treatment, and provide an indication of those cancer types where more work is urgently needed.

The latest survival figures show that just over half (54%) of women diagnosed with cancer survive their disease for ten years or more.⁸ This is a huge improvement since the 1970s when 10-year survival was only 28%. However, this overall figure hides the enormous variation in survival between cancer types. For many sites, survival at five years, and even at one year, can be very poor, for example survival of pancreatic cancer in women is estimated at 25% for one year and only 7% at five years.⁹

There have been substantial improvements for some cancer sites. Ten-year survival estimates for women with breast cancer in the 1970s was 40%, whereas today that figure stands at 81%. For women with bowel cancer, ten-year survival has increased from 22% to 57%. Whilst over the last 40 years lung cancer survival has doubled, it has increased from just under 3% to 7%⁸ highlighting the need to improve earlier diagnosis and treatment.

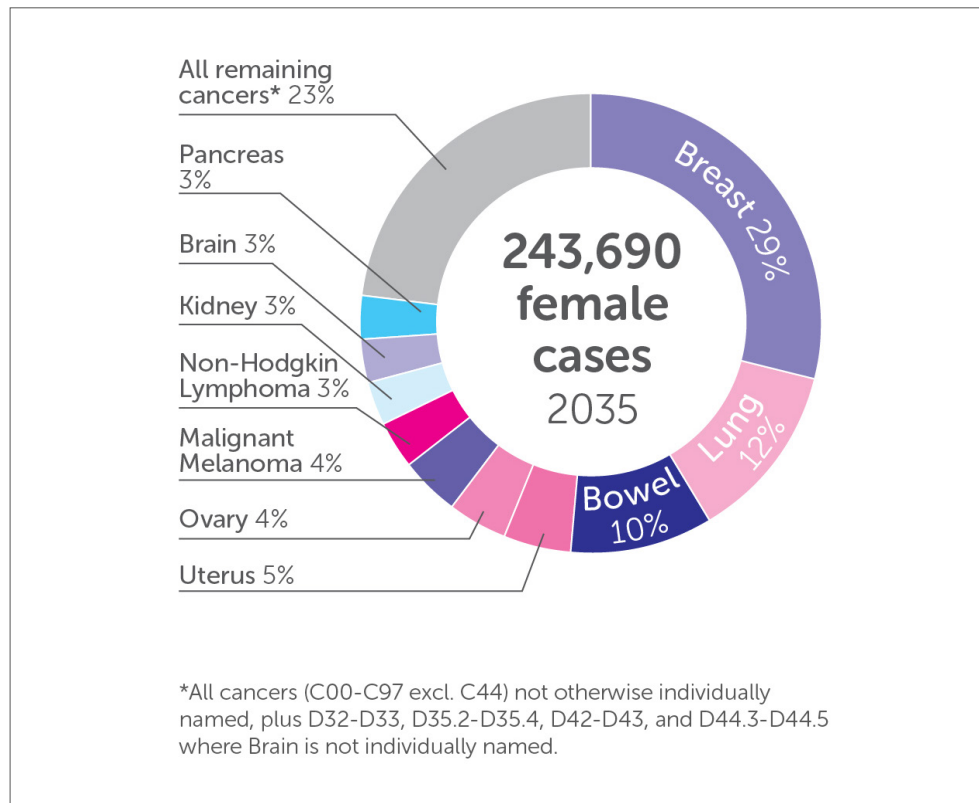
Survival estimates for gynaecological cancers differ by site. Around 78% of women diagnosed with uterine cancer survive their disease for 10 years or more compared to only 35% of women diagnosed with ovarian cancer. Differences are also evident at one year with survival estimates at 90% and 69% respectively.⁹

Figure 5. Age standardised 10-year survival for all cancers combined and the three most common cancers in women in England and Wales, 2010 – 2011



Future burden

Projections show that by 2035, nearly 244,000 new cases of cancer will be diagnosed each year in women, an increase of 36%. Our growing and ageing population is behind much of the predicted increase in the number of cancer cases.

Figure 6. Projected number of cases and percentages by site, women, UK, 2035

The proportions of different cancers in women are projected to remain fairly consistent with today. With increasing cancer incidence trends in breast, lung and bowel cancers over the last decade, these are expected to remain as the most common cancers. Uterine and ovarian cancers are projected to still be amongst the more common cancers in women.

The rates of cancers which can be linked to infection with certain forms of the human papillomavirus (HPV) are also increasing, making them among the fastest growing challenges. It is hoped that progress in prevention measures mean that the figures are an overestimate, for example, the full benefits of the HPV vaccine programme for girls are yet to be realised which is likely to affect the current projected increase in cervical cancer incidence.

A spotlight on the evidence and key opportunities for improvement

Prevention

Around 4 in 10 cancer cases in the UK could be prevented, largely attributed to potentially modifiable risk factors. A radically upgraded prevention effort will therefore be critical in reducing the impact of the disease in the coming decades.

Figure 7. Risk factors for preventable cancers, UK



Tobacco smoking

Tobacco smoking is the biggest preventable cause of cancer in the UK. Around 22,000 cancer cases in UK women each year are linked to smoking. In 2017, 13.3% of UK female adults smoked cigarettes.¹⁰

Over the last decade, lung cancer incidence rates have increased by 18% but are now expected to have reached their peak. This follows the trend in smoking prevalence in females which was highest in the late 1960's.

Smoking contributes to at least fourteen cancer types other than lung cancer. To reduce the future burden of smoking-related cancers it is vital to prevent uptake of smoking and help female smokers quit through properly resourced smoking cessation services.¹¹

Obesity

Overweight and obesity is the second-biggest preventable cause of cancer in the UK. Being overweight or obese causes thirteen different types of cancer in women with around 13,200 cancer cases in UK women each year linked to excess bodyweight. In 2015, around 6 in 10 UK women were overweight or obese¹² and this is projected to rise.¹³

Breast, ovarian and uterine (womb) cancers are associated with excess bodyweight. To prevent the future burden of overweight-related cancers, it is of paramount importance to reduce the proportion of women who are overweight and obese. Obese children are more likely to be obese adults so early intervention through a comprehensive plan to tackle childhood obesity should be a priority for government.

Early Diagnosis

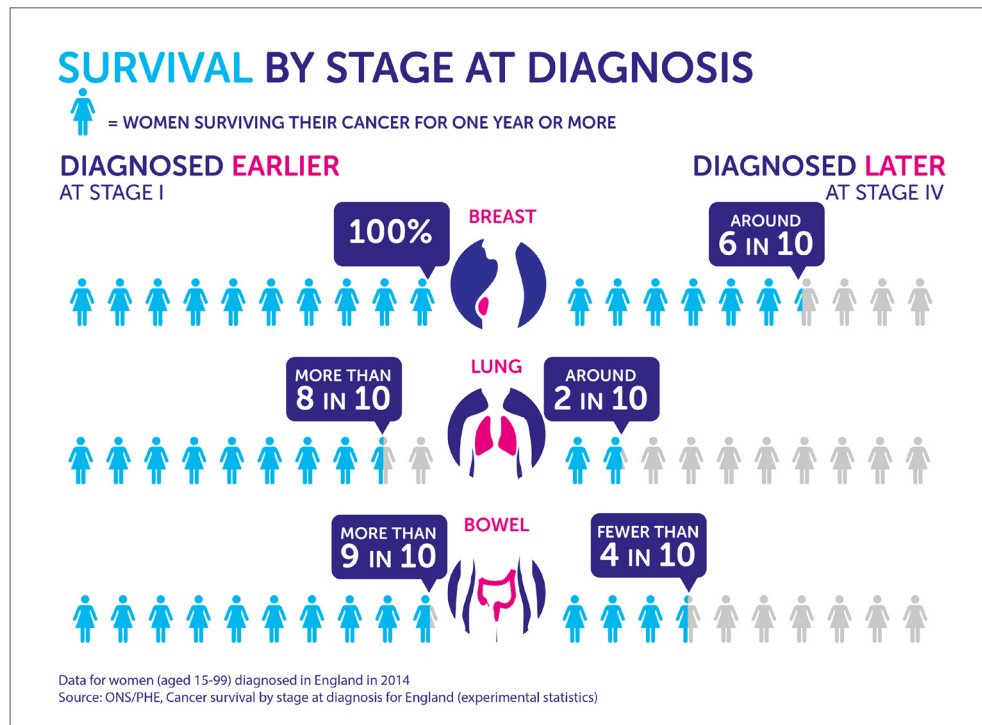
Patients diagnosed at an early stage have the greatest chance of receiving potentially curative treatment and improved quality of life.

Over 90% of women recognise one of the main signs or symptoms of cancer.¹⁴ These include an unexplained lump, change in bowel habit, mole changing appearance, unexplained bleeding and unexplained weight loss. Previous surveys show that the majority of women report that they would seek medical help within two weeks.¹⁵ There are, however, barriers that are cited in seeking medical help. The most commonly reported barriers for women were difficulty in getting an appointment (45%), difficulty getting an appointment at a convenient time (46%), and not wanting to talk to the doctor's receptionist about symptoms (46%). Additionally, lower awareness of cancer symptoms and reporting more potential barriers were associated with longer intended delays in visiting a doctor, suggesting that increasing awareness and reducing perceived barriers could help improve earlier presentation.

Stage at diagnosis and survival

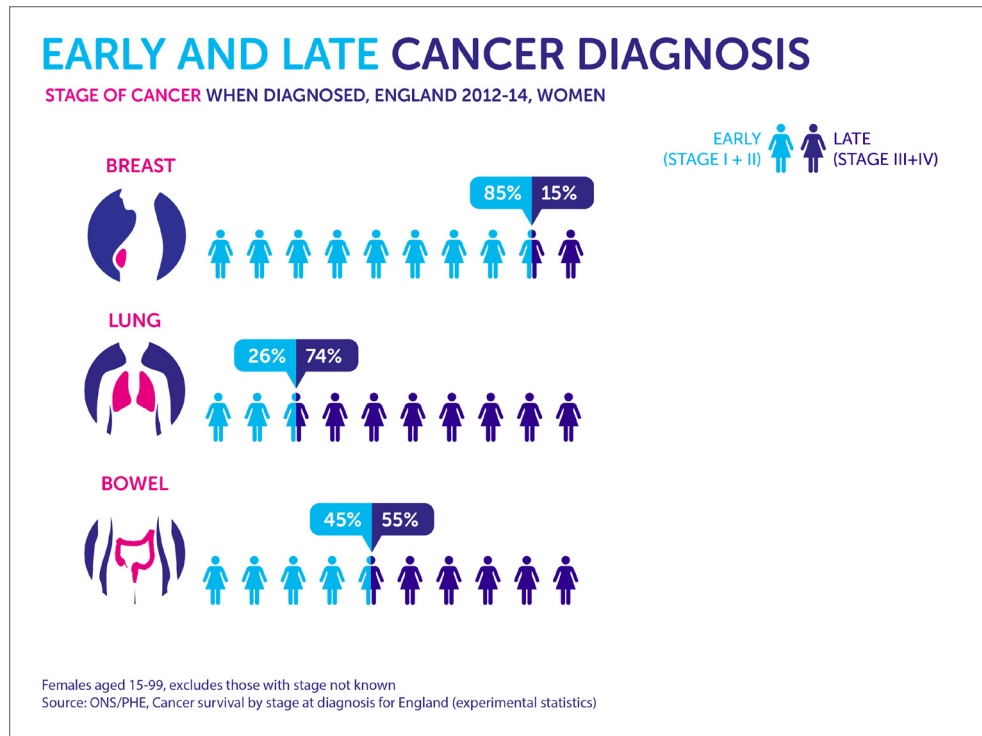
Stage at diagnosis has a significant impact on one-year survival. The figures are especially stark for bowel and lung cancer.

Figure 8. Stage-specific survival for women in England, 2014



For those cancers where stage of disease is recorded, just over half of patients (54%) in England are diagnosed at an early stage (1 and 2) each year,¹⁶ however, there is substantial variation in the stage distribution between cancer types.

Figure 9. Stage at diagnosis for women in England, 2012-14



Variation between sites reflects differences in symptomatology, rate of progression, and over diagnosis as well as the availability of effective diagnostic tests and screening programmes.

More diagnosis of early stage cancers is only positive when it translates into fewer cancers diagnosed at a late stage and fewer women dying from cancer. Striving to pick up lots of early stage cancers comes with the risk of increasing over diagnosis – identifying (and usually treating) women whose cancer may never have gone on to cause them any harm. Over diagnosis also has broader implications for health service resource. Evaluation of early diagnosis efforts such as the advances in imaging techniques must take over-diagnosis into account.

Bowel screening

Randomised controlled trials of the bowel screening programme have shown a mortality reduction of 25% in those who participated in the faecal occult blood test (gFOBT).¹⁷

The uptake for bowel cancer screening remains lower than the UK's other national screening programmes. In 2013-2015 overall uptake of gFOBT amongst women varied across Great Britain from 55 to 61%.¹⁸ This was higher for women compared to men but much lower than other screening programmes, for example breast screening uptake in the UK varied from 70 to 74%.^{19,20}

Improving participation in the bowel screening programme represents a huge opportunity to increase the number lives saved from bowel cancer through earlier diagnosis. Around six in ten women are aware of the bowel screening programme, this is higher in the screening age range.²¹ The introduction of Faecal Immunochemical Testing (FIT), as a more straightforward test, should help improve and reduce inequalities in uptake but other efforts are also required.

Bowel screening relies on endoscopy services, as patients with an abnormal screening result require a colonoscopy for diagnosis. Planning for the future colonoscopy capacity is paramount to gain the most from the screening programme.

Cervical screening

Since the introduction of the NHS cervical screening programme in 1988 cervical cancer mortality rates have decreased by 69%. Women diagnosed through the cervical screening programme have a higher 3-year relative survival than those diagnosed via any other route²² and it is estimated that at least 2,000 cervical cancer deaths are prevented in the UK each year through screening²³.

Despite the overall success of the programme, cervical screening coverage has been declining across England and Scotland for several years and has not reached its 80% target in England since 2009²⁴; comparable data for Wales and Northern Ireland are not publicly available. There are also disparities in coverage, with geographical variation in participation²⁵ and ethnic minority groups less likely to take part.²⁶

Evidence suggests that using HPV as the first line test followed by a cytology test in HPV-positive women will be a more effective way of screening (unlike the current programme configuration). Scotland, England and Wales have committed to introducing this test in 2019.

Breast screening

The latest figures show that over 2 million women were screened by the NHS Breast Screening Programme (BSP) in 2016-17, an increase of 1.8% on the previous year. Of those, around 18,400 women were diagnosed with breast cancer.²⁷

Women who present through the breast screening programme are more likely than those diagnosed following a 2-week wait referral appointment from their GP to be diagnosed at stage 1: 62% compared to 27%.²⁸ It has also been estimated that there is a 20% reduction in breast cancer mortality in women who participate in screening.²⁹

Although the BSP’s acceptable standards of uptake of $\geq 70\%$ have been achieved nationally, overall screening uptake has fallen over a 10-year period from 73.6% to 71.1% in England. In particular, uptake for women receiving their first invitation to breast screening fell from 69.1% to 62.6%.^{27,30}

The breast screening programme has attracted controversy about the balance of harms and benefits. In 2012, the Department of Health and CRUK jointly convened the Independent Review of Breast Screening which found that for every life saved through the UK breast screening programme, three women are over diagnosed.³¹

Across all programmes, a commitment to informed choice with respect to participation is essential and to communicate appropriately that screening has both benefits and harms.

Recognition, management and referral of patients

Most cancers are diagnosed symptomatically, however, it is estimated that on average a GP sees less than ten new cases of cancer per year in the UK. Primary care needs the relevant support and resources to be able to respond to and refer patients appropriately.

NICE’s updated cancer recognition and referral guidelines in 2015 advocate for a lower referral threshold (3%) than in previous guidelines (5-10%). Although there has been a positive shift in GP culture on this topic and acknowledgement of the need and value of swift and appropriate management of patients, variations in practice remain and evidence suggests that a significant proportion of practices are not yet meeting these updated guidelines.

In secondary care, ensuring the timely diagnosis of a patient subsequent to their first presentation to the health service is key to achieving earlier diagnosis. Evidence suggests that within this diagnostic interval there is room for significant improvement.

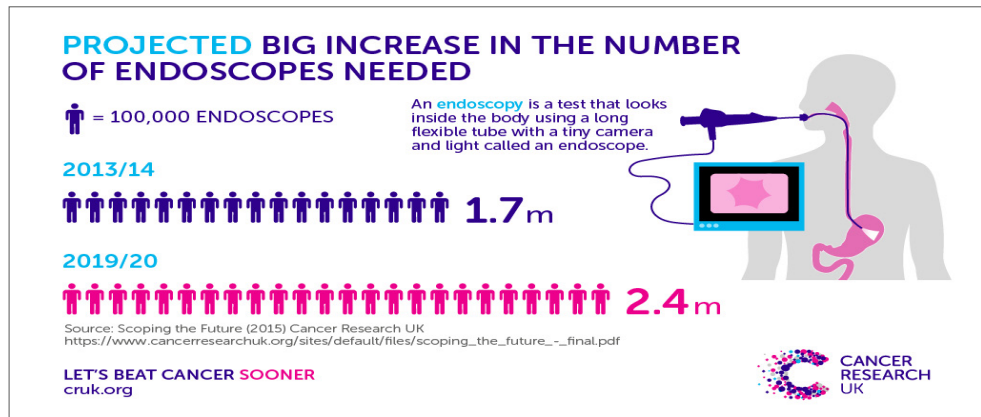
Actions required

The UK can do better now to **diagnose cancer earlier** and **radically upgrade our prevention** effort. Action from the government and national decision makers is crucial to addressing this.

Policy

Recommendations for top priorities for government and national decision makers are:

- Diagnostic services are already struggling to keep up with growing demand and demand for tests is only going to increase. Ensure there are enough staff to carry out diagnostic tests, through a more strategic approach to workforce planning in the longer term, as well as actions to address immediate shortages in specific groups, especially radiology, radiography, endoscopy and pathology.




- Halt cuts to the Public Health Grant. Local authorities in England are facing a reduction of £531 million to their budgets until 2020/2021 when the Public Health Grant will be cut entirely. Almost 60% of local authorities have cut their smoking cessation budgets. Stop Smoking Services offer smokers the best chance of quitting, and are around 3 times more effective than quitting with no support.³²

TOBACCO COSTS SOCIETY OVER £11BN A YEAR

Smoking related illnesses





NHS hospital admissions

Sick days from work






Social care burden

**HALT CUTS TO THE PUBLIC HEALTH GRANT
TO SAVE STOP SMOKING SERVICES NOW**

Source: Tobacco Control Plan for England

LET'S BEAT CANCER SOONER
cruk.org/dontquionus



CANCER RESEARCH UK

- Take steps on obesity: with the Soft Drinks Industry Levy achieved, we must evaluate impact. Cancer Research UK's research shows introducing a tax of 20% on sugary drinks could prevent 3.7 million cases of obesity by 2025³³. Implementation of the reformulation programme and rebalancing price promotions away from unhealthy foods to healthier choices are important steps.

Health professionals

Alongside recommendations for policymakers, health professionals play a crucial role and recommendations include:

- The role for primary care endorsement and involvement in supporting informed uptake of bowel screening. This includes practices giving permission for their details to be included on bowel screening letters and projects to proactively contact those who have not responded to their screening invitation, but could also include proactively raising the topic of bowel screening during the course of routine health care.
- Continued focus on raising awareness and adoption of the revised NICE guidelines.
- Health professionals play a key role in encouraging smokers to think about stopping and organising appropriate referrals.
- Similarly, having discussions with patients about how to eat more healthily and incorporate more activity into their daily lives will become increasingly critical to tackle obesity.

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