Solihull Cancer Needs Assessment

2016

Angie Collard

Manisha Sharma

Contents

Summary

In 1995-97, the rate of premature deaths from cancer and circulatory disease were similar. Since then progress has been made addressing premature mortality from both cancer and cardiovascular disease but the rate of reduction has been less for cancer; cardiovascular disease has decreased by 65% whereas premature cancer mortality has only decreased by 24%[1]. The experience with circulatory disease shows with targeted effort mortality can be reduced.

Incidence of cancer is increasing in Solihull; more in males than females and is significantly higher than England. Incidence of non melanoma skin cancer and prostate cancer are particularly high. Prevalence of cancer is also increasing over time and at a faster rate than England.

These increases could be due to the success of cancer screening programmes in Solihull, although there is wide cross borough variation. Lower levels of screening are linked to deprivation but no link has been demonstrated with ethnicity. However people with disabilities are less likely to be screened.

As well as good screening rates Solihull has significantly high levels of two week wait (TWW) referrals although, as with screening there is cross borough variation linked to deprivation. Conversely the number of cases treated through TWW shows an inverse link with deprivation. Fortunately there is no link between deprivation and conversion rate when all routes of referral are looked at but the earlier a diagnosis is made the better the outcome for the patient.

More Solihull patients are treated within 31 and 62 days regardless of treatment than those across England overall. Early diagnosis and prompt treatment has resulted in increased net survival at one and 5 years and this trend is likely to continue with population increases and increased proportions of older people.

Increased numbers of people living with and beyond cancer are likely to suffer other ill health conditions and therefore have complex needs.

Men are more likely to die of cancer than females and older people more likely than younger people, however cancer mortality has reduced over time. There are significantly higher levels of cancer in the regeneration areas compared to most non regeneration areas. The main cause of this inequality is lung cancer. Overall the highest mortality rates are digestive and respiratory cancers which are largely preventable through lifestyle change.

Cancer deaths in hospital have reduced in favour of other options. Consequently the number of people receiving palliative care in a place of their choice has increased.

Recommendations

Addressing health inequality in cancer outcomes is fundamental to Solihull's local Strategy. Once a patient is in the "system" the local authority and its partners have little influence on the patients' journey but they can influence what happens before and after so effort needs to be concentrated here. This will require:-

- Raise awareness through local and national campaigns
- Ensure Macmillan information is disseminated across the borough and available in a sustainable manner
- Provide Cancer Prevention training to frontline staff in healthcare and other settings
- Work with Solihull CCG and practices in areas with low screening uptake with education and support from Macmillan and Cancer Research UK.
- Work with practices to give patients information so that they can make an informed choice on screening
- Work with Solihull CCG on early diagnosis of cancer
- Make full use of Making Every Contact Count(MECC) to refer people into lifestyle services

---

[1] Compendium of Health Indicators, NHSCIC

- Ensure a whole person, whole pathway approach to commissioning and provision of cancer services
- Improve the quality of life for people living with and beyond cancer with local partners
- Continue to monitor all aspects of the of the patient journey using the National Patient Experience Survey
- Work in partnership with Birmingham CCGs and Local Authority, West Midlands Cancer Alliance, Strategic Clinical Network, Macmillan, Cancer Research UK and other organisations to deliver the Cancer Strategy for England 2015-2020

Introduction

In 1995-97, the rate of premature deaths from cancer and circulatory disease were similar. Since then progress has been made addressing premature mortality from both cancer and cardiovascular disease but the rate of reduction has been less for cancer; cardiovascular disease has decreased by 65% whereas premature cancer mortality has only decreased by 24%[2]. The experience with circulatory disease shows with targeted effort mortality can be reduced.

Premature mortality from Cancer and CVD
Trend 3 year rolling average
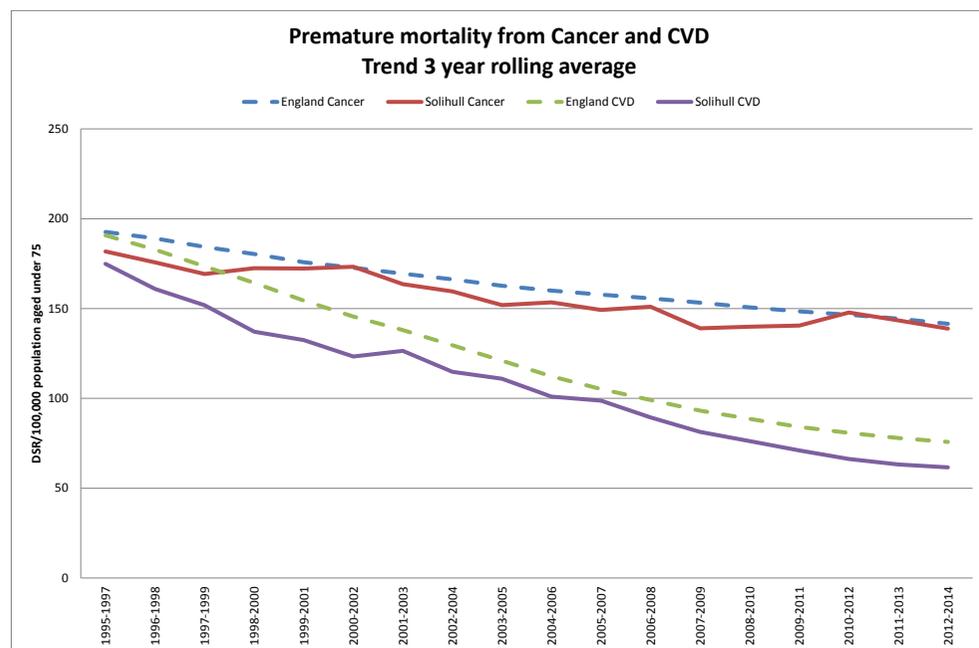
The government issued *Improving Outcomes: A Strategy for Cancer* in 2011[3] with annual reports produced to monitor progress[4]. Over 250,000 people are

diagnosed with cancer each year and around 130,000 people die each year from cancer

These outcomes are below the best in Europe but if England's outcomes improved to the European average then 5,000 lives could be saved each year and if England matched the best in 10,000 live could be saved. This is the strategy's ambition. To achieve this:-

- incidence of preventable cancers needs to reduced
- improve access to screening so that more eligible people are reached
- diagnose cancer earlier so that available treatments are more effective
- ensure all patients have access to the best possible treatment.

To put these figures into context, in 2000 it was thought that 1 in 3 people would get a cancer diagnosis at some point in their lives based on incidence, prevalence and mortality trends at the time. However this is changing, by 2020 it is more likely to be close to 1 in every 2 people.

More recently the Independent Cancer Taskforce has published *Achieving World – Class Cancer Outcomes, A Strategy for England 2015 -2020*[5] which includes a series of initiatives across the cancer patient pathway. The NHS has committed to delivering the Taskforce's strategy by 2020. It has placed cancer at the centre of the Five Year Forward View with the publication *of Achieving World-Class Cancer Outcomes: Taking the strategy forward*[6] in May 2016. The six key areas are:-

- prevention and public health
- earlier and faster diagnosis
- patient experience
- living with and beyond cancer
- Investment in a high-quality, modern service; and
- Commissioning, accountability and provision

---

[2] Compendium of Health Indicators, NHSCIC
[3] https://www.gov.uk/government/publications/the-national-cancer-strategy
[4] Latest report: Improving outcomes: A Strategy for Cancers, Fourth Annual Report
https://www.gov.uk/government/publications/the-national-cancer-strategy-4th-annual-report

[5] http://www.cancerresearchuk.org/about-us/cancer-strategy-in-england
[6] https://www.england.nhs.uk/ourwork/cancer/strategy/

Progress already made in improving cancer outcomes has meant altered estimates of cancer survival. People diagnosed with cancer now live 10 times longer than they did 40 years ago and half of people diagnosed in England and Wales in 2010-2011 are predicted to survive for on average 10 years following diagnosis [7].

According to figures released by Macmillan Cancer Support[8], 2.5 million people are living with cancer in 2015 and this is will rise to 4 million by 2030. In local terms this means ~8000 people in Solihull are now living with cancer and this will rise to 12,000 in 2030

Around 1 in 4 of these survivors faces poor health and possible disability following treatment. Survivors could also suffer physical and psychosocial consequences that are long term and adversely affect their lives.

A recent Macmillan Cancer Support Report[9] examines cancer care and support over the past 40 years and shows how attitudes have changed. Previously a cancer diagnosis was thought to be a death sentence but for many now, this is not the case.

Local context
Solihull Metropolitan Borough is a mostly affluent borough on the outskirts of Birmingham. The borough is made up of two urban areas, one more affluent, the other more deprived as measured by national deprivation systems and large rural areas. The local Clinical Commissioning Group (CCG) is coterminous but covers a larger population, as Solihull is a net importer of patients (~210,000 residents compared to ~240,000 registered patients).
Both the borough and the CCG have an older population, 47% and 46% respectively compared to 43% nationally who are aged over 45 years. 10% of the

population (20,600 people) are aged over 75. This is set to rise to 23,000 by 2020 and 35,000 by 2039, a 72% increase.

Cancer (all causes) is the biggest killer in Solihull accounting for ~650 deaths, 30% of the total deaths in any year in Solihull whereas circulatory disease deaths number ~550, 26% of all death

The aim of this report is to look at the current and future needs of the Solihull population in the light of updated policy and statistics. The report will also help to understand local risk factors and examine ways to reduce incidence and mortality from cancer and aid provision of life enhancing services to those living with and beyond cancer
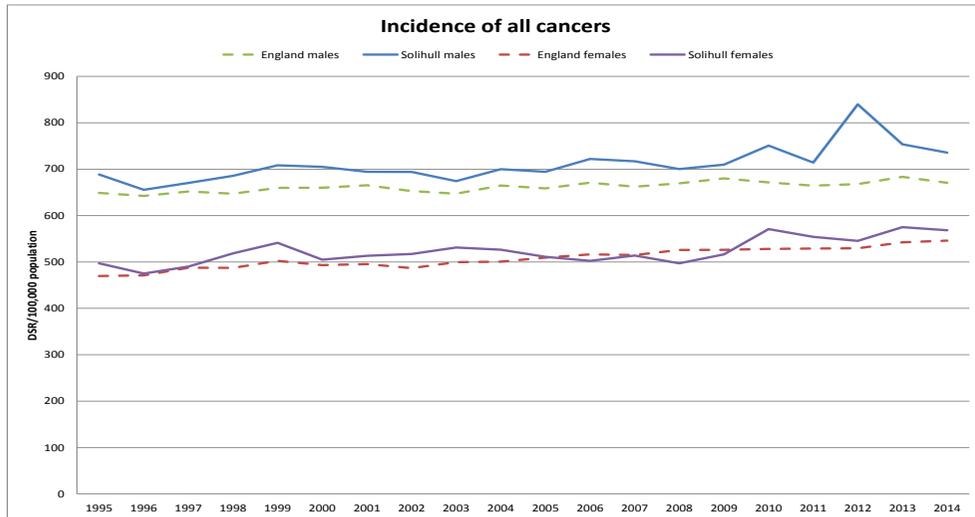
---

[7] Statistics fact sheet , Macmillan Cancer Support , January 2015
[8] Statistics fact sheet , Macmillan Cancer Support , January 2015
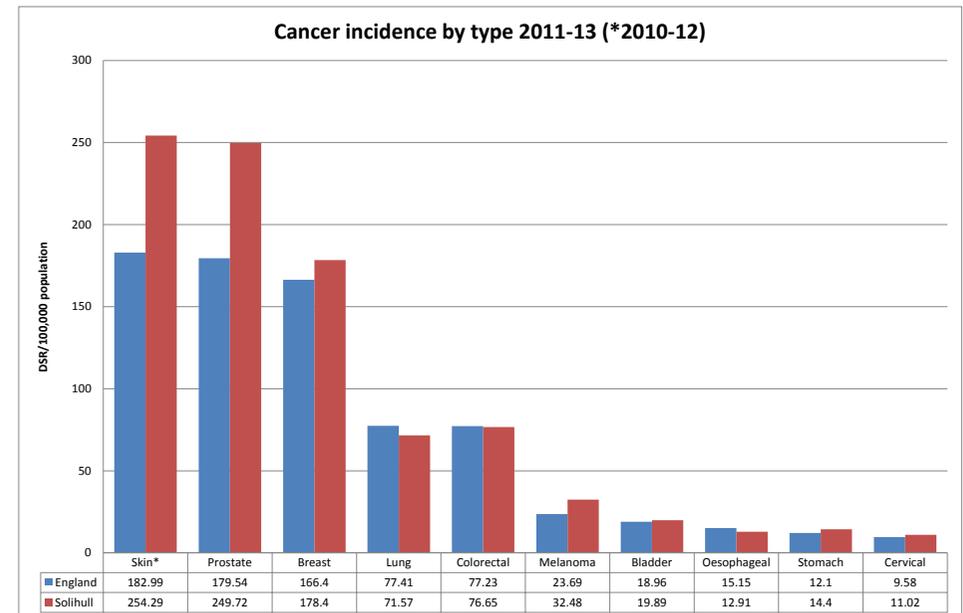[9] Cancer :Then and Now, August 2016

Incidence and Prevalence – All Cancers

Incidence

Incidence of all cancers

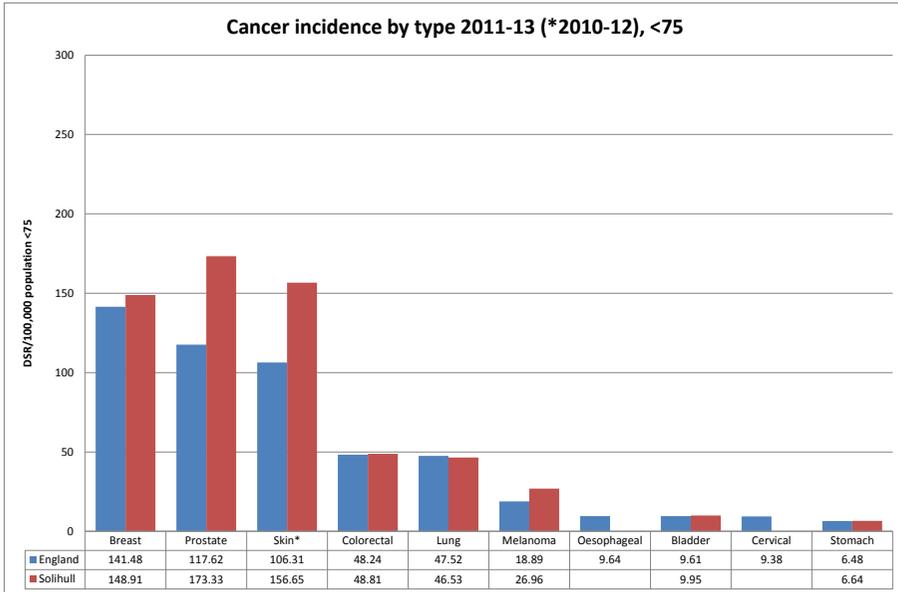- - - England males   —— Solihull males   - - - England females   —— Solihull females

- More than four in ten cases of cancer could be prevented by lifestyle changes, such as not smoking, maintaining a healthy weight, cutting down on alcohol consumption, eating a healthy, balanced diet, being physically active , avoiding certain infections (e.g. HPV) and staying safe in the sun. Occupation can also contribute to the development of some cancers.

- On average between 1995 and 2014 there were ~1100 new cases of cancer (incidence) diagnosed each year in Solihull. Over the same period there was a 50% increase in the number of new diagnoses. In 2014 the incidence was 1385 new cases.

- The chart above shows cancer incidence over time in Solihull for both males and females for all cancers (excluding non melanoma skin cancer)[10] and all ages expressed as a directly standardised rate to enable comparison with England.

- Males are more likely to be diagnosed than females but rates for both males and females have increased over time in line with England. However the incidence rates for both males and females in Solihull are currently significantly higher those recorded for England.

- When looked at by site, the three cancers that give rise to the highest incidence are skin (non melanoma), prostate and breast. This applies to both all ages and <75s[11]

- The incidence rates of skin and prostate cancer are significantly higher than those for England but the rates for other sites are similar to England. This could be because Solihull has a more cancer aware population that is willing to go to their GP with concerns about skin and prostate problems

Cancer incidence by type 2011-13 (*2010-12)

	Skin*	Prostate	Breast	Lung	Colorectal	Melanoma	Bladder	Oesophageal	Stomach	Cervical
England	182.99	179.54	166.4	77.41	77.23	23.69	18.96	15.15	12.1	9.58
Solihull	254.29	249.72	178.4	71.57	76.65	32.48	19.89	12.91	14.4	11.02

---

[10] Compendium of Health Indicators, NHSCIC

[11] Compendium of Health Indicators, NHSCIC

Cancer incidence by type 2011-13 (*2010-12), <75

	Breast	Prostate	Skin*	Colorectal	Lung	Melanoma	Oesophageal	Bladder	Cervical	Stomach
England	141.48	117.62	106.31	48.24	47.52	18.89	9.64	9.61	9.38	6.48
Solihull	148.91	173.33	156.65	48.81	46.53	26.96		9.95		6.64

Incidence of all cancers 2007 – 2011 by ward

Maps show differences across wards but do pose questions as to why there are these differences. Charts with confidence intervals show no significant difference across wards for incidence of all cancers but show statistical significance for those wards with an SIR > 100 for lung cancer.

Range: SIR 95 - 118, interval above 100 =4.48

- By numbers alone, 3 in 10 new diagnoses are for non melanoma skin cancer for both males and females, prostate cancer accounts for 3 out of 10 newly diagnosed male cancers and breast cancer accounts for 3 in 10 female cancers.
- Two in 10 newly diagnosed male cancers (all ages) involved the digestive system (colorectal, oesophageal and stomach). For females this is nearer 1 in 10. The proportions are lower for people aged under 75
- For both males and females (all ages and under 75), lung cancer accounts for just over 1 in 10 newly diagnosed cancers.

Ward maps[12] show Standardised Incidence Rates (SIR) where England = 100. Areas shaded **blue** have an SIR below 100, the remaining wards are over 100 with specified intervals.

Incidence of lung cancer 2007-11 by ward
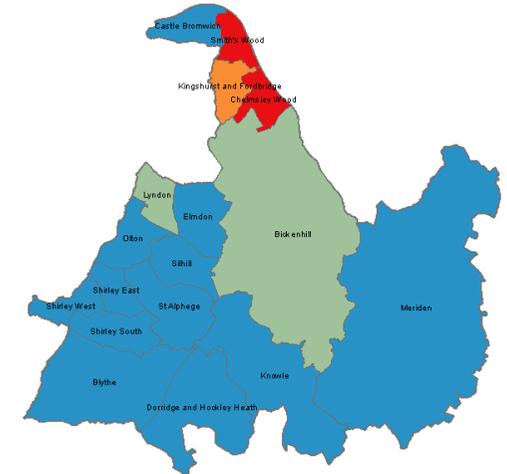
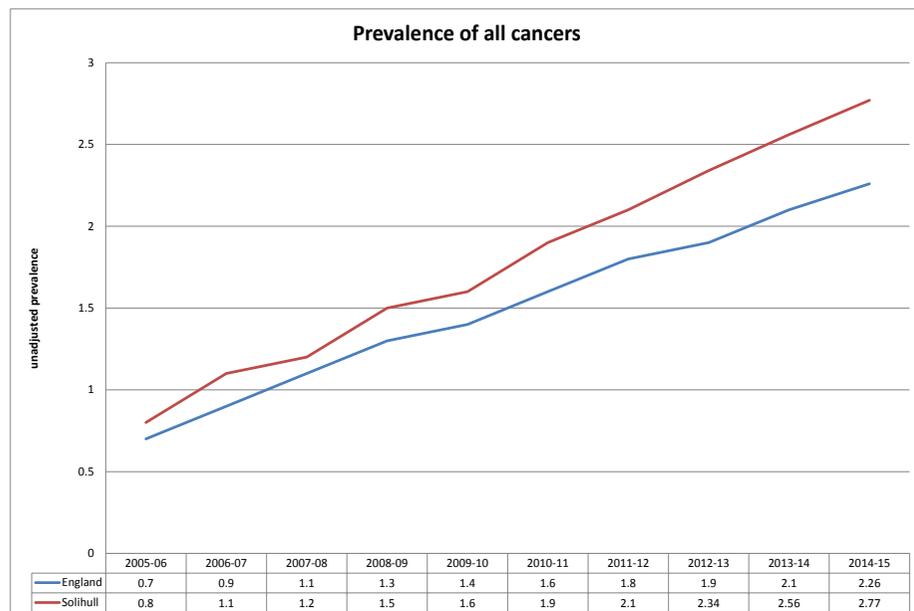Note: For all maps SMR 100 and less = ▇ followed by specified intervals > 100

▇▇▇▇

Range: 49.3 – 204.9, Interval above 100 = 26.3

---

[12] Local Health, PHE

Prevalence

- The prevalence (the number people with existing cancers, old and new but excluding non melanoma skin cancer) is measured by the percentage of patients registered with a GP practice who are included on the practice cancer list.
- Since 2005 the % prevalence has increased at least threefold for both England and Solihull but the increase is more marked in Solihull[13].

Prevalence of all cancers

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
England	0.7	0.9	1.1	1.3	1.4	1.6	1.8	1.9	2.1	2.26
Solihull	0.8	1.1	1.2	1.5	1.6	1.9	2.1	2.34	2.56	2.77

- This increase could be because Solihull GPs are better at recording cancer patients or it is showing that Solihull truly has more people living with cancer than England possibly through early detection and faster treatment which leads to better survival rates

---

[13] Quality and Outcomes Framework, NHSCIC
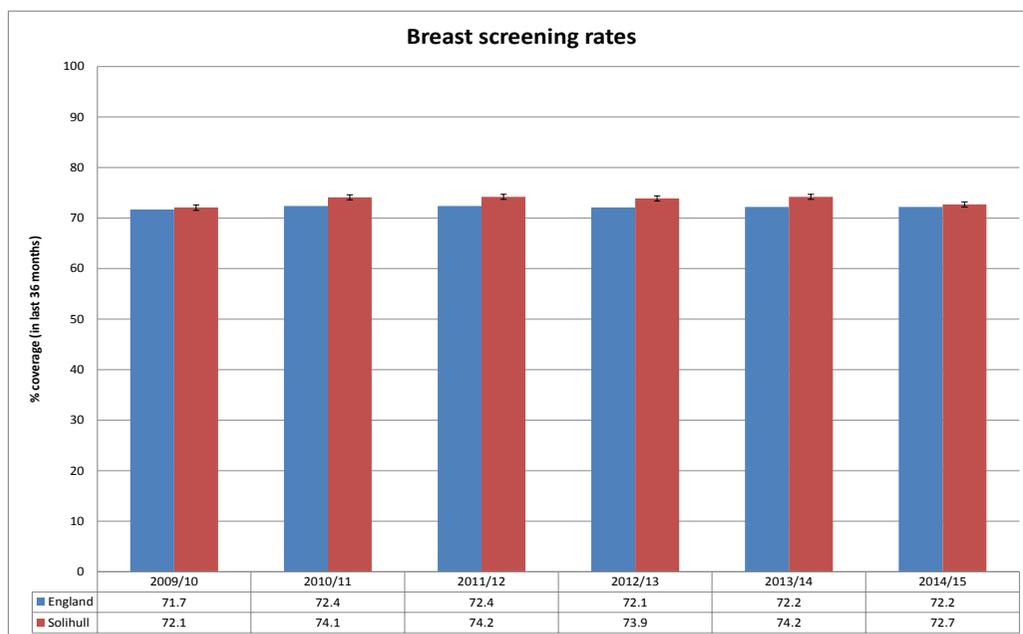
Cancer Screening programmes

Screening is the process of identifying people who appear healthy but may be at increased risk of a disease or condition.

Breast screening

The NHS Breast screening Programme uses breast X-rays (mammograms) to screen all women aged 50-70 registered with a GP. Women may be called as early as age 47 and as late as 73 depending on the screening round. Invitations for screening are sent every 3 years

In England, women who are at higher risk of breast cancer due to family history or inherited faulty genes can be screened earlier (e.g. from age 40) and more frequently (e.g. annually). Women over 70 are not routinely invited but may be screened after consultation with their GP.

Breast screening rates

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
England	71.7	72.4	72.4	72.1	72.2	72.2
Solihull	72.1	74.1	74.2	73.9	74.2	72.7

- Between 2009/10 and 2014/15 Solihull's breast screening rates were as good as or better than those for England[14]. Between 2010/2011 and 2013/14 Solihull's screening rates were significantly higher than those recorded for England
- However this overall picture hides wide variation across the borough. *Solihull Females 50-70 screened for breast cancer in last 36 months (3 year coverage, %)by GP practice 2014/15*


— England
— 95.0% Confidence
— 99.8% Confidence
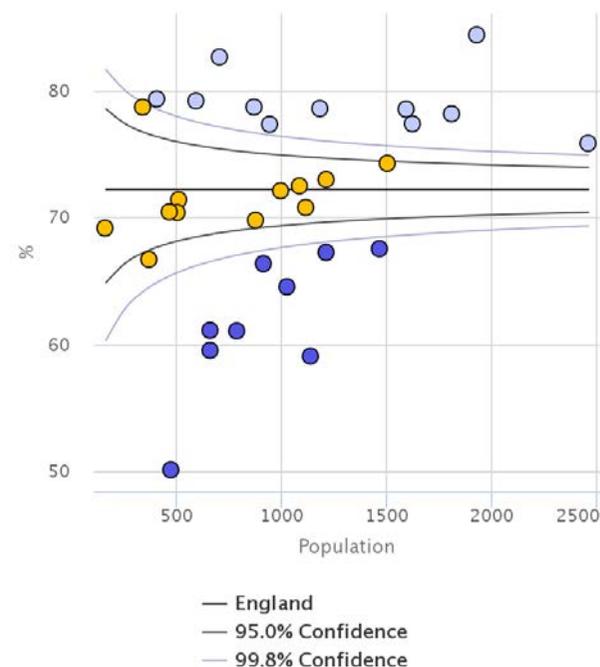
The control chart[15] above shows 11 practices have significantly higher coverage than the England average and the coverage for a further 9 practices is significantly below average. Half of Solihull practices are above the England average of 72.2%. The Solihull average is 72.7%

---

[14] Public Health Outcomes Framework, PHE
[15] Cancer services, fingertips PHE

Plotting screening data by individual practice shows that:-

- There is a 44% difference in coverage between the highest and lowest performing practices [16]
- 62.5% of practices achieve the national target (70%) for breast cancer screening

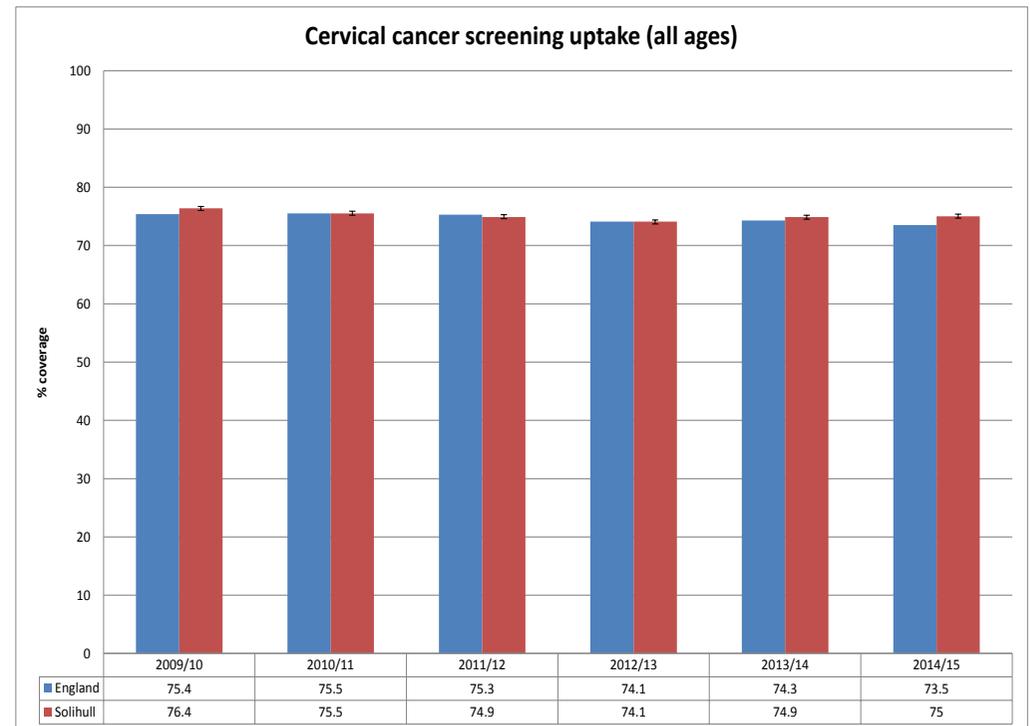**% screened for breast cancer aged 50-74: 2014/15**
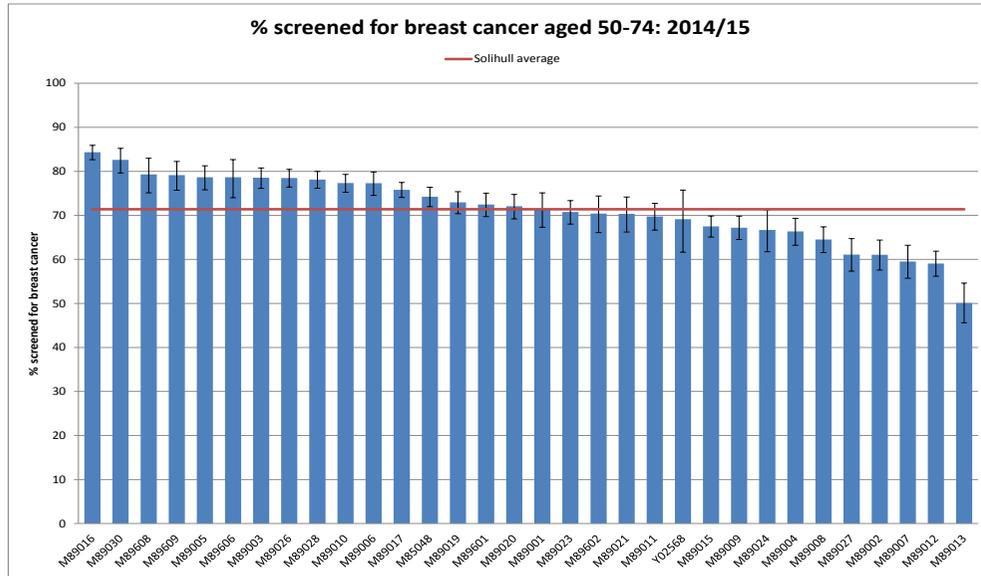
— Solihull average

- Of the practices whose screening rates are significantly above the Solihull average only one is in the north of the borough.

- Six of the practices that have coverage significantly below the Solihull average are located in the North of the borough

Cervical screening

Women between the ages of 24 and 64 are offered cervical screening through the NHS every 3-5 years. Women aged 25 and 49 are screened every 3 years whilst women aged 50 -64 are tested every 5 years.

- The percentage of women taking up the invitation for screening at the appropriate interval is similar to that seen for breast screening i.e. 3 out 4 women[17]. This proportion has been consistent since 2009/10. Over this time screening uptake in Solihull in 3 out of 6 years has been similar to that seen for England and in the other 3 years has been significantly above England.

Solihull Females 25-64 attending for cervical screening in target period (3.5 or 5.5 year % coverage) 2014/15
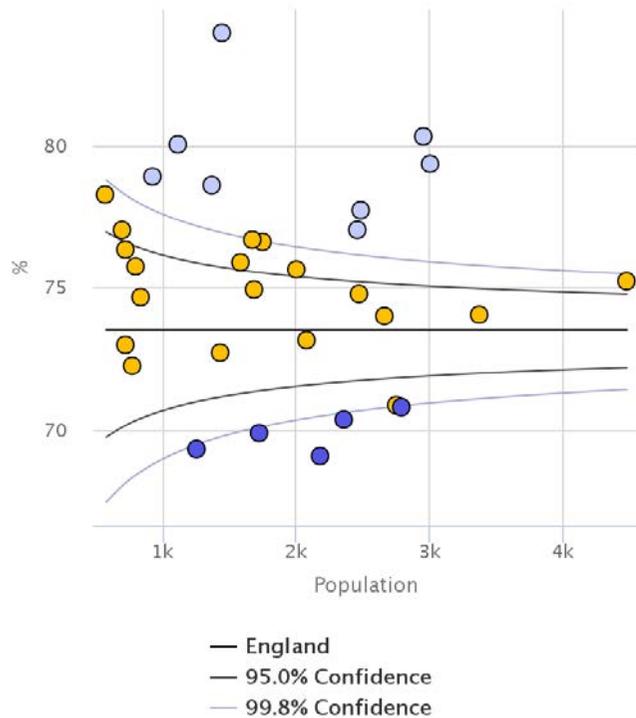

Cervical cancer screening uptake (all ages)

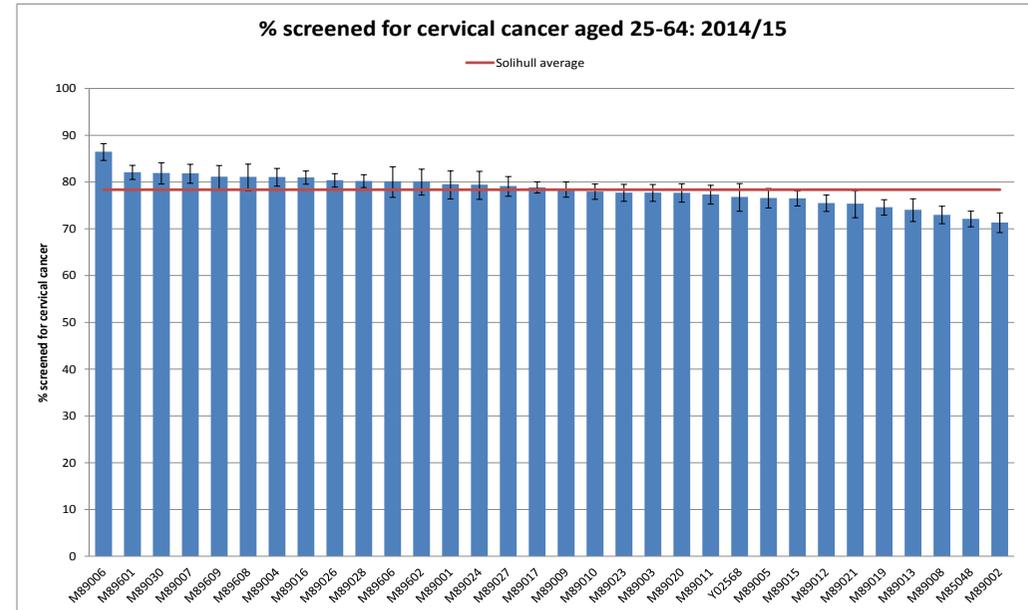|	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
England	75.4	75.5	75.3	74.1	74.3	73.5
Solihull	76.4	75.5	74.9	74.1	74.9	75

---

[16] Cancer services, fingertips, PHE

[17] Public Health Outcomes Framework, PHE

As with breast screening there is variation across the borough between practices, although the differences are not so marked. This may be because GP practices are responsible for testing whereas breast screening is carried out by another NHS organisation.

Females 25-64 attending for cervical screening within target period by GP practice 2014/15[18]

- England
- 95.0% Confidence
- 99.8% Confidence

% screened for cervical cancer aged 25-64: 2014/15
— Solihull average

- 37.5% of practices reached the national target of 80%
- The Solihull average is 75%, significantly above the England average
- Only 1 of the practices that have an above average coverage is in the north of the borough.
- The coverage in 5 practices in the north of the borough is significantly below average

- There is a 16% difference between the highest and lowest performing practices in Solihull[19].

---

[18] Cancer services, fingertips, PHE
[19] Cancer services, fingertips, PHE

Bowel screening

Bowel cancer screening

|	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
England	40.2	51.4	57.4	58.8	58.3	57.9
Solihull	57.4	58.4	60.1	61.3	60.2	60
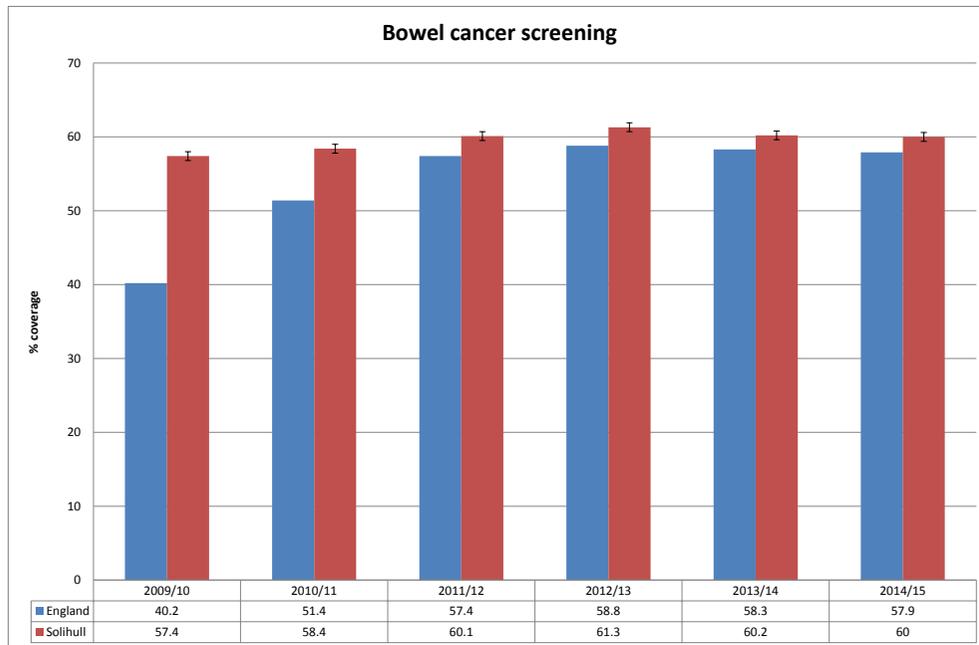
- The NHS Bowel Cancer Screening Programme (BCSP) offers screening every 2 years to all men and women aged 60 to 74. Eligible people are first sent an invitition and expanatory leaflets followed by another letter containing all the necessary materials to carry out and return an a faecal occult blood (FOB) screen. People with a postive test are offered a colonoscopy
- In addition, bowel scope screening is now being rolled out to all people aged 55 in England. By March 2015, two thirds of screening centres were offering this test
- The rate of bowel screening (FOB) in Solihull has been significantly higher than that for England since 2009/10 and has been consistently

at or above 60% (the national target) for the last 3 years[20]. This performance does however mask cross borough variation.

Solihull Persons screened for bowel cancer in last 30 months (2.5 year % coverage) 2014/15[21]

— England
— 95.0% Confidence
— 99.8% Confidence
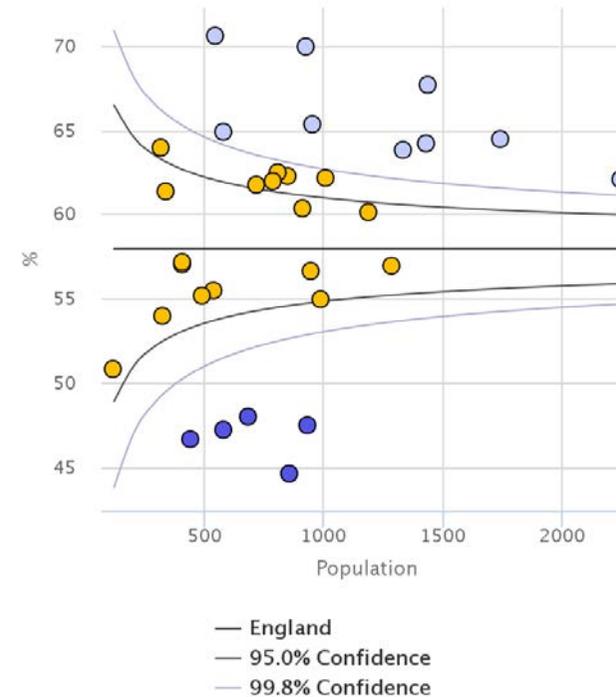
The majority of practices have coverage that is similar to the England average (53.5%). Nine practices have coverage that is significantly above the average and 5 practices are significantly below average.

---

[20] Public Health Outcomes Framework, PHE
[21] Cancer services, fingertips, PHE

- 44% of Solihull practices reached the national target of 60%
- However there is a 25% variation between the highest and lowest performing practice.
- Only 1 of the practices that had coverage significantly above average was in the north of the borough
- All 6 of the 14 practices with significantly low coverage are in the north of the borough

% screened for bowel cancer 60-69; 2014/15

Solihull average
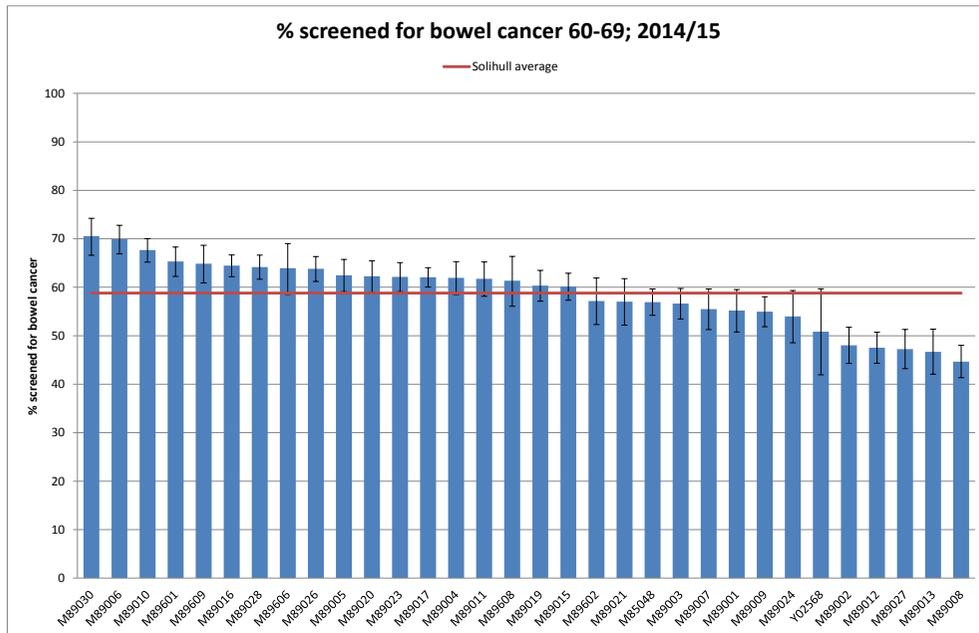
Prostate Cancer screening

There is currently no screening for prostate cancer in the UK. This is because it has not been proved that the benefits would outweigh the risks[22].

Routinely checking all men for their prostate specific antigen (PSA) levels is controversial amongst the medical community, although many men may be offered this test as part of private annual health checks.

The reasons for the controversy are:-

- Unreliable tests which have a high level of false positives and false negatives
- The side effects of some treatments are potentially so serious that men put off having treatment until its is absolutely necessary
- Over-diagnosis i.e. men being diagnosed with a cancer that will cause no symptoms and is not life threatening
- Over-treatment i.e. men being treated for a cancer that is unlikely to be harmful.

Because of these concerns, instead of a national screening programme there is and informed choice programme; prostate cancer risk management for healthy men aged 50 and over who ask their GP about PSA testing. Men are then given good Information as to the pros and cons of the test. If after discussion with their GP they go ahead with the test it is provided free by the NHS.
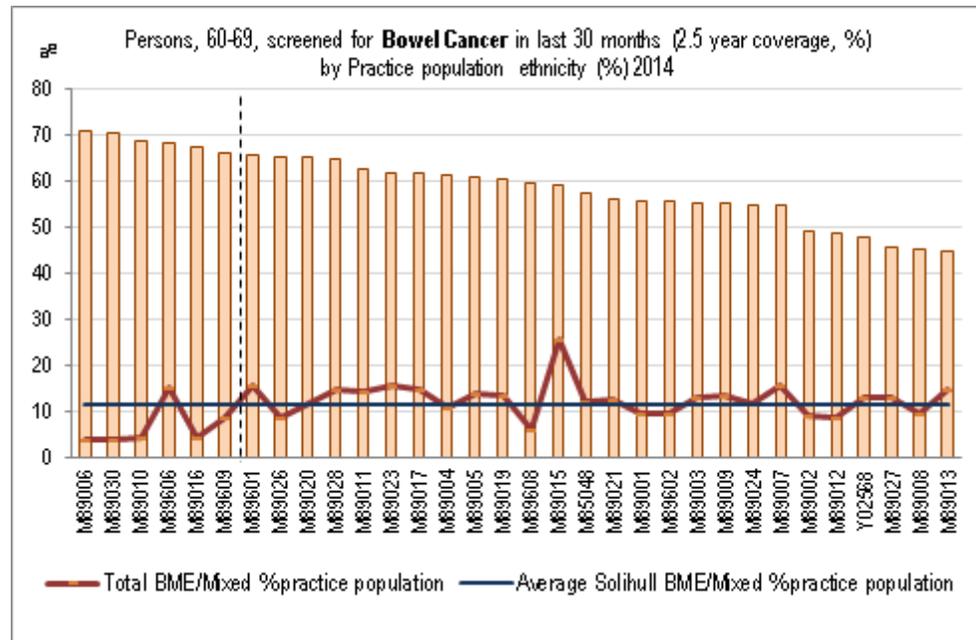
Screening and deprivation

Analysis at practice level for all cancer screening indicates that there is a gap in coverage linked to deprivation and this needs further investigation as to the reasons why people do not present for screening and whether these reasons can be addressed.

This data does not imply poor clinical practice on the part of the GPs but is more indicative of the area in which the practice is located and their catchment population. The reasons for non attendance for screening are complex but could include access to the offered service due to time of appointment, difficulty getting to the location, childcare issues and low realisation of the importance if the tests

---

[22] NHS Choices, http://www.nhs.uk/Conditions/Cancer-of-the-prostate/Pages/Prevention.aspx

Screening and ethnicity

An internal report showed only weak correlation between cancer screening and ethnicity[23]. The chart below shows bowel screening but similar charts were presented for breast and cervical screening but these showed less variation.

Persons, 60-69, screened for **Bowel Cancer** in last 30 months (2.5 year coverage, %) by Practice population ethnicity (%) 2014

Screening and disability

A recent study of screening uptake in people with physical and learning disabilities found that people in these groups were less likely to have attended screening. The reasons for this anomaly need to be investigated.[24]

---

[23] Dr Zafar Gul, Cancer screening, Jan 2016
[24] LD commissioning lead, SMBC, (Data not published)

Early Diagnosis

The earlier a diagnosis is made, the better the outcome for the patient but this is reliant on the patient presenting with symptoms early.

The Cancer Plan 2000 gave patients whose GP suspects a cancer diagnosis, the right to be seen by a specialist team within 14 days of referral. To be accepted on this urgent referral pathway the patient needs to meet certain criteria as set out in NICE guidelines[25]. These guidelines have recently been updated to lower the threshold for investigation or referral (NG12 replaces CG27 and some recommendations in CG121), a 3% positive predictive value (PPV) is used instead of 5%.[27]

Rate of patients referred within two weeks

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
England	1,643	1,808	1,978	2,165	2,397	2,708
Solihull	1,962	2,038	2,349	2,518	2,902	3,313
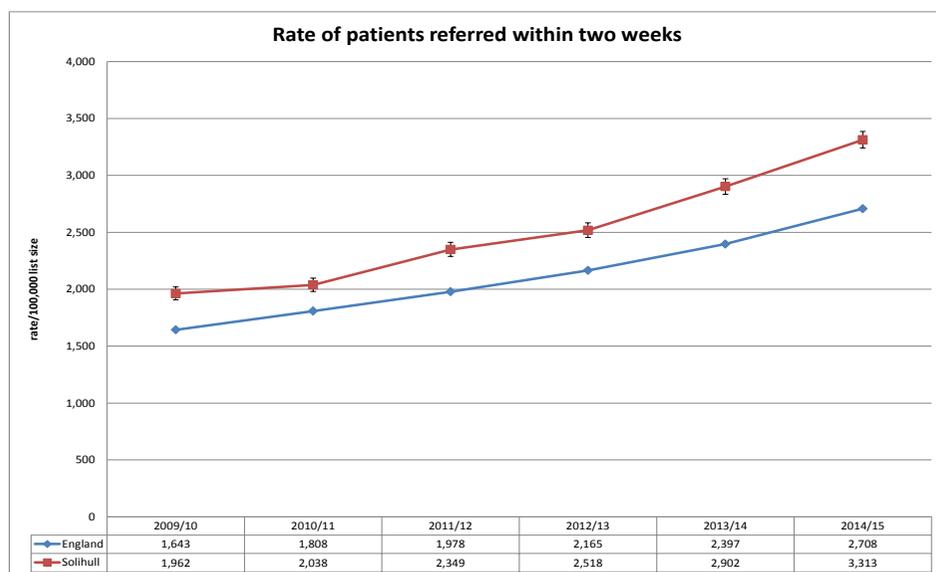
- Two week wait (TWW) referrals for both England and Solihull have increased since 2009/10[26]
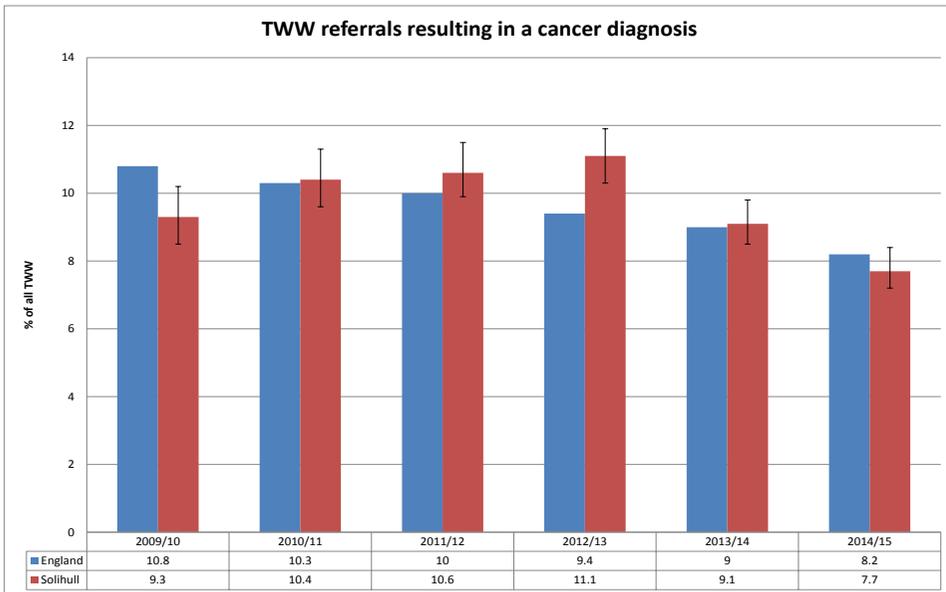
- The TWW referrals for Solihull have been consistently significantly higher than that for England over this same time and have increased at a faster rate than those for England.
- Recent changes in guidelines could result in increased referrals
- Analysis of TWW referrals for four main cancers by practice shows a possible sevenfold difference in rates across the borough.
- Three of these four cancers are associated with mortality. The referral rate for suspected lung cancer is low across all practices; referrals for suspected breast cancer are higher but show less variation; suspected bowel cancer referrals are slightly lower but are more varied and referrals for suspected skin cancer are the highest but also show variation[27].
- The reasons for such variation are likely to be complex but there does appear to be a link with deprivation, with practices in the more deprived areas referring less than practices in more affluent areas.


Two-week wait referrals with suspected cancer in Solihull 2014

---

[25] https://www.nice.org.uk/guidance/ng12
[26] Cancer services, Fingertips PHE

[27] Dr Zafar Gul, Cancer screening, Jan 2016

TWW referrals resulting in a cancer diagnosis

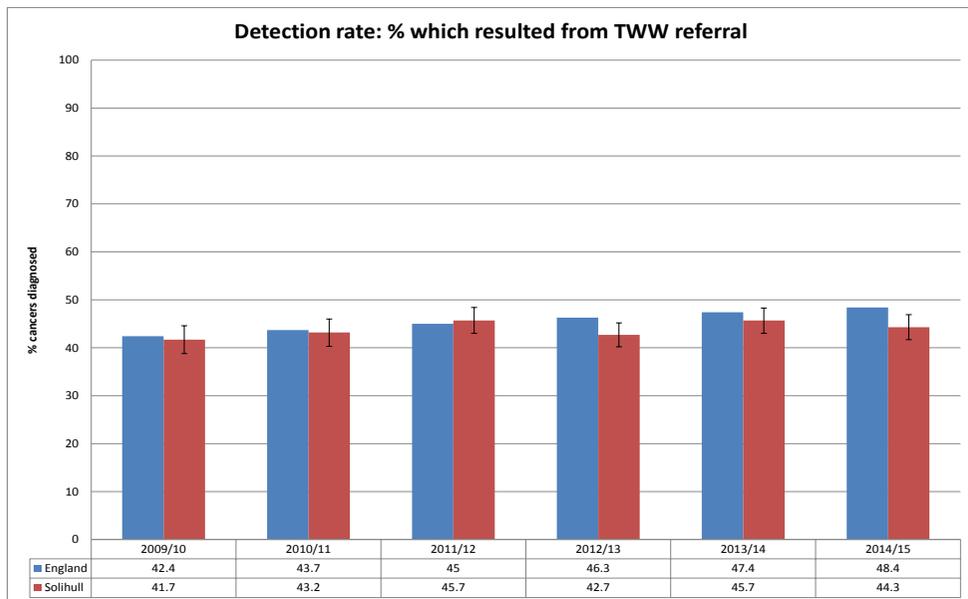|	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
England	10.8	10.3	10	9.4	9	8.2
Solihull	9.3	10.4	10.6	11.1	9.1	7.7
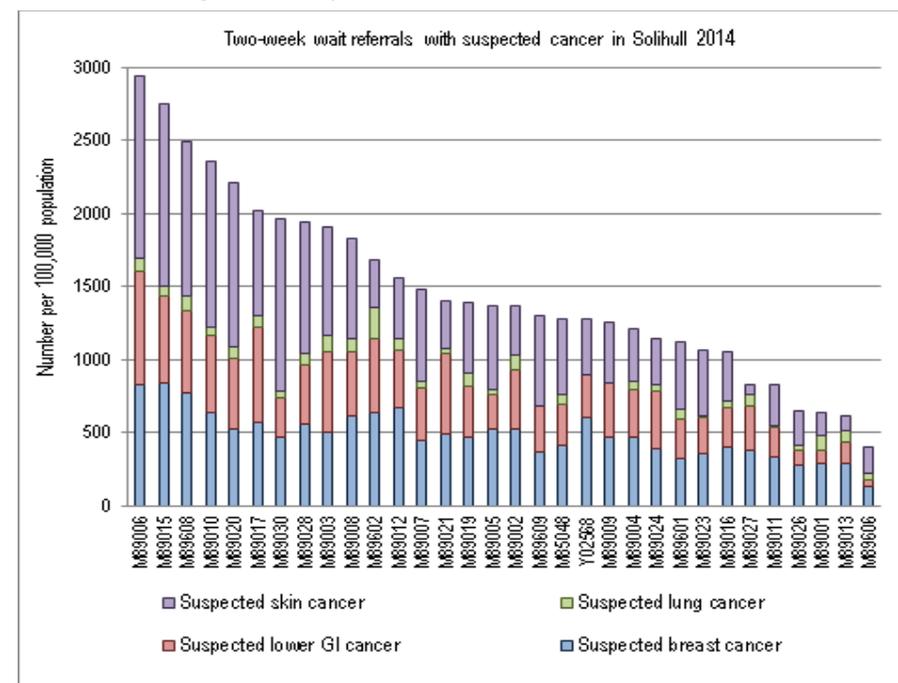
- Only a proportion of referrals for suspected cancer will result in an actual diagnosis so the *conversion rate* i.e. the number of referrals that result in a cancer diagnosis, gives more insight into clinical practice
- With the exception of 2012/13 which was significantly higher, the conversion rate for TWW referrals for Solihull has been similar to that for England since 2009/10.
- For both England and Solihull there has been a reduction in conversion rate since 2012/13. This reduction has been more marked for Solihull (11.1% in 2012/13 to 7.7% in 2014/15).
- Compared to its statistical neighbours in 2014/15, Solihull's conversion rate is similar to 3 out of 5 neighbours but significantly lower than those for North Somerset and Eastern Cheshire
- When conversion rates are looked at by GP practice there is a fourfold difference between the "best" and "worst" performing practices.
- Six out of 10 of the practices in the north of the borough have an above average conversion rate but when socioeconomic deprivation is taken into account there appears to be no link between the two across Solihull

- However the problem with using conversion rates is that populations who present late are easier to diagnose therefore a conversion rate may not be a reflection of clinical practice but a result of late presentation[28].

TWW referrals resulting in a cancer diagnosis

**Conversion rates in Solihull with Socioeconomic Deprivation (2014)**

---
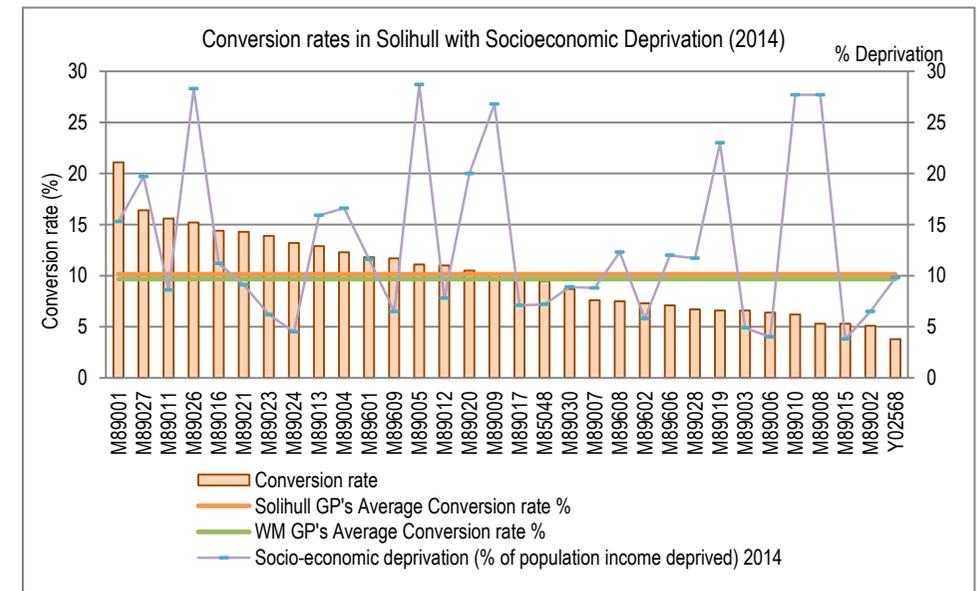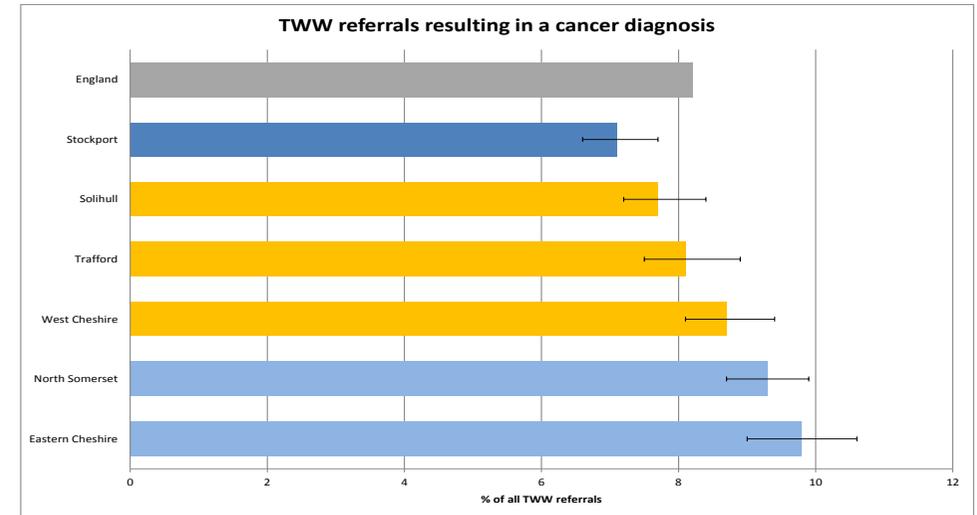
[28] Cancer services, Fingertips, PHE

An additional aspect of early diagnosis is the *detection rate* i.e. the proportion of new cases treated. Of additional interest is the proportion of these that were referred through the TWW route

Detection rate: % which resulted from TWW referral

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
England	42.4	43.7	45	46.3	47.4	48.4
Solihull	41.7	43.2	45.7	42.7	45.7	44.3

- Solihull's detection rate through TWW has been similar to that for England since 2009/10 but in two years (2013/13 and 2014/15) it was significantly lower
- The detection rate by practice ranges from 23% to 67% but when confidence intervals are applied (not shown) the differences are not significant, except for a couple of minor instances
- There is a weak, inverse link between detection rate and deprivation (R^2=0.3) i.e. in more affluent areas there are possibly more cases treated through the TWW route[29]
- Conversion and detection rates can be plotted on a quadrant plot to ascertain whether a practice has a high/low conversion rate with a high/low detection rate and the implication for this on clinical practice.
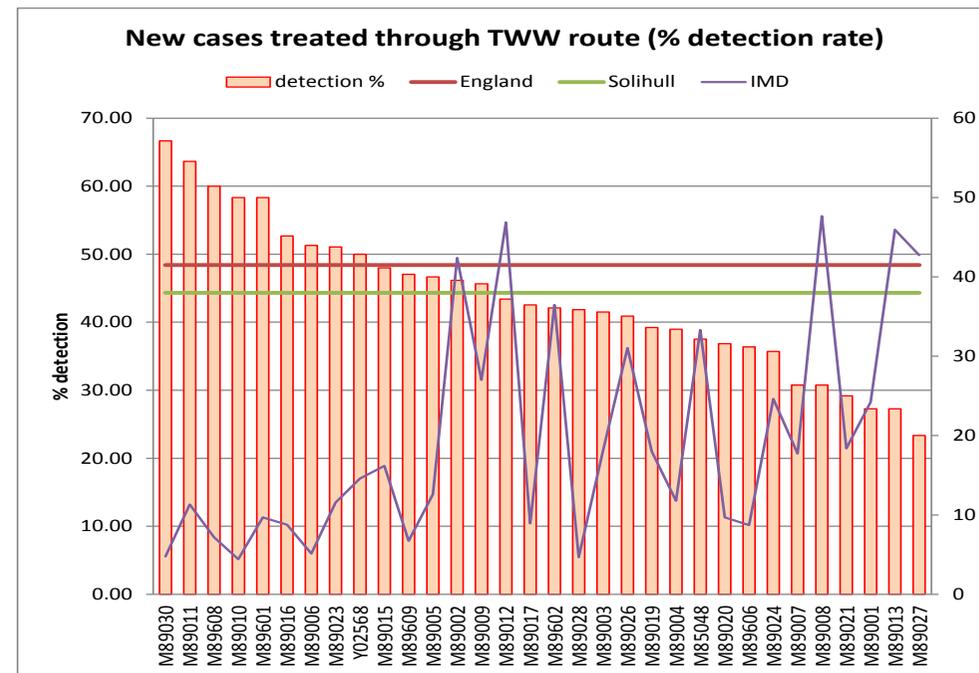

- o High conversion and high detection - an indicator of good clinical practice
- o Low conversion and high detection - may be overusing the TWW pathway
- o High conversion and low detection – may not be using the TWW referral pathway enough
- o Low conversion and low detection - may be poor at case selection , implying poor clinical practice
- Results need to be interpreted with caution

The following chart shows all practices in England with a Solihull practice highlighted in red which is in the low conversion, low detection category[30].

---

[29] Cancer Services, Fingertips, PHE

[30] WMCIN Dashboard v2 Jan, 2016
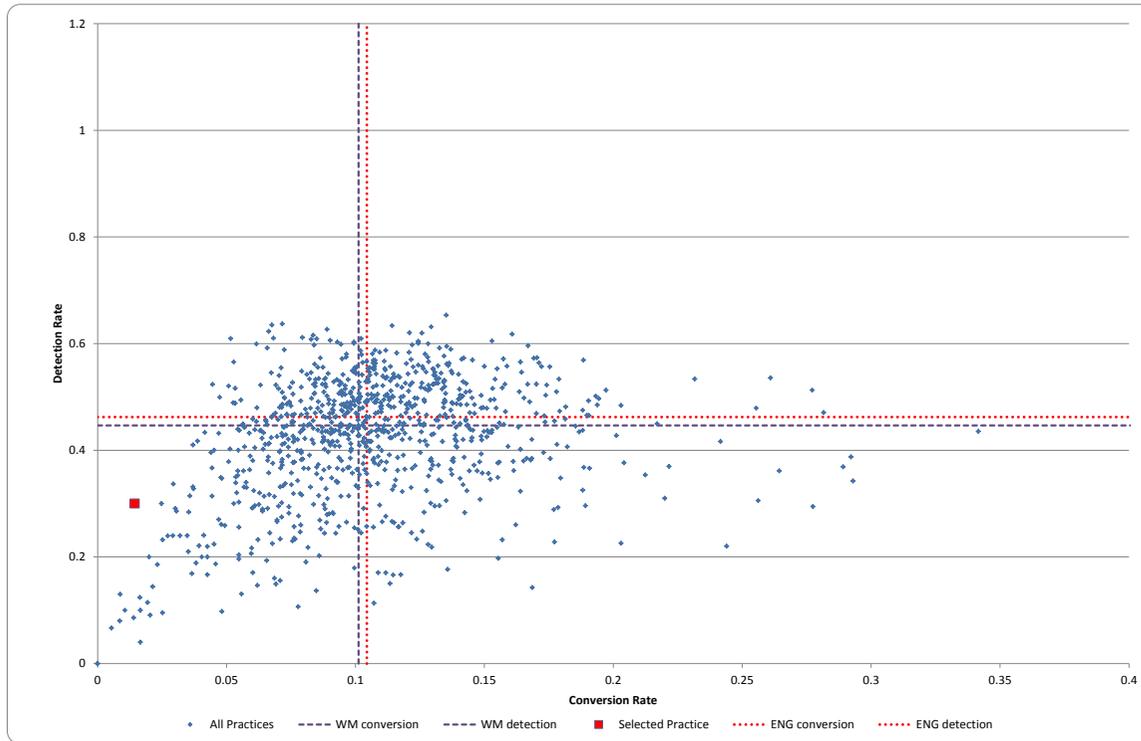
Key points

Two week wait referrals increasing for both Solihull and England

Solihull's two week wait referrals consistently significantly above those for England since 2009/10

Across borough variation

Appears to be a link between low two week wait referrals and deprivation

Conversion rate not linked to deprivation

Low conversion and detection rates for Solihull

Each practice in Solihull can be identified using this chart so it could be a useful tool to explore different clinical practice and opportunities to maximize outcomes for patients.

Emergency diagnosis

Emergency presentations
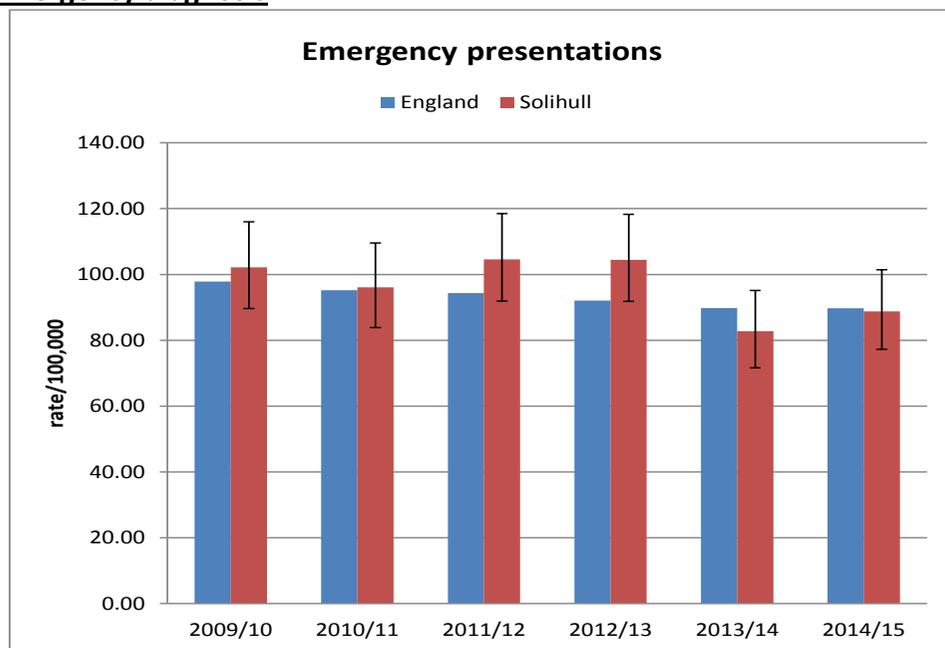
Control charts: Emergency presentations; Other presentations /100,000, 2014/15
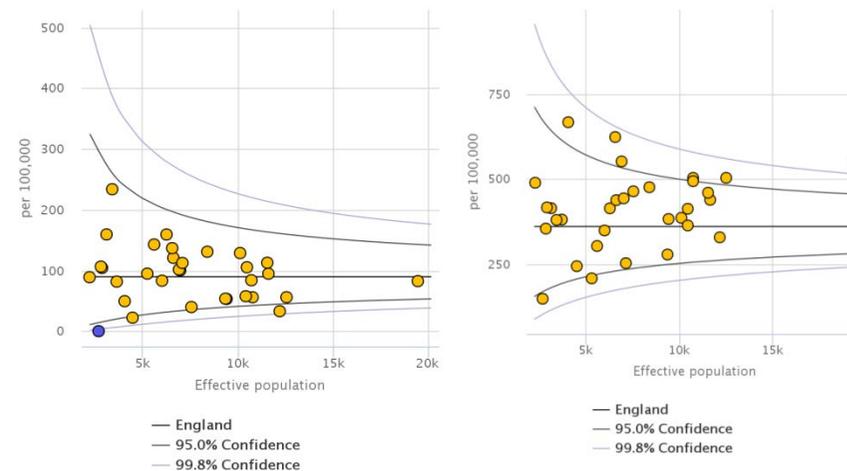
- Over time the rate of emergency presentations in Solihull i.e. those persons diagnosed with cancer via an emergency route has been similar to England[31]
- In the last two years the rate of emergency presentations has reduced for both Solihull and England
- When presentation data is looked at by practice using control charts, with only a couple of exceptions, performance clusters around the England average
- As seen previously there is wide variation across practices, a 100 fold difference between best and worst (22.2 – 233.8/100,000)
- There appears to be no association between emergency presentation and deprivation

Emergency presentations

---
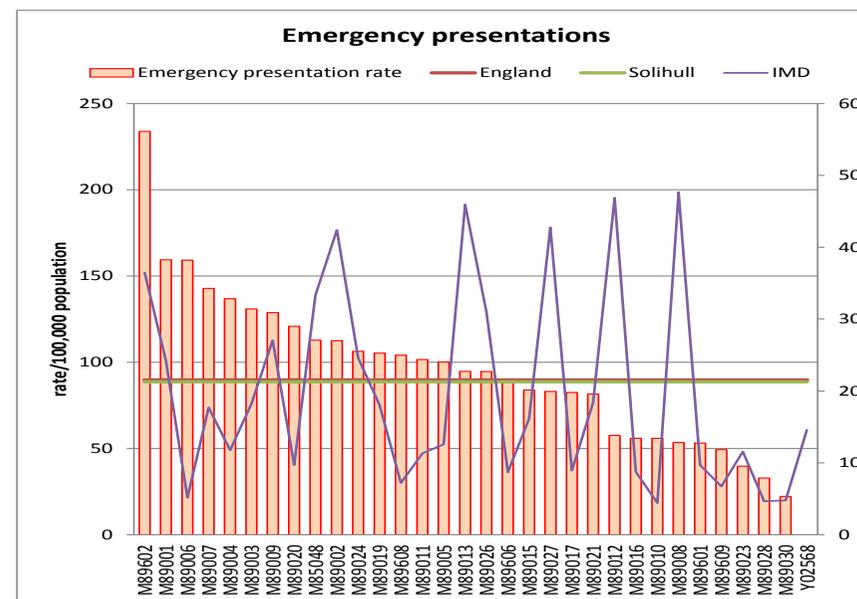
[31] Cancer services, Fingertips, PHE

Emergency admissions with cancer

This is the number of people /100,000 population (crude rate) of inpatient or day-case emergency admissions with a diagnostic code that includes cancer

Compared to Statistical neighbours
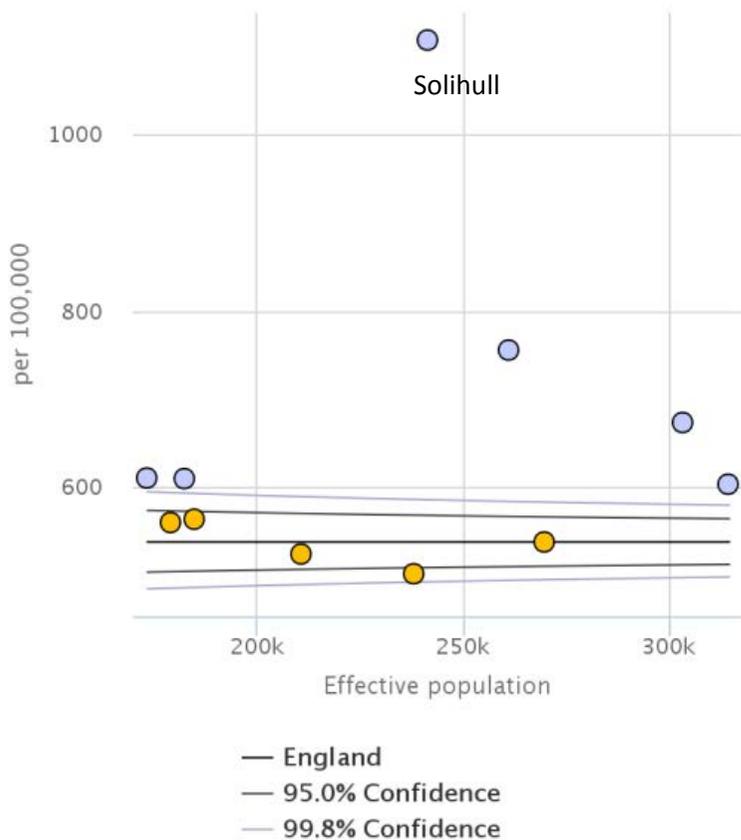
Solihull

— England
— 95.0% Confidence
— 99.8% Confidence

Solihull has the highest rate of emergency admissions with cancer in its comparator group. When looked at by practice 20 out of 31 practices have admission rates significantly above that for England.

By Practice

— England
— 95.0% Confidence
— 99.8% Confidence
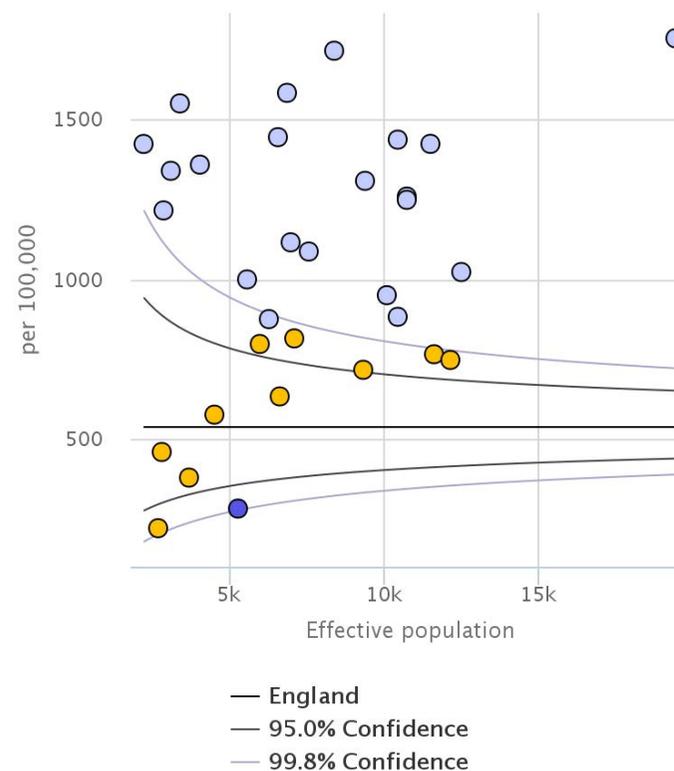
The NHS RightCare Commissioning for Value Focus Pack for cancer and tumours[32] looks at non-elective spend and for those sites examined it is skin, breast and haematological that have above average spend ;£350, £330 and £1696 respectively per 1000 population. This could be seen as a proxy for the number of emergency admissions.

---

[32] https://www.england.nhs.uk/rightcare/intel/cfv/data-packs/mids-east/#11

Treatment

Treatment depends on the site and extent of the cancer at diagnosis. The main cancer treatments available are surgery, radiotherapy, chemotherapy, hormone therapy, biological therapies, bisphosphonates and bone marrow and stem cell transplants. Complementary and alternative therapies are also used by some people with cancer. Treatment options are explained on various websites e.g. those for Macmillan support or Cancer Research UK (CRUK)
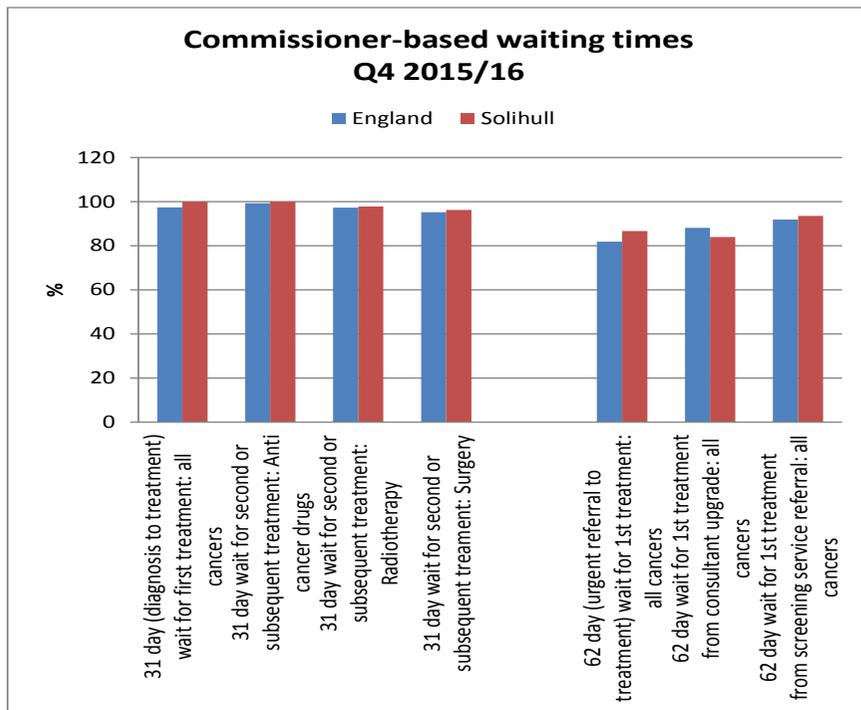
Main cancer pathways to treatment and maximum waiting times
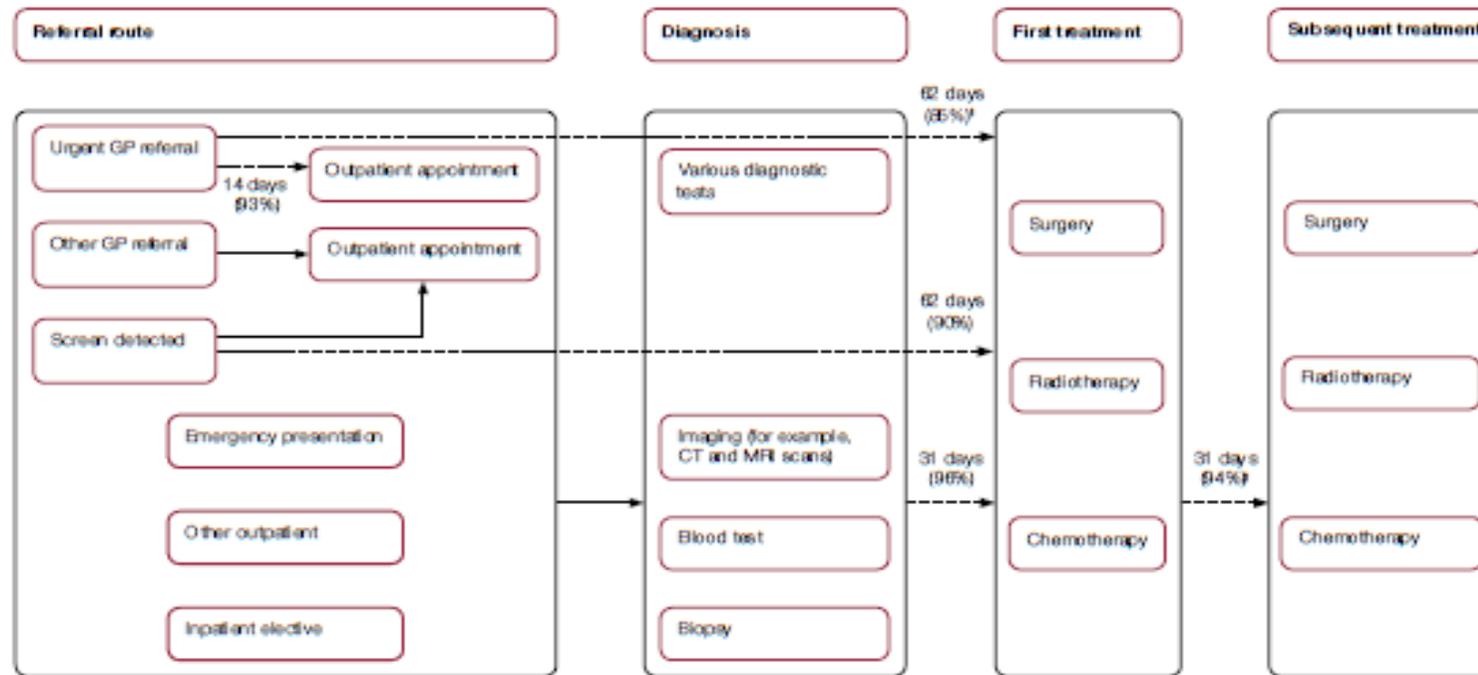
The above chart summarises the cancer pathway with the time patients can expect to be seen and treated. [33] CCGs are monitored against these standards though the NHS CCG Outcome Indicator Set[34]

---

[33] Progress in improving cancer services and outcomes in England https://www.nao.org.uk/report/progress-in-improving-cancer-services-and-outcomes
[34] NHSCIC Indicator Set, CCG OIS

Commissioner-based waiting times Q4 2015/16

31 day (diagnosis to treatment) wait for first treatment: all cancers

The cancer treatment waiting times chart above [35] shows that all Solihull patients receive their first treatment and subsequent drug treatment within 31 days. This is slightly better than for England overall. Second or subsequent treatment, radiotherapy and surgery, are just under 100% but still above England. A similar picture is seen for 62 days except for % consultant upgrades which is just below that for England. (62 day waits include 31 day waits)

At the start of the year, Solihull's 31 day wait was below that for England but the proportion of patients treated within 31 days climbed to 100% by year end.
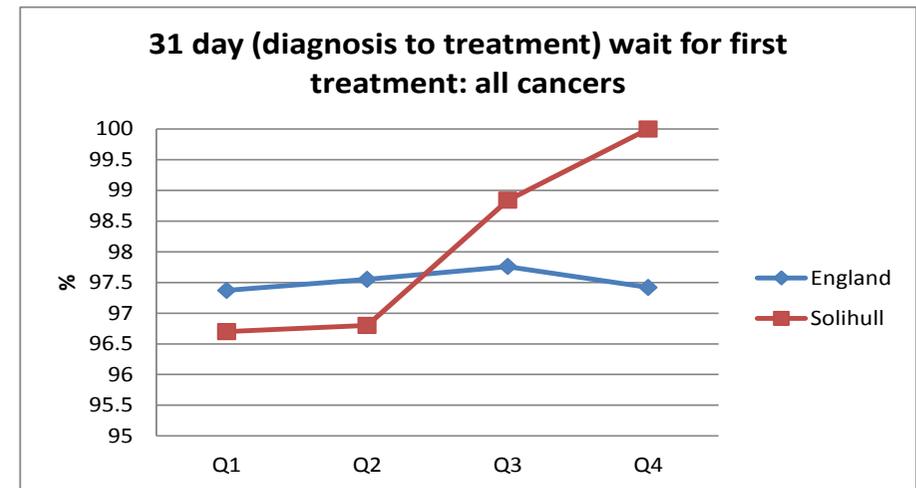
Key points

Emergency presentations have decreased since 2009/10 for both England and Solihull

Solihull's emergency presentation rate has been similar to England since 2009/10

Wide variation in emergency presentation across the borough but differences with only a couple of exceptions, are not significant because of small numbers

Solihull has the highest rate of emergency admissions with cancer in its comparator group

More Solihull patients are treated within 31 and 62 days regardless of treatment than those across England overall

Only 62 day wait for 1st treatment from consultant upgrade is less than England

---

[35] https://www.england.nhs.uk/statistics/statistical-work-areas/cancer-waiting-times/

The following charts are produced by RightCare; Commissioning for value[36] and show various risk factors and treatment steps that may affect the pathway, for 3 main cancers, breast, lower GI (colorectal) and lung. Solihull is compared to the average of 10 similar CCGs. The confidence intervals show if the indicator is significantly different from the average only if they do not cross zero

Each indicator is shown as the % difference from the average and is also colour coded. **Green** is better, **red** is worse and **blue** needs local interpretation e.g. a low prevalence may indicate that a CCG genuinely has a lower number of patients with a condition or it could mean that comparator CCGs have better processes in place to identify and record cases.

All three pathways include some risk factors such as deprivation, smoking prevalence, successful quitters and level of obesity. For Solihull, overall deprivation, smoking prevalence and obesity are all lower than 10 similar CCGs but are coded as open to interpretation. Generally although to be lower is good, as in other areas this will mask across borough variation. The difference between Solihull and 10 similar CCGs is that Solihull has one of the largest gaps nationally between its most deprived and most affluent populations.

Summary table

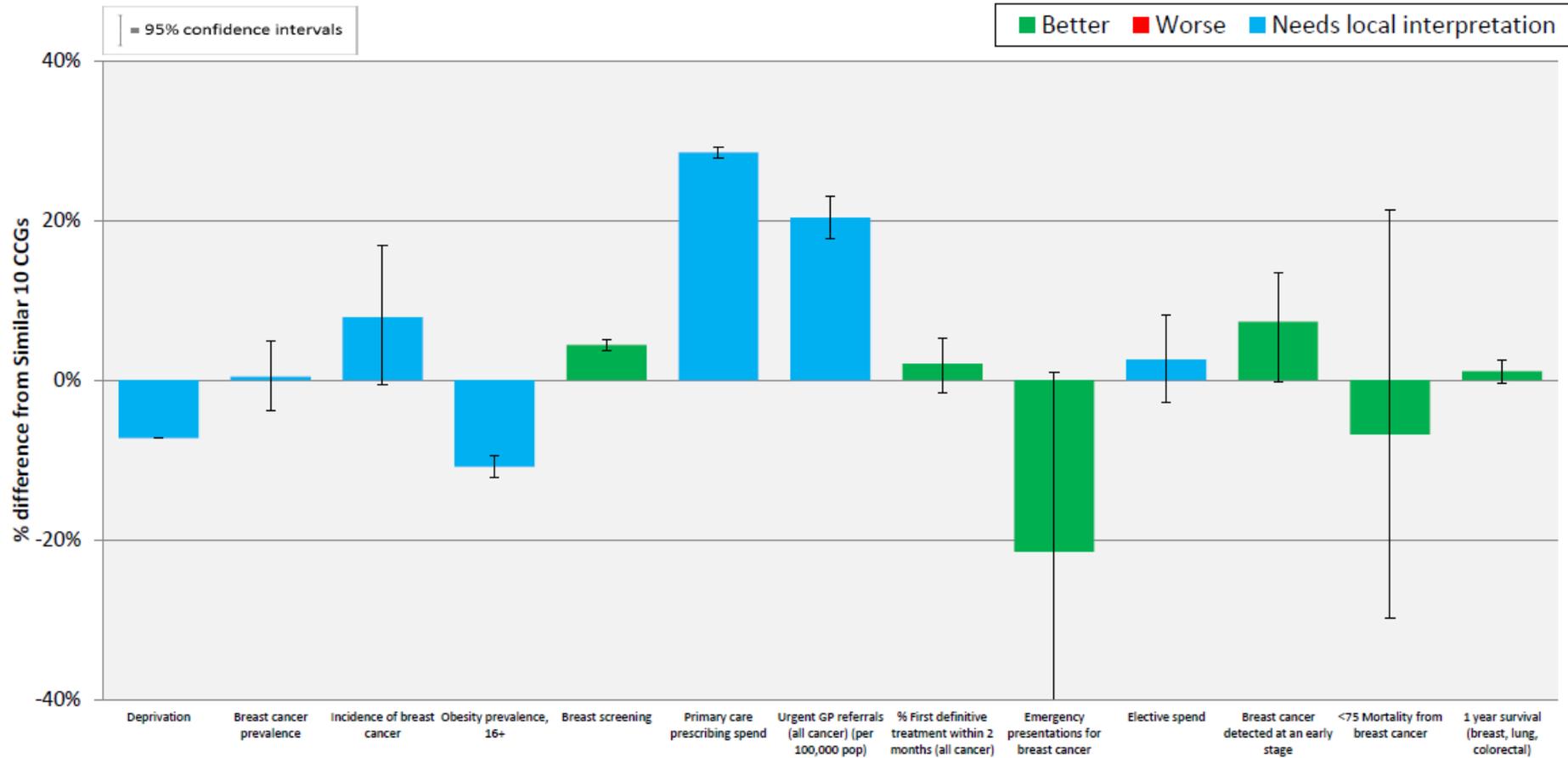| Significantly lower	Significantly higher
Emergency presentations – lung cancer	Breast screening
Non elective spend – lung and lower GI	Bowel screening
Deprivation*	Successful quitters 16+
Obesity prevalence 16+*	Primary care prescribing spend – breast*
	Elective spend – lower GI*
	Urgent GP referrals (all cancer)/100,000 pop*

 *Requires local interpretation

Highlighted areas are where Solihull is significantly better than the 10 comparator CCGs.

The other items in the above table are those that require local interpretation but are deemed opportunities for improvement.

Other items on the Solihull's pathway charts are not significantly different from the comparator CCGs but may still offer some opportunity for improving patient experience

---

[36] https://www.england.nhs.uk/resources/resources-for-ccgs/comm-for-value/midlands-and-east-of-england/#11
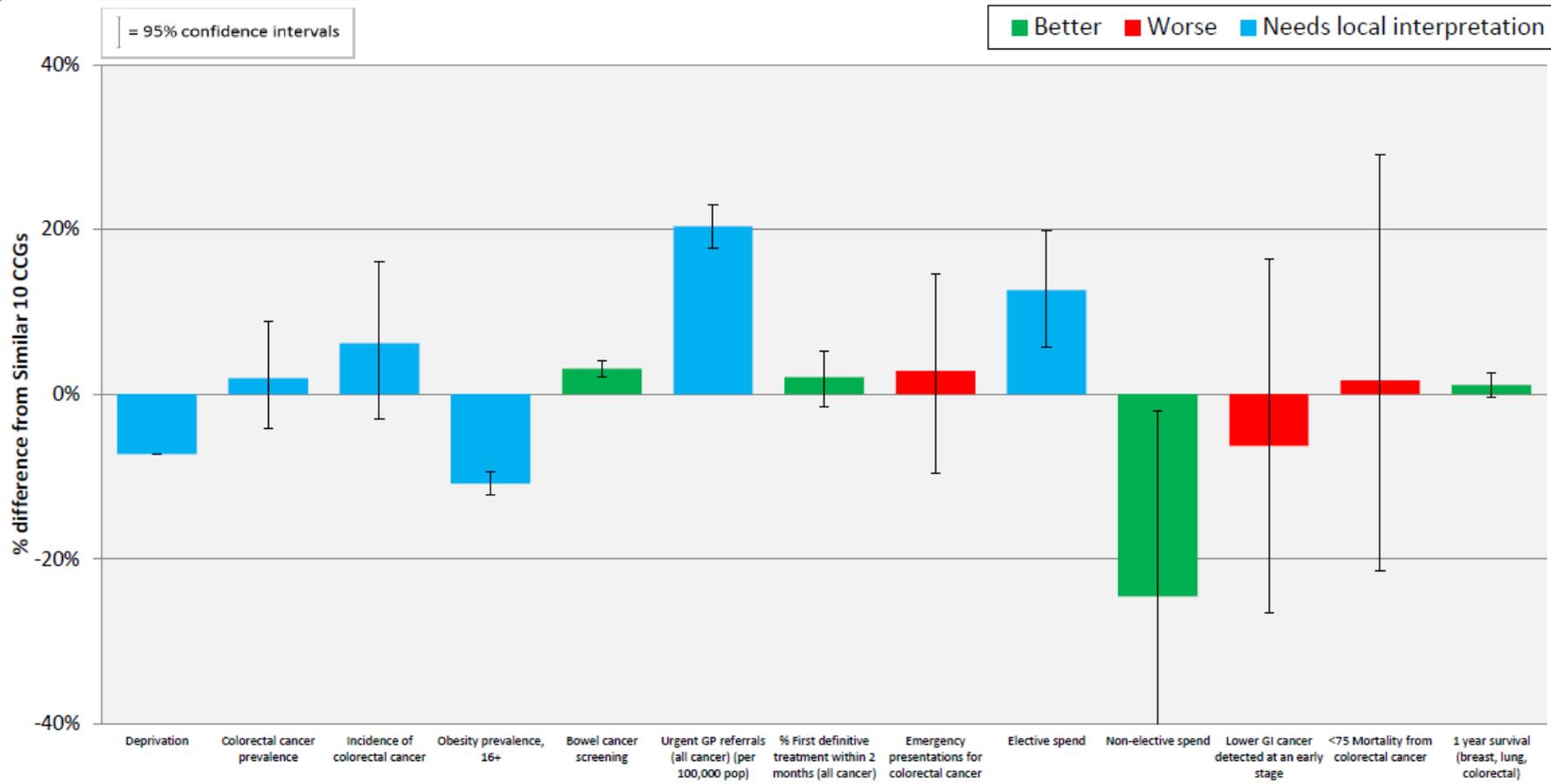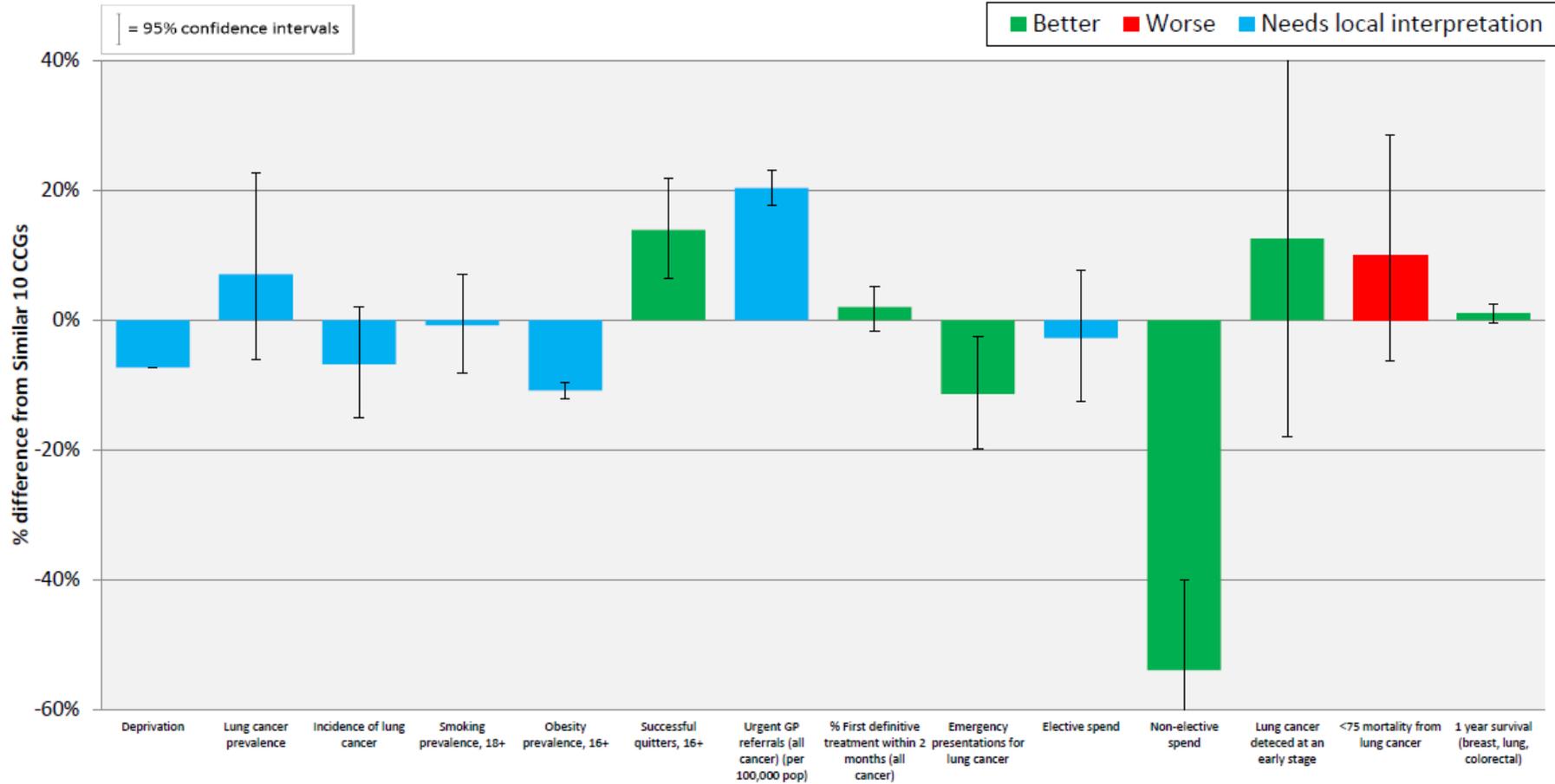
NICE Guidance:
http://pathways.nice.org.uk/pathways/gastrointestinal-cancers

NHS RightCare CFV Cancer and tumours focus pack

NHS Solihull CCG

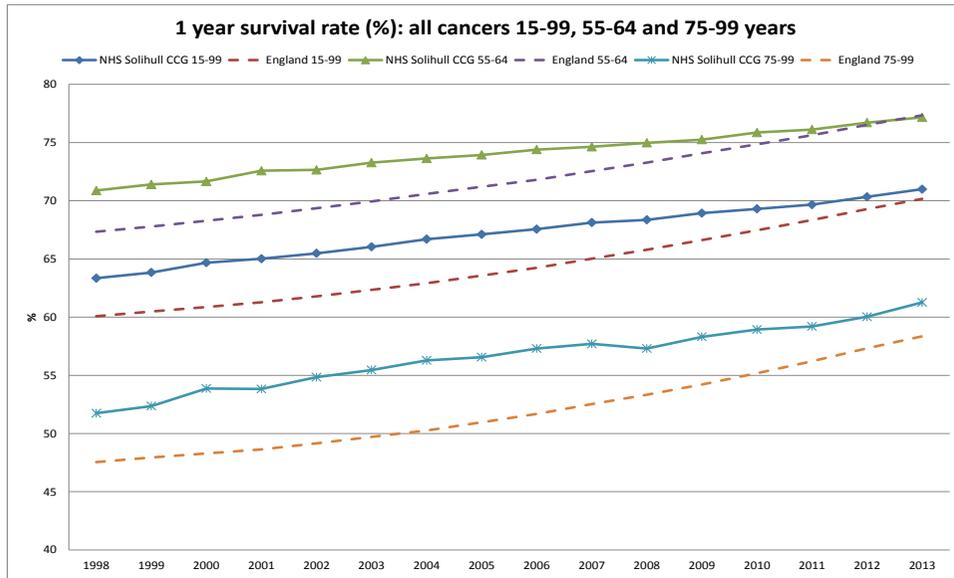**NICE Guidance:**
http://pathways.nice.org.uk/pathways/lung-cancer

NHS RightCare CFV Cancer and tumours focus pack

NHS Solihull CCG

Survival rates

One Year: Persons

1 year survival rate (%): all cancers 15-99, 55-64 and 75-99 years

1 year survival rate (%): 3 cancers, 15-99, 55-64 and 75-99

The differences between survival rates for Solihull and England are very small. Below is a chart of 1 year survival rates for E&W produced from data supplied by Cancer Research UK. Solihull survival rates should be similar.
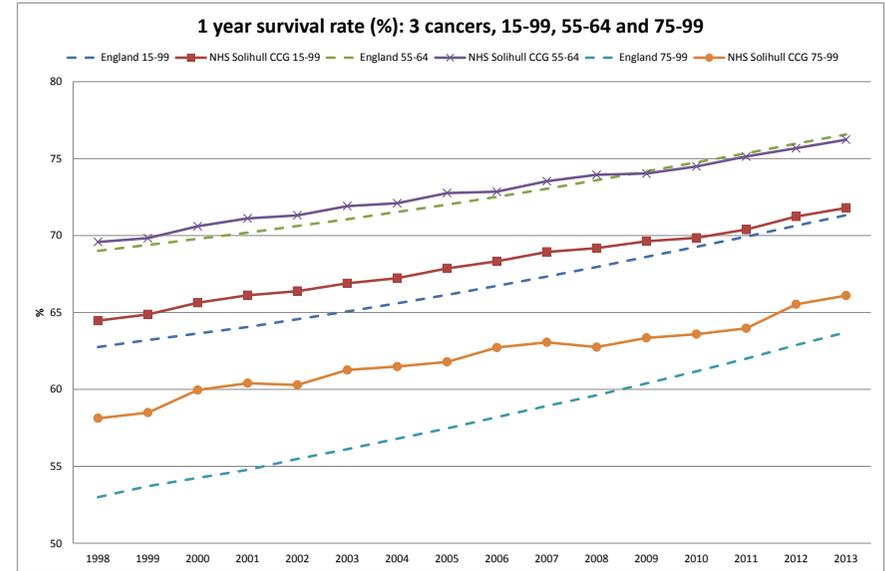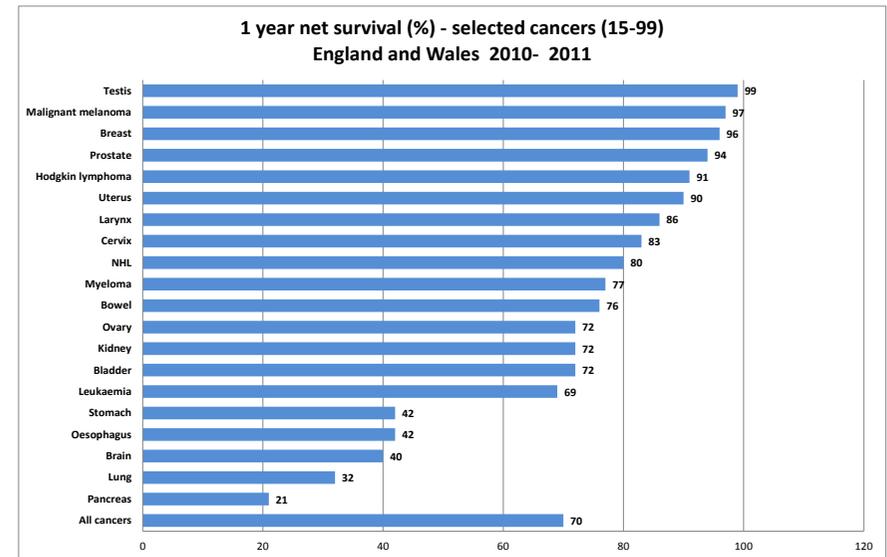
- 1 year survival rates for all cancers together have improved over time[37]
- In 1998 Solihull's 1 year survival rate for each age group was significantly higher than that for England but by 2013 this was no longer the case for 15-99 and 55-64 age groups
- A similar picture is seen when 3 main cancers, breast, lung and colorectal are combined (not shown).

When each site is looked at separately, breast cancer has the best survival rate of the 3, followed by colorectal and then lung (97%, 78% 37% respectively).

1 year net survival (%) - selected cancers (15-99)
England and Wales 2010- 2011

Cancer	%
Testis	99
Malignant melanoma	97
Breast	96
Prostate	94
Hodgkin lymphoma	91
Uterus	90
Larynx	86
Cervix	83
NHL	80
Myeloma	77
Bowel	76
Ovary	72
Kidney	72
Bladder	72
Leukaemia	69
Stomach	42
Oesophagus	42
Brain	40
Lung	32
Pancreas	21
All cancers	70

---

[37]ONShttps://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/datasets/table10to161yearcancersurvivalbyclinicalcommissioninggroupinenglandwith95confidenceintervals
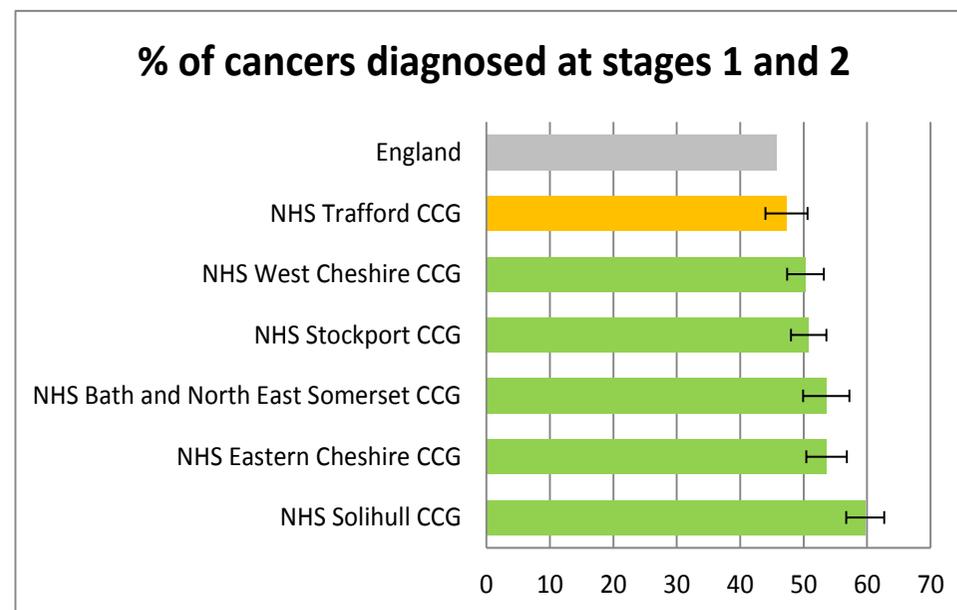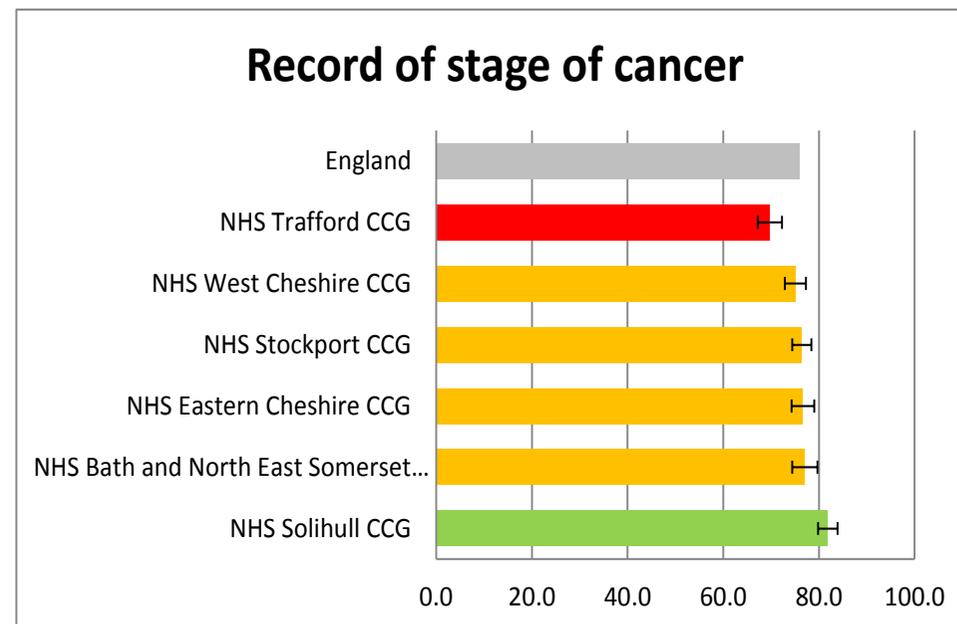
1 year cancer survival by stage at diagnosis

The earlier a cancer is detected the better the chance of survival. This is proved by analysing the survival rates by stage at diagnosis[38]. Staging is a system that describes how big a tumour is and how far it has grown. It is important because it helps a team decide what treatment is needed (see previous section).

- For all sites analysed, 1 year survival after diagnosis at stage 4 is markedly reduced compared to a stage 1 diagnosis
- Some sites show a graduated 1 year survival depending on stage (bladder, lung, ovarian and uterine)
- Other sites showed smaller differences between 1 year survival after diagnosis at stages 1-3 but a marked reduction in survival after diagnosis at stage 4 (breast, colorectal, kidney, melanoma and prostate).
- Generally men diagnosed at each stage have better survival from bladder and colorectal cancer than women
- Generally women have better survival rates at each stage of diagnosis from lung and malignant melanoma than men.
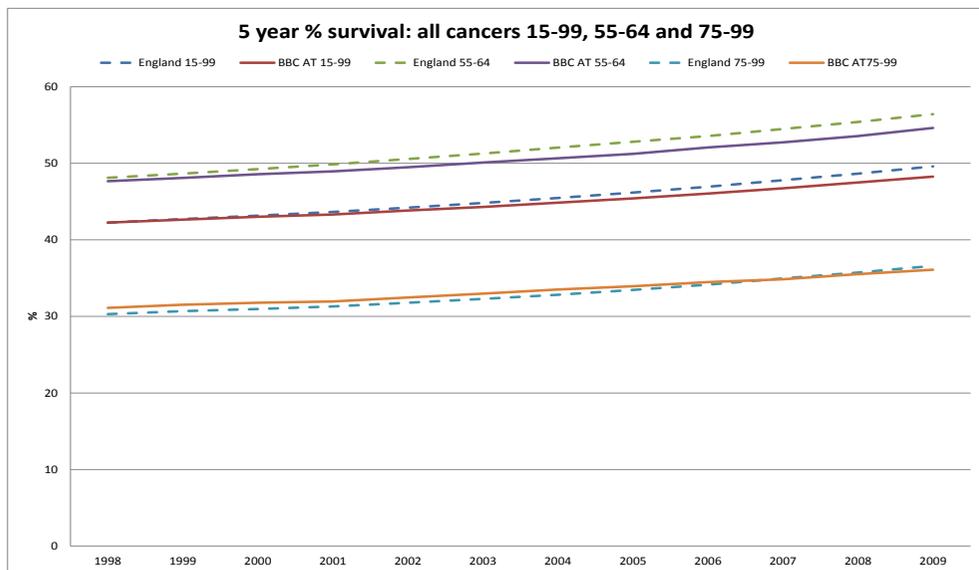
Cancer diagnosis for Clinical commissioning groups (CCGs) is monitored through the Outcomes Indicator set (Indicators 1.17 and 1.18). Solihull CCG is the best in its peer group for both these indicators and performs significantly better than England.

Diagnosis at an early stage and possible a better long term prognosis may be part of the explanation as to why Solihull has a higher prevalence.
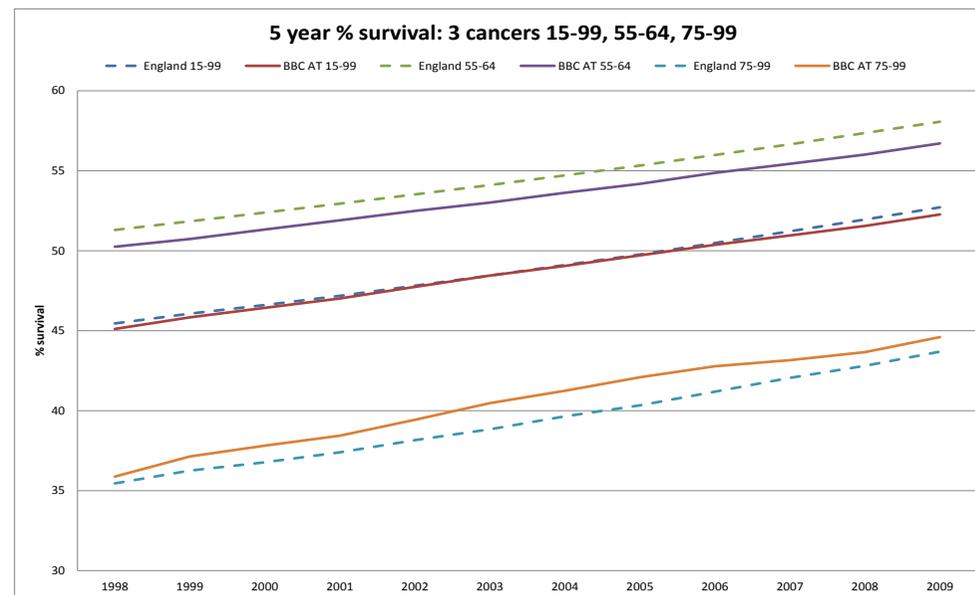

Record of stage of cancer

% of cancers diagnosed at stages 1 and 2

[38] NHSCIC, CCG OIS

Five Year survival: Persons

5 year % survival: all cancers 15-99, 55-64 and 75-99

Legend: England 15-99 (dashed blue), BBC AT 15-99 (red), England 55-64 (dashed green), BBC AT 55-64 (purple), England 75-99 (dashed light blue), BBC AT75-99 (orange)

5 year survival for local areas are not routinely reported so 5 year data for the local cancer network is analysed instead[39]. BBC in this context refers to an area team that includes Solihull CCG.

- 5 year all cancer survival for Birmingham and the Black Country (BBC) has increased over time in line with England's for all 3 ages groups
- The latest data (2009) shows England's 5 year survival was significantly higher than that for BBC for age groups 15-99 and 55-64.
- 5 year survival for BBC's 75-99 age group was similar to England.
- 5 year survival analysis for 3 main cancers combined (breast, colorectal and lung) show that survival has increased for both England and BBC.
- The rate of increase is the same for both England and BBC for each age group but survival in the 55-64 year age group for BBC was consistently significantly below that for England over the period 1998-2009.
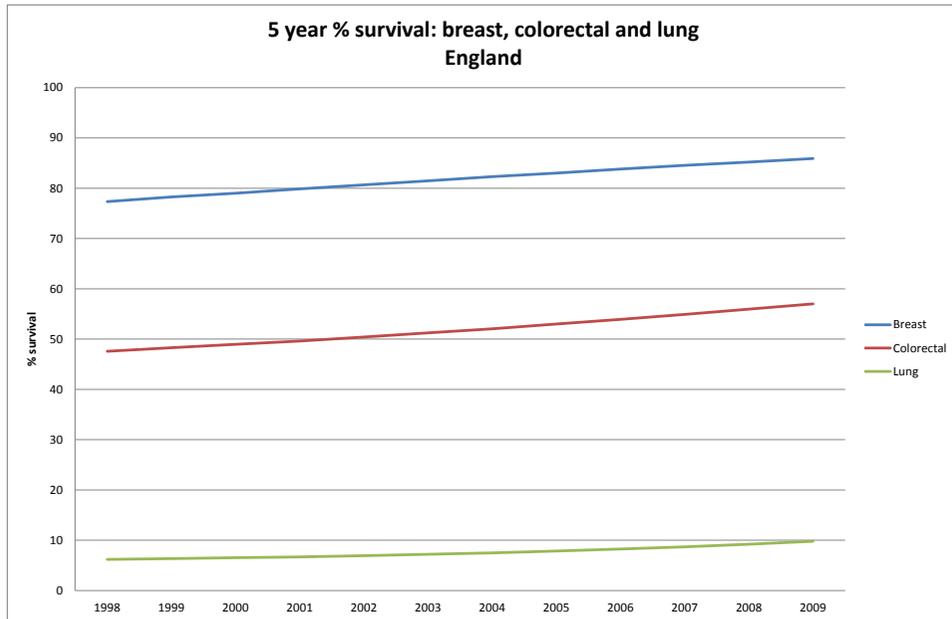
- Between 1998 and 2009, 5 year survival in the 75-99 age group for the 3 cancers combined in BBC was above that for England but was only significantly higher for a short period between 2002 and 2006.

5 year % survival: 3 cancers 15-99, 55-64, 75-99

Legend: England 15-99 (dashed blue), BBC AT 15-99 (red), England 55-64 (dashed green), BBC AT 55-64 (purple), England 75-99 (dashed light blue), BBC AT 75-99 (orange)

No trend data for five year survival rates were available at smaller geography than England for the 3 cancer sites separately
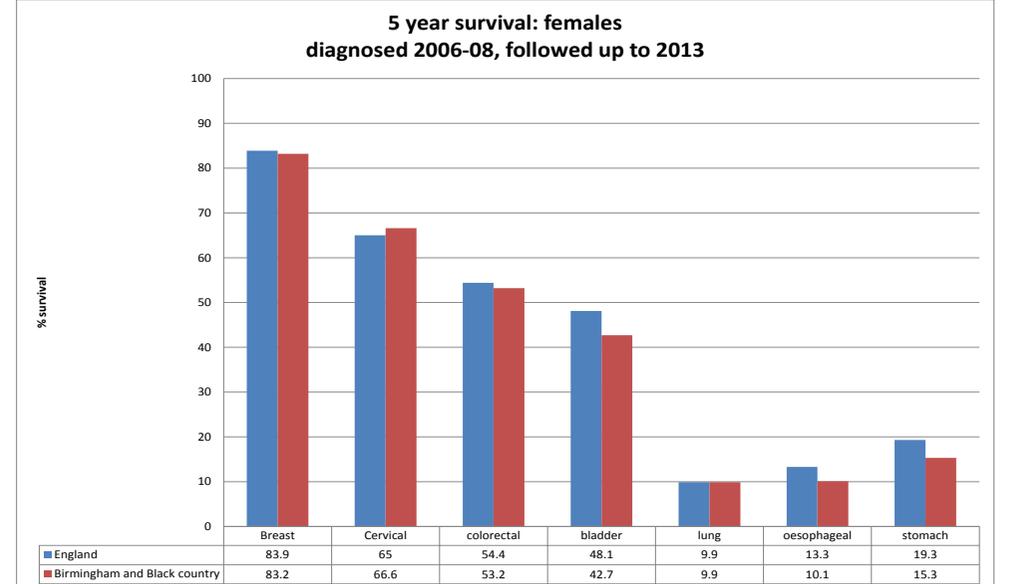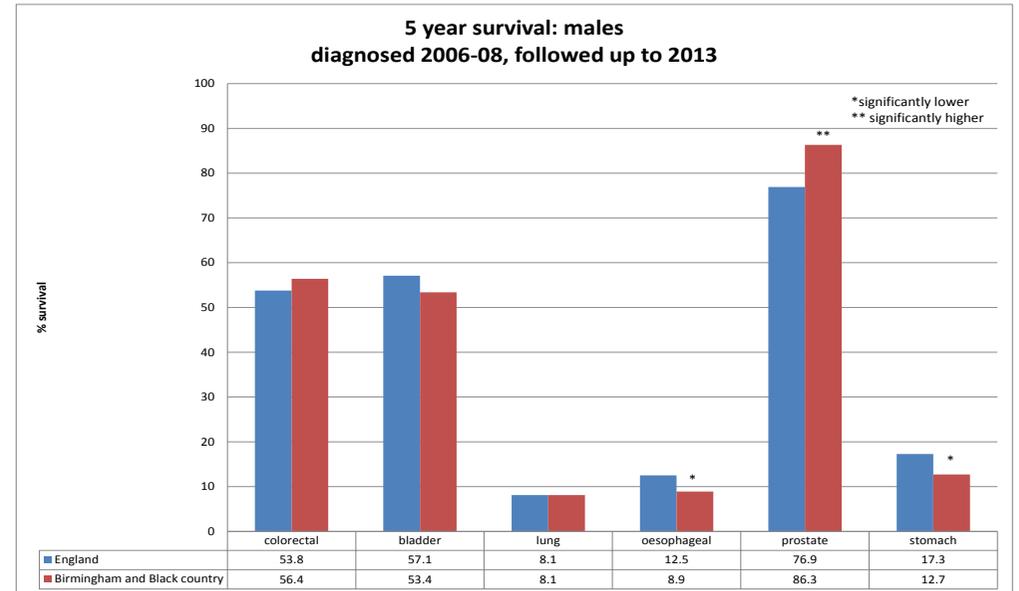
- 5 year survival rates for the 3 sites have increased since 1998.
- As with 1 year survival, breast cancer has the highest survival rate followed by colorectal and lung.
- 5 year survival from breast and colorectal cancer survival increased by 9% from (77% to 86% and 48% to 57% respectively) since 1998; and lung cancer increased by 4% (6% to 10%).
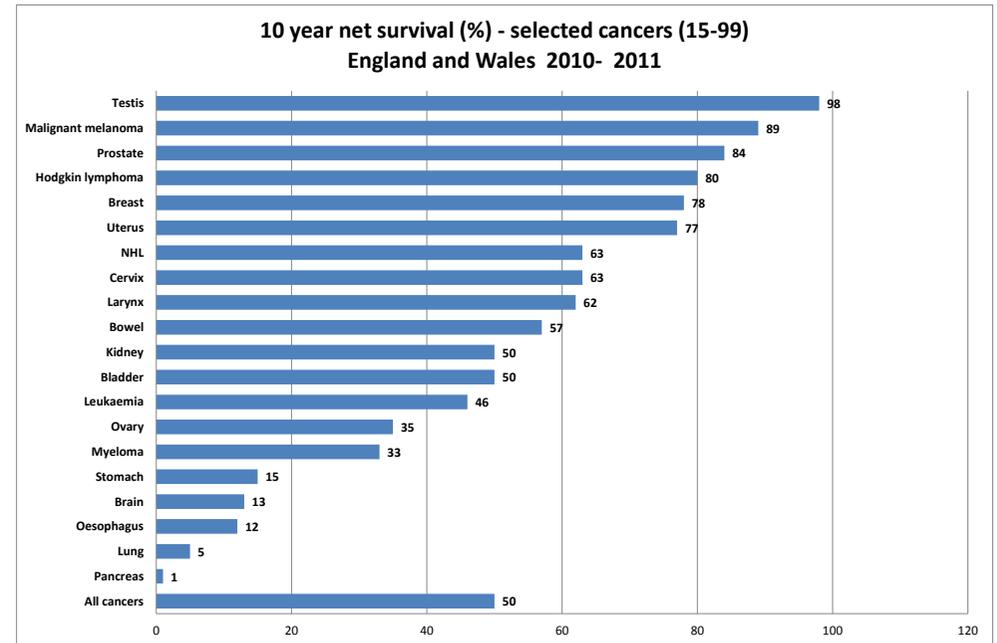
---

[39] ONS as above

5 year % survival: breast, colorectal and lung
England

5 year survival: males
diagnosed 2006-08, followed up to 2013

*significantly lower
** significantly higher

	colorectal	bladder	lung	oesophageal	prostate	stomach
England	53.8	57.1	8.1	12.5	76.9	17.3
Birmingham and Black country	56.4	53.4	8.1	8.9	86.3	12.7

5 year survival: females
diagnosed 2006-08, followed up to 2013

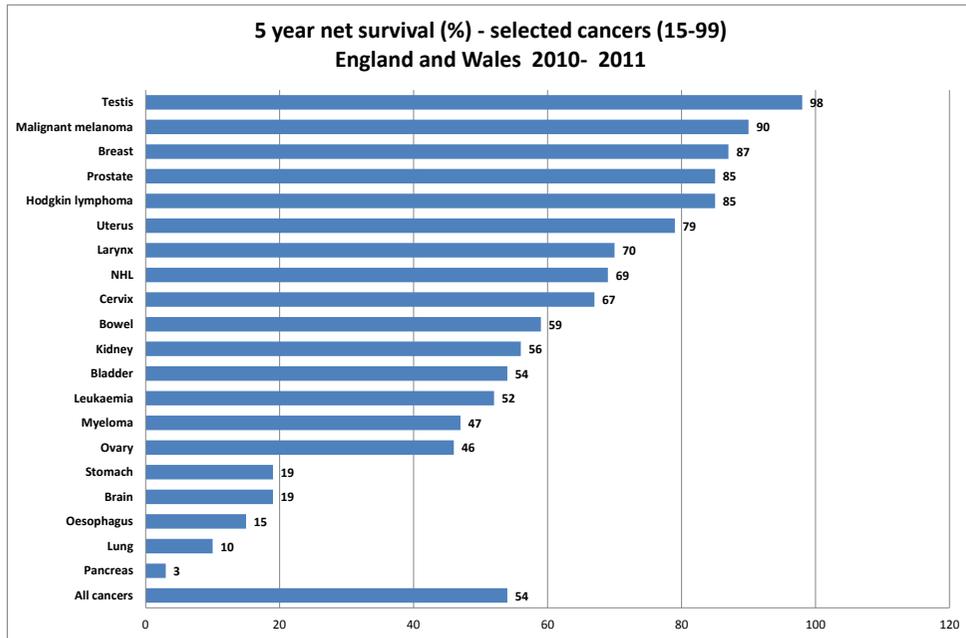|	Breast	Cervical	colorectal	bladder	lung	oesophageal	stomach
England	83.9	65	54.4	48.1	9.9	13.3	19.3
Birmingham and Black country	83.2	66.6	53.2	42.7	9.9	10.1	15.3

When 5 year survival rates from various cancers are analysed by gender[40] it shows:-

- BBC's rates for breast and cervical cancer are similar to those for England.
- BBC's survival rates for prostate cancer are significantly higher
- BBC's male survival rates for oesophageal and stomach cancer are significantly lower than those for England
- BBC's female 5 year survival rates are similar to those for England all selected cancers

---

[40] NHSCIC, Indicator Portal, Compendium of Health Indicators

5 year net survival (%) - selected cancers (15-99)
England and Wales 2010- 2011

Cancer	5 year net survival (%)
Testis	98
Malignant melanoma	90
Breast	87
Prostate	85
Hodgkin lymphoma	85
Uterus	79
Larynx	70
NHL	69
Cervix	67
Bowel	59
Kidney	56
Bladder	54
Leukaemia	52
Myeloma	47
Ovary	46
Stomach	19
Brain	19
Oesophagus	15
Lung	10
Pancreas	3
All cancers	54

10 year net survival (%) - selected cancers (15-99)
England and Wales 2010- 2011

Cancer	10 year net survival (%)
Testis	98
Malignant melanoma	89
Prostate	84
Hodgkin lymphoma	80
Breast	78
Uterus	77
NHL	63
Cervix	63
Larynx	62
Bowel	57
Kidney	50
Bladder	50
Leukaemia	46
Ovary	35
Myeloma	33
Stomach	15
Brain	13
Oesophagus	12
Lung	5
Pancreas	1
All cancers	50

Data from Cancer Research UK shows that:-

- There is a more dramatic reduction in all cancer net survival between 1 year and 5 years than between 5 years and 10 years.
- Overall net survival is 50% at 10 years. However this increased survival may not be problem free[41].
- Only 25% of survivors this long after diagnosis and treatment are likely to have good health
- 1, 5 and 10 year survival rates for testicular cancer are exceptionally good
- Breast and Hodgkin's lymphoma show similar falls between 1 and 5 and 5 and 10 year net survival
- The remaining 17 of the main cancers show larger falls in net survival between 1year and 5 year than between 5 and 10 years.
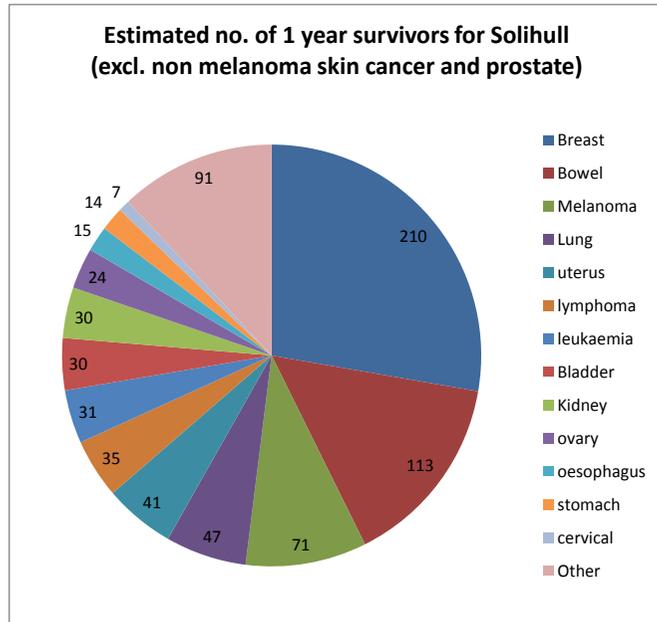
Key points

1 year and 5 year survival rates increasing

More people surviving longer

Increases linked to earlier diagnosis

Cancer survivors may suffer with other ill health conditions

[41] Cancer: Then and Now, August 2016 Macmillan Cancer Care

Estimates of future survival

To estimate the number of 1 year cancer survivors by site for Solihull, national non standardised rates for 1 year survival for various cancers were applied to the Solihull incidence[42434445]. The chart shows estimated numbers and % of total for 1 year survival. . Non melanoma skin cancer and prostate cancer have been excluded from the analysis.

Estimated no. of 1 year survivors for Solihull (excl. non melanoma skin cancer and prostate)

Pie chart values: 210, 113, 71, 47, 41, 35, 31, 30, 30, 24, 15, 14, 7, 91

Legend:
- Breast
- Bowel
- Melanoma
- Lung
- uterus
- lymphoma
- leukaemia
- Bladder
- Kidney
- ovary
- oesophagus
- stomach
- cervical
- Other

- In 2013 there were estimated to be 750 one year cancer survivors (excl. non melanoma skin cancer and prostate)
- Breast and bowel cancer were estimated to account for a third of these survivors

These survivors should be added to practice cancer registers. At the same time the number of people dying from cancer, are removed from the registers. An

---

estimate of future net numbers of cancer patients on practice registers was made using the following method.

1. Net survival (%) supplied by ONS for all cancers (excl. non melanoma skin and prostate cancer) were applied to Solihull incidence and a linear trend used to project numbers up to 2020 for each cancer.
2. Cancer mortality (excl. non melanoma skin cancer and prostate) was projected to 2020 in the same way.
3. Incidence numbers were then adjusted for mortality to produce an estimate of net survivors and these numbers then also projected to 2020.

The net result is that by 2020 the numbers of patients added to cancer registers i.e. those living with and beyond cancer are expected to increase by ~ 670 a year. These numbers exclude non melanoma skin cancer and prostate cancer as before.

Cancer registers Solihull CCG
Quality and outcomes framework

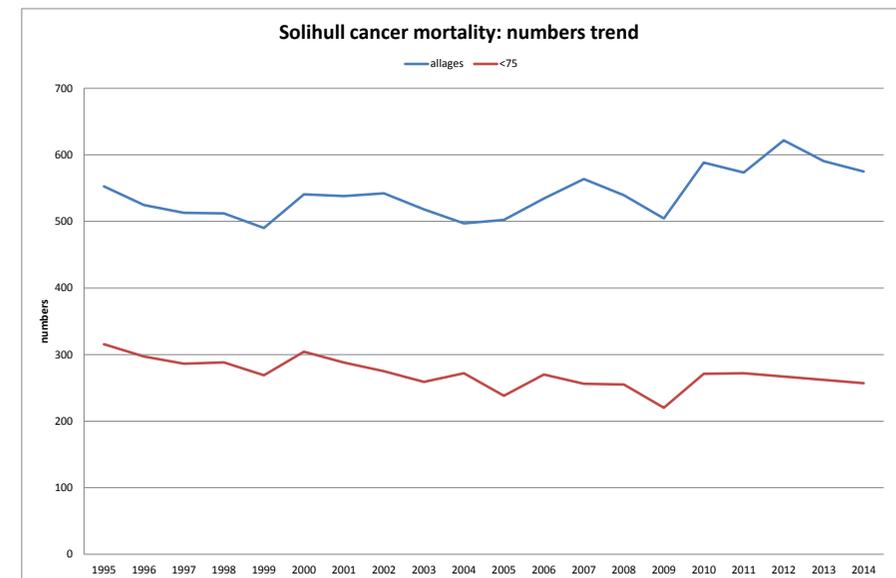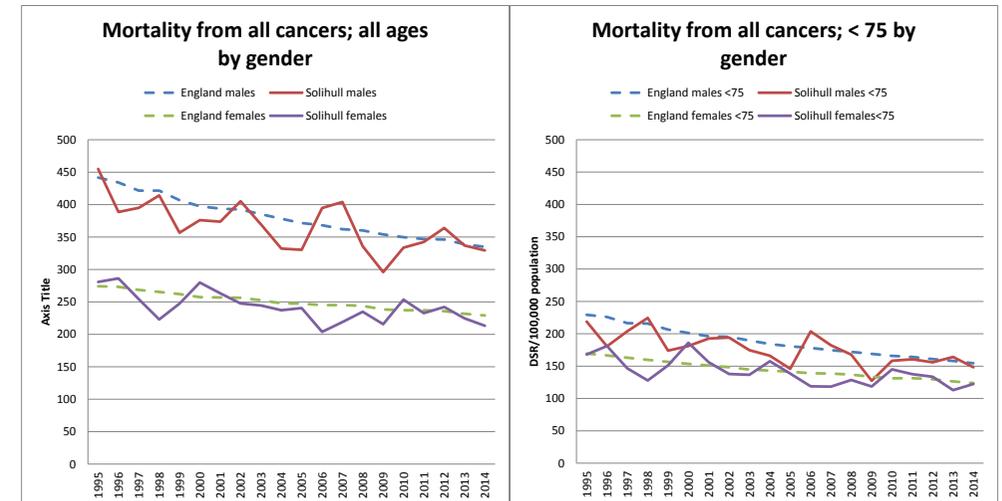Legend: Actual numbers on register —— projected numbers ----
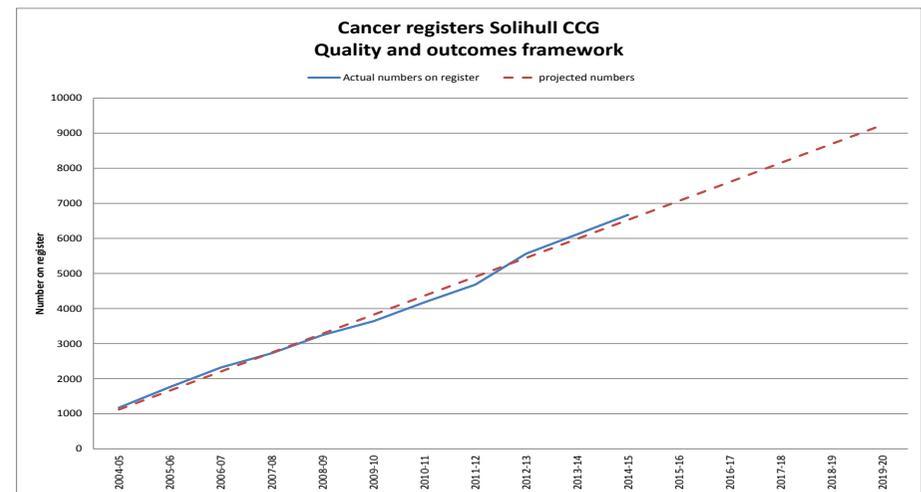
If this is compared to actual numbers on registers, it is noted that the increase seen each year is around 500 a year so there is a discrepancy. If numbers on cancer registers increase as they have to date then by 2020 there could be an estimated 9250 people on registers but because of this estimated discrepancy numbers could be even higher and closer to the 12,000 mentioned earlier. .

---

[42]NHSCIC
[43] ONS survival statistics
[44] Cancer research UK
[45] Cancer stats

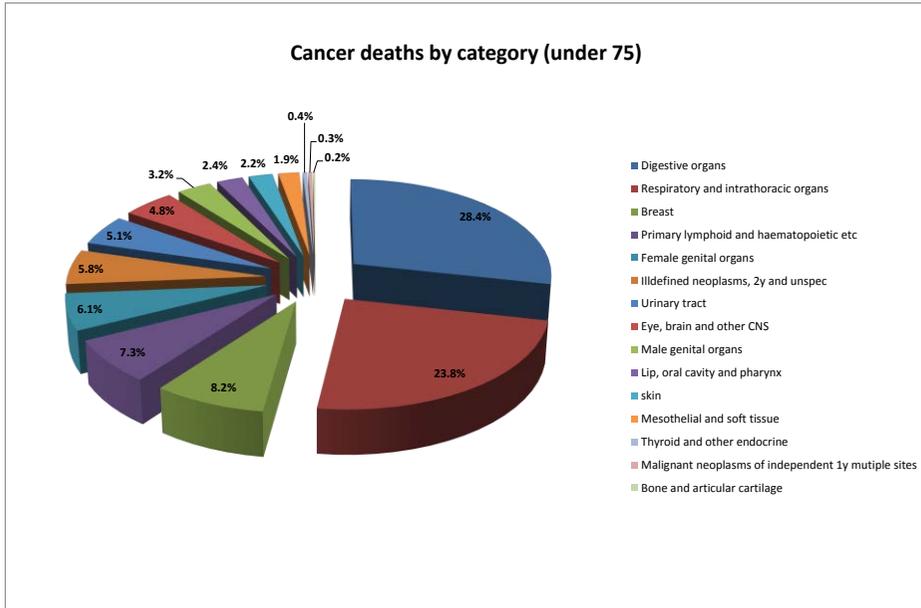# Mortality Rates

Mortality from all cancers

- Mortality rates from all cancers/all ages has reduced since 1995 by 19% for England and 24% for Solihull
- Premature mortality (<75) for both England and Solihull has reduced by 30%
- England and Solihull have similar mortality rates whether looked at by age or gender
- Males have a higher rate of mortality than females.

When the numbers of deaths are looked at:-

- There appears to be an upward trend in all age cancer deaths and a downward trend in cancer deaths for people aged under 75.

The implication therefore is that older people are more likely to die from cancer than was previously the case. This is partly due to progress made in reducing

deaths from other causes such as heart disease and stroke and partly because of the increase in the number of elderly people in the population

Mortality from all cancers; all ages by gender

Mortality from all cancers; < 75 by gender

Solihull cancer mortality: numbers trend

Cancer deaths by category (under 75)

- Digestive organs — 28.4%
- Respiratory and intrathoracic organs — 23.8%
- Breast — 8.2%
- Primary lymphoid and haematopoietic etc — 7.3%
- Female genital organs — 6.1%
- Illdefined neoplasms, 2y and unspec — 5.8%
- Urinary tract — 5.1%
- Eye, brain and other CNS — 4.8%
- Male genital organs — 3.2%
- Lip, oral cavity and pharynx — 2.4%
- skin — 2.2%
- Mesothelial and soft tissue — 1.9%
- Thyroid and other endocrine — 0.4%
- Malignant neoplasms of independent 1y mutiple sites — 0.3%
- Bone and articular cartilage — 0.2%

- Causes and proportions of Solihull cancer deaths are similar for all ages (not shown) and <75s
- The largest proportion of premature deaths in the 5 year period 2011-2015 were for digestive system cancers (includes oesophageal, stomach and colorectal)
- Second largest proportion of deaths was for respiratory and intra-thoracic organ cancers (main cause lung)

Deaths covered by these two chapters account for 52% of all premature cancer deaths and 50% of all deaths. These deaths are potentially avoidable because there is a strong link with lifestyle.

All cancer mortality all ages by ward
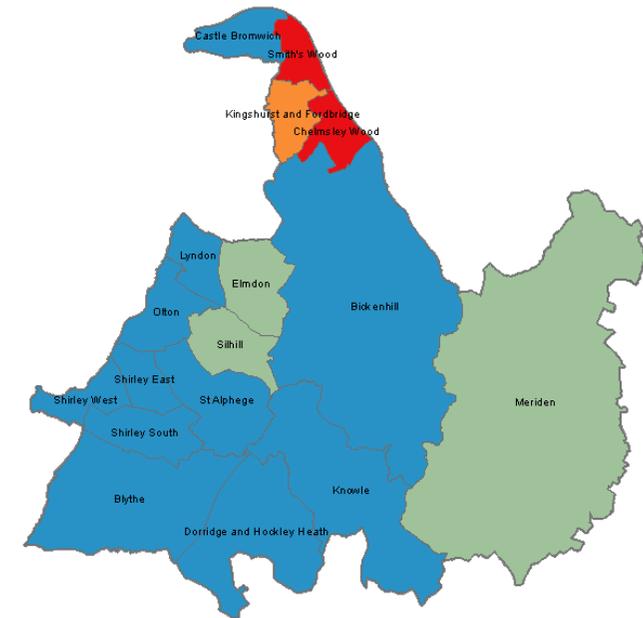
Range: 64.3 – 144.3, interval 11.1

Standardised Mortality Ratios (SMRs) for Chelmsley Wood, Smith's Wood and Kingshurst and Fordbridge are significantly higher than all wards shaded blue, except Bickenhill and Castle Bromwich. There is no significant difference between wards shaded green, orange or red.

Note: For all maps SMR 100 and less = ▮ followed by specified intervals > 100 = ▮▮▮▮

All cancer mortality under 75 by ward
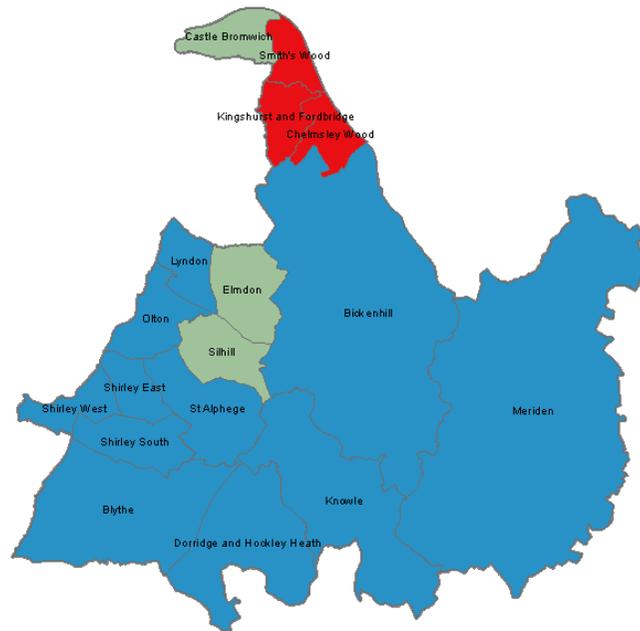
Range : 69.4 – 149.8, range 12.5

SMRs for Chelmsley Wood, Smith's Wood and Kingshurst and Fordbridge are significantly higher than all wards shaded blue except Meriden, Olton and Bickenhill. There is no significant difference between wards shaded green or red

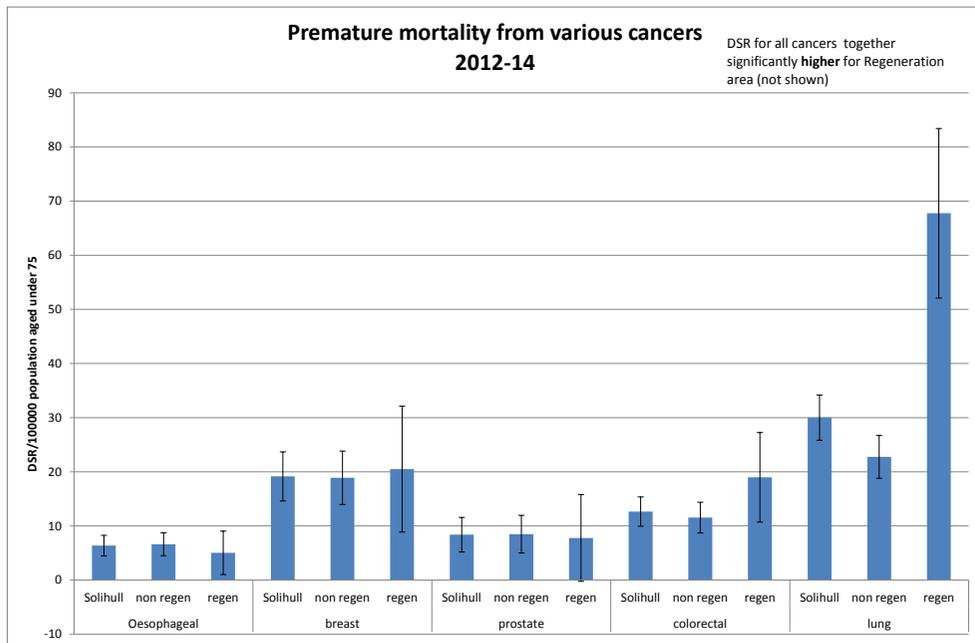These maps show an unequal burden of mortality linked to deprivation

Mortality and deprivation

Cancer deaths have been analysed by area to see if there is any link to deprivation. Directly age standardised rates for all cancers for the regeneration area (Chelmsley Wood, Kingshurst and Fordbridge and Smith's Wood) were significantly higher then non-regeneration areas and the Solihull average for all ages and <75s.
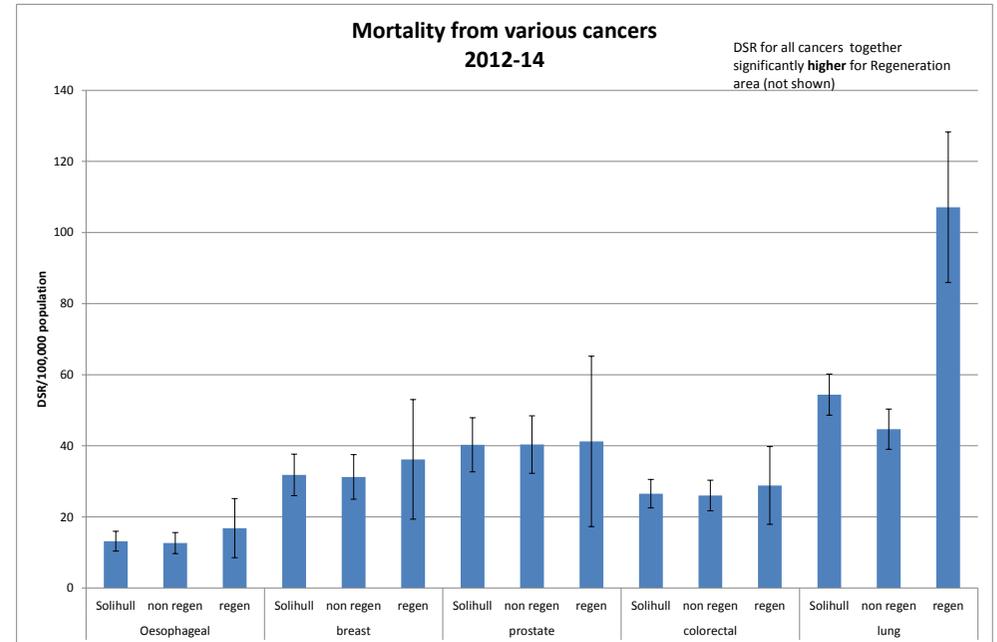
- Lung cancer was the only site looked at where the mortality rate was significantly higher for the regeneration area when compared to non-regeneration areas and Solihull average. This applies to all ages and <75s
- Mortality rates for the other cancers did not show significant differences between regeneration areas, non-regeneration areas and the Solihull average
- Mortality rates for <75s for all cancers, oesophageal, colorectal and lung cancers are approximately half those seen for all ages implying no age gradient for these conditions.

- Breast cancer mortality appears to be slightly more likely in the under 75 population
- Mortality rates for prostate cancer for <75s is only a quarter of that seen for all ages implying that prostate mortality is more common in older age groups

Premature mortality from various cancers 2012-14

DSR for all cancers together significantly **higher** for Regeneration area (not shown)

Mortality and ethnicity

Initial studies indicate no link between cancer deaths overall and ethnicity as the proportion of cancer deaths for people not born in the UK is similar to the proportion of people in the underlying population[46]

Mortality and disability

Links between disability (physical or learning) and cancer is difficult to establish because the nature of the disability will not be mentioned on the death certificate

unless it was a contributory factor in the death and with cancer this is unlikely to be the case.

Estimates of future mortality numbers

- Numbers of annual deaths from cancer have increased since 1995. The projected change is from ~500 in 1995 to nearer 600 in 2020, an increase of 18%
- At the same time the number of people dying under 75 has reduced.
- If these trends continue the number of older people dying of cancer is set to increase by ~100.
- These older people are likely to have other co-morbidities which could increase the complexity of the care that they will need

---

[46] Zafar's report

Palliative and end of life care

Palliative care

NHS Choices[47] states that "End of life care includes palliative care. If you have an illness that can't be cured, palliative care makes you as comfortable as possible, by managing pain and other distressing symptoms. It also involves psychological, social and spiritual support for patients, their families or carers. This is called a holistic approach, because it deals with you as a "whole" person". Palliative care can be delivered in a number of settings e.g. home, a care home, a hospital or a hospice by a variety of professionals such as a GP, community nurses, social workers, care workers and spiritual care professionals.

Palliative care registers in GP practices: trend
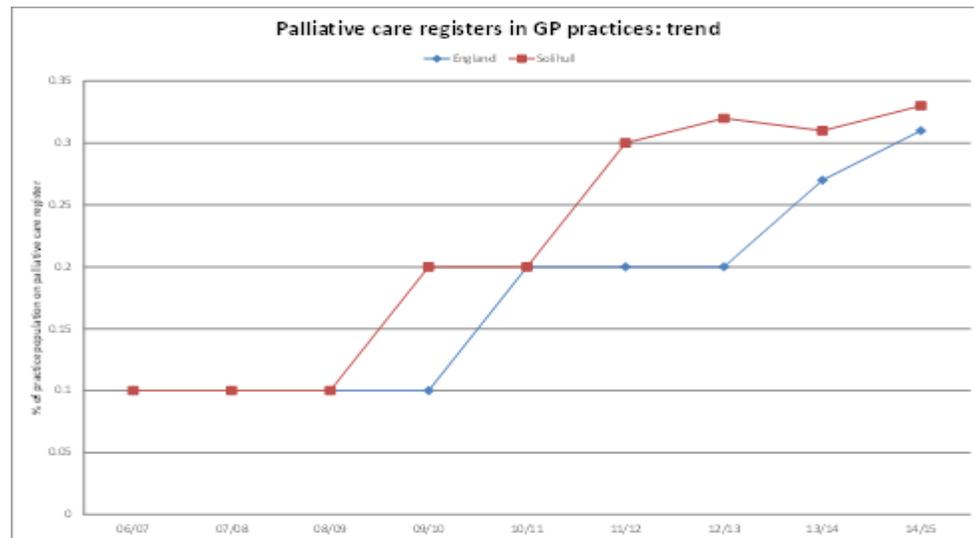
- The majority of people on a palliative care register are likely to be those receiving care for cancer.
- The percentage of patients on a practice list who are receiving palliative care is very small but has increased three-fold since registers started

End of life care

End of life care is an important part of palliative care for people who are nearing the end of their life. Mostly this applies to people who are considered to be in the last year of life and aims to help people to live as well as possible and die with dignity[48]. The Department of Health published an End of life Strategy in 2008[49] with the aim of promoting high quality care for all adults at the end of life. Alongside this strategy a gold standards framework (GSF) [50]exists for all people delivering end of life care. The aims of the framework are to improve the:-

- •quality of care for all people nearing the end of life, in line with their preferences.
- •coordination and collaboration within and between teams.
- •outcomes that matter to people, particularly reducing unwanted crises and hospitalisation, enabling more to live well and die well in the place and manner of their choosing.
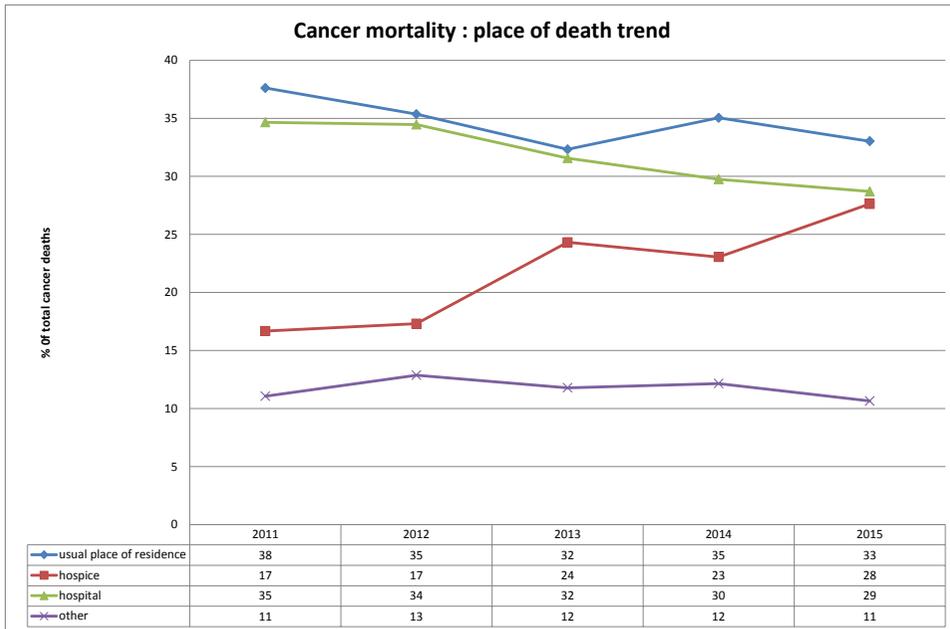
Place of death

End of life care includes allowing someone to die in the place of their choice. There is a need to understand how and where people die, particularly in respect of cancer. To ensure a compassionate and dignified end of life, services and support should be available for people to die in the place of their choice whether that is their own home, a care home, supported housing, in a hospice or in a hospital

---

[47] http://www.nhs.uk/Planners/end-of-life-care/Pages/what-it-involves-and-when-it-starts.aspx

[48] https://www.mariecurie.org.uk/help/terminal-illness/diagnosed/palliative-care-end-of-life-care
[49] https://www.gov.uk/government/publications/end-of-life-care-strategy-promoting-high-quality-care-for-adults-at-the-end-of-their-life
[50] http://www.goldstandardsframework.org.uk/

Cancer mortality : place of death trend

	2011	2012	2013	2014	2015
usual place of residence	38	35	32	35	33
hospice	17	17	24	23	28
hospital	35	34	32	30	29
other	11	13	12	12	11

Cancer mortality - Place of death (2011-2015)

- home 34%
- hospice 22%
- hospital 32%
- other 12%

- Since 2011 cancer deaths in hospital have reduced by 6% from 35% to 29%. Although hospitals are encouraged to follow the Gold Standard Framework this reducing trend should continue
- Between 2011 and 2015, hospice cancer deaths increased by 11% (17% to 28%). Solihull is fortunate to have a hospice within its boundary and is close to other provision so this increasing trend may continue
- Usual place of residence, which includes own home or a care home given as usual address, has reduced slightly (5%)
- Cancer deaths in "other" places have remained fairly static between 2011 and 2015 at 11%. "Other" includes care homes and private addresses that are not given as usual address
- Between 2011 and 2015, 1 in 3 people died in their own home and 1in 3 died in hospital. 1 in 5 in a hospice and 1in 7 died elsewhere.

Key points

Men more likely to die than females

Mortality rate from cancer reducing, both all age and premature deaths

Solihull mortality rate is not significantly different from that for England (unlike incidence)

Older people more likely to die than people aged under 75

Digestive and respiratory system cancers are main cause of mortality. Many of these deaths could be prevented by changes to lifestyle.

There is a high rate of cancer deaths in areas of deprivation, the main cause being lung cancer

Number of people receiving palliative care is increasing

Cancer deaths in hospital reducing in favour of other options

Cancer Spend

Cancer (with Social Care)

comparators spend. Spend for lower GI, lung and other cancers is below that for comparators, the rest are the same

Cancer spend (£)by site 2015
Total/head = £47

The amount of money spent in 2015 on cancer and tumours falls in to the "lower than spend with worse outcome" category according to the Spend and Outcome Tool (SPOT) tool shown above[51]

Cancers	Local	Z score	National	Commissioning Region	NHSE cluster	Deprivation decile
Cancers and tumours	£47		£49	£50	£48	£56
Mortality from cancer, >75, DSR, Persons	129		123	124	139	117
Potential years of life lost - Neoplasms	665		626	647	665	636
% One-year survival from all cancers	69%		68%	68%	67%	69%

This equates to £47/ head (see table) which is slightly below the average spend for national, commissioning region, NHSE Cluster and deprivation decile. Highest spend is on breast and urological cancers. This spend is slightly higher than

The SPOT tool shows that Solihull also has an above average DSR for premature cancer mortality and for potential years of life lost but 1 year % survival is slightly above the national and regional average.

Further analysis using the SPOT tool shows that it is likely that male premature mortality is driving the worse outcome seen in the quadrant analysis. This premature mortality also probably contributes to the higher than average potential years of life (PYLL) lost as well as the high DSR for neoplasms amenable to healthcare.

Selected measures for Solihull	Local value	Z score -3 -2 -1 0 1 2 3
Cancers		
Cancers and Tumours	£47	
Mortality from cancer, <75yrs, DSR, persons.	129	
Mortality from cancer, <75yrs, DSR, females.	107	
Mortality from cancer. <75yrs, DSR, males.	151	
Potential years of life lost - Neoplasms	665	
DSR (PYLL) from Neoplasms amenable to healthcare	665	
% One-year survival from all cancers	69%	
% Record of stage of cancer at diagnosis	66%	
% cancers detected at stage 1 and 2	48%	
Patients on Cancer Register (CAN001 / CANCER01)	2.6%	
% cancer with review (CAN003 /CAN002 / CANCER03)	93%	

Mortality from cancer <75 males
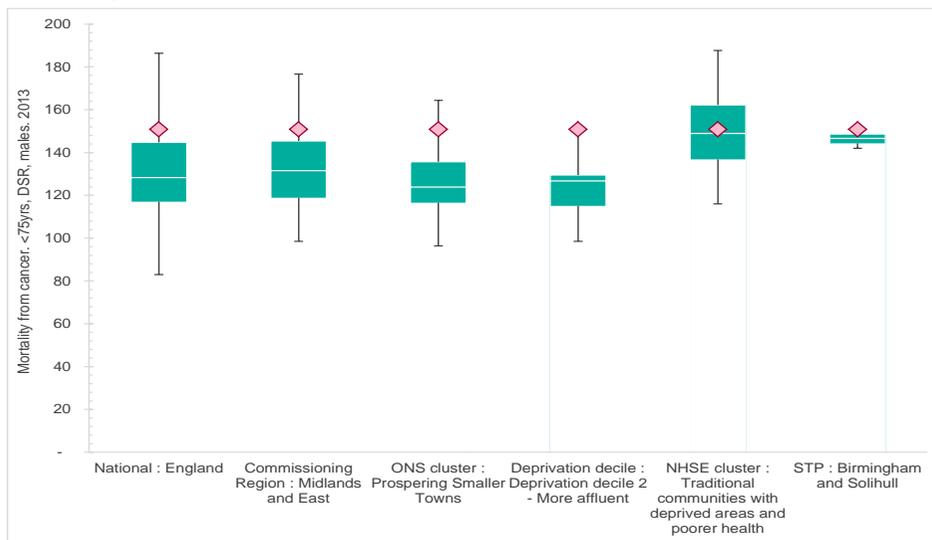
Solihull is only similar to its NHSE cluster for <75 male mortality; it is an outlier when compared to the other comparators

Data from another source[52] looks at spend per 1,000 age –sex weighted population. Solihull's overall spend does not differ significantly from the best 5

---

[52] NHS RightCare, commissioning for value focus pack, cancer and tumours May 2016

CCGs in Solihull's comparator group; elective spend is significantly higher than the best 5 but there is no significant difference in non-elective spend.

Indicative spend by site is as follows:-
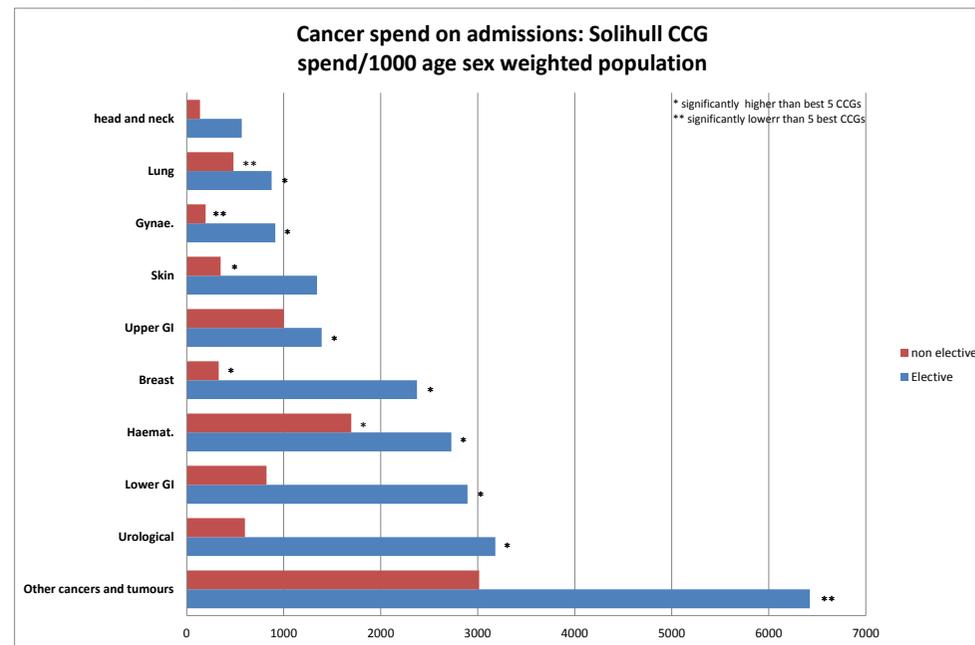
Highest elective spend is for urological cancers, lowest is for head and neck. Non elective spend does not follow the same pattern as elective spend but where elective spend is significantly high, non elective in a couple of instances is significantly low. This may indicate less people being diagnosed through a non elective route. Haematological spend is high but incidence is low so this is probably a small number of complex cases.

The RightCare packs include a lot more data to help interpret this spend like number of admissions and procedures carried out. The report also has indicative primary care prescribing spend. All this is supported by "opportunity tables" to help where to look to improve the patient pathway.

National Cancer Patient Experience Survey 2015[53]

This is the fifth iteration of an annual survey that aims to monitor progress on cancer care. The information in it is meant to drive local quality improvements; aid commissioners and providers of care and inform the work of charities and stakeholders who support cancer patients.

The questions are grouped into 11 overall sections that follow the patient journey:-

- Seeing your GP
- Diagnostic Tests
- Finding out what was wrong with you
- Clinical nurse specialist
- Support for people with cancer
- Operations
- Hospital care as an inpatient
- Hospital care as a day patient/outpatient
- Home care and support
- Care from general practice
- Your overall NHS care

Certain questions in the above sections are also included in the Cancer dashboard developed by public Health England and NHS England. The questions are phrased in such a way that a low % is a worse experience. Overall Solihull patients rated their experience on a scale of 1(very poor) to 10 (very good) as **8.7.**

For most questions, the Solihull patient experience was rated within the expected range but the following table shows where this was not the case. These differences are statistically significant. Response to Q8 is significantly better whereas the rest are worse.

National Cancer Patient Experience Survey 2015
NHS Solihull CCG

Questions which scored outside expected range

Question		Number of respondents for this CCG	2015 Percentage for this CCG	Lower limit of expected range	Upper limit of expected range	National Average Score
				2015 Case-mix Adjusted		
Seeing your GP						
Q2	Patient thought they were seen as soon as necessary	311	77%	78%	87%	82%
Finding out what was wrong with you						
Q8	Patient told they could bring a family member or friend when first told they had cancer	289	89%	74%	83%	79%
Deciding the best treatment for you						
Q14	Patient given practical advice and support in dealing with side effects of treatment	312	61%	61%	71%	66%
Hospital care as an inpatient						
Q37	Always treated with respect and dignity by staff	217	82%	83%	92%	87%
Home care and support						
Q49	Hospital staff gave family or someone close all the information needed to help with care at home	260	51%	51%	64%	58%
Care from your general practice						
Q53	Practice staff definitely did everything they could to support patient	214	53%	56%	69%	63%

For the 6 questions that are included in Cancer dashboard the Solihull experience was within expected range for 4. The remaining two were significantly worse. These were,

1. Q37 *Always treated with respect and dignity* scored 82% compared to 87% nationally
2. *Q53 Practice staff definitely did everything they could to support patient* scored 53% compared to 63% nationally

Survey responses were also analysed by tumour site but numbers were small so differences are unlikely to be significant. However, patients with breast cancer gave the largest number of responses (42%) that were below the national response followed by 36% of responses below average from colorectal cancer patients.

Conclusions

This needs assessment shows that cancer incidence is increasing and mortality is decreasing. One year and 5 year survival is also increasing suggesting early diagnosis and subsequent treatment is good in Solihull. Cancer affects older people more and as Solihull has a larger proportion of older people than similar areas so it is predicted that more Solihull people will live with and beyond cancer.

Cancer screening uptake overall in Solihull is good which is no surprise as higher socioeconomic groups regard attending screening as part of leading a healthy lifestyle. However there is large variation across the borough. This gives opportunity for improvement in uptake, particularly in lower socioeconomic groups.

Cancer incidence is currently significantly higher in Solihull when compared to England for both men and women. This in part may be due to Solihull having better systems to identify and record cases as well as having a generally more cancer aware population. However there is cross borough variation. High incidence levels in some wards in the north of the borough are probably due to higher levels of reported lung cancer whereas high incidence in Meriden is possibly due to increased uptake of screening and subsequent identification.

Solihull has significantly high levels of new cases of non melanoma skin cancer and prostate cancer. Both could be linked to affluence e.g. with skin cancer linked to higher levels of overseas travel at a time when the population was less sun aware and high incidence of prostate cancer perhaps linked to the availability of private testing. Other reasons such as the age of the population in high incidence areas and the willingness of the population to consult a doctor with suspicious symptoms may also influence numbers.

Early diagnosis of cancer is significantly high in Solihull when compared to England so the referral system appears to work well. However the detection of new cases through the two week wait referral for urgent suspected cancers does appear to have a weak inverse link with deprivation but the conversion rate does not appear to be linked to deprivation, so once in the system patients from north and south Solihull are equally likely to be diagnosed. Only small numbers of cancers are detected through emergency presentations

One year cancer survival has steadily increased since 1998 in all age groups and for the main cancers, breast, colorectal and lung, although lung still has a very low survival rate compared to the other two. People diagnosed with 14 out of 20 major cancers now have at least a 7 in 10 chance of surviving 1 year.

1 year survival is very dependent on the stage that diagnosis is made. Solihull is good at recording stage and also for diagnosing at stages 1 and 2 (best in comparator group for both).Five year survival has also increased steadily since 1998 and although less than for 1 year there is still at least a 1in 2 chance of surviving for 5 years following diagnosis with 13 out of 20 major cancers. This reduces to at least a 1 in 2 chance of survival for 12 of 20 cancers at 10 years.

Treatment is a very important contributor to 1 year survival. Once diagnosed, the majority of Solihull patients are treated within current guidelines.
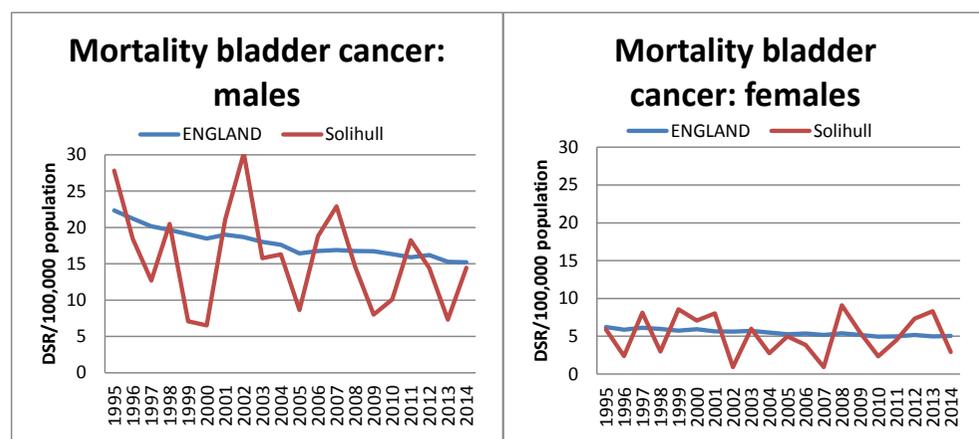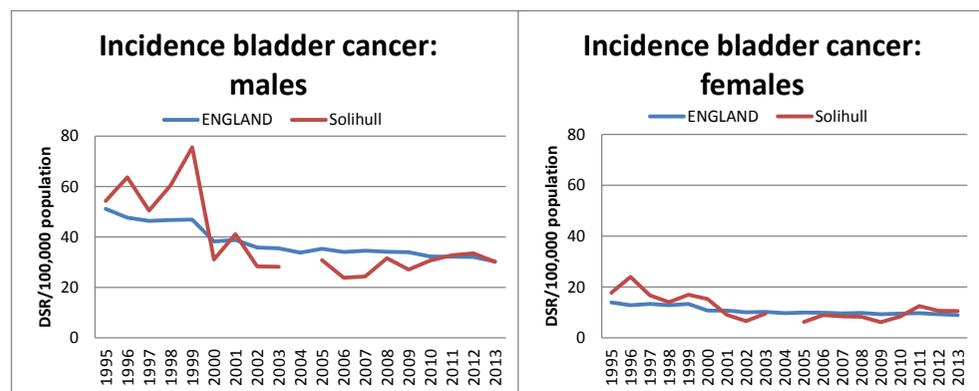
Mortality rates have also seen a decrease in recent years, although this reduction is not as large as seen with cardiovascular disease. The mortality burden is also unequally distributed across the borough and this difference is mainly due to lung cancer. Other lifestyle linked cancers also contribute to the overall cancer mortality rate. There is good evidence that people with terminal cancer are being supported to die in a place of their choice.

Increased survival rates means a steady increase in the number of people requiring on-going support. By 2020 it is estimated that between 9,000 and 12,000 could be living with cancer in Solihull with a variety of support needs.

The national cancer survey has highlighted a level of dissatisfaction with services prior to diagnosis and post treatment and these concerns need to be addressed.

Appendix 1: Cancers by site

Bladder cancer

Incidence bladder cancer: males

Incidence bladder cancer: females

Mortality bladder cancer: males

Mortality bladder cancer: females

Bladder cancer: % net survival


Bladder cancer: 1 year survival by stage

Incidence and mortality from bladder cancer has reduced since 1995 in line with England. Men are still twice as likely as women to be diagnosed with bladder cancer and also twice as likely to die. This may be due to lifestyle or it could due to men being inadvertently exposed to carcinogenic substances through their work. Improved health and safety has reduced this as a cause.
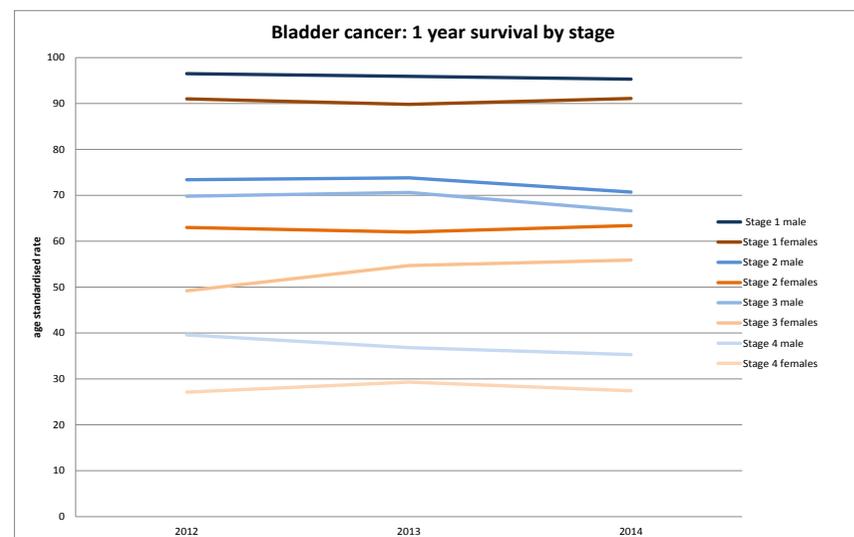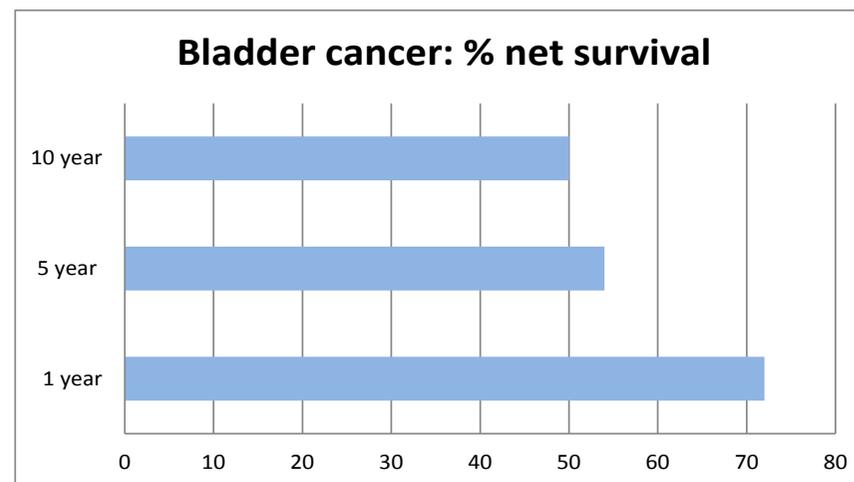
There are gender differences in 1 year net survival depending on the stage at diagnosis. At all stages, men have better survival rates than women particularly at stages 2 and 3, where men diagnosed at stage 3 have better 1 year net survival than women diagnosed at stage 2.

Breast cancer

Incidence breast cancer

Mortality breast cancer
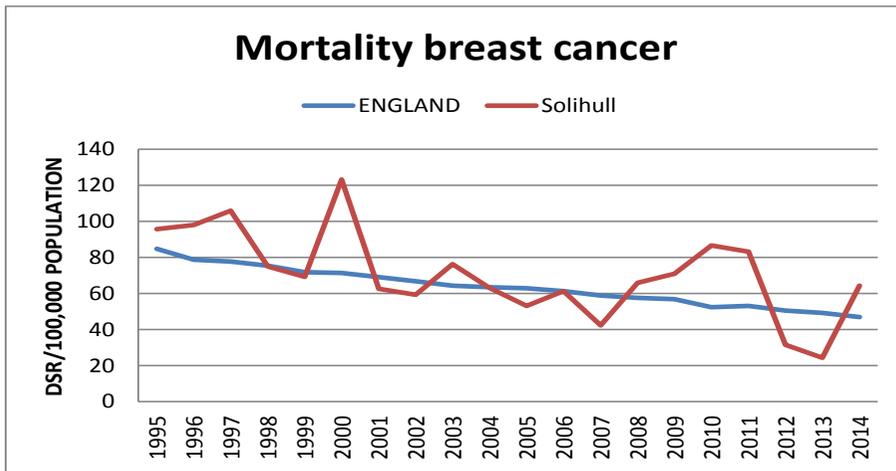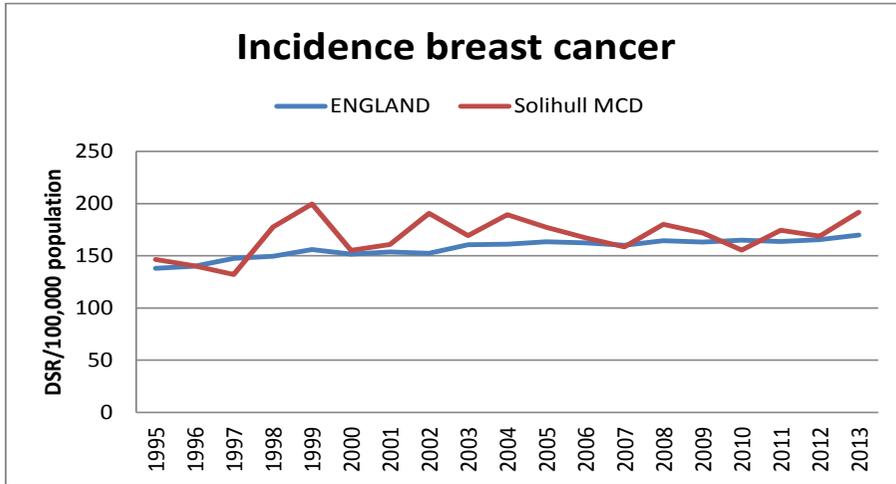
Solihull incidence for breast cancer has increased and mortality decreased in line with England since 1995. Breast cancer diagnosed at stages 1-3 have a greater than 90% net 1 year survival rate, but if diagnosed at stage 4 net 1 year survival reduces to just over 60%, emphasising the importance of early detection.

Breast cancer: % net survival

Breast cancer: 1 year survival by stage
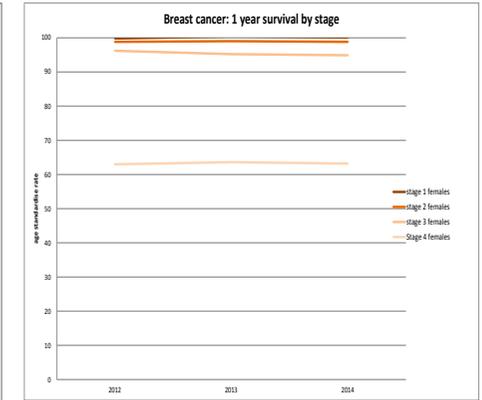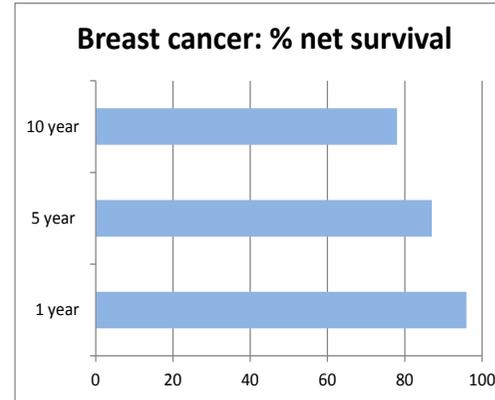
Breast cancer incidence by ward
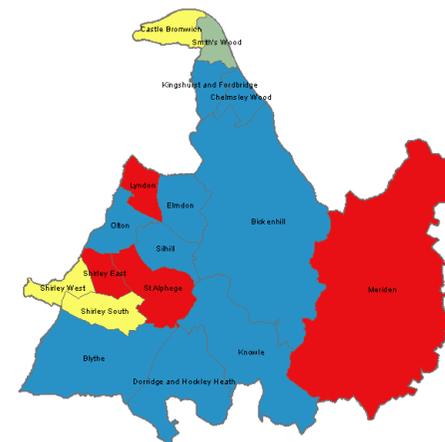
Range: 72.7 – 122.9 interval above 100 = 5.7

There is no significant difference between breast cancer mortality across Solihull wards and no apparent link with deprivation/affluence despite higher mortality rates seen in some wards in the south of the borough.

Note: For all maps SMR 100 and less = ▆ followed by specified intervals > 100

Cervical cancer

Incidence cervical cancer

ENGLAND — Solihull MCD

Mortality cervical cancer
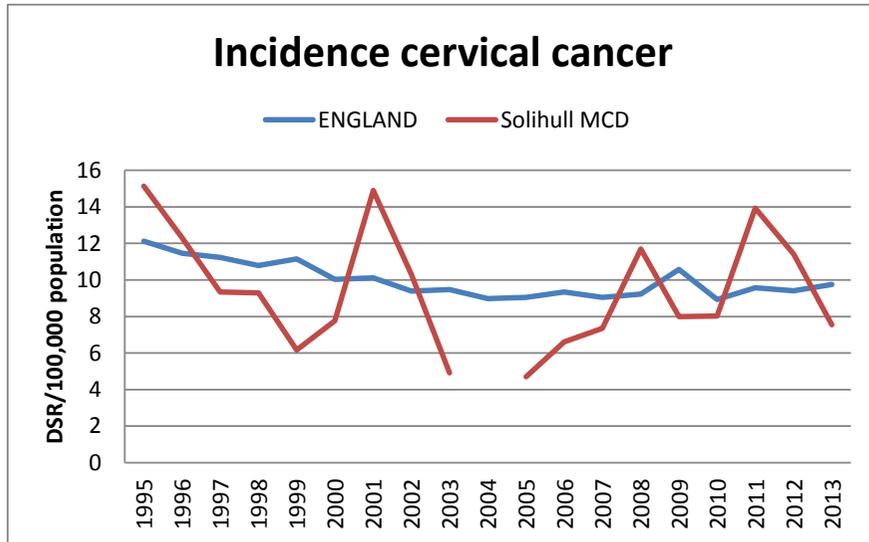
ENGLAND — Solihull

There are small numbers for both incidence and mortality for cervical cancer in Solihull. Solihull's incidence rate is in line with that for England and both have reduced slightly since 1995. The mortality rate has also reduced for both since 1995 but Solihull's rate shows a generally larger reduction.
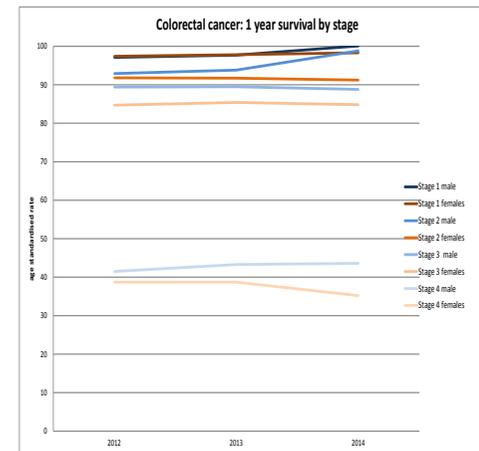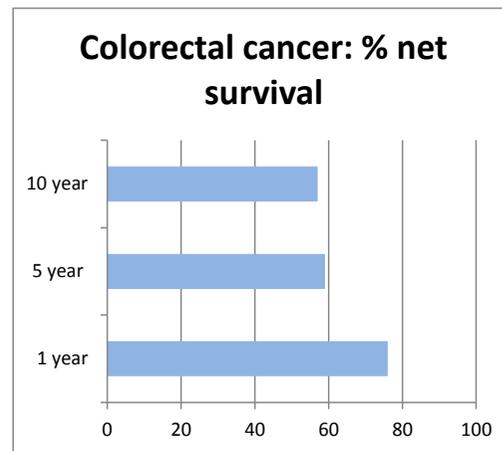
Cervical cancer: % net survival
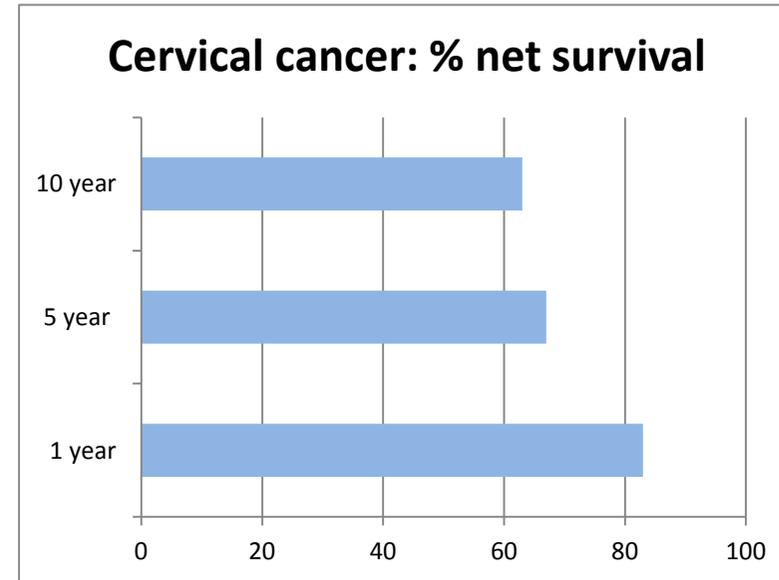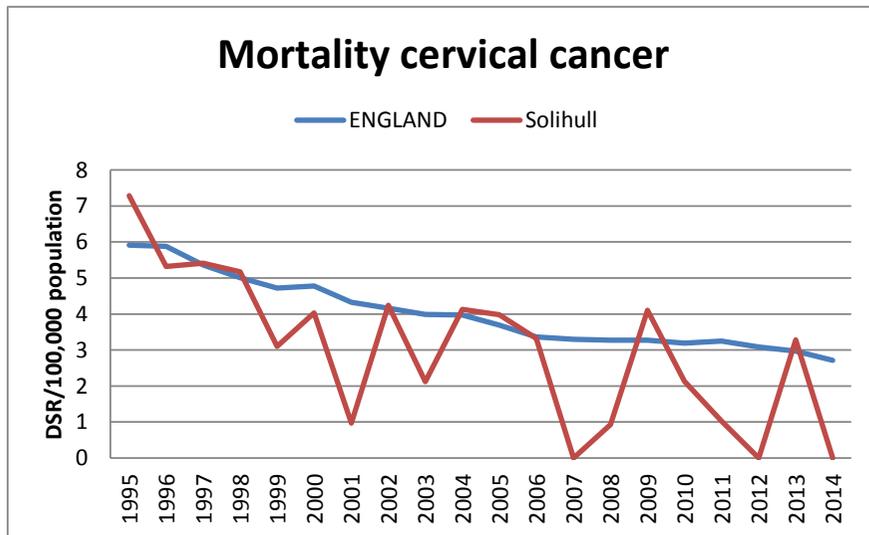
% net survival is relatively good but female gynaecological cancers have lower survival rates than male genital cancers.

Colorectal cancer

Incidence colorectal cancer: males

Incidence colorectal cancer: females

Mortality colorectal cancer: males

Mortality colorectal cancer: females
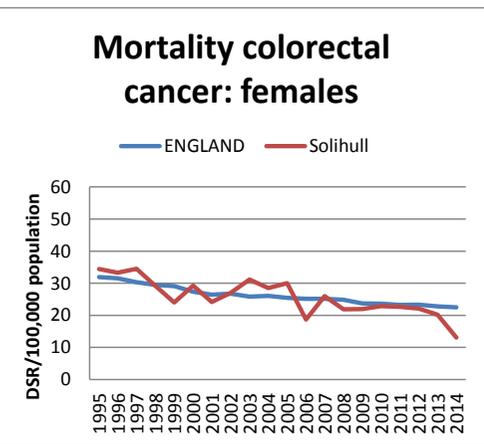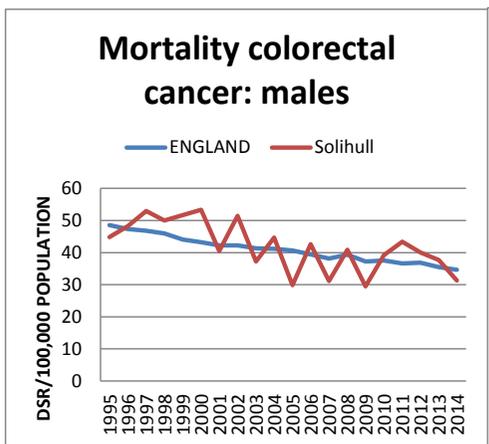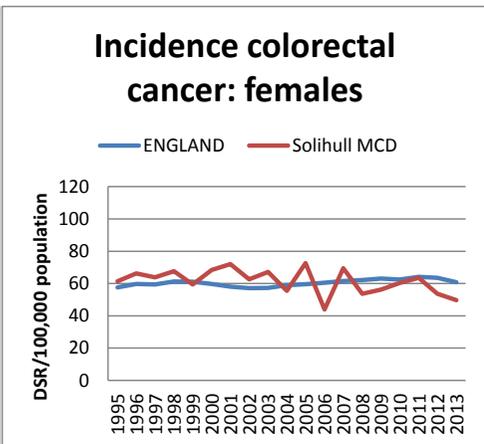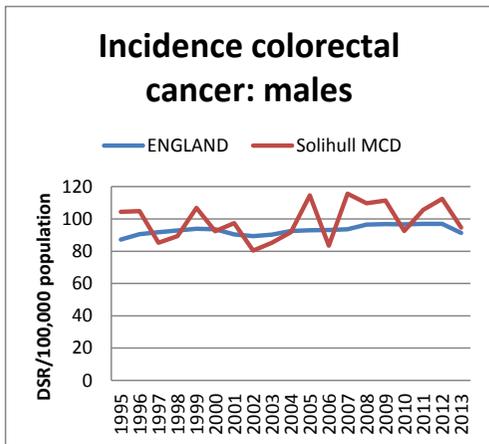
Incidence rates of male colorectal cancer are similar for Solihull and England have increased by about 10% since 1995. Incidence of female colorectal cancer is lower than that seen for males and has remained stable since 1995 for both Solihull and England. Mortality from colorectal cancer has decreased for both males and females over the same period for Solihull and England although females are still less likely to die from the condition. This improved picture may be due to increased uptake of bowel screening.

Colorectal cancer: % net survival

Colorectal cancer incidence by ward

Range 83.5 – 126.5, interval above 100 =6.6

Colorectal cancer: 1 year survival by stage

1 year net survival statistics show relatively good rates if colorectal cancer is diagnosed at stages 1-3 but greatly reduced chances of survival for both males and females if diagnosed at stage 4.

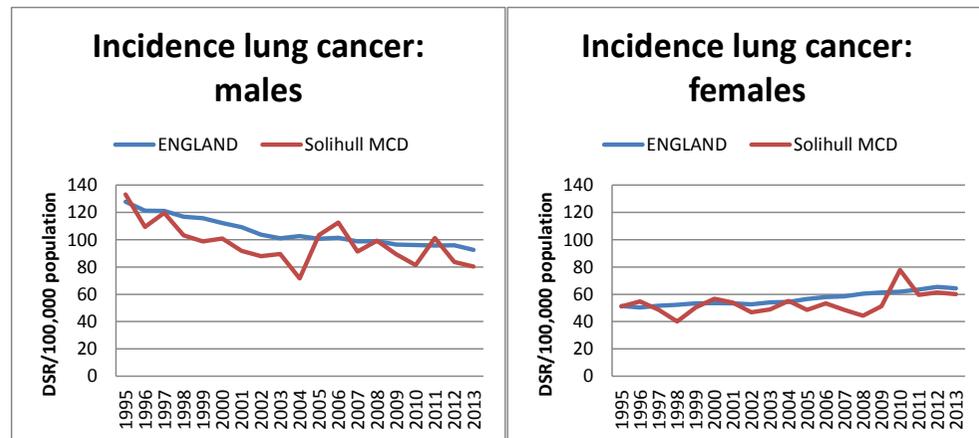There is no significant difference between ward incidence and no apparent link to deprivation.

Note: For all maps SMR 100 and less followed by specified intervals > 100 =

Lung cancer

Incidence lung cancer: males
ENGLAND — Solihull MCD
DSR/100,000 population

Incidence lung cancer: females
ENGLAND — Solihull MCD
DSR/100,000 population

Mortality lung cancer: males
ENGLAND — Solihull
DSR/100,000 population

Mortality lung cancer: females
ENGLAND — Solihull
DSR/100,000 population

Incidence and mortality of male lung cancer has reduced since 1995 for both England and Solihull. Incidence of female lung cancer is less than that for males but has increased since 1995.This may be indicative of changing smoking habits. Female mortality has remained stable.

If lung cancer is diagnosed at an early stage % net survival is far greater than if diagnosed at stage 4. However data from Cancer Research UK shows that overall % net survival is poor compared to other cancers

Lung cancer: % net survival

Lung cancer: 1 year survival by stage
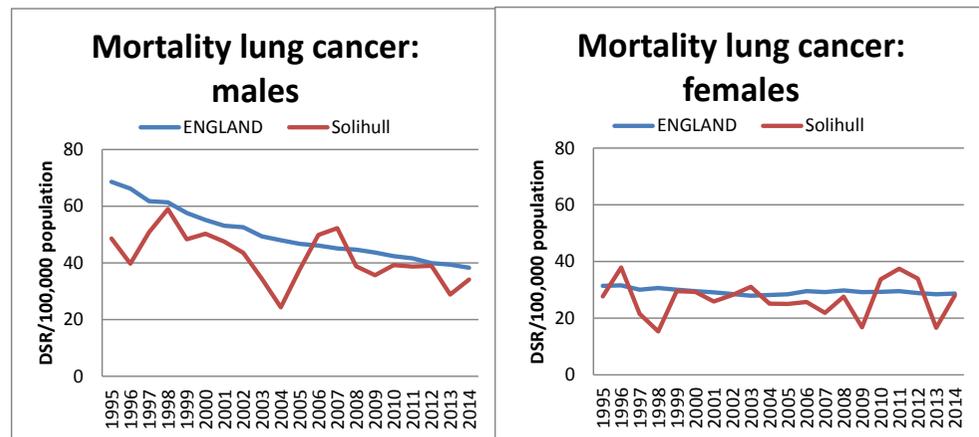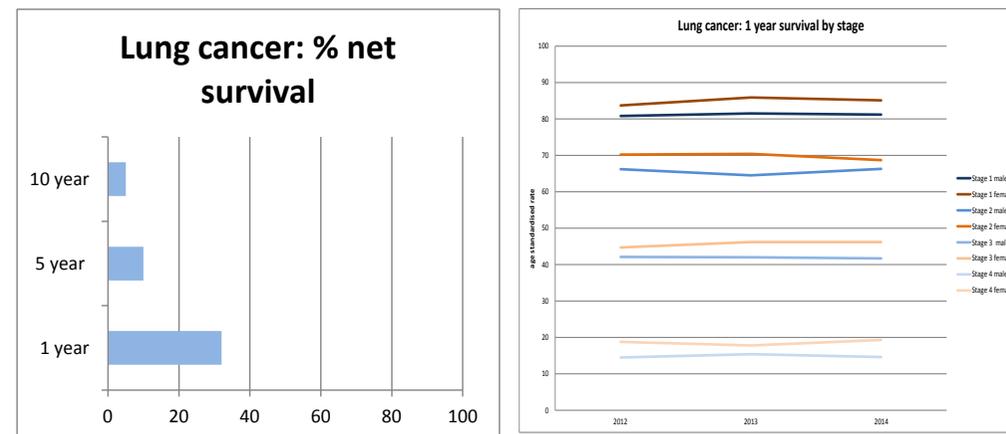
Incidence lung cancer by ward

Regeneration wards (Chelmsley Wood, Kinghsurst and Fordbridge and Smith's Wood) have significantly higher SIRs than all wards except Bickenhill and Lyndon. This implies a link between lung cancer and deprivation.

Range 49.3-204.9 Interval above 100 = 26.3

Malignant melanoma

Incidence malignant melanoma: males

Incidence malignant melanoma: females

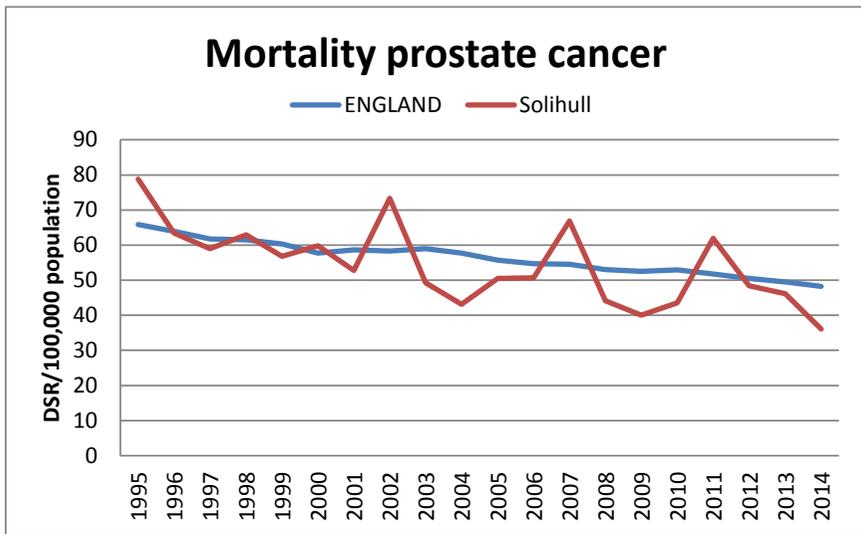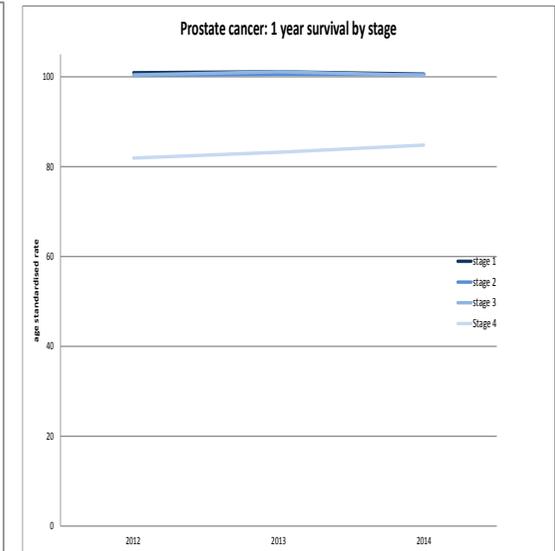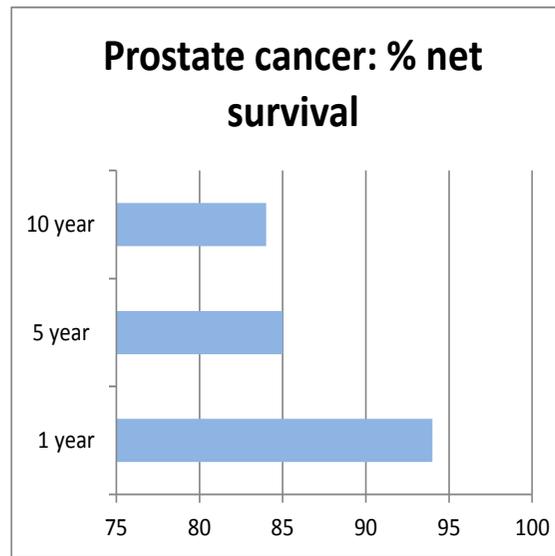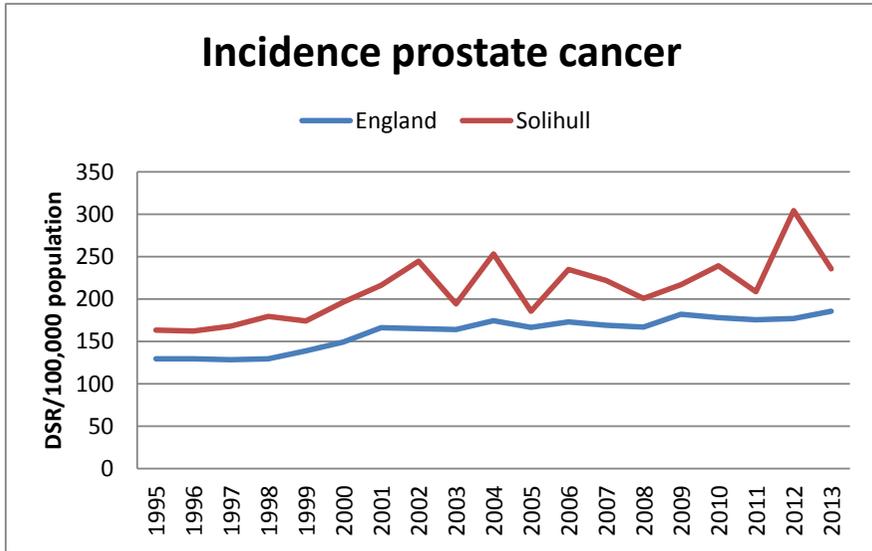### Malignant melanoma: % net survival
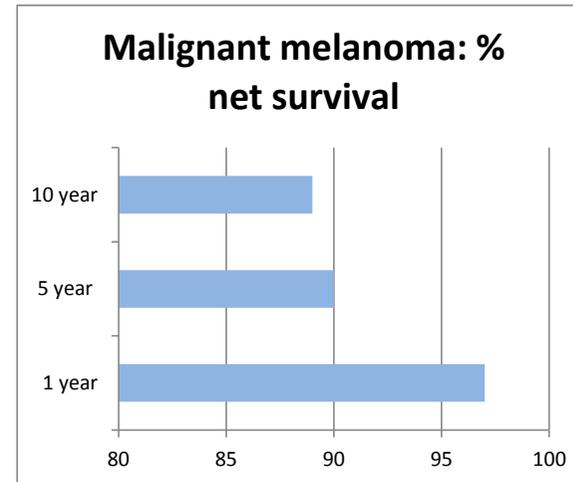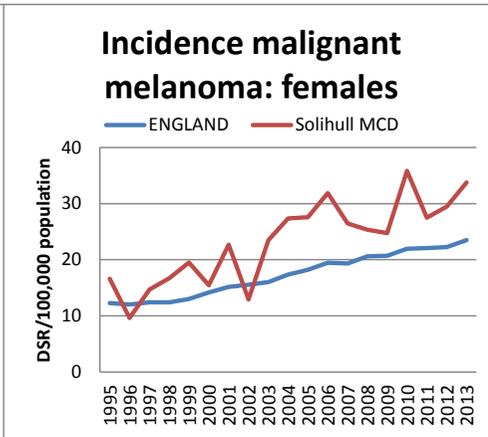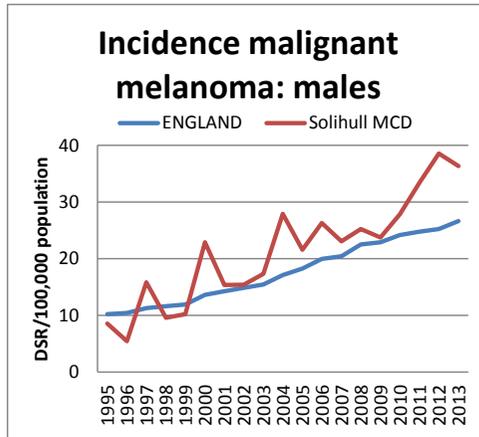
% net survival is relatively good even at 10 years post diagnosis.

1 year net survival rates are good for both males and females as long as diagnosis is made early. At each stage female survival is slightly better than that for males. Diagnosis at stage 4 leads to an ~ fall in net survival at 1 year of at least 40%.

Mortality malignant melanoma: males

Mortality malignant melanoma: females

Malignant melanoma: 1 year survival by stage
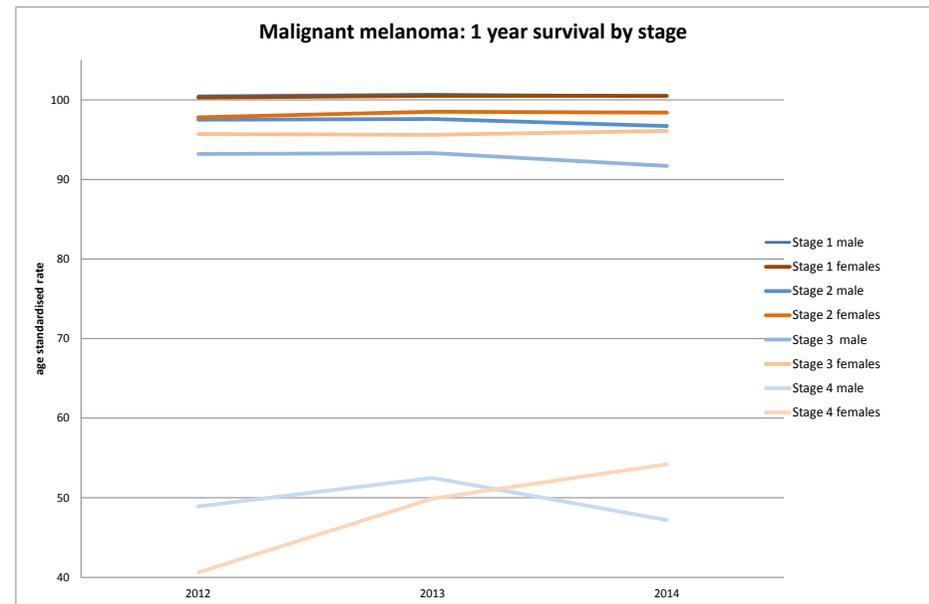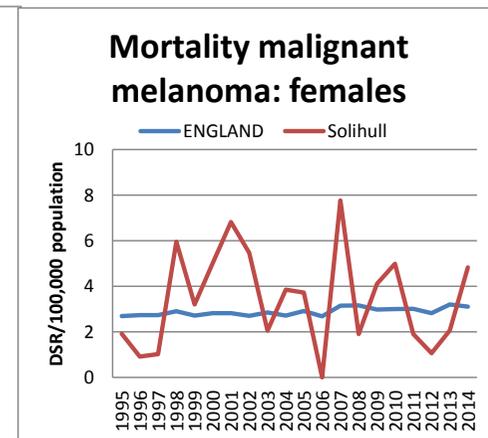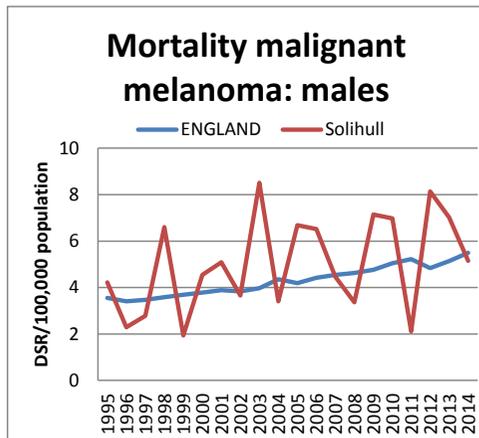
Incidence of malignant melanoma in Solihull has generally increased since 1995 at a faster rate than that seen for England. This applies to both male and female incidence but unlike other cancers there is only a small gender difference. However mortality in males is increasing steadily but female mortality has been stable since 1995.

Prostate cancer

Incidence prostate cancer

— England   — Solihull

DSR/100,000 population

350, 300, 250, 200, 150, 100, 50, 0

1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

Prostate cancer: % net survival

10 year

5 year

1 year

75   80   85   90   95   100

Prostate incidence by ward

Prostate cancer: 1 year survival by stage

age standardised rate

100, 80, 60, 40, 20, 0

stage 1
stage 2
stage 3
Stage 4

2012   2013   2014

Mortality prostate cancer

— ENGLAND   — Solihull

DSR/100,000 population

90, 80, 70, 60, 50, 40, 30, 20, 10, 0

1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

Incidence of prostate cancer is higher in Solihull than England. For both areas there has been a steady increase in incidence since 1995. In contrast, mortality has reduced at a similar rate for both Solihull and England

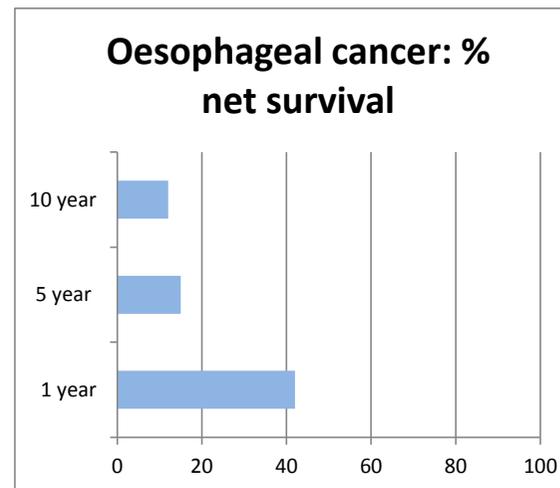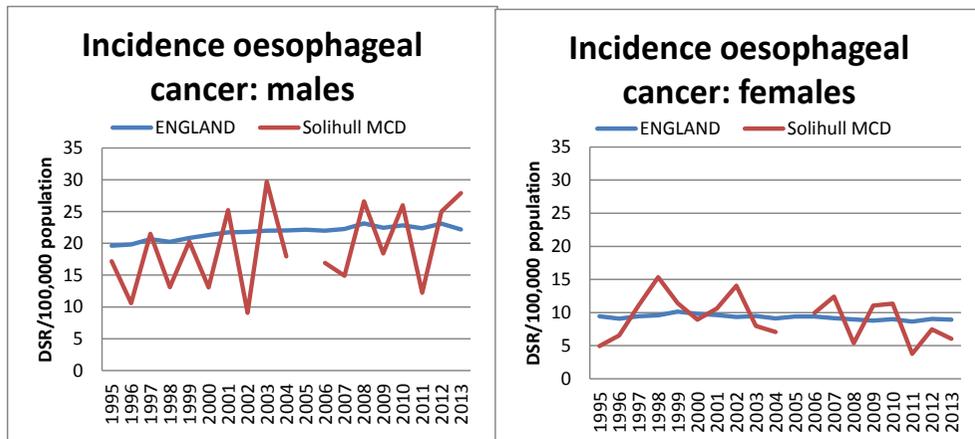Range: 80.2 -160.8, interval above 100 =15.2

Overall % net survival for prostate cancer is relatively good even at 10 years post diagnosis.

Prostate 1 year net survival is 100% if diagnosed at stages 1-3. Diagnosis at stage 4 leads to a 10% reduction in survival at 1 year.

Knowle ward has a significantly higher incidence rate than Kingshurst and Fordbridge. Otherwise, there is no difference between wards.

Oesophageal cancer

Incidence oesophageal cancer: males

ENGLAND — Solihull MCD

DSR/100,000 population — 0 to 35, years 1995–2013

Incidence oesophageal cancer: females

ENGLAND — Solihull MCD

DSR/100,000 population — 0 to 35, years 1995–2013

Mortality oesophageal cancer: males

ENGLAND — Solihull

DSR/100,000 population — 0 to 35, years 1995–2014

Mortality oesophageal cancer: females

ENGLAND — Solihull

DSR/100,000 population — 0 to 35, years 1995–2014

Oesophageal cancer: % net survival
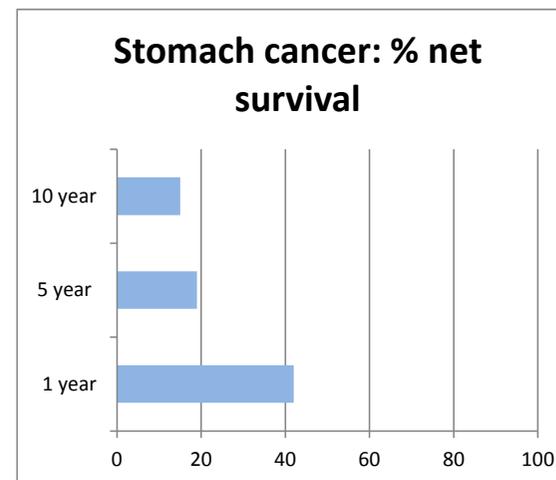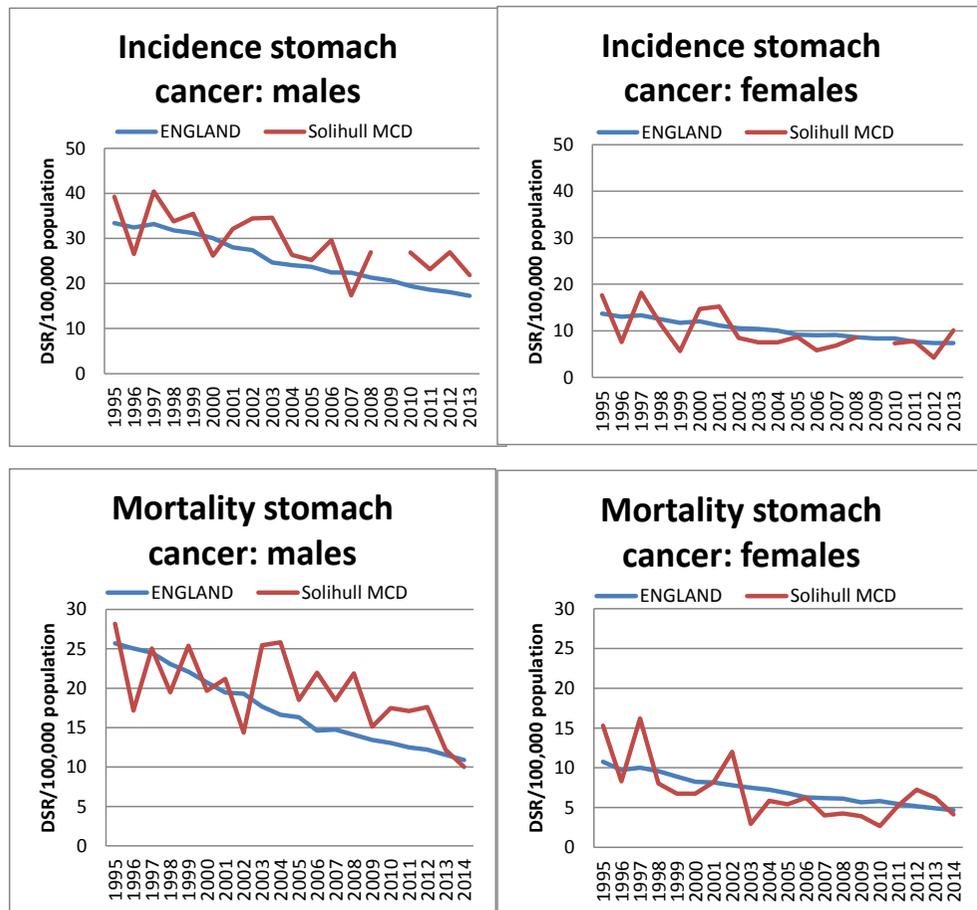
10 year, 5 year, 1 year — scale 0 to 100

% net survival is generally poor compared to other cancers but is in line with that for stomach cancer (see later) and is only slightly better than that for lung cancer. Data for % net survival by stage not available.
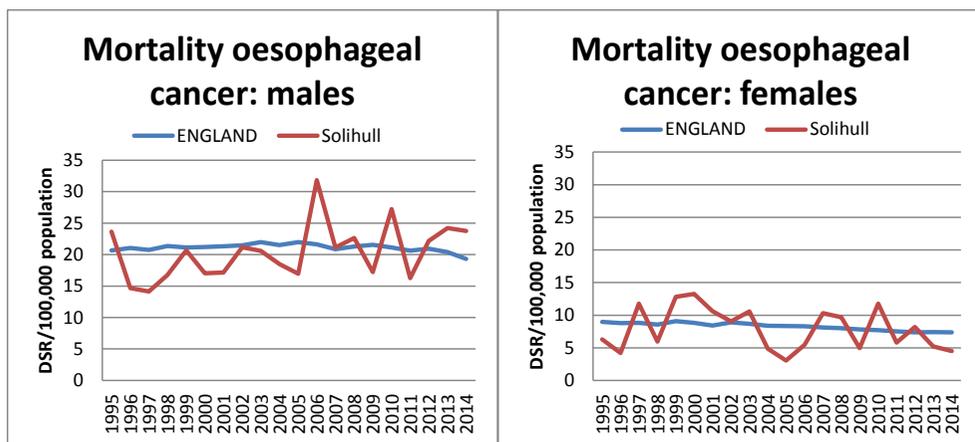
Incidence of oesophageal cancer in men has generally risen in Solihull since 1995 and is now at a similar level as that for England. For females, incidence over the same period has been stable for England and Solihull. Because of small numbers, the Solihull rate fluctuates more but the trend is generally similar.

Stomach cancer

Incidence stomach cancer: males

Incidence stomach cancer: females

Stomach cancer: % net survival

Mortality stomach cancer: males
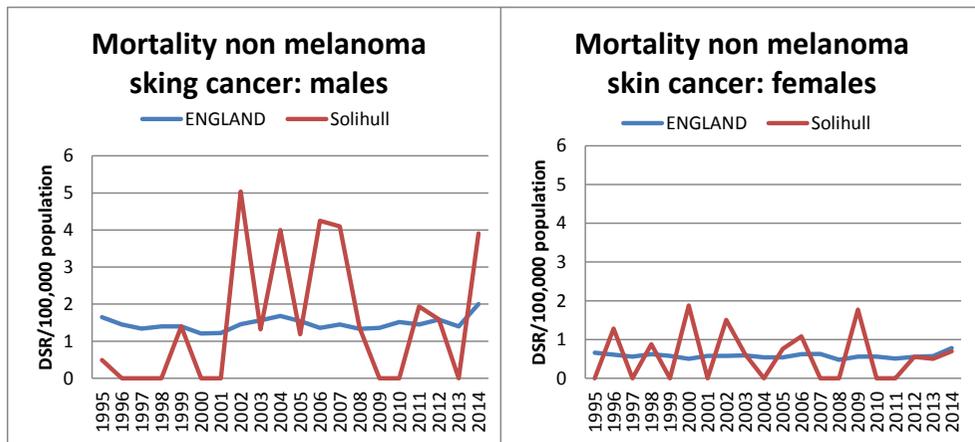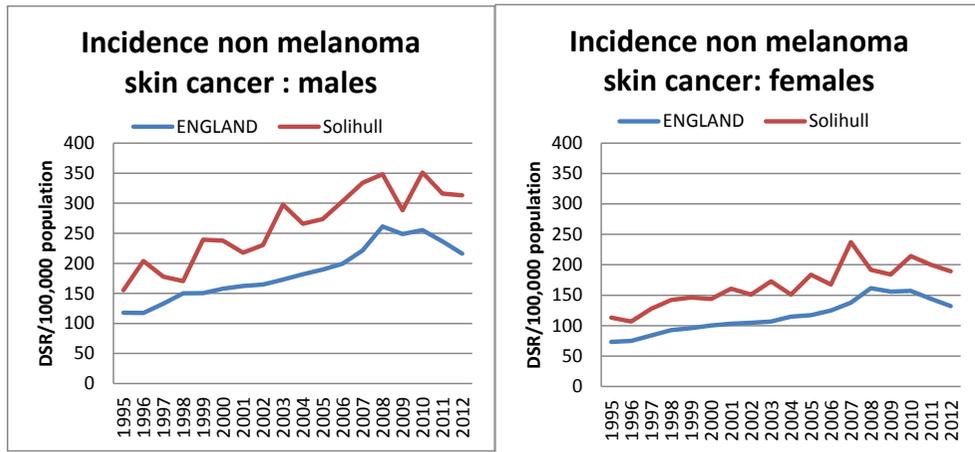

Mortality stomach cancer: females

Along with other cancers largely affected by lifestyle, % net survival for stomach cancer is poor.

Males are more likely to suffer from stomach cancer than females but incidence and mortality rates have been following in both since 1995. Solihull rates of this type of cancer are similar to those for England. Solihull male mortality appears to be slightly higher but is not significantly so.

There is less data published on the following cancers.

Uterine

Non melanoma skin cancer

Incidence non melanoma skin cancer : males

Incidence non melanoma skin cancer: females

Mortality non melanoma sking cancer: males

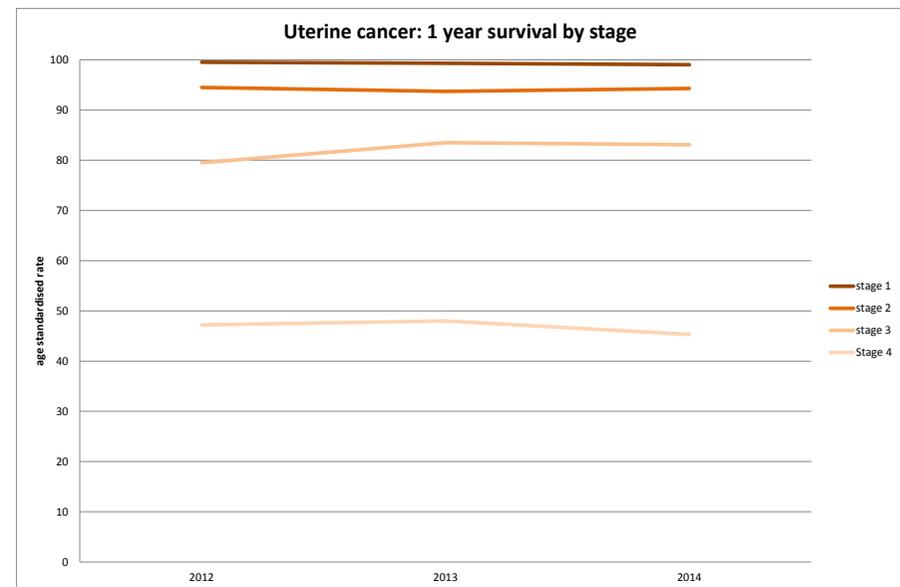### Mortality non melanoma skin cancer: females

Incidence of non melanoma skin cancer is high in Solihull for both males and females but mortality is very low and rates fluctuate due to small numbers.
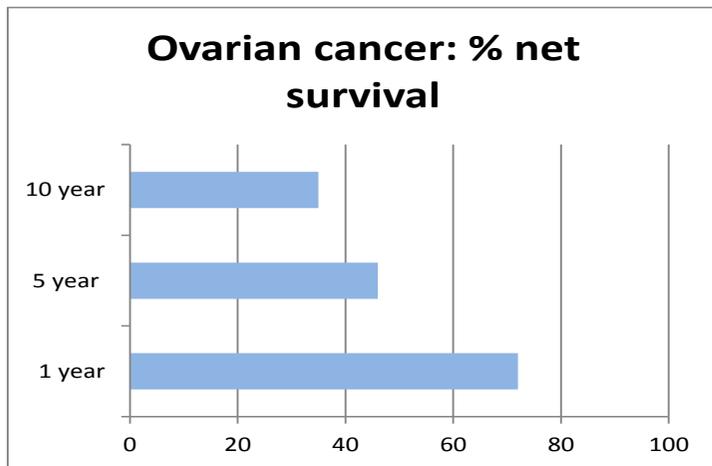
Uterine cancer: % net survival
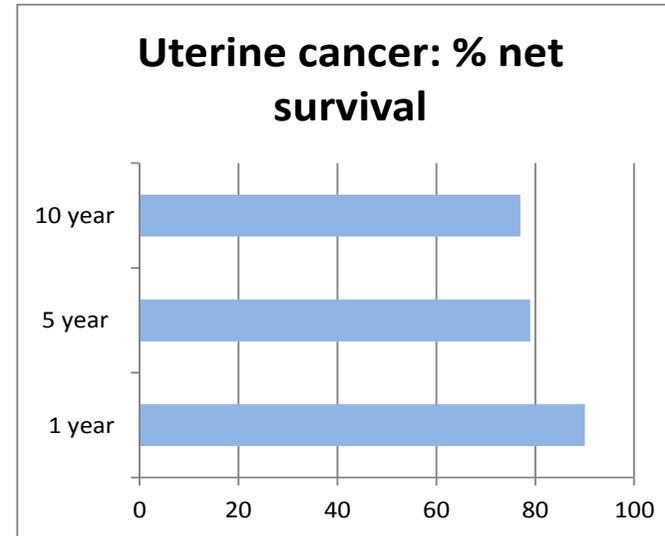
% net survival for uterine cancer is relatively good and is increased by early diagnosis

Uterine cancer: 1 year survival by stage
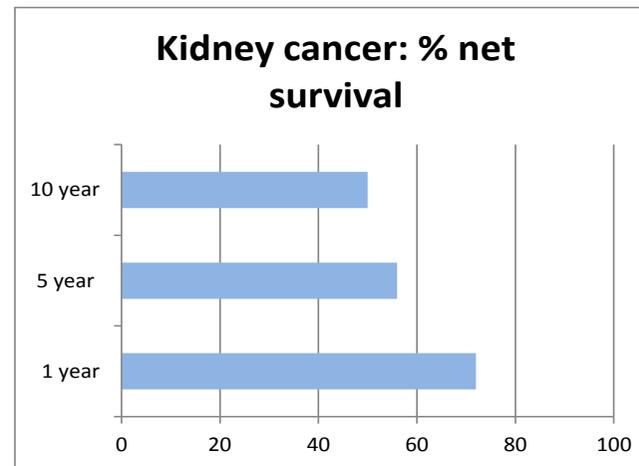
Ovarian

Ovarian cancer: % net survival

Ovarian cancer net survival is not as good as other cancers and this may due to difficulty of early diagnosis through the lack of obvious symptoms. As with other cancers, the earlier the diagnosis the better the net survival rate.

Ovarian cancer: 1 year survival by stage

Kidney


Kidney cancer: % net survival

% net survival for kidney cancer is not as good as other cancers and this may be because it appears to be diagnosed at a later stage. If diagnosed at an earlier stage 1 year net survival is good.
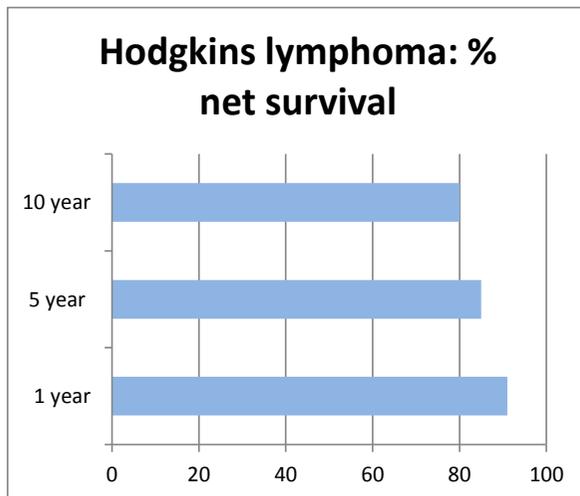

Kidney cancer: 1 year survival by stage
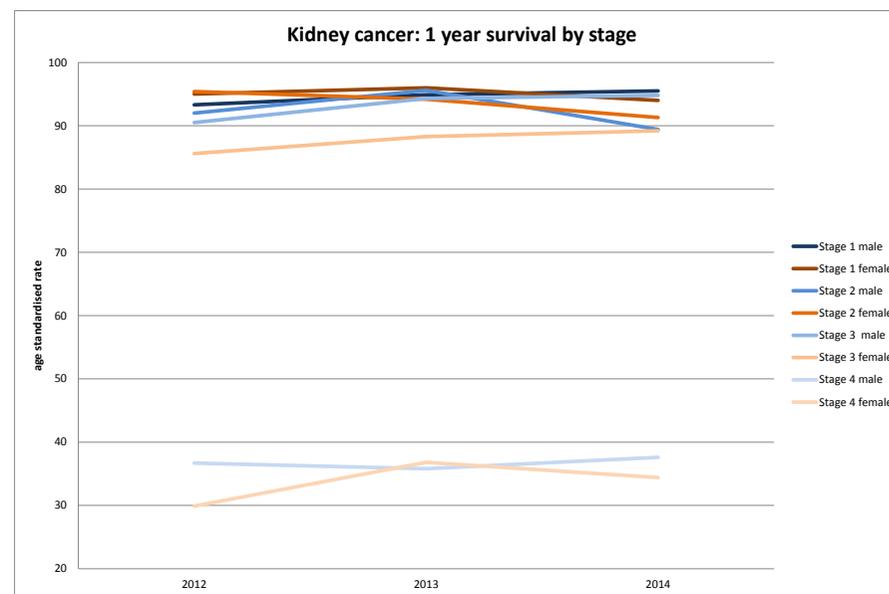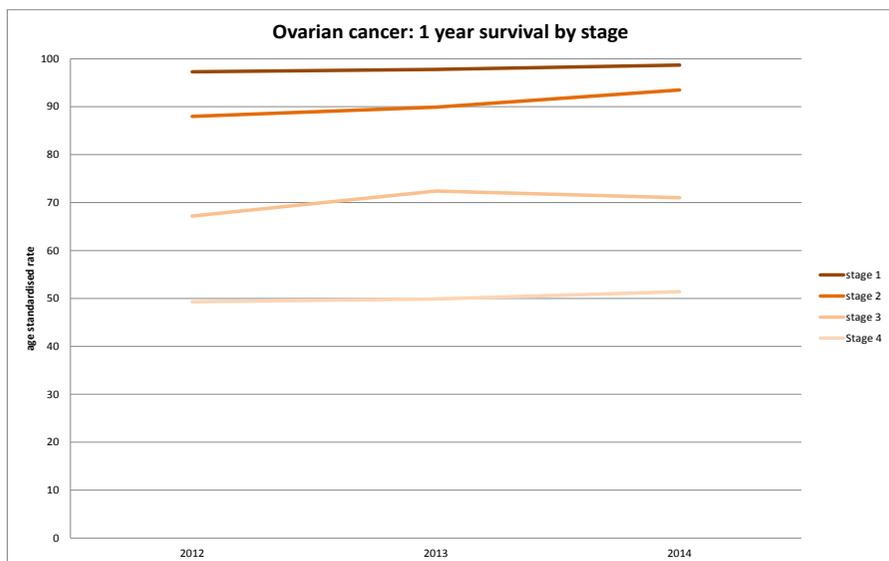
Hodgkins lymphoma

Incidence (not shown) and mortality for Hodgkins lymphoma are low and

Mortality from Hodgkins lymphoma: males

— ENGLAND — Solihull

Mortality from Hodgkins lymphoma: females

— ENGLAND — Solihull
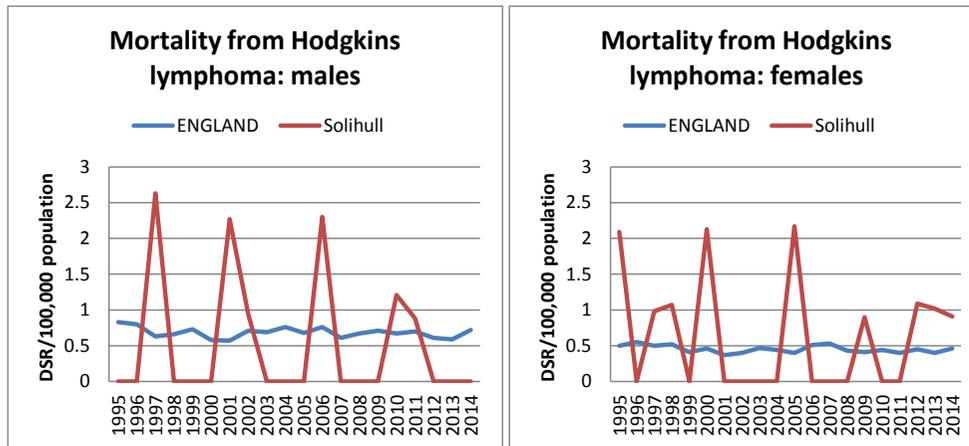
numbers in Solihull are particularly low hence the fluctuations in the graphs. % net survival is good even at 10 years post diagnosis.

Hodgkins lymphoma: % net survival

% net survival for non Hodgkins lymphoma is not as good (80%, 69% and 63% for 1 ,5 and 10 year respectively)

Appendix 2 Comparison with statistical neighbours

Incidence

Area	Value	Lower CI	Upper CI
England	508	506	509
NHS Solihull CCG	660	628	694
NHS Trafford CCG	518	489	548
NHS Stockport CCG	563	537	591
NHS South Eastern Hamps...	571	539	605
NHS Havering CCG	508	481	536
NHS Basildon And Brentw...	528	501	557
NHS Southend CCG	490	458	523
NHS Dudley CCG	572	546	599
NHS Castle Point And Ro...	593	558	629
NHS Warwickshire North...	542	509	576
NHS Redditch And Bromsg...	516	482	551

Source: National Cancer Registration Service. Each patient was traced to a GP Practice using the NHS Personal Demographics Service.

Prevalence

Area	Value	Lower CI	Upper CI
England	2.3	2.3	2.3
NHS Solihull CCG	2.8	2.7	2.8
NHS Trafford CCG	2.4	2.4	2.5
NHS Stockport CCG	2.4	2.4	2.5
NHS South Eastern Hamps...	2.8	2.7	2.9
NHS Havering CCG	2.1	2.0	2.1
NHS Basildon And Brentw...	2.3	2.2	2.3
NHS Southend CCG	2.2	2.1	2.2
NHS Dudley CCG	2.7	2.6	2.7
NHS Castle Point And Ro...	2.5	2.5	2.6
NHS Warwickshire North...	2.3	2.2	2.3
NHS Redditch And Bromsg...	2.5	2.5	2.6

Source: QOF

Breast screening
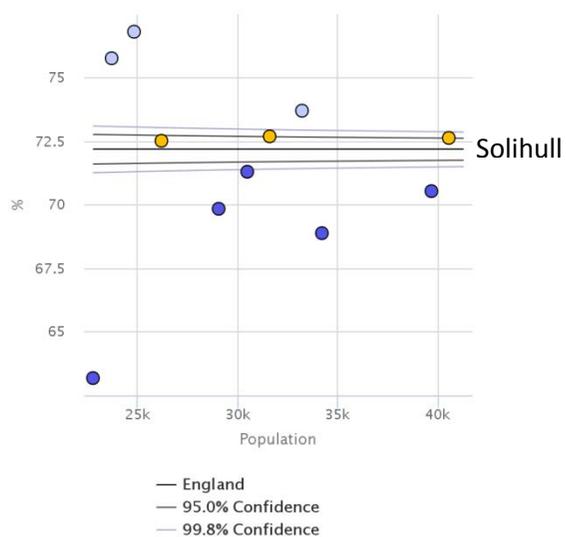
Area	Value		Lower CI	Upper CI
England	72.2		72.2	72.2
NHS Solihull CCG	72.7		72.2	73.2
NHS Trafford CCG	69.8		69.3	70.4
NHS Stockport CCG	70.5		70.1	71.0
NHS South Eastern Hamps...	71.3		70.8	71.8
NHS Havering CCG	73.7		73.2	74.2
NHS Basildon And Brentw...	68.9		68.4	69.4
NHS Southend CCG	63.2		62.6	63.8
NHS Dudley CCG	72.6		72.2	73.1
NHS Castle Point And Ro...	72.5		72.0	73.1
NHS Warwickshire North...	76.8		76.3	77.3
NHS Redditch And Bromsg...	75.8		75.2	76.3

Source: Data was extracted from the NHAIS via the Open Exeter system. Data was collected by the NHS Cancer Screening Programme.

Cervical screening
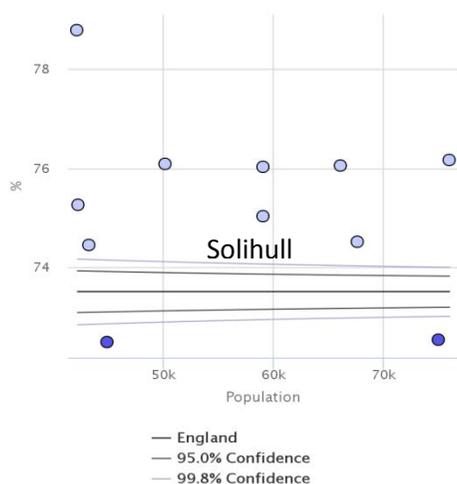
Area	Value		Lower CI	Upper CI
England	73.5		73.5	73.5
NHS Solihull CCG	75.0		74.7	75.4
NHS Trafford CCG	76.0		75.7	76.4
NHS Stockport CCG	76.2		75.9	76.5
NHS South Eastern Hamps...	76.1		75.7	76.5
NHS Havering CCG	76.1		75.7	76.4
NHS Basildon And Brentw...	74.5		74.2	74.8
NHS Southend CCG	72.5		72.1	72.9
NHS Dudley CCG	72.5		72.2	72.9
NHS Castle Point And Ro...	78.8		78.4	79.2
NHS Warwickshire North...	74.5		74.0	74.9
NHS Redditch And Bromsg...	75.3		74.8	75.7

Source: Data was extracted from the NHAIS via the Open Exeter system. Data was collected by the NHS Cancer Screening Programme.
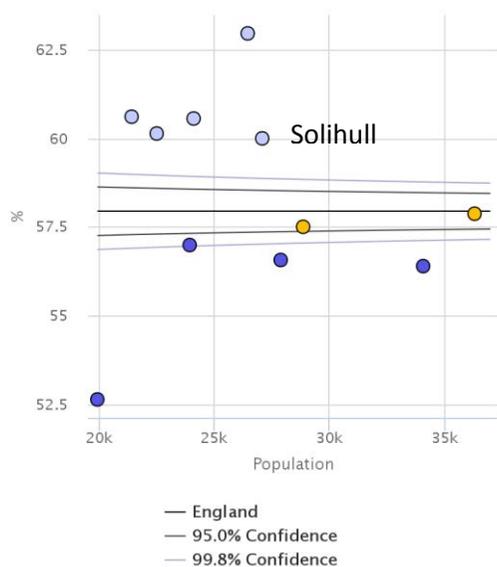
Bowel screening

Area	Value		Lower CI	Upper CI
England	57.9		57.9	58.0
NHS Solihull CCG	60.0		59.4	60.6
NHS Trafford CCG	57.0		56.4	57.6
NHS Stockport CCG	56.4		55.9	56.9
NHS South Eastern Hamps...	63.0		62.4	63.5
NHS Havering CCG	56.6		56.0	57.1
NHS Basildon And Brentw...	57.5		56.9	58.1
NHS Southend CCG	52.6		51.9	53.3
NHS Dudley CCG	57.9		57.4	58.4
NHS Castle Point And Ro...	60.6		59.9	61.2
NHS Warwickshire North...	60.1		59.5	60.8
NHS Redditch And Bromsg...	60.6		60.0	61.3

Source: Data was extracted from the Bowel Cancer Screening System (BCSS) via the Open Exeter system. Data was collected by the NHS Cancer Screening Programme.

Two week wait referrals
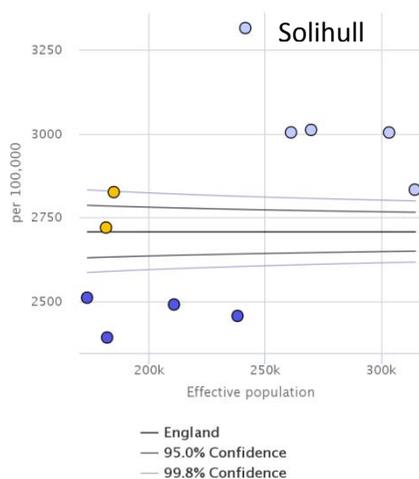
Area	Value		Lower CI	Upper CI
England	2,708		2,703	2,712
NHS Solihull CCG	3,313		3,241	3,386
NHS Trafford CCG	2,458		2,396	2,522
NHS Stockport CCG	3,003		2,941	3,065
NHS South Eastern Hamps...	2,492		2,425	2,560
NHS Havering CCG	3,003		2,937	3,070
NHS Basildon And Brentw...	3,010		2,945	3,077
NHS Southend CCG	2,826		2,750	2,903
NHS Dudley CCG	2,833		2,774	2,892
NHS Castle Point And Ro...	2,394		2,323	2,466
NHS Warwickshire North...	2,720		2,645	2,797
NHS Redditch And Bromsg...	2,512		2,438	2,588

Source: NHS England Cancer Waiting Times Database

Conversion rate
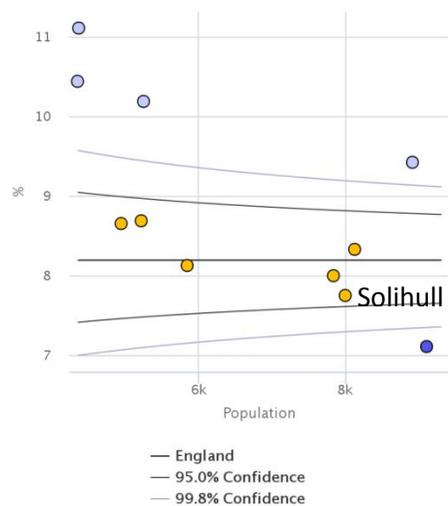
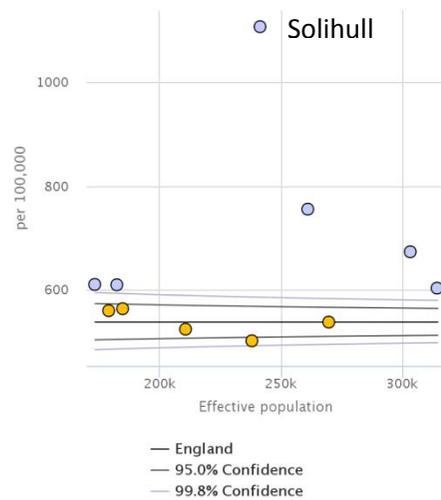| Area	Value		Lower CI	Upper CI
England	8.2*		8.1	8.2
NHS Solihull CCG	7.7*		7.2	8.4
NHS Trafford CCG	8.1*		7.5	8.9
NHS Stockport CCG	7.1*		6.6	7.7
NHS South Eastern Hamps...	10.2*		9.4	11.0
NHS Havering CCG	8.0*		7.4	8.6
NHS Basildon And Brentw...	8.3*		7.7	8.9
NHS Southend CCG	8.7*		8.0	9.5
NHS Dudley CCG	9.4*		8.8	10.0
NHS Castle Point And Ro...	11.1*		10.2	12.1
NHS Warwickshire North...	8.7*		7.9	9.5
NHS Redditch And Bromsg...	10.4*		9.6	11.4

Source: NHS England Cancer Waiting Times Database

Detection rate
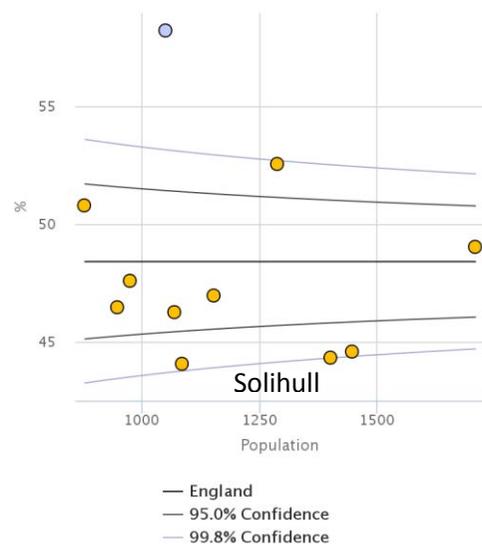
Area	Value		Lower CI	Upper CI
England	48.4*		48.2	48.6
NHS Solihull CCG	44.3*		41.7	46.9
NHS Trafford CCG	44.1*		41.1	47.0
NHS Stockport CCG	44.6*		42.0	47.1
NHS South Eastern Hamps...	47.0*		44.1	49.8
NHS Havering CCG	58.2*		55.2	61.2
NHS Basildon And Brentw...	52.6*		49.8	55.3
NHS Southend CCG	50.8*		47.5	54.1
NHS Dudley CCG	49.0*		46.7	51.4
NHS Castle Point And Ro...	46.3*		43.3	49.3
NHS Warwickshire North...	46.5*		43.3	49.6
NHS Redditch And Bromsg...	47.6*		44.5	50.7

Source: NHS England Cancer Waiting Times Database

Emergency admissions with cancer

Area	Value		Lower CI	Upper CI
England	539*		537	541
NHS Solihull CCG	1,106*		1,064	1,149
NHS Trafford CCG	503*		475	532
NHS Stockport CCG	674*		645	704
NHS South Eastern Hamps...	525*		495	557
NHS Havering CCG	756*		723	790
NHS Basildon And Brentw...	539*		511	567
NHS Southend CCG	564*		531	600
NHS Dudley CCG	604*		577	632
NHS Castle Point And Ro...	610*		575	647
NHS Warwickshire North...	561*		527	597
NHS Redditch And Bromsg...	611*		575	649

Source: HES data held by PHE originally provided by HSCIC

Emergency presentations
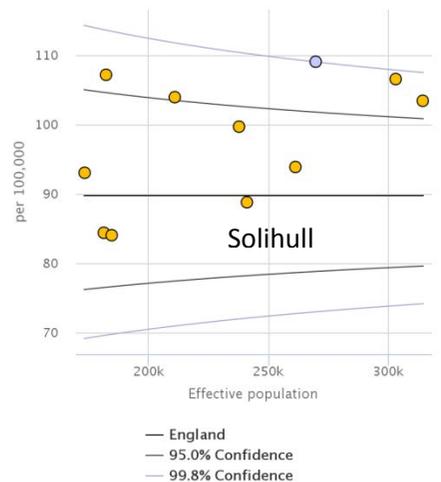
Area	Value		Lower CI	Upper CI
England	90*		89	90
NHS Solihull CCG	89*		77	101
NHS Trafford CCG	100*		87	113
NHS Stockport CCG	107*		95	119
NHS South Eastern Hamps...	104*		91	119
NHS Havering CCG	94*		82	106
NHS Basildon And Brentw...	109*		97	122
NHS Southend CCG	84*		71	98
NHS Dudley CCG	103*		92	115
NHS Castle Point And Ro...	107*		93	123
NHS Warwickshire North...	84*		71	99
NHS Redditch And Bromsg...	93*		79	109

Source: Hospital Episode Statistics, The Health and Social Care Information Centre