Cancer in Suffolk

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Cancer in Suffolk

In 2016/17, there were 24,982 GP registered patients with cancer in Suffolk. The top 10 cancers diagnosed in Suffolk, accounting for 75% of all cancers diagnosed included:

1. Prostate
2. Breast
3. Bowel
4. Lung
5. Non-Hodgkin lymphoma
6. Melanoma of skin
7. Kidney
8. Bladder
9. Head and neck
10. Pancreas

In 2015 there were 4,691 new cases of cancer in Suffolk, a 30% increase on the number of cancers registered in 2005 (3,610).

More than a third of cancer diagnoses in Suffolk occur in people aged 75+ (38.6%)

- More than half (55%) of cancer deaths in Suffolk were people over 75
- Most cancers are higher in men than women (similar to England)
- Men under 75 in Suffolk have a higher cancer mortality rate than women under 75 in Suffolk
- Over the next 20 years, the population of Suffolk is predicted to grow, and by 2037 it is estimated that 1 in 3 people will be 65+
- The risk of being diagnosed with certain cancers is greater among the most deprived families and communities and, for most types of cancer, survival rates for these groups of patients are worse
- Just under 11% of Suffolk’s residents live in the 20% most deprived areas

Between 2013 and 2015 there were 6,197 deaths caused by cancer in Suffolk

- The mortality rate for all cancers in Ipswich (all ages), was higher than Suffolk but similar to the England average. For people aged under 75 the all cancer mortality rate in Ipswich was significantly higher compared to England and Suffolk.
- There was significantly higher breast cancer (female only) mortality rates in Great Yarmouth and Waveney CCG compared to England.
- In Ipswich and East Suffolk CCG, data indicates colorectal cancer mortality is higher than England and that there has been an increasing trend over time, other areas have seen a decrease or stability.

An estimated four out of 10 cancers occur due to factors that are entirely modifiable and therefore preventable

- Not smoking, being physically active and maintaining a healthy weight reduces the risks of getting cancer
- In Suffolk (2014) nearly 2,000 cancer cases could be attributed to major risk factors, nearly half of which can be linked to smoking

40% of cancers are preventable

Benchmarking in relation to cancer screening programmes compared to 15 statistically similar neighbours shows there is room for improvement in Suffolk.

All Suffolk CCGs are meeting the national two-week wait referral target.

Prevention, detection and healthcare surrounding cancer is complex, but work is underway through the STP and Cancer Alliance to synthesise and improve patient and clinician navigation and experience of cancer services.

Suffolk should plan for the expected increase in age of the population and with-it cancer cases.
Executive summary

Introduction
In 2016/17, there were 24,982 GP registered patients with cancer in Suffolk, which is a slight increase from 24,571 recorded in 2015/16. In 2015, the top 10 cancers diagnosed in Suffolk, accounting for 75% of all cancers diagnosed included; prostate, breast, bowel, lung, Non-Hodgkin lymphoma, melanoma of skin, kidney, bladder, head and neck and pancreas cancer. As expected and seen across England, most cancers in Suffolk are statistically significantly higher in men than women (figure 7 page 23).

Most cancer services are commissioned by clinical commissioning groups (CCGs). There are three CCGs covering Suffolk; Great Yarmouth and Waveney CCG (GYWCCG), Ipswich and East CCG (IESCCG) and West Suffolk CCG (WSCCG). Cancer Alliances and Sustainability and Transformation Partnerships (STP) have an important role in supporting commissioning of cancer services. There are two STPs covering Suffolk; Norfolk and Waveney STP and Suffolk and North East Essex (SNEE) STP. Suffolk & North East Essex STP has been selected to become an Integrated Care System (ICS) which would further facilitate joint and collaborative working. All the STP CCGs fall within the East of England Cancer Alliance. There are two acute hospitals situated in Suffolk; Ipswich Hospital Trust (IHT) and West Suffolk Hospital Foundation Trust (WSHFT).

Methodology
The priorities set out in; ‘Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020’ has been used as the framework to develop this profile on cancer. Desktop research was undertaken to gather published research and evidence where available. Person, place and time has been used to describe the patterns and epidemiology of cancer in Suffolk. Identified variables within the data have been explained in Annex 1. The major sources of data include but are not limited to; The Office for National Statistics, National Cancer Registration and CancerStats, and Public Health England Fingertips. In most cases England has been used as the benchmark. Where available, Suffolk County Council’s nearest statistical neighbours (Annex 2) have been used for comparison.

Findings
At the beginning of 2015, NHS England established the Independent Cancer Taskforce to deliver on the cancer priority set out in the Five Year Forward View1. In July 2015; Achieving World-Class Cancer Outcomes: A Strategy for England 2015-20202 was published. The strategy identifies six key strategic priorities3:

1. Prevention and public health
2. Earlier diagnosis
3. Patient experience
4. Living with and beyond cancer
5. Modernising cancer services
6. Commissioning, accountability and provision.

These priorities are delivered locally through Cancer Alliances and STP boards.

**Suffolk’s population and cancer**
Older people are more likely to develop cancer, with more than a third of cancer diagnoses in Suffolk occurring in people aged over 75 years. In addition to this, majority of deaths occur in the 75-84 years age-group. Over the next 20 years, the expected population growth in the three CCGs is very similar to Suffolk and each other. Growth will predominantly be those aged over 65 years, where there is an expected increase of around 50% from 2017 to 2037. From 2027 to 2037, the over 85’s are expected to observe more than a threefold percentage increase. All three CCGs are expected to see a decline in the proportion of those aged 20-64 over the 20-year period.

The risk of being diagnosed with certain cancers is greater among the most deprived families and communities and, for most types of cancer, survival rates for these groups of patients are worse. Just under 11% of Suffolk’s residents live in the 20% most deprived lower layer super output areas (LSOA) in England.

The number of cancer diagnoses and deaths in Suffolk residents increases with age, which is expected. Diagnoses peak at ages 65 to 79 and deaths peak in ages 80 to 84. In Suffolk between 2012 and 2014, 38.6% of cancer diagnoses were in people aged over 75. Additionally, more than half (55%) of cancer deaths in Suffolk for the same period were people over 75. Men under the age of 75 in Suffolk have a statistically significant higher cancer mortality rate than women under 75 (figure 8 page 23).

**Cancer incidence in Suffolk**
Cancer incidence is the number of new diagnoses of cancer each year. Latest data available is 2015 and shows there were 4,691 new cases of cancer in Suffolk, which represents a 30% increase on the number of cancers registered in 2005 (3,610). Some of the increase can be explained by the growth in the older population across the county, the age-standardised rate (ASR) for cancer incidence only increased by 8% from 545.0 per 100,000 population in 2005 to 589.0 per 100,000 population in 2015. Men contributed to 53% of new diagnoses in this period and their ASR was significantly higher than women.

Prostate cancer had the highest number of new diagnoses in Suffolk 2015, which accounted for 17.5% of the total incidence, compared to 13.4% in England. The proportions of the top 10 cancers diagnosed in Suffolk 2015 are detailed in table one below:
Table 1: All persons, top 10 cancers diagnosed in England and Suffolk 2015
(see figures 9-11 for more detail)

<table>
<thead>
<tr>
<th>Cancer</th>
<th>England %</th>
<th>Suffolk</th>
<th>All %</th>
<th>Men %</th>
<th>Women %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate</td>
<td>13.4</td>
<td></td>
<td>17.5</td>
<td>33.0</td>
<td>-</td>
</tr>
<tr>
<td>Breast (female only)</td>
<td>15.3</td>
<td>14.0</td>
<td>-</td>
<td>30.0</td>
<td></td>
</tr>
<tr>
<td>Bowel</td>
<td>11.6</td>
<td>12.7</td>
<td>12.7</td>
<td>12.8</td>
<td></td>
</tr>
<tr>
<td>Lung</td>
<td>12.5</td>
<td>10.3</td>
<td>10.5</td>
<td>10.2</td>
<td></td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma</td>
<td>3.9</td>
<td>4.0</td>
<td>4.6</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Melanoma of skin</td>
<td>4.5</td>
<td>4.8</td>
<td>4.4</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>Kidney</td>
<td>3.5</td>
<td>2.9</td>
<td>3.8</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Bladder</td>
<td>2.8</td>
<td>2.7</td>
<td>3.7</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Head and neck</td>
<td>3.2</td>
<td>2.6</td>
<td>3.1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Pancreas</td>
<td>-</td>
<td>3.1</td>
<td>3.1</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>Leukaemia</td>
<td>2.8</td>
<td>-</td>
<td>-</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Ovary</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>Uterus</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Brain, Other CNS &amp; Intracranial Tumours</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Stomach</td>
<td>-</td>
<td>-</td>
<td>2.8</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>26.5</td>
<td>25.4</td>
<td>18.3</td>
<td>20.9</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

In Suffolk, age standardised rates (ASR) in seven specific cancer groups are significantly higher compared to Suffolk’s statistical neighbours:

- All malignant cancers, all ages
- All malignant cancers, under 75
- Lung cancer, all ages
- Lung cancer, under 75
- Colorectal cancer, all ages
- Prostate cancer, all ages
- Prostate cancer, under 75.

Analysis of cancer incidence by cancer site in Suffolk’s districts and boroughs 2012-2014 found variation between the different areas. Lung cancer incidence was significantly lower in three areas, Babergh, Mid Suffolk and Suffolk Coastal. Mid Suffolk does have better than the Suffolk average smoking prevalence, which might contribute to their lower lung cancer incidence. Alternatively, lower incidence might be an indicator of undetected cases. Further investigation would be required to determine the causes here. Prostate cancer incidence was significantly higher in Babergh and Suffolk Coastal. Because the rates are age standardised, the older populations in these areas is unlikely to be the only cause for higher prostate cancer incidence.
The CCG incidence rates are provided in the table below. The table provides details of the ASR cancer incidence between 2013-15, per 100,000 population for all, lung, colorectal, breast and prostate cancers:

Table 2: Standardised cancer incidence rates per 100,000 population by CCG compared to England 2013-2015 pooled data

<table>
<thead>
<tr>
<th>Type of cancer</th>
<th>England</th>
<th>GYWCCG</th>
<th>IESCCG</th>
<th>WSCCG</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cancers</td>
<td>615.2</td>
<td>618.66</td>
<td>586.32</td>
<td>610.20</td>
</tr>
<tr>
<td>Lung</td>
<td>78.93</td>
<td>81.48</td>
<td>56.02</td>
<td>62.95</td>
</tr>
<tr>
<td>Colorectal</td>
<td>73.63</td>
<td>69.14</td>
<td>80.53</td>
<td>74.46</td>
</tr>
<tr>
<td>Breast</td>
<td>171.52</td>
<td>167.85</td>
<td>164.09</td>
<td>191.61</td>
</tr>
<tr>
<td>Prostate</td>
<td>182.26</td>
<td>195.98</td>
<td>215.33</td>
<td>207.5</td>
</tr>
</tbody>
</table>

Key: Lower than England*  
Higher than England*  
Similar to England

* Using 95% confidence intervals

In the main, cancer incidence rates for each CCG, especially GYWCCG are statistically similar to England. Lung cancer incidence in IESCCG is lower than the average for England, as is WSCCG. However, prostate cancer incidence in all three CCGs is higher than the average for England. Similarly, colorectal cancer incidence in IESCCG is higher than the average for England. A possible explanation for higher rates, could be due to better detection through the higher than average screening rates in the CCG areas.

Cancer mortality in Suffolk

Cancer mortality is the number of people who have died from cancer in a specified period. Between 2013 and 2015 there were 6,197 deaths caused by cancer in Suffolk. As observed for cancer incidence, mortality rates from all cancers in Suffolk for the period 2013-15 showed both all ages and under 75 were statistically significantly better than the average for England. Lung cancer mortality in Suffolk for all ages and under 75 was significantly lower than the average for England, as was prostate cancer mortality in those under 75.

When comparing age standardised mortality rates in Suffolk to the nearest statistical neighbours, the county is significantly worse (higher) in four areas:

- All malignant cancers, all ages
- All malignant cancers, under 75
- Lung cancer, all ages
- Lung cancer, under 75.

Analysis of cancer mortality by cancer site in Suffolk’s districts and boroughs 2012-2014 found some variance between the different areas. Key points from this analysis include:
• The mortality rate for all cancers in Ipswich, all ages was significantly higher than Suffolk but similar to the England average. For under 75 the all cancer mortality rate here was significantly worse than the average for England and Suffolk.

• Like incidence, Ipswich had the highest ASR for lung cancer mortality, all ages and under 75. Both rates were similar to the average for England but significantly higher than Suffolk.

• Although Ipswich had the lowest ASR for female breast cancer incidence, all ages and for under 75, it showed the highest mortality rate for female breast cancer in under 75. However, the rate was still similar to England and Suffolk.

• Prostate cancer mortality, all ages was highest in Babergh, as was incidence. Ipswich had the highest ASR mortality rate recorded for under 75. All were similar to England and Suffolk.

There are a few similarities in the CCG cancer mortality and incidence rates. The table below provides details of the most recently available cancer mortality data for Suffolk CCGs and England. The main findings include:

• Both IESCCG and WSCCG had significantly lower all cancer and lung cancer mortality rates than England.

• There was significantly higher breast cancer (female only) mortality rates in GYWCCG than England.

• In IESCCG, colorectal cancer mortality was significantly higher than England and there has been an increasing trend over time, while other areas have seen a decrease or stability.

**Table 3: Age standardised rates by Suffolk CCG and England for selected cancer mortality per 100,000 population, 2013-2015 pooled data**

<table>
<thead>
<tr>
<th>Type of cancer</th>
<th>England</th>
<th>GYWCCG</th>
<th>IESCCG</th>
<th>WSCCG</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cancers</td>
<td>280.82</td>
<td>290.09</td>
<td>259.16</td>
<td>248.74</td>
</tr>
<tr>
<td>Lung</td>
<td>60.35</td>
<td>59.12</td>
<td>43.67</td>
<td>47.24</td>
</tr>
<tr>
<td>Colorectal</td>
<td>27.33</td>
<td>23.45</td>
<td>31.21</td>
<td>25.38</td>
</tr>
<tr>
<td>Breast (female only)</td>
<td>34.71</td>
<td>43.21</td>
<td>33.22</td>
<td>33.29</td>
</tr>
<tr>
<td>Prostate</td>
<td>48.62</td>
<td>49.78</td>
<td>48.64</td>
<td>45.55</td>
</tr>
</tbody>
</table>

*Using 95% confidence intervals

Despite the increasing incidence rates for all cancer in Suffolk, mortality continues to decrease.
Prevention and public health

An estimated four out of 10 cancers occur due to factors that are entirely modifiable and therefore preventable. Not smoking, being physically active and maintaining a healthy weight reduces the risks of getting cancer. In Suffolk (2014) nearly 2,000 cancer cases could be attributed to major risk factors, nearly half of which can be linked to smoking, 250 to unhealthy weight and 200 to a lack of fruit and vegetables in diet.

'The Time is Now: A Prevention Strategy for Suffolk to reduce demand in the health and care sector by improving health 2016-2021', outlines some primary prevention priorities and activity within Suffolk. The early detection and treatment of cancer is a priority for the Suffolk system and all areas within priority two of the strategy will contribute to cancer prevention.

Areas identified for action in Suffolk on Public Health England Fingertips include:

- The percentage of overweight and obese adults (2013-15) is similar to (61.5%) the average for England (61.3%) and must continue to improve.
- Over 27% of Suffolk’s adults in routine and manual occupations smoke in comparison to the overall adult population in the county.
- Around 15% of the adult population in Suffolk smoke and nearly 9% of young people at the age 15.
- There are still over 2,000 children aged 10-11 years with excess weight.
- There are 1,773 children aged 4-5 years classified as overweight or obese.
- Increase the proportion of adults (61%) and young people at the age of 15 years (51%) that consume the recommended “5-a-day” on a usual day.
- Waveney district performs poorly within Suffolk for many of the selected risk factors. The smoking prevalence in adults in routine and manual occupations – current smokers, the percentage of adults (aged 18+) classified as overweight or obese and children with excess weight 4-5 year olds are all worse than the county.
- Most recent HPV vaccine coverage indicates that Suffolk is not performing as well as in 2013/14. Only 73.3% of 12-13-year olds received the vaccine in 2015/16 which is the lowest performance in the East of England.

Earlier diagnosis

Majority of cancer diagnosis in Suffolk is either through a managed or screen detected route. Currently there are three national cancer screening programmes which play a significant role in helping to detect cancer earlier. Most trends in coverage and uptake of cancer screening across Suffolk’s CCGs show a decrease, displayed in table 4 below. This must be reversed to ensure early detection of cancer.
Further benchmarking available in relation to the cancer screening programmes compared to 15 statistically similar neighbours shows there is room for improvement. Suffolk performs 11 out of 16 nearest neighbours for breast cancer, 15 for cervical cancer and nine for bowel cancer (one indicates best performance). Suffolk’s performance is significantly worse when compared to the best performing local authority in the similar neighbour cluster (Leicestershire for breast, Derbyshire for cervical and Gloucestershire for bowel).

Screening variation across GP practices in Suffolk’s CCGs was examined for correlations in relation to the index of multiple deprivation score (IMD 2015) and the estimated proportion of non-white ethnic groups in the GP practice population. Strong and moderate negative correlations were identified across the CCGs. A summary of the findings is presented in the table below.

Table 5: Summary of cancer screening coverage relationship with IMD 2015 and proportion of non-white ethnic population – correlation strength (and proportion of variance)

<table>
<thead>
<tr>
<th>CCG area</th>
<th>Breast cancer screening</th>
<th>Cervical cancer screening</th>
<th>Bowel cancer screening</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GYWCCG</strong></td>
<td>Deprivation</td>
<td>Moderate r -0.5 (R² = 0.23 23%)</td>
<td>Strong r -0.8 (R² = 0.66 66%)</td>
</tr>
<tr>
<td></td>
<td>Ethnicity</td>
<td>Moderate r -0.4 (R² = 0.19 19%)</td>
<td>Moderate r -0.6 (R² = 0.31 31%)</td>
</tr>
<tr>
<td><strong>IESCCG</strong></td>
<td>Deprivation</td>
<td>Strong r -0.8 (R² = 0.65 65%)</td>
<td>Moderate r -0.6 (R² = 0.40 40%)</td>
</tr>
<tr>
<td></td>
<td>Ethnicity</td>
<td>Moderate r -0.5 (R² = 0.25 25%)</td>
<td>Strong r -0.7 (R² = 0.50 50%)</td>
</tr>
<tr>
<td><strong>WSCCG</strong></td>
<td>Deprivation</td>
<td>Moderate r -0.6 (R² = 0.37 37%)</td>
<td>Moderate r -0.5 (R² = 0.23 23%)</td>
</tr>
<tr>
<td></td>
<td>Ethnicity</td>
<td>Weak r -0.3 (R² = 0.09 9%)</td>
<td>Moderate r -0.5 (R² = 0.24 24%)</td>
</tr>
</tbody>
</table>

R = correlation coefficient
R² = coefficient of determination
The correlation is where the line of best fit falls within all the data points, in this case each GP practice IMD 2015 deprivation score plotted by cancer screening coverage. To understand how much of the variation observed within the plots could be due to deprivation or ethnicity, $R^2$ is calculated. Take for example where IESCCG has a strong negative correlation ($r$ -0.9) between GP practice IMD 2015 and bowel cancer screening coverage. The $R^2$ (0.79) tells us the proportion (79%) of the variance in screening coverage can be explained by GP practice deprivation. Hence it is likely that more deprived GP practices can expect lower bowel cancer screening coverage.

**Two-week wait referrals**

All Suffolk CCGs are meeting the national two-week wait referral target. However, a higher percentage (more than the 75th percentile of England value) of these in GYWCCG and IESCCG compared to England result in a cancer diagnosis. In WSCCG similar results to England are seen and only a similar percentage of these compared to England resulted in a cancer diagnosis.

Analysis of age standardised rate for two-week wait referrals by GP practices across the county shows there is variation in the number of referrals being made, with 14 significantly higher than the England average; four in GYWCCG, three in IESCCG and seven in WSCCG.

**Emergency presentation to hospital**

To establish the distribution of emergency presentation to hospital resulting in a cancer diagnosis in Suffolk, some ASR analysis of local GP practice level data has been completed. There is significant variation between practices in each of the CCGs. Ipswich and East CCG has the lowest average rate of diagnosis via emergency admissions.

Similar analysis was completed to understand if deprivation in Suffolk influences diagnosis of cancer through an emergency admission to hospital. There was a statistically significant moderate positive correlation between GP deprivation and emergency admission rates for all malignant neoplasms ($P=0.004$) and lung cancer ($P=<0.0001$). One tenth of the variation for all cancers and one fifth in lung cancer diagnosis by emergency presentation can be explained by deprivation.

**Stage of cancer at diagnosis**

Suffolk CCGs have higher proportions of stage one and two cancer diagnosis compared to England. This means that many cancers are detected early resulting in the potential for better treatment and survival outcomes. West Suffolk CCG has significantly higher stage one diagnosis for all cancers than the other two Suffolk CCGs and England. Of the individual cancers analysed for this profile, only prostate cancer shows significant differences in comparison with England, where all three CCGs have significantly higher stage two cases.

**Patient experience**

Generally patient experience in Suffolk is high, with positive scores for all three CCGs in the 2016 survey. Participants were asked to rate their overall care on a
scale of zero (very poor) to 10 (very good). The average rating given by respondents across the CCGs is as follows:

- Great Yarmouth & Waveney CCG was 8.8. This average rating was within the expected range for the CCG (8.6-8.9) and higher than the national average of 8.7.\textsuperscript{12}
- Ipswich & East Suffolk CCG was 8.7. This average rating was within the expected range for the CCG (8.6-8.9) and the same as the national average of 8.7.\textsuperscript{13}
- West Suffolk CCG was 8.8. This average rating was within the expected range for the CCG (8.6-8.9) and higher than the national average of 8.7.\textsuperscript{14}

The table below summarises the CCGs performance in relation to the key patient experience indicators. Overall, all three CCGs performed within the expected range. The proportion of respondents in GYWCCG who said it was easy for them to contact their clinical nurse specialist was higher than expected. In IESCCG, this proportion was lower than expected.

### Table 6: Patient experience key indicators as case-mix adjusted CCG scored percentage, 2016\textsuperscript{12,13,14}

<table>
<thead>
<tr>
<th>Patient experience (% of positive responses)</th>
<th>GYWCCG</th>
<th>IESCCG</th>
<th>WSCCG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement in decisions: care and treatment</td>
<td>77%</td>
<td>78%</td>
<td>82%</td>
</tr>
<tr>
<td>Provision of information: given name of CNS*</td>
<td>89%</td>
<td>91%</td>
<td>88%</td>
</tr>
<tr>
<td>Provision of information: easy to contact CNS*</td>
<td>93%</td>
<td>82%</td>
<td>83%</td>
</tr>
<tr>
<td>Overall interpersonal relations, respect and dignity</td>
<td>89%</td>
<td>88%</td>
<td>91%</td>
</tr>
<tr>
<td>Care transition: given contact after patient left hospital</td>
<td>95%</td>
<td>94%</td>
<td>94%</td>
</tr>
<tr>
<td>Care transition: support from GP during treatment</td>
<td>65%</td>
<td>64%</td>
<td>65%</td>
</tr>
</tbody>
</table>

**Performance Rating**

- Within expected ranges
- Higher than expected
- Lower than expected

\textsuperscript{*Clinical Nurse Specialist}

**End of Life**

Evidence suggests that dying at home is what majority of the population would like. Therefore, a death at home can indicate a good level of care at end of life\textsuperscript{15}. In 2015, 48.9% of Suffolk’s residents who died from cancer, died in their usual place of residence (DiUPR), compared to 44.4% nationally. The table below shows the percentage of cancer patients DiUPR in 2004 and 2015, and the percentage increase in the 11-year period. Clearly all areas in Suffolk have seen a huge improvement in DiURP for cancer patients over the period.
Table 7: Death in usual place of residence (DiUPR), cancer, Suffolk, CCGs and England – Difference from 2004-2015

<table>
<thead>
<tr>
<th></th>
<th>England %</th>
<th>Suffolk %</th>
<th>GYWCCG %</th>
<th>IESCCG %</th>
<th>WSCCG %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>31.8</td>
<td>29.4</td>
<td>33.1</td>
<td>29.1</td>
<td>27.3</td>
</tr>
<tr>
<td>2015</td>
<td>44.4</td>
<td>48.9</td>
<td>49.9</td>
<td>46.8</td>
<td>49.8</td>
</tr>
<tr>
<td>% change</td>
<td>39.6</td>
<td>66.3</td>
<td>50.7</td>
<td>60.8</td>
<td>82.4</td>
</tr>
</tbody>
</table>

Living with and beyond cancer

It is possible to better understand the demographics of people living in Suffolk with cancer, by considering the prevalence of the disease in the county. Prevalence describes the proportion of all GP registered patients diagnosed with cancer and is sourced from the Quality and Outcomes Framework (QOF). In 2015/16, there were 24,571 (2016/17 24,982) patients across Suffolk’s three CCGs registered with cancer. Cancer prevalence by practices in the CCG areas shows some variation. The distribution of registration by CCG is as follows; IESCCG (9,930), then WSCCG (7,652), and finally GYWCCG (6,989) (only a proportion of patients registered in GYWCCG are Suffolk’s residents).

Cancer survival rates have doubled in the last 40 years in the UK and continue to improve. Half of people diagnosed with cancer survive the disease for over 10 years. Possible explanations include; cancer biology, use of diagnostic tests and screening, stage at diagnosis, access to high-quality care, and data collection practices. Suffolk is no exception to this and cancer survival across Suffolk’s CCGs generally shows a continuous improvement.

For cancers diagnosed in 2014 69.0% of people survived 1-year in GYWCCG, 68.2% in IESCCG and 71.8% in WSCCG. This is compared to 70.4% of people surviving 1-year in England. Only 1-year survival for WSCCG remains better than the average for England. In 2014, IESCCG and GYWCCG 1-year survival was significantly lower than England. The discrepancy between lower (worse) one-year survival outcomes and lower (better) mortality in IESCCG has been investigated by Public Health Suffolk with no definite causes of concern identified.

All three CCGs show an improvement in one-year survival, but all are lower than the 16.2% increase recorded for England. From 1999 to 2014, the highest increase was in WSCCG, which showed the 1-year net survival improving by 15.8%. For GYWCCG 1-year survival increased by 11.7%. The lowest level of increase was in IESCCG, which showed an increase of 8.3%. However, we need to bear in mind that the CCGs have a different baseline of survival compared to England.

Modernising cancer services

Nationally, early access to allied health professional support (e.g. physiotherapy, occupational therapy, speech and language therapy and dietetics), is hoped to
support improved quality of life for cancer patients, and enable them to return home more quickly after treatment\(^2\). Research has been commissioned to help develop a new quality of life metric for cancer patients, to ensure that each person is cared for individually and appropriately. Guidance for commissioners to support people living with and beyond cancer was published in 2016\(^18\).

It is also hoped that engagement with palliative care services is done earlier along the cancer pathway, when future difficult management decisions can be anticipated and planned for effectively. The Government’s commitment to making palliative care services patient-centred and responsive to the patient experience has been emphasised in their recent response to a public consultation on this issue\(^19\).

**Commissioning, accountability and provision**

The commissioning of cancer services is complex and can involve many commissioning bodies, depending on cancer type. There are 200 types of cancer, of which 50% are classified as rare\(^20\). Each of these may require several interventions and has its own unique care pathway. In addition, there is the complexity of coordinating services across the treatment and care pathway for each patient. This will usually involve a combination of health and social care teams in general practice, the community, acute general hospitals and in specialist or tertiary centres.

There are many similarities and differences in the commissioning and provision of cancer services in each of the Suffolk CCGs. Depending on where patients live will influence where they are most likely to attend for cancer services and treatment. More streamlined approaches and the modernising of cancer services are being investigated through the STP to make the patient journey as satisfactory as possible. The proposed STP cancer strategy will help to adopt the best possible service configuration for SNEE population.

**Conclusion and recommendations**

Prevention, detection and healthcare surrounding cancer is complex, but work is underway through the STP (ICS) and Cancer Alliance to synthesise and improve patient and clinician navigation and experience of cancer services.

Suffolk should plan for the expected increase in the age of the population and with-it cancer cases, all the while being mindful that:

- Prostate cancer (male specific) is the number one cancer in Suffolk. It has the highest number and proportion of incidence in the county,
- As expected and seen nationally, men in Suffolk have a significantly higher incidence rate for most cancers compared to women,
- Men in Suffolk under the age of 75 have a significantly higher mortality rate from cancer than women.
- Around 2,000 cancers in Suffolk per year could be preventable by reducing exposure to modifiable risk factors, such as smoking, obesity and sedentary behaviour.
Work with PHE to improve HPV vaccine coverage in Suffolk is ongoing and must continue.

The cancer screening programme performance trends are going down and need to be stabilised but ideally reversed.

More deprived GP practices and/or GP practices with higher proportion of non-white ethnic population are more likely to have lower cancer screening programme coverage. Therefore, concentrated efforts should be aimed at these practices to encourage cancer screening participation.

There is some variation among GP practices in the proportion of cancer diagnosis via emergency admission to hospital.

Cancer diagnosis through emergency admission to hospital is more likely in GP practices serving more deprived areas. Along with screening awareness, symptom awareness raising should be concentrated in these areas.

Both GYWCCG and IESCCG have significantly greater detection of all cancers combined at late stages (3/4) than England and so symptom awareness should be addressed.

It is encouraging that patient experience of cancer services in Suffolk is very positive and this should be maintained. All three CCGs exceeded their expected ranges in the National Cancer Patient Survey 2016.

Finally, there are various potential opportunities for improvement identified through modernising cancer services and commissioning, accountability and provision. The ‘NHS RightCare Commissioning for Value Focus Packs’ provide a wealth of information for CCGs and STPs to focus efforts towards improvement in cancer processes and pathways. In addition to this, the commitment of SNEE STP to improve cancer services for patients and clinicians will likely come to fruition with the development of their cancer strategy and appropriate utilisation of the new funding released to the STP.
1. Introduction
Suffolk is a large county covering approximately 1,466 square miles and borders the counties of Essex, Norfolk and Cambridgeshire. Suffolk has seven boroughs/districts; Babergh, Forest Health, Ipswich, Mid Suffolk, St Edmundsbury, Suffolk Coastal and Waveney. The county has a mix of vibrant market towns and rural villages. There are three clinical commissioning groups (CCGs) covering Suffolk; Great Yarmouth and Waveney CCG, Ipswich and East CCG and West Suffolk CCG. There are two sustainability and transformation partnerships (STP) covering Suffolk; Norfolk and Waveney STP and Suffolk and North East Essex STP. Suffolk & North East Essex STP has been selected to become an Integrated Care System (ICS) which would further facilitate joint and collaborative working. Suffolk’s population is served by a total of 76 GP practices. There are two hospitals situated in Suffolk; Ipswich Hospital Trust (IHT) and West Suffolk Hospital Foundation Trust (WSHFT), although those living in border areas use Addenbrooke’s Hospital, Colchester Hospital University Foundation Trust and James Paget University Hospital Foundation Trust.

Suffolk and North East Essex STP is currently in the process of developing its cancer strategy and this profile will inform this but is also aimed at a wider audience interested in the topic, from cancer prevention to palliative care.

2. Methodology
The strong national focus and strategic direction on cancer set out in ‘Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020’ has a significant influence on service design and implementation locally in Suffolk. This is being delivered locally by working closely with and contributing to both the cancer alliance and STP work programmes. The priorities of Achieving World-Class Cancer Outcomes detailed below have been used as a framework for focusing this profile on cancer:

1. Prevention and public health
2. Earlier diagnosis
3. Patient experience
4. Living with and beyond cancer
5. Modernising cancer services
6. Commissioning, accountability and provision.

Much of the analysis has been completed using person, place and time. The details of how each section has been addressed, including any variables in the data is available in Annex 1.
3. The national strategic picture

At the beginning of 2015, NHS England established the Independent Cancer Taskforce to deliver on the cancer priority set out in the Five Year Forward View\textsuperscript{1}. The Five Year Forward View listed three priorities for cancer service development:

1. Better prevention,
2. Faster diagnosis, and
3. Better treatment and care for all.

In July 2015; Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020\textsuperscript{2} was published. The strategy identifies six key strategic priorities\textsuperscript{3} as detailed in figure one below:

**Figure 1: Priorities\textsuperscript{22} – Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020**

The interim Next Steps on the Five Year Forward View\textsuperscript{23} published in March 2017, highlighted that since 2014 over 7,000 more people are now surviving cancer. It goes on to set the ambition that an additional 5,000 people a year will survive cancer compared to the present.
'Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020 released a progress report 2016-17' was published in October 2017. The report details the progress made and highlights of the year, some of which are given below:

- Nineteen cancer alliances now fully established, with the first wave of funding allocated to local areas.
- The National Cancer Patient Experience Survey shows continuing positive patient experiences of care overall.
- Greater focus on the 62-day cancer waiting times target with investments in pathway coordinators and redesigned, quicker clinical pathways.

Local delivery of Achieving World-Class Cancer Outcomes is organised through the established cancer alliances. The alliances support STPs and bring together clinical, local authority, voluntary, patients and other local leaders to transform cancer pathways and improve the quality and value of cancer services locally. Great Yarmouth and Waveney, Ipswich and East and West Suffolk CCGs fall within the East of England Cancer Alliance. Ipswich and East and West Suffolk CCGs are in the Suffolk and North East Essex STP. Great Yarmouth and Waveney CCG, however, is within Norfolk and Waveney STP.

In addition to Achieving World-Class Cancer Outcomes, there is a wealth of NICE guidance available on preventing, treating and managing cancer. There are many publications relating to cancer, including but not limited to; NICE guidelines, quality standards and public health guidelines. The most recently published evidence (late 2017) includes updated interactive flowcharts to capture everything that NICE has stated on specific cancers; for example, lung, advanced breast and colorectal cancers to name a few.

In July 2017, the NICE guideline on suspected cancer: recognition and referral (NG12) was updated. In addition to this, in December 2017 NICE updated their quality standard on suspected cancer, QS124. Both were updated to reflect recent changes in diagnostics guidance for colorectal cancer. The quality standard includes:

1. Direct access to diagnostic tests,
2. Urgent direct access endoscopy for oesophageal or stomach cancer,
3. Testing for blood in faeces,
4. Encouraging attendance at cancer services.

As it is based on the best available evidence, NICE advise that all healthcare professionals use this quality standard and work towards achieving meeting the standards. Monitoring of implementation is essential to understand and ensure that the best cancer services, especially diagnosing and treating suspected cancers are available to the population.
4. Suffolk’s population and cancer

This section will look at the epidemiology of cancer in Suffolk. This will be approached using a person, place and time methodology to understand three main areas:

1. Who is getting cancer, when and which one,
2. Are there any influencing factors on cancer; such as where people live and,
3. How long are people surviving with cancer.

In 2016/17, there were 24,982 (2015/16 24,571) patients with cancer registered with a Suffolk GP. In 2015, Suffolk’s top 10 cancers diagnosed included; prostate, breast, bowel, lung, Non-Hodgkin lymphoma, melanoma of skin, kidney, bladder, head and neck and pancreas cancer. These accounted for 75% of all cancer diagnoses in 2015. As observed across England, most cancers in Suffolk are significantly higher in men than women.

Older people are more likely to develop cancer, with more than a third of cancer diagnoses occurring in people aged over 75 years. In addition to this, majority of deaths occur in those aged 75-84 years. Mid-2016 population estimates provided by The Office for National Statistics indicate that the total population in Suffolk is over 740,000, split almost equally between men (49%) and women (51%). Figure two below shows that Suffolk has a higher proportion of older population compared to England. Children and young people 0-19 contribute to about 22% of the population. The adult population 20-64 are nearly 55%, and adults 65 and over, nearly 23%. Over 3% of Suffolk’s residents are aged 85 and over.

Figure 2: Population pyramid by age and sex, Suffolk and England, mid-2016 estimates

Illustrated in figure three below, Ipswich has the largest population in Suffolk, with nearly 140,000 residents. Forest Health has the smallest with just over 66,000 residents. Ipswich has the highest number of children and young people 0-19 and
people aged 20-64. Suffolk Coastal has the highest number of people aged 65 and over, and 85 and over.

**Figure 3: Mid-2016 population estimates, Suffolk boroughs/districts by selected age groups**

The full projected population growth in Suffolk is illustrated in figure four below. This clearly shows the growth lines of the age bands, 0-19, 20-64, 65+, 85+ and all ages.

A steep increase is observed in those aged over 85, along with a moderate increase of those aged 65 years and over. The same observation is present in each of the three CCGs too. The expected growth in the three CCG populations over the next 20 years is very similar to Suffolk and each other. The over 85’s observes more than a threefold percentage increase from 2027 to 2037. Those over the age of 65 are expected to increase by around 50% from 2017 to 2037. All the CCGs are expected to see a decline in those aged 20-64 over the 20-year period.

**Figure 4: Population projections, Suffolk 2014 to 2039, all ages and selected age groups**
According to the Census 2011 data, Suffolk’s residents are predominately White (95.2%). Ipswich has the lowest White ethnic group (89%). Asian/Asian British was the most common ethnic minority in Suffolk (1.8%), with Ipswich having 4.3% of residents from this ethnic background.

Suffolk’s Public Health Profile 2017\textsuperscript{33} suggests that the county is relatively affluent. However, there are pockets of high deprivation with some lower super output areas (LSOA) being in the 20% most deprived areas in England. Data from the Index of Multiple Deprivation (IMD) 2015 displayed in the figure below indicates that Ipswich has the highest proportion of deprived areas. There are further pockets of deprivation around Lowestoft, Felixstowe and in some of the major market towns.

**Figure 5: Suffolk’s Public Health Profile 2017, lower super output areas\textsuperscript{33}**

In addition, the figure above shows that just under 11% of Suffolk’s residents live in the 20% most deprived LSOAs in England. Nearly 17% live in the 20% least deprived areas in England. The highest proportion of Suffolk’s residents (33%) live in the 20% mid deprived areas in England. The risk of being diagnosed with certain cancers is greater among the most deprived families and communities and, for most types of cancer, survival rates for the most deprived patients are worse\textsuperscript{4}.

In light of the population characteristics identified, including the rise in those over 65 years, it is more important than ever to prioritise strategies that prevent cancer from happening in the first place.\textsuperscript{1}
**Incidence and mortality**

Cancer is a disease that can affect people of all ages. The data presented below is for all cancer incidence and mortality (excluding non-melanoma skin cancers\(^1\)) in Suffolk between 2013-2015. It shows that the number of cancer diagnoses and deaths increases with age in Suffolk residents. Diagnoses peaks from 65 to 79 and deaths peak from 80 to 84. The age specific incidence and mortality rates show a continuous increase with increasing age. Cancer diagnoses in Suffolk during the period shows that 38.6% were in those aged over 75. Additionally, more than half (55%) of cancer deaths in Suffolk between 2013 and 2015 occurred in people over 75.

**Figure 6: Number of cancer diagnoses/deaths (all cancers (excluding non-melanoma skin cancers) and age specific rates by quinary age groups, Suffolk, 2013-15\(^5\)**

Some cancers are gender specific and others tend to affect one gender far more than the other (e.g. breast cancer). From the top 10 cancers that affect both genders in Suffolk, age standardised incidence rates in men are often higher than in women.

The figure below shows that in 2015, Suffolk men had significantly higher incidence rates for all cancer sites analysed except melanoma skin cancer and pancreas. Statistical significance in these findings has been determined by using 95% confidence intervals.

\(^1\)*Non-melanoma skin cancers (ICD-10 C44) are often excluded from cancer incidence analysis for several reasons. They are very common and less likely to be fatal unlike other cancer sites. Registrations of this cancer type are likely to be less complete and accurate due to multiple tumours occurring in one individual. Additionally, many cases are diagnosed and treated in GP surgeries and therefore possibly not recorded on the cancer register\(^93\).
In addition to this, the figure below presents data from Public Health Outcomes Framework (PHOF) for premature mortality from cancer in Suffolk men and women. Premature mortality (death of a person aged under 75\textsuperscript{34}) is an important indicator of the overall health of the population. Men under 75 in Suffolk have a significantly higher (red) cancer mortality rate than women under 75 in Suffolk (green).

**Figure 7: Age standardised incidence rates for selected top 10 cancers for men and women, Suffolk 2015\textsuperscript{5}**

**Figure 8: Under 75 mortality rates from cancer by sex, Suffolk 2013-15\textsuperscript{35}**

**Cancer incidence**
Cancer incidence is the number of new diagnoses of cancer each year. It is estimated that one in two people born after 1960 in the UK will be diagnosed with some form of cancer during their lifetime\textsuperscript{36}. In England, the National Cancer Registration and Analysis Service (NCRAS) run by Public Health England (PHE) is responsible for cancer registration. The service aims to collect data on all cases of cancer that occur in people living in England. However, cancer registration is not
statutory and so individuals have the right to remove their details at any time. This has led to under-registration being reported.

In 2015 there were 4,691 new cases of cancer in Suffolk which represents a 30% increase from the number of cancers registered in 2005 (3,610). Although some of the increase can be explained by the growth in the older population across the county, the age-standardised rate (ASR) for cancer incidence increased by 8% from 545.0 per 100,000 population in 2005 to 589.0 per 100,000 population in 2015. Men contributed to 53% of the total new diagnoses in 2015, and as expected and similar to England, the ASR for cancer incidence in men was statistically higher (661.3 per 100,000 population) than women (516.0 per 100,000 population).

Prostate cancer was the highest number of new diagnoses in Suffolk 2015, as displayed in figure nine below. The proportion for the county 17.5% (823) of new prostate cancers diagnosed in Suffolk, was significantly higher than the average for England (13.4%). It is worth noting that Suffolk has an older population compared to England.

After prostate cancer; breast, bowel, lung, Non-Hodgkin lymphoma, melanoma of skin, kidney, bladder, head and neck and pancreas cancer were within the top 10 most common cancers in Suffolk 2015, contributing to 75% of all diagnoses in 2015. The proportion of bowel cancer diagnoses in Suffolk in 2015 (12.7%) was significantly higher than England (11.6%), (Chi^2 5.96 p=0.015). The proportion of lung cancer in Suffolk (10.0%) was significantly lower compared to the proportion of lung cancers in England (12.5%) Chi^2 21, p=<0.0001).

Figure 9: All persons, top 10 and other cancers in Suffolk and England; cancers diagnosed in 2015

Figure 10 below shows that for men in Suffolk, the top 10 cancers diagnosed in 2015 were prostate (33.0%), bowel (12.7%), lung (10.5%), Non-Hodgkin lymphoma
(4.6%), melanoma of skin (4.4%), kidney (3.8%), bladder (3.7%), head and neck (3.1%), pancreas (3.1%) and stomach cancer (2.8%).

Figure 10: Male top 10 and other cancers in Suffolk and England; cancers diagnosed in 2015

Figure 11 below shows that for women in the same period, the top 10 cancers included breast (30.0%), bowel (12.8%), lung (10.2%), melanoma of skin (5.3%), ovary (5.1%), uterus (5.0%), Non-Hodgkin Lymphoma (3.5%), pancreas (3.2%), leukaemia (2.0%) and brain, other CNS & intracranial tumours (2.0%).

Figure 11: Female top 10 and other cancers in Suffolk and England; cancers diagnosed in 2015

The trend in the number of new cancer diagnosis in Suffolk between 2005 and 2015 is increasing. As discussed above, the number of new cancer cases in Suffolk increased by 30% between 2005 (3,610) and 2015 (4,691). The rate of increase was higher in men at 36% between 2005 (1,836) and 2015 (2,495). Cancer diagnosis in
women increased by 24% in the same period (1,774 cases in 2005 to 2,196 cases in 2015).

**Age standardised cancer incidence rates in Suffolk**

Table one below compares Suffolk directly age standardised incidence for all cancers (excluding non-melanoma skin cancers) diagnosed between 2013 and 2015 (for all ages and for people under 75) to the average for England. Suffolk had significantly lower all cancer incidence for both all ages and under 75 compared to the England average. Prostate, breast, bowel (colorectal) and lung cancers accounted for over 50% of all cancer cases in Suffolk in 2015. Although cervical cancer is not a cancer within the top 10, it is included in this analysis due to the importance of prevention through the national cervical screening programme.

In addition to all cancers, only lung cancer incidence rates in Suffolk were statistically significantly lower than the England average. However, this is not the case when compared to our nearest statistical neighbours, where Suffolk is statistically significantly higher in all four areas which are statistically significantly better than England. Additionally, colorectal cancer (all ages) is significantly higher than nearest statistical neighbours. Incidence rates for colorectal, breast (female only) and cervical cancer for all ages and under 75 for the period 2013-15, were statistically similar to the average for England. Prostate cancer incidence rates for all ages and under 75s in Suffolk were statistically significantly higher than the England average. This is further the case when Suffolk is compared to nearest statistical neighbours. As the rates have been adjusted for age, a higher proportion of older age groups in Suffolk alone, cannot be attributed to high incidence rates.

**Table 1: Cancer incidence for all cancer (excluding non-melanoma skin cancers) and selected cancer sites, 2013-15 – Suffolk’s performance, England and nearest neighbours**

<table>
<thead>
<tr>
<th>Indicator name</th>
<th>Period</th>
<th>Value</th>
<th>Compared to England</th>
<th>Rank vs. nearest neighbours</th>
<th>Difference from best nearest neighbours</th>
<th>Compared to best, nearest neighbour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age standardised incidence rate - all malignancies, all ages</td>
<td>2013-15</td>
<td>596.3</td>
<td>7</td>
<td>28.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age standardised incidence rate - all malignancies, under 75</td>
<td>2013-15</td>
<td>408.7</td>
<td>9</td>
<td>21.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age standardised incidence rate - lung cancer, all ages</td>
<td>2013-15</td>
<td>81.2</td>
<td>4</td>
<td>8.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age standardised incidence rate - lung cancer, under 75</td>
<td>2013-15</td>
<td>36.2</td>
<td>5</td>
<td>7.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age standardised incidence rate - colorectal cancer, all ages</td>
<td>2013-15</td>
<td>77.0</td>
<td>14</td>
<td>8.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age standardised incidence rate - colorectal cancer, under 75</td>
<td>2013-15</td>
<td>45.7</td>
<td>13</td>
<td>3.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age standardised incidence rate - breast cancer, females, all ages</td>
<td>2013-15</td>
<td>171.1</td>
<td>7</td>
<td>6.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age standardised incidence rate - breast cancer, females, under 75</td>
<td>2013-15</td>
<td>146.5</td>
<td>9</td>
<td>7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age standardised incidence rate - cervical cancer, all ages</td>
<td>2013-15</td>
<td>9.4</td>
<td>6</td>
<td>2.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age standardised incidence rate - cervical cancer, under 75</td>
<td>2013-15</td>
<td>5.3</td>
<td>6</td>
<td>2.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age standardised incidence rate - prostate cancer, all ages</td>
<td>2013-15</td>
<td>209.0</td>
<td>18</td>
<td>64.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age standardised incidence rate - prostate cancer, under 75</td>
<td>2013-15</td>
<td>135.4</td>
<td>16</td>
<td>40.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* out of 16 areas with 1 indicating best performance
** using 95% CIs

Further analysis looks at trends in incidence rates between 2003-05 to 2013-15 for Suffolk in comparison to England. The incidence rates for all cancer in Suffolk increased between 2003-05 and 2013-15. In Suffolk, the ASR for all ages, all
cancers significantly increased by 5.6% from 564.4 per 100,000 in 2003-05 to 596.2 per 100,000 in 2013-15. The figure below shows that this increase was smaller than that recorded for England, where the cancer incidence ASR for all ages increased by 7.5%.

The rate of increase for those aged under 75 for all cancer incidence in Suffolk was higher than all ages. The ASR significantly increased by 9.3% from 374.0 per 100,000 in 2003-05 to 408.7 per 100,000 in 2013-15. This again was similar to the England increase of 9.6%.

**Figure 12: Trend in all cancer incidence ASR (excluding non-melanoma skin cancers, C00-C97, ex. C44), 2003-05 to 2013-15, all ages (a) and for under 75 (b)**

![Graph showing trend in cancer incidence ASR](image)

The trend in cancer incidence for Suffolk compared to England has been analysed for; lung, colorectal, breast (female only), cervical and prostate cancers. The findings for each cancer site are as follows:

**Table 2: Lung cancer incidence trend over time 2003-05 to 2013-15, Suffolk**

<table>
<thead>
<tr>
<th></th>
<th>Suffolk 2003-05 per 100,000 population</th>
<th>Suffolk 2013-15 per 100,000 population</th>
<th>Suffolk % increase/decrease between 2003-05 – 2013-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung (all ages)</td>
<td>65.3 per 100,000</td>
<td>61.2 per 100,000</td>
<td>6.3% decrease</td>
</tr>
<tr>
<td>Lung (under 75s)</td>
<td>38.9 per 100,000</td>
<td>36.2 per 100,000</td>
<td>6.9% decrease</td>
</tr>
</tbody>
</table>

**Colorectal cancer**

Displayed in figure 13 below, the incidence rates for colorectal cancer for all ages in Suffolk shows an increasing trend from 2003-05 until 2008-10, which was significantly higher than England. The trend in rates is then decreasing to 2013-15. The national bowel cancer screening programme was introduced in 2006 for people aged 60-74. The introduction of the screening programme is a possible cause of the rise in colorectal cancer incidence during this period, especially for those under 75.
For all ages in Suffolk the ASR for colorectal cancer marginally increased by 0.34% from 76.8 per 100,000 in 2003-05 to 77.0 per 100,000 in 2013-15. The gap in the incidence rate for colorectal cancer between Suffolk and England remained relatively unchanged in this period, at less than 1% higher in Suffolk than England. The rate of increase for colorectal cancer incidence in Suffolk for those under 75 was slightly higher than for all ages. The ASR increased by 3.4% from 44.2 per 100,000 in 2003-05 to 45.7 per 100,000 in 2013-15. At the same time, the England colorectal cancer incidence rate for those under 75 significantly increased. This resulted in an improvement in the gap between Suffolk and England in those under 75.

**Figure 13: Trend in colorectal cancer incidence ASR (C18-C20), 2003-05 to 2013-15, for all ages (a) and for under 75 (b)**

(b) All ages

(b) Under 75

---

**Breast cancer (female only)**

The incidence rates for female breast cancer in Suffolk for all ages and for under 75 showed a decreasing trend between 2002-04 to 2007-09. From 2007-09 the rates have slowly been increasing. At the same time breast cancer incidence rates for England showed an increase of 7.2% for all ages and 5.4% for under 75 from 2003-05 to 2013-15. The most recent ASR for Suffolk are similar to England.

The findings for cervical and prostate cancer have been summarised in the table below:

**Table 3: Cancer incidence trend over time 2003-05 to 2013-15, Suffolk**

<table>
<thead>
<tr>
<th></th>
<th>Suffolk 2003-05 per 100,000 population</th>
<th>Suffolk 2013-15 per 100,000 population</th>
<th>Suffolk % increase/decrease between 2003-05 – 2013-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervical (all ages)</td>
<td>5.4 per 100,000</td>
<td>9.4 per 100,000</td>
<td>74.1%</td>
</tr>
<tr>
<td>Cervical (under 75s)</td>
<td>4.9 per 100,000</td>
<td>9.3 per 100,000</td>
<td>89.9%</td>
</tr>
<tr>
<td>Prostate (all ages)</td>
<td>181.6 per 100,000</td>
<td>209.0 per 100,000</td>
<td>15.1% increase</td>
</tr>
<tr>
<td>Prostate (under 75s)</td>
<td>102.4 per 100,000</td>
<td>135.4 per 100,000</td>
<td>32% significant increase</td>
</tr>
</tbody>
</table>
Age standardised cancer incidence rates 2012-14 by Suffolk boroughs/districts

Some more in-depth analysis has been completed for cancer incidence age standardised rates (ASR) 2012-14 at district level for all cancers (excluding non-melanoma skin cancers), all ages and people aged under 75. Unfortunately, it has not been possible to update this analysis to 2013-15 data. However, from updating other areas of the report, indications are that there would be minimal change to the findings presented for 2012-14. District rates are compared to Suffolk and to the average for England.

Figure 14 below, shows that between 2012 and 2014 there were 13,733 new cancer diagnoses in Suffolk. People under 75 (8,384) accounted for 61% of these. As discussed above, Suffolk’s incidence rates for all ages and for those aged under 75 are better than the average for England. Mid Suffolk had the lowest ASR for all cancers, all ages (557.0 per 100,000 population) and for those aged under 75 (377.2 per 100,000 population). Both were significantly better than Suffolk. Ipswich had the highest ASR for all cancers/all ages (619.4 per 100,000 population). For those aged under 75, the highest rate was recorded in Forest Heath (423.3 per 100,000 population). However, both rates were similar to the average for England and Suffolk.

Figure 14: Age standardised rates for all cancer incidence (excluding non-melanoma skin cancers, C00-C97, ex. C44), 2012-14 for all ages (a) and for under 75 (b)

In addition to all cancers, age standardised rates for each Suffolk local authority has been analysed for; lung, colorectal, breast (female only), cervical and prostate cancers. The table below details the findings:
### Table 4: Cancer incidence for selected cancer sites 2012-2014

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Data period 2012-2014</th>
<th>Number of diagnosis Suffolk</th>
<th>Age &lt;75 Number and % Suffolk</th>
<th>Borough/districts lowest in Suffolk</th>
<th>Borough/districts highest in Suffolk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung</td>
<td></td>
<td>1,438</td>
<td>784 (55%)</td>
<td>Babergh, Mid Suffolk Suffolk Coastal</td>
<td>Ipswich</td>
</tr>
<tr>
<td>Colorectal</td>
<td></td>
<td>1,791</td>
<td>923 (52%)</td>
<td>St Edmundsbury</td>
<td>Suffolk Coastal</td>
</tr>
<tr>
<td>Breast (female only)</td>
<td></td>
<td>2,031</td>
<td>1,523 (75%)</td>
<td>Ipswich</td>
<td>Forest Heath St Edmundsbury</td>
</tr>
<tr>
<td>Cervical (caution small numbers)</td>
<td></td>
<td>100</td>
<td>89 (89%)</td>
<td>Mid Suffolk</td>
<td>Waveney</td>
</tr>
<tr>
<td>Prostate</td>
<td></td>
<td>2,174</td>
<td>1,276 (59%)</td>
<td>Waveney Ipswich</td>
<td>Babergh Suffolk Coastal</td>
</tr>
</tbody>
</table>

**Lower**

**Significantly lower**

**Similar**

**Higher**

**Significantly higher**

It is difficult to draw conclusions on the causes of higher and lower incidence of specific cancers in each borough/district. As detailed below in table 12, smoking prevalence in Mid Suffolk is better than the Suffolk average, which might contribute to their lower lung cancer incidence. Alternatively, lower incidence might be an indicator of undetected cases. Further investigation would be required to draw any conclusions.

**Age standardised cancer incidence rates by CCG**

The table below provides the details of the age standardised rates of cancer incidence 2013-15 pooled data, per 100,000 population for all, lung, colorectal, breast and prostate cancers: 6
Table 5: Standardised cancer incidence rates per 100,000 population by CCG and England 2013-15 pooled data\textsuperscript{5,6}

<table>
<thead>
<tr>
<th>Type of cancer</th>
<th>England</th>
<th>GYWCCG</th>
<th>IESCCG</th>
<th>WSCCG</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cancers</td>
<td>615.2</td>
<td>618.66</td>
<td>586.32</td>
<td>610.20</td>
</tr>
<tr>
<td>Lung</td>
<td>78.93</td>
<td>81.48</td>
<td>56.02</td>
<td>62.95</td>
</tr>
<tr>
<td>Colorectal</td>
<td>73.63</td>
<td>69.14</td>
<td>80.53</td>
<td>74.46</td>
</tr>
<tr>
<td>Breast</td>
<td>171.52</td>
<td>167.85</td>
<td>164.09</td>
<td>191.61</td>
</tr>
<tr>
<td>Prostate</td>
<td>182.26</td>
<td>195.98</td>
<td>215.33</td>
<td>207.5</td>
</tr>
</tbody>
</table>

*Using 95% confidence intervals

We can see in the table above that, in the main cancer incidence rates for each CCG, especially GYWCCG are similar to rates for England. Lung cancer incidence in IESCCG are lower than the average for England, as is WSCCG. However, prostate cancer incidence in all three CCGs is higher than the average for England, which could be an indication of good detection in the CCG areas. In addition, colorectal cancer incidence in IESCCG is higher than England but could again indicate good detection, maybe through screening.

Age standardised cancer mortality rates in Suffolk
Cancer mortality is the number of people who have died from cancer in a specified period. A lot of deaths from cancer will be people who received a diagnosis some years before and will have lived a long time after their initial diagnosis. Cancer mortality tells us how many people have died from cancer regardless of the duration of illness\textsuperscript{38}.

Between 2013 and 2015, there were 6,197 deaths from cancer in Suffolk. As observed for cancer incidence, mortality rates from all cancers in Suffolk for the period 2013-15, all ages and under 75 were better than the average for England, displayed in table six below. In addition to all cancer, mortality rates were also examined by selected cancer sites; prostate, breast (females only), cervical, bowel (colorectal) and lung cancers for all ages and for people under 75. Lung cancer mortality in Suffolk for all ages and those under 75, and prostate cancer in those under 75 were also statistically significantly lower than the England average. All other selected cancer sites were similar to the average for England.

When comparing Suffolk to nearest statistical neighbours, cancer mortality is statistically significantly worse (higher) for all cancers and lung cancer in all ages and those under 75. All other cancers are similar to the nearest statistical neighbours. For prostate cancer incidence all ages, Suffolk ranked 15 out of 16 and 16 for those under 75 compared to nearest statistical neighbours. The rates were statistically significantly higher than the best performing. However, for prostate cancer mortality all ages and those under 75, Suffolk ranks at three and two out of 16 and is statistically similar to the best performing area Buckinghamshire.
Table 6: Cancer mortality for all cancer (excluding non-melanoma skin cancers) and selected cancer sites, 2013-15 – performance Suffolk’s performance versus England and nearest neighbours\(^5\)

<table>
<thead>
<tr>
<th>Indicator name</th>
<th>2013-15</th>
<th>2003-05</th>
<th>% increase/decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung (all ages)</td>
<td>46.5 per 100,000</td>
<td>54.8 per 100,000</td>
<td>15.1% decrease</td>
</tr>
<tr>
<td>Lung (under 75s)</td>
<td>26.4 per 100,000</td>
<td>30.1 per 100,000</td>
<td>12.3% decrease</td>
</tr>
<tr>
<td>Colorectal (all ages)</td>
<td>28.7 per 100,000</td>
<td>33.3 per 100,000</td>
<td>13.8% decrease</td>
</tr>
<tr>
<td>Colorectal (under 75s)</td>
<td>12.6 per 100,000</td>
<td>16.0 per 100,000</td>
<td>21.5% decrease</td>
</tr>
<tr>
<td>Breast (all ages)</td>
<td>34.5 per 100,000</td>
<td>41.8 per 100,000</td>
<td>17.5% decrease</td>
</tr>
<tr>
<td>Breast (under 75s)</td>
<td>22.4 per 100,000</td>
<td>28.0 per 100,000</td>
<td>20.0% decrease</td>
</tr>
<tr>
<td>Prostate (all ages)</td>
<td>47.3 per 100,000</td>
<td>59.2 per 100,000</td>
<td>20.1% decrease</td>
</tr>
<tr>
<td>Prostate (under 75s)</td>
<td>9.3 per 100,000</td>
<td>15.2 per 100,000</td>
<td>38.8% decrease</td>
</tr>
</tbody>
</table>

Further analysis of trends in Suffolk cancer mortality rates over time between 2003-05 and 2013-15, compared to England have been considered. Despite the increasing incidence rates for all cancer in Suffolk, mortality continues to decrease. This indicates more people in Suffolk now survive cancer. For all ages in Suffolk, the mortality rate for all cancers significantly decreased by 11% from 2003-05 to 2013-15. This reduction was bigger than that recorded for England, where the cancer mortality rate for all ages decreased by 10.1%.

Findings for lung, colorectal, breast (female only) and prostate cancers are presented in the table below:

Table 7: Cancer mortality trend over time 2003-05 to 2013-15, Suffolk\(^5\)
Age standardised cancer mortality rates 2012-2014 by Suffolk boroughs/districts

The following information looks at the variation in cancer mortality age standardised rates (ASR) 2012-2014 at district/borough level for all cancers (excluding non-melanoma skin cancers) and by selected cancer site, including; prostate, breast (females only), cervical, bowel (colorectal) and lung cancers for all ages and for people under 75. Unfortunately, it has not been possible to update this analysis to 2013-15 data. However, from updating other areas of the report, indications are that there would be minimal change to the findings presented for 2012-14. District/borough rates are compared to Suffolk and the average for England.

Between 2012 and 2014 there were 6,105 cancer deaths in Suffolk. People under 75 were 46% of deaths recorded (2,806). The proportion of people under 75 diagnosed with cancer was higher than the proportion of people under 75 dying from cancer. This indicates many people in this age group have good survival rates. Babergh had the lowest ASR for all cancers mortality, all ages (237.9 per 100,000 population) and for under 75 (110.3 per 100,000 population). For both, the rate was statistically significantly better than Suffolk and England, as displayed in figure 15 below. This differs to incidence, where the lowest rate was recorded in Mid Suffolk. Ipswich similarly to incidence rates had the highest ASR for all cancer mortality for all ages and for under 75. The mortality rate for Ipswich for all ages was statistically significantly higher than Suffolk but similar to the England average. For under 75 the mortality rate for Ipswich was significantly worse than the average for England and Suffolk.

Figure 15: Age standardised rates for all cancer mortality (excluding non-melanoma skin cancers, C00-C97, ex. C44), 2012-14, for all ages (a) and for under 75 (b)

In addition to all cancers, age standardised rates for each Suffolk local authority has been analysed for; lung, colorectal, breast (female only), cervical and prostate cancers. The table below details the findings:
Table 8: Cancer mortality for selected cancer sites 2012-2014

<table>
<thead>
<tr>
<th>Data period 2012-2014</th>
<th>Number of deaths</th>
<th>Age &lt;75 Number and %</th>
<th>Borough/districts lowest in Suffolk</th>
<th>Borough/districts highest in Suffolk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cancer Type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lung</td>
<td>1,110</td>
<td>569 (51%)</td>
<td>Babergh</td>
<td>Ipswich</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mid Suffolk</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Suffolk Coastal</td>
<td></td>
</tr>
<tr>
<td>Colorectal</td>
<td>661</td>
<td>266 (40%)</td>
<td>St Edmundsbury</td>
<td>Mid Suffolk</td>
</tr>
<tr>
<td>Breast (female only)</td>
<td>458</td>
<td>250 (75%)</td>
<td>St Edmundsbury</td>
<td>Ipswich</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cervical (caution small numbers)</td>
<td>30</td>
<td>20 (68%)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Prostate</td>
<td>489</td>
<td>114 (23%)</td>
<td>Forest Heath</td>
<td>Babergh</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mid Suffolk</td>
<td>Ipswich</td>
</tr>
</tbody>
</table>

**Age standardised cancer mortality rates by CCG**

There are a few similarities in the CCG cancer mortality and incidence rates. The table below provides details of the most recently available cancer mortality data for Suffolk CCGs and England. Only GYWCCG has a higher cancer mortality rate than England for all cancers but this is not significant. This is also present prostate cancers. For breast (female only) cancer in GYWCCG there is a statistically significantly higher mortality rate. Both IESCCG and WSCCG have significantly lower all cancer and lung cancer mortality rates than England.

There are two cancers in IESCCG which have higher mortality rates. One is colorectal cancer mortality, which is significant and has been explained further below. The second is prostate cancer mortality which is not significant.

The table clearly shows that WSCCG has reasonably good cancer mortality rates across the selected cancer sites, all being lower than England. A couple of these (all cancer and lung cancer) are significant as mentioned above.
Table 9: Age standardised rates by Suffolk CCG and England for selected cancer mortality per 100,000 population, 2013-2015 pooled data⁵,⁶

<table>
<thead>
<tr>
<th>Type of cancer</th>
<th>England</th>
<th>GYWCCG</th>
<th>IESCCG</th>
<th>WSCCG</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cancers</td>
<td>280.82</td>
<td>290.09</td>
<td>259.16</td>
<td>248.74</td>
</tr>
<tr>
<td>Lung</td>
<td>60.35</td>
<td>59.12</td>
<td>43.67</td>
<td>47.24</td>
</tr>
<tr>
<td>Colorectal</td>
<td>27.33</td>
<td>23.45</td>
<td>31.21</td>
<td>25.38</td>
</tr>
<tr>
<td>Breast (female only)</td>
<td>34.71</td>
<td>43.21</td>
<td>33.22</td>
<td>33.29</td>
</tr>
<tr>
<td>Prostate</td>
<td>48.62</td>
<td>49.78</td>
<td>48.64</td>
<td>45.55</td>
</tr>
</tbody>
</table>

*Using 95% confidence intervals

In addition to the above, figure 16 below shows that while IESCCG, WSCCG and England cancer mortality rates have been decreasing, the trend is opposite in GYWCCG and slight increases can be seen in each pooled data period.

**Figure 16: Age standardised rates for all cancer mortality per 100,000 population for Suffolk CCGs and England 2009-2015⁵**

As mentioned above, IESCCG had a higher mortality rate for colorectal cancer, which is significant. In addition, the figure below shows that where the trend in colorectal cancer mortality rates for the other GYWCCG, WSCCG and England have either decreased or remained stable, there has been an increasing trend in the pooled data periods for IESCCG. It is unlikely that higher incidence is the cause of this, as incidence rates appear to be similar to England and the other CCGs. Some explanation can be found in the stage at diagnosis information provided later in this profile. However, further investigation would be required to fully understand if late
diagnosis is fully or partly responsible for causing this increased mortality associated with colorectal cancer.

**Figure 17: Age standardised rates for colorectal cancer mortality per 100,000 population for Suffolk CCGs and England 2009-2015**

5. **Prevention and public health**

As discussed earlier in the national strategic picture, plenty can be done to help prevent cancer from occurring. Prevention and public health agendas will help to influence these factors considerably as the work on Achieving World Class Cancer Outcomes progresses.

**The national picture**

An estimated 42% of cancer cases in the UK each year are linked to modifiable lifestyle and other factors. Not smoking, being physically active and maintaining a healthy weight reduces the risks of getting cancer. Vaccination against the human papilloma virus (HPV) and participation in cancer screening programmes further reduce the risk of specific cancers and increase the chances of earlier detection.

Illustrated in figure 18 below are the main risk factors for cancer as detailed in Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020. They include tobacco, weight, diet, alcohol consumption, UV exposure and lack of sufficient physical activity. These are supplemented by other exposures, such as air pollution, occupational risks, infections (including HPV and viral hepatitis B and C) and radiation.
Nationally there is an aim to reduce adult smoking prevalence from 18.4% in 2015 to less than 13% by 2020 and to less than 5% by 2035. A key aim is to make high quality smoking cessation services available to everyone who smokes, and to strengthen those that exist. Good in-roads have been made to reduce the prevalence of smoking with 300,000 fewer smokers over the past three years. Efforts to reduce smoking further, such as plain cigarette packaging, have also been introduced, and the effects of this change have yet to be measured.

Obesity is identified as another modifiable risk factor. England is among the worst performing countries in western Europe and 67% of adult men and 57% of adult women in England are overweight or obese. The vision of the Independent Cancer Taskforce emphasised the need to be coordinated and concerted in action to tackle obesity across the broad public health sphere, with a strong focus on preventing onset of obesity in children. Some components of the obesity strategy include; sugar reduction, changes in food marketing and taxation, for example; Soft Drinks Industry Levy, support for local weight management services, and a focus on addressing healthy weight in educational settings.

Alcohol is a known contributor to several types of cancer, and is estimated to lead to almost 13,000 cases of cancer every year in the UK. Public awareness of the harmful link between alcohol and cancer is lacking. There is scope to tackle alcohol
and acknowledge the impact it has on cancer. This could help to drive behavioural change. The broad range of health risks induced by harmful alcohol consumption makes this not just a priority for cancer services, but the benefits of progress will be felt here.

Ultraviolet (UV) radiation exposure through sunlight is a constant carcinogen that individuals can protect themselves against, and measures to promote self-management should continue. The importance of local strategies to raise awareness and address the harmful effects of UV radiation, especially through tanning bed use are emphasised.

One in 13 cases of lung cancer are estimated to be caused by air pollution. The forthcoming UK Air Quality Strategy will outline the government’s commitment and priorities to reducing the impact of air pollution on public health over the coming years. An example of this has been the government’s plan for tackling roadside nitrogen dioxide concentrations. Individual measures to be promoted include three main components:

1. Reduce individual contribution to air pollution (e.g. reducing use of private motorised travel),
2. Raise air quality issues on the local and national agenda (e.g. in schools, healthcare, businesses and local authorities)
3. Help individuals avoid the harmful effects of air pollution (e.g. use of quieter streets, avoid sitting in cars).

In addition to the above, uptake of National Institute of Health and Care Excellence (NICE) guidance44 aimed at local authorities in particular, means that a wide-ranging set of measures will be implemented to tackle air pollution and its carcinogenic effects across many domains of activity.

Occupational exposure to cancer causing factors is another contributor to many preventable cancers. The Health and Safety Executive works with industries and employees to raise awareness of this, and to encourage behavioural change. Within this, efforts to reduce occupational exposure to ionising radiation should continue.

Human papilloma virus (HPV) infection is well established to lead to several different types of cancers (including 99.7% of cervical cancers), which can be effectively prevented through use of the available HPV vaccine. Ongoing efforts to promote uptake of this vaccine are to be encouraged. If cost-effectiveness can be established through ongoing pilot projects, the vaccine is likely to be extended to other high-risk groups, such as men who have sex with men and adolescent boys. Wider prevention strategies that tackle the blood-borne virus’s human immunodeficiency virus (HIV), Hepatitis (Hep) B and C are also hoped to be successful in improving the numbers of new cancers attributable to these infectious diseases.
Capitalising on the opportunity to influence people’s behaviours during everyday encounters with health services is crucial for cancer prevention. Measures such as healthcare professional training in Making Every Contact Count (MECC), can guide individual patients to change their behaviour and live healthier lives. Provision of this training through public health initiatives should continue and expand in the future.

**Prevention and public health in Suffolk**

Some cancers occur due to factors that are entirely modifiable and therefore preventable. Some are well-known, for example, smoking and ultraviolet radiation, whereas others have limited public awareness, for example, alcohol, obesity, and air pollution. By positively modifying lifestyles and environment, the potential gains in cancer survival, quality of life, and cost to health services and the wider economy are vast.

Four in 10 cancers in the UK are linked to a combination of the 14 major lifestyle and other factors. Using this statistic, it can be estimated that in Suffolk 2014 nearly 2,000 cases of cancer could be attributed to these major risk factors. This is displayed in figure 19 below and shows that around 900 cancers are linked to smoking, 250 to unhealthy weight and 200 to the lack of fruit and vegetables in diet.

**Figure 19: Preventable cancer cases by prevention method, Suffolk 2014**

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*The time is now: A prevention strategy for Suffolk to reduce demand in the health and care sector by improving health 2016-2021* outlines some of primary prevention priorities and activity within Suffolk. It includes the following programmes of work which have been directly linked with the prevention of cancer:
Smoking reduction
- Risk of cancer of the mouth, throat, oesophagus and bladder is halved.
- Risk of cervical cancer falls to that of a non-smoker.

Increase the proportion of the population which are a healthy weight
- Reduce the significant contribution of excess weight to some cancers

Increase the proportion of those physically active in the population
- Reduce the significant contribution of physical inactivity to cancer

The early detection and treatment of cancer is a priority for the Suffolk system and all areas within priority two of the strategy will contribute to the prevention of cancer. The interventions to improve direct and indirect support to those who wish to change their lifestyle detailed in figure 20 below include; decreasing tobacco use, increase physical activity, increase the proportion of the population that is a healthy weight, decrease excessive alcohol consumption and promoting the use of MECC. Details on what success looks like are available in Annex 3.

Figure 20: The time is now: A prevention strategy for Suffolk to reduce demand in the health and care sector by improving health 2016-2021, Priority 2

Smoking, obesity/diet and physical activity
Table 11 below shows that the prevention strategy is well placed and there are opportunities to reduce the risk of cancer in Suffolk, by encouraging people to make the right choices in their own health behaviour (modifiable risk factors). There is a need for improvement in Suffolk for many of the modifiable risk factors, and especially - Overweight and obese adults % (2013-15), which is worse (66%) than the average for England (65%).

Another area for improvement is tobacco use, where a significantly higher proportion of adults in routine and manual occupations (23.1%) smoke in comparison to the overall adult population in Suffolk. Around 16% of the adult population in Suffolk smoke and nearly 9% of young people at the age 15.
The effect of strategies aiming to influence the modifiable causes of cancers, for example smoking, on cancer-related outcomes in the general population is significant. A research paper published in 2017 summarises the effect on cancer mortality:\(^{46}\):

- 62% reduction in lung-cancer mortality is associated with smoking cessation at age 50, and environmental and policy strategies are effective at increasing cessation.
- 95% reduction in mortality is associated with screening for cervical cancer.
- 100% reduction in mortality is associated with vaccination against the human papillomavirus.
- 90% reduction in mortality is related to chronic liver disease and liver cancer is associated with vaccination against hepatitis B virus.
- There are also benefits for those at high risk of cancer. For example, treatment with selective oestrogen receptor modulators reduces the incidence of breast cancer by 50% amongst women at high risk. Screening, diagnosis, and treatment of hepatitis C virus infection reduces the risk of all-cause mortality by 50% among those with infection.

Cancers are caused by multiple factors acting simultaneously, and therefore could be prevented by intervening on single or multiple risk factors.\(^{39}\) Among the strategies for cancer prevention, smoking cessation has the longest-standing evidence base.\(^{46}\) The economic cost to society of smoking in Suffolk is approximately £209.3 million and this is £1,763 per smoker per year.\(^{47}\) The potential savings from investing in tobacco-control interventions is great and it has been estimated that for every £1 invested, the associated return on investment is £2.07 by year five, £3.92 by year ten and £11.39 over the lifetime of a smoker who quits.\(^{48}\)

Weight is the second highest modifiable risk factor for cancer. Although the proportion of children classified as overweight and obese at age 10-11 years is better than the average for England, there are still over 2,200 children with excess weight in this age group and the trend shows that the numbers are increasing. Additionally, there are 1,773 children aged 4-5 years classified as overweight or obese. More encouragingly, recent data shows that over 61% of adults and nearly 51% of young people at the age of 15 consume the recommended “5-a-day”. Even though these are better than or similar to the average for England, there is still ample room for improvement.
Person-based obesity prevention programmes play an important role in reducing excess weight. The role of the obesogenic environment is now also frequently highlighted.\textsuperscript{49} Obesogenic environments are complex. They relate to the cumulative influence of surroundings, opportunities or conditions of life that promote obesity in individuals or populations.\textsuperscript{50} The main cluster of obesogenic environments include: individual activity, activity environment, food consumption, food production, biology, individual psychology and social influences. Obesity prevention programmes should combine person-based and environmental approaches. The latter could include promoting active transport, green spaces, ‘healthy’ towns and reduction of fast food outlets.\textsuperscript{49}

Considering the modifiable risk factors by borough/district in the county, some variation is observed. Many of the boroughs/districts have proportions similar to or better than Suffolk, which is positive. Babergh, Mid Suffolk, St Edmundsbury and Suffolk Coastal all have better proportions than Suffolk of certain selected modifiable risk factors, some with up to five in one borough/district. There is still scope for improvement however, and future progress should remain a public health priority. Waveney district has some of the worst figures within Suffolk for the selected risk factors and is the only district which has proportions of selected modifiable risk factors worse than Suffolk. The smoking prevalence in adults in routine and manual occupations – current smokers, percentage of adults (aged 18+) classified as

<table>
<thead>
<tr>
<th>Risk Modifiers</th>
<th>Suffolk</th>
<th>England</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking prevalence in adults – current smokers (2016)</td>
<td>14.7</td>
<td>15.5</td>
</tr>
<tr>
<td>Smoking prevalence in adults in routine and manual occupations – current smokers (APS) (18-64 yrs.) (2016)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking prevalence at age 15 – current smokers (2014/15)</td>
<td>8.6</td>
<td>8.2</td>
</tr>
<tr>
<td>Percentage of adults (aged 18+) classified as overweight or obese (2016/17)</td>
<td>61.5</td>
<td>61.3</td>
</tr>
<tr>
<td>Children excess weight 4-5-year olds (2016/17)</td>
<td>22.3</td>
<td>22.6</td>
</tr>
<tr>
<td>Children excess weight 10-11-year olds (2016/17)</td>
<td>31.0</td>
<td>34.2</td>
</tr>
<tr>
<td>Proportion of the population meeting the recommended &quot;5-a-day&quot; on a usual day (adults) (2016/17)</td>
<td>61.4</td>
<td>57.4</td>
</tr>
<tr>
<td>Proportion of the population meeting the recommended &quot;5-a-day&quot; at age 15 (2014/15)</td>
<td>50.7</td>
<td>52.4</td>
</tr>
<tr>
<td>Percentage of physically active adults (2016/17)</td>
<td>67.2</td>
<td>66.0</td>
</tr>
<tr>
<td>Percentage of physically inactive adults (2016/17)</td>
<td>20.8</td>
<td>22.2</td>
</tr>
<tr>
<td>Cancer screening - breast cancer % (2016)</td>
<td>78.9</td>
<td>75.5</td>
</tr>
<tr>
<td>Cancer screening - cervical cancer % (2016)</td>
<td>74.5</td>
<td>72.7</td>
</tr>
<tr>
<td>Cancer screening - bowel cancer % (2016)</td>
<td>62.0</td>
<td>57.9</td>
</tr>
</tbody>
</table>

Person-based obesity prevention programmes play an important role in reducing excess weight. The role of the obesogenic environment is now also frequently highlighted.\textsuperscript{49} Obesogenic environments are complex. They relate to the cumulative influence of surroundings, opportunities or conditions of life that promote obesity in individuals or populations.\textsuperscript{50} The main cluster of obesogenic environments include: individual activity, activity environment, food consumption, food production, biology, individual psychology and social influences. Obesity prevention programmes should combine person-based and environmental approaches. The latter could include promoting active transport, green spaces, ‘healthy’ towns and reduction of fast food outlets.\textsuperscript{49}

Considering the modifiable risk factors by borough/district in the county, some variation is observed. Many of the boroughs/districts have proportions similar to or better than Suffolk, which is positive. Babergh, Mid Suffolk, St Edmundsbury and Suffolk Coastal all have better proportions than Suffolk of certain selected modifiable risk factors, some with up to five in one borough/district. There is still scope for improvement however, and future progress should remain a public health priority. Waveney district has some of the worst figures within Suffolk for the selected risk factors and is the only district which has proportions of selected modifiable risk factors worse than Suffolk. The smoking prevalence in adults in routine and manual occupations – current smokers, percentage of adults (aged 18+) classified as
overweight or obese and children excess weight 4-5-year olds are worse than the average for the county.

Table 12: Prevalence of modifiable risk factors of cancer, Suffolk boroughs/districts

<table>
<thead>
<tr>
<th>Risk Modifiers</th>
<th>Babergh</th>
<th>Forest Heath</th>
<th>Ipswich</th>
<th>Mid Suffolk</th>
<th>St. Edmundsbury</th>
<th>Suffolk Coastal</th>
<th>Waveney</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking prevalence in adults – current smokers (2016)</td>
<td>8.6</td>
<td>20.4</td>
<td>19.8</td>
<td>11.0</td>
<td>11.1</td>
<td>12.0</td>
<td>20.7</td>
</tr>
<tr>
<td>Smoking prevalence in adults in routine and manual occupations – current smokers (APS) (18-64 yrs.) (2016)</td>
<td>9.2</td>
<td>37.2</td>
<td>25.3</td>
<td>19.7</td>
<td>17.2</td>
<td>27.5</td>
<td>46.2</td>
</tr>
<tr>
<td>Percentage of adults (aged 18+) classified as overweight or obese (2016/17)</td>
<td>59.5</td>
<td>61.3</td>
<td>61.2</td>
<td>64.1</td>
<td>57.3</td>
<td>56.0</td>
<td>70.6</td>
</tr>
<tr>
<td>Children excess weight 4-5 year olds (2016/17)</td>
<td>21.0</td>
<td>20.0</td>
<td>23.0</td>
<td>20.6</td>
<td>23.6</td>
<td>20.0</td>
<td>25.4</td>
</tr>
<tr>
<td>Children excess weight 10-11 year olds (2016/17)</td>
<td>27.8</td>
<td>30.3</td>
<td>32.7</td>
<td>29.2</td>
<td>29.6</td>
<td>29.5</td>
<td>35.5</td>
</tr>
<tr>
<td>Proportion of the population meeting the recommended &quot;5-a-day&quot; on a usual day (adults) (2016/17)</td>
<td>57.3</td>
<td>59.8</td>
<td>60.5</td>
<td>62.9</td>
<td>61.6</td>
<td>65.6</td>
<td>60.2</td>
</tr>
<tr>
<td>Percentage of physically active adults (2016/17)</td>
<td>73.9</td>
<td>66.2</td>
<td>63.5</td>
<td>65.7</td>
<td>70.7</td>
<td>67.0</td>
<td>64.5</td>
</tr>
<tr>
<td>Percentage of physically inactive adults (2016/17)</td>
<td>14.4</td>
<td>21.2</td>
<td>18.6</td>
<td>21.4</td>
<td>21.6</td>
<td>22.5</td>
<td>25.2</td>
</tr>
</tbody>
</table>

Worse than Suffolk average
Similar to Suffolk average
Better than Suffolk average

Cancer screening programmes and HPV vaccination
Cancer screening is addressed in detail further on in this profile under earlier diagnosis. Table 11 above shows that coverage of screening programmes in the county is positive. However, there are indications of decreasing trends which needs to be addressed and improved as a matter of urgency.
Vaccination against HPV has been associate with 100% reduction in mortality from some cervical cancers\textsuperscript{46}. The HPV vaccine protects against the two high-risk HPV types (16 and 18) that cause over 70% of cervical cancers. In the UK, all females are offered; one dose in Year 8 (12-13 year olds) and one dose in Year 9 (13-14 year olds) through the national HPV immunisation programme\textsuperscript{51}. Vaccination coverage is the best indicator for the level of protection a population will have against vaccine preventable communicable disease.

Comparing Suffolk to nearest statistical neighbours, in 2013/14, Suffolk performed fourth out of 16 areas for HPV vaccination coverage, significantly lower than the best performing Leicestershire\textsuperscript{35}. However, 93\% of schoolgirls in Suffolk received HPV vaccination in the same year. This was better than the average for England (86.7\%).

More recent data for 2015/16 is displayed in the table below. This indicates that Suffolk is not performing as well as in 2013/14. Only 73.3\% of 12-13-year olds received the vaccine in 2015/16, which is the worst performance in the East of England and worse than England. Coverage for those aged 13-14 years was slightly better in the same year at 83.2\% but was still lower than England and the East of England. Recently, PHE has been working with several local authorities to address negative press and communications from anti-vaccination campaigners. A small local group in Suffolk are actively suggesting the vaccine is unsafe. Suffolk County Council are working with PHE and schools to ensure the correct information is getting to parents with reassurance of the vaccines safety\textsuperscript{52}. Evidence shows that highlighting vaccination programmes and their benefits encourages improvement in uptake levels.

Table 12: HPV vaccine coverage in East of England local authority areas compared to England\textsuperscript{9,8}
Alcohol
There is some evidence to suggest that alcohol consumption can increase the risk of getting cancer. It is thought that every year, alcohol causes around 4% of cancers in the UK. There are links between seven different cancers and alcohol. In order from highest to lowest risk, these are: bowel, breast (female only), mouth and upper throat, oesophagus, larynx and liver. Ongoing research in this area is underway to fully understand the connections between alcohol and cancer.

Cancer research UK estimate that approximately 12,800, 4% of all cancers in the UK are caused by alcohol and therefore could be prevented. Applying this to the population of Suffolk (740,000), this could equate to approximately 146 preventable cancers caused by alcohol.

Ultraviolet radiation
It is widely known and understood that by protecting your skin from ultraviolet radiation from the sun or sunbeds, reduces the risk of skin cancer. It is thought that in the UK, eight out of 10 of the most serious skin cancer (melanoma) could be prevented. Damage to the skin through sunburn increases the risk of developing cancer. Sunburn twice a year can triple the risk of melanoma skin cancer. To reduce the risks of sunburn, especially during the summer weather, people in Suffolk can use sunscreen, spend time in the shade and cover their skin with clothing, hats and sunglasses.

Environment and policy
Environmental and policy initiatives can reach many people effectively. However, environments that provide access to groups with an elevated prevalence of risk-related behaviours are another important target. Examples of such groups include mental health and prisons, where the national prevalence of smoking in people with mental health is 68% and 80% of people in prison smoke.

Recent NICE guideline NG70, Air pollution: outdoor air quality and health aims to improve air quality by improving road-traffic-related air pollution through multiple interventions. Each of these aims to produce a small benefit, and so prevent a range of health conditions and deaths, including cancer. Suffolk County Council is committed to reviewing and assessing our compliance and implementation of local authority related NICE guidance. As a result, work has been ongoing with colleagues from across a wide range of council services to understand and address the recommendations within NG70, which include:

- Planning
- Development management
- Clean air zones
- Reducing emissions from public sector transport services and vehicle fleets
- Smooth driving and speed reduction
- Walking and cycling
• Awareness raising

It is hoped that by assessing compliance against the guidance and implementing the recommendations as far as possible, Suffolk's population will be at less risk of poor health, including cancers associated with air pollution.

6. Earlier diagnosis

The national direction

An urgent need was identified in the Five Year Forward View\(^1\) to reduce the proportion of patients with cancer diagnosed through emergency presentations to hospital. Early diagnosis is associated with improved cancer survival outcomes. Cancers diagnosed through an emergency presentation are likely to be more advanced, and less amenable to curative treatment with good long-term outcomes. For example, women are four times less likely to have surgery if breast cancer is diagnosed through an emergency presentation, than if diagnosed through an urgent referral.\(^2\) As with many other measures of cancer service performance, there is high geographic and socio-economic variation in the proportion of emergency diagnoses. There is the potential for a large gain to be made in outcomes, as well as cost savings, if these inequalities are effectively addressed.

General practitioners (GPs) will see many patients each year with a new diagnosis of cancer. Since publication of the Five Year Forward View, there has been a half a million\(^{23}\) increase in the number of patients referred by their GP urgently for suspected cancer. Positively, much greater numbers of people are being seen within 14 days. People are encouraged to attend their GP earlier if they suspect symptoms of cancer. However, research has shown that people in the UK are more worried and embarrassed than those in other countries about seeing their doctor with a symptom that might be serious.\(^2\) Measures to improve public awareness include campaigns such as the “Be Clear on Cancer” social marketing campaigns run by PHE (e.g. persistent cough and breathlessness as symptoms of lung cancer).\(^5,6\) These campaigns focus on the need to see a doctor if symptoms persist. Two campaigns have been launched, and evaluation of these have so far delivered positive results in terms of earlier diagnoses.

The Accelerate, Coordinate and Evaluate (ACE) programme\(^2\), initiated by NHS England, Cancer Research UK, and Macmillan Cancer Support, aims to improve England's cancer survival rates by providing evidence to support better design of diagnostic pathways. Diagnostic capacity is to be expanded such that the country will meet all of its waiting time standards, including the “62-day from referral to treatment” standard\(^2\). An additional “faster diagnosis standard” is to be introduced by 2020 which will give patients a definitive diagnosis of cancer or “all-clear” within 28 days of a GP referral; five sites are currently piloting this, one of which is Ipswich Hospital.\(^41,57\) The development of new rules for metrics at a CCG level will help to measure performance on early diagnosis.
Achievement of these targets will have to be driven by provision of additional funding. Further, it is planned to introduce 10 new multidisciplinary rapid diagnostic and assessment centres across England by March 2018, with extension of these across all regions by March 2019. Additional targeted investment through the National Cancer Diagnostics Capacity Fund is supporting these drives, including 30 projects which have begun to test more efficient diagnostic pathways across the country. Workforce shortages will also need to be addressed to allow provision of the desired level of access to diagnostic testing. Evaluation of these initiatives should include a focus on over-diagnosis and assessing the impact of any increase in false-positive test results.

A major priority in the national drive for faster diagnosis is population screening programmes. These are intended to detect higher prevalence cancers in large groups of the population who have no symptoms of cancer. They aim to reduce incidence by treating developing cancers and improve outcomes by patients starting treatment earlier. The Five Year Forward View planned to extend access and uptake of screening programmes for breast and colorectal cancer. In addition to this, the Independent Cancer Taskforce emphasised the need to continue to examine emerging evidence for new screening programmes for lung and ovarian cancer.

The existing colorectal cancer screening test (faecal occult blood test) is to be replaced with the new faecal immunochemical test. This will be offered to over four million people in 2018, with its additional gains of picking up early stage and more easily treatable cancers. There is significant opportunity to improve the uptake rates of bowel cancer screening as geographic and sociodemographic variation is well known. Other measures hoped to increase participation are; simpler home testing kits for bowel cancer and a one-off flexible sigmoidoscopy test commissioned by NHS England for men and women at the age of 55. The capacity for bowel endoscopy will need to increase in concert with wider uptake of screening, as this will be a significant increase for current health services. Some progress has been made on this and the first 40 of 200 extra non-medical endoscopists in the country have started training.

Similarly, introduction of primary HPV testing to cervical screening in 2019 is expected to reduce the number of cervical cancers by about 600 per year. It is also thought that it will improve the current estimated impact of cervical cancer screening saving 5,000 lives each year. An added expected benefit of this test is that women will not need to attend for screening as often. This test, and the specific age limits of provision will continue to be monitored and adjusted as necessary.

It is also hoped to undertake research into genetic risk-based prevention and surveillance programmes. This is where individuals with inherited genetic mutations that put them at especially high risk of developing cancer, may benefit from additional preventative and diagnostic strategies.
Six novel molecular diagnostic tests have been funded routinely by the NHS in recent years (including NRAS/KRAS testing for colorectal cancer, and Oncotype DX for breast cancer). There are plans to allow for these to increase further and additional workforce will be trained and employed to expand the capacity for diagnosis.

**Early diagnosis in Suffolk**

Cancer survival in England is not only very variable between different regions but was also found to be lower than the European average. This is partly due to late diagnosis of cancer in England compared to Europe. To investigate these results, and produce a standard for monitoring cancer diagnosis, Elliss-Brookes et al. developed a group of 8 ‘Routes to Diagnosis’, which have been used to record cancer diagnoses between 2006-2014.

We have combined some of these routes and analysed the data using directly standardised rates (DSR) as follows:

1. **Screen-detected** – where a screening programme exists, such as breast and colorectal cancers.
2. **Managed** – referrals by general practice, mainly via the 2-week wait pathway or other GP referrals.
3. **Emergency presentation** – normally to A&E.
4. **Other** – which is made up of the groups which tend to have relatively low numbers (other outpatient, inpatient elective, death certificate only and unknown).

In the main it is positive to see majority of diagnosis are either through a managed or screen detected route. Generally, the stage of cancer diagnosed through these routes will be less advanced than those presenting as an emergency or through other routes.

**Lung Cancer**

Figure 21 below displays that all Suffolk CCGs had lower rates of lung cancer diagnosed via emergency routes in comparison to England, which is reassuring. The lower rates through the various routes to diagnosis for lung cancer in IESCCG and WSCCG reflects the incidence discussed above.

Whilst lower than England for managed and emergency routes, GYWCCG (18.4) had a significantly greater rate of lung cancer diagnosis via ‘other’ routes than England (12) and the other Suffolk CCGs. Additionally, GYWCCG (24.4) had a significantly higher rate than IESCCG (19.7) of diagnosis via emergency presentation.
Colorectal cancer

For colorectal cancer WSCCG and GYWCCG (6.6 each) had a greater rate of diagnoses through screen detection compared to England (4.9). A higher rate of patients in WSCCG (14) were diagnosed via ‘other’ routes than both England (11.6) and GYWCCG (9.4 – significantly lower than England). All CCGs were similar for diagnoses via the emergency presentation route. Higher rates of ‘managed’ route was observed in GYWCCG (42.8) and IESCCG (43.3) than England (38.2).

Breast cancer

The routes to diagnosis for breast cancer are similar across the CCGs and compared to the England average. There are a few key differences. Firstly, WSCCG had a significantly greater screening rate when compared to England (54.7 vs 49.4), as well as numerically higher. Majority of breast cancer was diagnosed through managed routes, followed by screen detected.

IESCCG had a lower rate of diagnosis through emergency presentation route when compared to England (4.8 vs 6.7). Emergency presentation in GYWCCG and WSCCG are similar England. Finally, GYWCCG (7) had a lower rate of diagnosis via ‘other’ routes, when compared to England (11.9) and IESCCG (10.5).

Prostate cancer

The rates for diagnosis of prostate cancer via different routes are variable in different areas. Firstly, diagnosis via the emergency route was similar across all Suffolk CCGs and is lower than the England average of 16.9. Managed and ‘other’ routes see WSCCG had significantly higher rates than the rest of Suffolk and the England average. A higher rate than England (127) via the managed route was observed in GYWCCG (137). However, GYWCCG had a significantly lower rate than the other CCGs for diagnosis through ‘other’ routes. Similar rates to England for both managed and other routes to diagnosis were present in IESCCG.
Cancer screening programmes
Currently there are three national cancer screening programmes which play a significant role in helping to detect cancer earlier. For cancers diagnosed between 2006 and 2013 in England, screen detected cancers accounted for 5% of all cancer cases. In that time, nearly 30% of female breast cancers in England were detected through screening and 60% of these were classified as in situ. Nationally, screening accounted for 23% of cervical cancers (16% in situ) and 7% of bowel cancers.\textsuperscript{59}

The proportion of female breast cancers diagnosed through screening between 2006 and 2013 was 28% for GYWCCG, 31% for IESCCG and 32% for WSCCG. This is similar to the average for England. Also similar to England, 7% of bowel cancers in IESCCG were screen detected. However, GYWCCG and WSCCG had 9% screen detected, which was significantly higher than the average for England\textsuperscript{59}.

The most recently available screening data by CCG shows that in GYWCCG screening coverage trends are decreasing across the programmes. The same is observed in IESCCG, except persons 60-74 bowel screened within last 30 months of (2.5-year coverage %), which is increasing. In WSCCG there is more variation, with females 50-70 breast screened in the last 36 months (3-year coverage %) and persons 60-74 bowel screened within last 30 months of (2.5-year coverage %) both indicating increasing trends and persons 60-74 bowel screened within 6 months of invitation (Uptake %) showing no significant change over time. However, most trends in coverage and uptake across the CCGs show a decrease and this must be reversed to ensure early detection of cancer.

Table 13: Cancer screening coverage and uptake with trend by screening programme, 2016/17 – Suffolk CCGs and England\textsuperscript{9}

<table>
<thead>
<tr>
<th>2016-2017</th>
<th>Breast</th>
<th>Cervical</th>
<th>Bowel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Females 50-70 screened in the last 36 months (3-year coverage %)</td>
<td>Females 50-70 screened in the last 6 months of invitation (uptake %)</td>
<td>Persons 60-69 screened within 6 months of invitation (Uptake %)</td>
</tr>
<tr>
<td>Great Yarmouth and Waveney CCG</td>
<td>77.3</td>
<td>75.2</td>
<td>73.8</td>
</tr>
<tr>
<td>Ipswich and East CCG</td>
<td>79.6</td>
<td>79.3</td>
<td>73.8</td>
</tr>
<tr>
<td>West Suffolk CCG</td>
<td>77.8</td>
<td>77.1</td>
<td>74.8</td>
</tr>
<tr>
<td>England</td>
<td>72.5</td>
<td>72.2</td>
<td>72.1</td>
</tr>
</tbody>
</table>

\(\downarrow\) Decreasing trend \(\uparrow\) Increasing trend \(\rightarrow\) No significant change

Table 14 below displays that compared to the England average, cancer screening coverage in Suffolk for the three programmes is significantly better. Recent trends for breast and cervical cancer screening show that coverage is falling. In the data below, long-term trends for bowel cancer screening in Suffolk cannot be calculated as the method currently used by PHE relies on at least five consecutive, non-overlapping
data points available for a proportion or crude rate indicator. However, there is some trend data for bowel cancer screening at CCG level given in table 13 above.

**Table 14: Cancer screening coverage by screening programme, 2016 - Suffolk’s versus England and nearest neighbours**

<table>
<thead>
<tr>
<th>Indicator name</th>
<th>Period</th>
<th>Value</th>
<th>Trend</th>
<th>Compared to England</th>
<th>Rank vs. nearest neighbours</th>
<th>Difference from best, nearest neighbours</th>
<th>Compared to best, nearest neighbour**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer screening coverage - breast cancer</td>
<td>2016</td>
<td>78.9</td>
<td>↓</td>
<td>▶️</td>
<td>11</td>
<td>-5.0</td>
<td>▶️</td>
</tr>
<tr>
<td>Cancer screening coverage - cervical cancer</td>
<td>2016</td>
<td>74.5</td>
<td>↓</td>
<td>▶️</td>
<td>15</td>
<td>-4.6</td>
<td>▶️</td>
</tr>
<tr>
<td>Cancer screening coverage - bowel cancer</td>
<td>2016</td>
<td>62.0</td>
<td>n/a</td>
<td>▶️</td>
<td>9</td>
<td>-1.6</td>
<td>▶️</td>
</tr>
</tbody>
</table>

* out of 16 areas with 1 indicating best performance
** Significantly worse using 95% CIs

Further benchmarking available in relation to 15 statistically similar neighbours and 2016 screening data show there is room for improvement here. Suffolk performs 11 out of 16 nearest neighbours for breast cancer, 15 for cervical cancer and nine for bowel cancer (one indicates best performance). Suffolk’s performance is significantly worse when compared to the best performing local authority in the similar neighbour cluster (Leicestershire for breast, Derbyshire for cervical and Gloucestershire for bowel).

Variation across GP practices in Suffolk’s CCGs was examined for correlations in relation to the index of multiple deprivation score (IMD 2015). Deprivation level by GP practice is represented with a higher score for greater deprivation. Further analysis of variation was conducted by the estimated proportion of non-white ethnic groups in the practice population. Ethnicity data by LSOA was obtained from the 2011 Census and April 2015 registered population was used. A summary of the findings are presented in the table below.
Table 15: Summary of cancer screening coverage relationship with IMD 2015 and proportion of non-white ethnic population – correlation strength (and proportion of variance)\(^1\)

<table>
<thead>
<tr>
<th>CCG area</th>
<th>Breast cancer screening</th>
<th>Cervical cancer screening</th>
<th>Bowel cancer screening</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Deprivation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GYWCCG</td>
<td>Moderate -0.5(^{(R^2 = 0.23 23%)})</td>
<td>Strong -0.8(^{(R^2 = 0.66 66%)})</td>
<td>Strong -0.9(^{(R^2 = 0.73 73%)})</td>
</tr>
<tr>
<td></td>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GYWCCG</td>
<td>Moderate -0.4(^{(R^2 = 0.19 19%)})</td>
<td>Moderate -0.6(^{(R^2 = 0.31 31%)})</td>
<td>Strong -0.8(^{(R^2 = 0.57 57%)})</td>
</tr>
<tr>
<td>IESCCG</td>
<td>Strong -0.8(^{(R^2 = 0.65 65%)})</td>
<td>Moderate -0.6(^{(R^2 = 0.40 40%)})</td>
<td>Strong -0.9(^{(R^2 = 0.79 79%)})</td>
</tr>
<tr>
<td></td>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IESCCG</td>
<td>Moderate -0.5(^{(R^2 = 0.25 25%)})</td>
<td>Strong -0.7(^{(R^2 = 0.50 50%)})</td>
<td>Strong -0.7(^{(R^2 = 0.55 55%)})</td>
</tr>
<tr>
<td>WSCCG</td>
<td>Deprivation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WSCCG</td>
<td>Moderate -0.6(^{(R^2 = 0.37 37%)})</td>
<td>Moderate -0.5(^{(R^2 = 0.23 23%)})</td>
<td>Strong -0.7(^{(R^2 = 0.45 45%)})</td>
</tr>
<tr>
<td></td>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WSCCG</td>
<td>Weak -0.3(^{(R^2 = 0.09 9%)})</td>
<td>Moderate -0.5(^{(R^2 = 0.24 24%)})</td>
<td>Moderate -0.5(^{(R^2 = 0.28 28%)})</td>
</tr>
</tbody>
</table>

\(R = \) correlation coefficient  
\(R^2 = \) coefficient of determination

The correlation is where the line of best fit falls within all the data points, in this case each GP practice IMD 2015 deprivation score plotted by cancer screening coverage. To understand how much of the variation observed within the plots could be due to deprivation or ethnicity, \(R^2\) is calculated. Take for example where IESCCG has a strong negative correlation (r -0.9) between GP practice IMD 2015 and bowel cancer screening coverage. The \(R^2\) (0.79) tells us the proportion (79%) of the variance in screening coverage that can be explained by GP practice deprivation. Hence it is likely more deprived GP practices can expect lower bowel cancer screening coverage.

Breast cancer screening

Breast screening is offered to all women aged 47 and over, every three years. Women are routinely invited for screening until they are 73, after which point self-referral is available. During screening, the breasts will be X-rayed one at a time. Two X-rays are taken of each breast at different angles. The mammogram is then checked for any abnormalities.

The national target for breast cancer screening is that; 70% of eligible women should be screened every three years. In 2016, nearly 80% of eligible women in Suffolk were screened for breast cancer. This is significantly better than the national target. We know that all districts in Suffolk reached the 70% national target for breast cancer screening. Forest Heath had the lowest breast cancer screening coverage (75.3%) and this was similar to the average for England (75.5%) but significantly worse than Suffolk. Suffolk Coastal had the highest coverage for breast screening (81.4%) and this was significantly better than Suffolk as whole.
Data at GP practice level shows some considerable variations in the breast cancer screening coverage across Suffolk’s CCGs.\textsuperscript{11} For GYWCCG the breast cancer screening coverage of eligible women in 2015/2016 varied from 43.7% to 81.6%, nearly a 38%-point gap. For IESCCG, coverage varied from 71.7% to 83.7%. For WSCCG the coverage varied from 72.4% to 82.1%.

One strong correlation in these investigations was identified in Suffolk. This was in IESCCG, where there was a negative, strong correlation ($R^2=0.64$) between breast cancer screening coverage and IMD 2015 score as detailed in table 15 above. This means that more deprived practices show lower screening coverage. This can be seen in figure 22 below, nearly 65% of the variance in the coverage of breast cancer screening across the GP practice in IESCCG was explained by deprivation characteristics of the practice population. More deprived practices were also more likely to have breast screening coverage that was lower than the average for IESCCG.

**Figure 22: Correlation between deprivation and breast cancer screening, 2015/2016 GP practices in IESCCG\textsuperscript{11}**

\[
y = -0.3929x + 85.769 \\
R^2 = 0.6484
\]

All other investigations on breast cancer screening found a moderate or weak correlation between the GP practices and deprivation or non-white ethnic populations. The findings are detailed in 15 table above.

**Cervical cancer screening**

Women aged 25-49 are invited to attend cervical screening every three years. Those aged 50-64 are invited every 5 years. Screening is available for those aged over 65 who have not been screened since the age of 50, or who have had recent abnormal tests. The screening involves gently removing cells from the neck of the womb which is then sent to a laboratory for analysis.
The national target for cervical screening is 80% of eligible women screened. In Suffolk, nearly 75% of eligible women were screened for cervical cancer in 2016. Although this is significantly better than the average for England (74.0%), it is significantly lower than the national target of 80%. Displayed in figure 23 below, all districts in Suffolk were significantly below the 80% national target for cervical cancer screening. Ipswich had the lowest cervical cancer screening coverage (69.5%) and this was significantly worse than the average for Suffolk as whole. Suffolk Coastal had the highest coverage (77.9%), which was significantly better than Suffolk as whole but still lower than the national target.

**Figure 23: Cervical cancer screening coverage, 2016, Suffolk and districts**

Data at GP practice level shows some considerable variations in the cervical cancer screening coverage across Suffolk. In GYWCCG the cervical screening coverage varied from 58.5% to 79.4%. This is a 20%-point difference between the highest and the lowest performing GP practices. In IESCCG, the screening coverage in 2016 varied from 61.4% to 81.9% of eligible women screened, again a 20%-point difference.

Again, this variation has been considered for correlations between GP practices in Suffolk’s CCGs in relation to the index of multiple deprivation score (IMD 2015) and the estimated proportion of non-white ethnic groups in the practice population. Two negative strong correlations were identified and are displayed in table 15 above and figures 24 and 25 below. One in GYWCCG between cervical screening coverage and IMD 2015 score. More deprived practices show lower coverage here, over 65% of the variance is explained by deprivation being a contributory factor. The second is in IESCCG between cervical cancer screening and non-white ethnic groups in the practice population, equating to 50% of the variance.
Figure 24: Deprivation and cervical cancer screening correlation, 2015/2016 GP practices in GYWCCG

Figure 25: Non-white ethnic population and cervical cancer screening correlation, 2015/2016 GP practices in IESCCG

All other correlations between cervical cancer screening and GP IMD 2015 or estimated proportion of non-white ethnic groups were negative, moderate (see table 15 above).

Bowel cancer screening

Bowel screening detects bowel cancer at an early stage, before a person may become symptomatic. It also detects polyps which may develop into cancers over time. Bowel screening is available every two years to those aged between 60 and 74. People 75 and over can request further screening tests. As of March 2015, about two-thirds of screening centres were beginning to offer an additional one-off test
called bowel scope screening to 55-year olds. This is gradually being introduced across England.\textsuperscript{61}

The national target for bowel cancer screening is 60% of eligible men and women screened. In 2016, 62% of eligible people in Suffolk were screened for bowel cancer. This is significantly better than the average for England (60%) and the national target of 60%. The figure below shows that Forest Heath (57.9%) and Ipswich (55.4%) had bowel cancer screening coverage that was significantly worse than the average for Suffolk and the national target. Mid Suffolk had the highest coverage for bowel screening (64.0%) and this was significantly better than Suffolk and England.

\textbf{Figure 26: Bowel cancer screening coverage, 2016, Suffolk and districts}\textsuperscript{35}

Data at GP practice level shows some considerable variations in the bowel cancer screening coverage across Suffolk.\textsuperscript{11} In GYWCCG the bowel screening coverage in 2016 varied from 30% to 67.9%. This is nearly a 38%-point difference between the best and the worst performing GP practice in GYWCCG. In IESCCG bowel cancer screening coverage varied from 52.1% to 68.0% of the eligible population screened. In WSCCG the coverage varied from 55.8% to 69.0%.

The variation has been considered for correlations between GP practices in Suffolk’s CCGs in relation to the index of multiple deprivation score (IMD 2015) and the estimated proportion of non-white ethnic groups in the practice population. Both GYWCCG and IESCCG have a strong negative correlation between bowel cancer screening coverage and GP practice deprivation. All other correlations were moderate, negative as detailed in the table 15 above. Only WSCCG had a negative, weak correlation between bowel cancer screening coverage and the estimated proportion of non-white ethnic groups in the practice population.
Two-week wait referrals

To improve referral times and reduce delays in cancer diagnosis and access to treatment, the governments *Cancer Reform Strategy* included guidance on two-week wait targets for urgent referrals for suspected cancer. Different cancers have different indications for urgent referral along this pathway. However, this is an important route of referral for patients, which has grown significantly since its inception.

All Suffolk CCGs are meeting the two-week wait referral target, shown in the figure below. An appointment is offered within the period and is significantly better than the England average. The best performing is WSCCG (97.5%), which is achieving significantly higher than GYWCCG (96.5%).

**Figure 27: Two-week wait target achievement rate (% target met) for Suffolk CCGs and England 2015/16**

The Public Health England fingertips tool provides data on two-week wait referrals (Annex 4). The data periods range from 2012-2013 up to 2016-2017 and details selected cancers including; breast, lower GI, lung and skin.

The profile shows that in 2016/17, GYWCCG two-week wait referrals are similar to the England value. However, a higher percentage of these compared to England result in a cancer diagnosis. Two-week wait referrals for other selected cancer sites are lower than England, except lower GI cancers, which is higher. In the five years combined data, 2012-2017, referrals for suspected lung cancer (below 25th percentile) and skin cancer are lower than England.

In IESCCG, two-week wait referrals were slightly lower than the England value. However, a higher percentage of these compared to England result in a cancer diagnosis. Two-week wait referrals for other selected cancer sites are higher or similar to England, except lung cancer, which is lower. In the five years combined data 2012-2017, referrals for suspected lung cancer and skin cancer are lower than England.
The profile shows that in 2016/17, WSCCG two-week wait referrals were higher than the England value. However, only a similar percentage of these compared to England resulted in a cancer diagnosis. In WSCCG, all two-week wait referrals for other selected cancer sites are higher or similar to England. In the five years combined data 2012-2017, all areas are higher or similar to England, except for the number of new cancer cases treated which is lower. This should be considered positive when viewed in conjunction with the higher referral rates. This indicates that it is not lower because cases are being missed.

In addition to this, fingertips include indirectly age-standardised rates (ASRs) for individual GP practices. This data has been analysed by each CCG and an overview of the findings are as follows: There were 25 GP practices in GYWCCG (14 in Suffolk/Waveney in the data period specified). Four had a significantly higher rate of two-week wait referrals than England and eight significantly lower (range: 62.44-239.2). Of the five surgeries at each extreme of the ASR, Great Yarmouth (Norfolk) surgeries occupy the top five and three of the bottom five places.

There are 40 GP practices in IESCCG, three of which were significantly above the England average in terms of ASR for two-week wait referrals (range: 52.4-134.2). Twenty-six practices are below the England average, with the remainder not shown to be significantly different with the current data. As the rate of referral decreases, there appears to be a slight increase in the percentage of referrals which result in a diagnosis of cancer.

There are 24 GP surgeries in WSCCG. Seven surgeries had significantly higher two-week wait referrals than the England average and another seven lower than England (range: 42.0-133.3). The remaining 10 practices were similar to the England average.

**Diagnosis via emergency presentation to hospital**
Emergency admissions that result in a cancer diagnosis could be directly related due to symptoms caused by cancer, or incidental with an admission for other reasons. Symptoms triggered by the underlying cancer, are generally more likely to be later stages of cancer compared to those diagnosed through other routes, such as screening programmes. The figure below provides an overview of the causes and pathways that a patient might follow, which then result in a cancer diagnosis through an emergency presentation to hospital.
To establish the distribution of emergency presentation to hospital resulting in a cancer diagnosis in Suffolk, some age/sex standardised analysis of local GP practice level data has been completed. Figure 29 below, shows all three Suffolk CCGs GP practice activity in this area. We can see that there is some significant variation between practices in each of the CCGs. Ipswich and East CCG has the lowest average rate of diagnosis via emergency admissions and appears to have the least variation of the three CCGs.

There are six practices out of 14 in GYWCCG that have significantly higher diagnosis rates than the CCG average, one Suffolk practice is the second highest for the CCG. Two Suffolk practices in GYWCCG have significantly lower diagnosis rates through an emergency presentation.

Three practices in IESCCG only just have significantly higher diagnosis than the CCG average. This indicates that many people are having cancer diagnosed through
screening and managed routes of referral. Four practices have significantly lower rates, one of which is particularly noticeable.

There appears to be quite wide variation between WSCCG practices. Four practices have significantly higher diagnosis rates, one of which is most noticeable. Five practices in WSCCG have significantly lower diagnosis through emergency admission rates.

Because this data is age-sex standardised, we know that age related cancer and sex/gender specific cancers are not the cause of the variation. It might be advantageous to explore differences between the highest and lowest practice rates to establish if any lessons can be learnt to improve diagnosis through cancer screening programmes and managed referral routes such as the two-week wait.

**Figure 29: Age-sex standardised emergency admission rates for all cancers, all ages registered patients in Suffolk CCG GP practices, pooled data 2014/15-2016/17**

Additional analysis in this same way for cancer sites; lung, colorectal and breast (female only) found the following:

**Lung** - Although there was a huge amount of variation present in the CCGs for lung cancer diagnosis through an emergency admission, there were only significantly lower rates observed. Six in GYWCCG, four in IESCCCG and two in WSCCG. However, wide confidence intervals were present and therefore this should be treated with caution.
Colorectal - Again, there is variation between the practices in each of the CCGs, coupled with wide confidence intervals. One practice in IESCCG had significantly higher diagnosis through emergency presentation compared to the CCG rate. Significantly lower diagnosis of colorectal cancer through an emergency admission were present in one practice in GYWCCG, four in IESCCG and two in WSCCG.

Breast - Variation is present but with the wide confidence intervals already discussed. Again, one practice in IESCCG shows significantly higher rates of diagnosis by emergency presentation. Some practice numbers were too small for breast cancer diagnosis through an emergency admission to be present on the charts. Just two practices, one in GYWCCG and one in IESCCG had significantly lower rates here.

**Diagnosis via emergency presentation to hospital and deprivation**

In addition to the above, correlations between emergency admissions and GP IMD 2015 score have been calculated for all cancers, lung, breast, colorectal and cervical to investigate how much influence deprivation has on cancer diagnosis through emergency admissions. Most showed weak or moderate correlations with no statistical significance. Those which showed statistical significance have been detailed below. The following results were identified for Suffolk and each CCG.

Displayed in the figure below, Suffolk shows there was a statistically significant (P=0.004), moderate positive correlation between GP deprivation and emergency admission rates for all malignant neoplasms.

**Figure 30: Correlation of emergency admission rates for all cancer with deprivation, Suffolk**

![Correlation of emergency admission rates for all cancer with deprivation](image)
A linear regression model fitted to the data indicated that a total of 10.5% of the variation in emergency admission rates for all cancers could be explained by deprivation.

Displayed in the figure below is the correlation of emergency admission rates for lung cancer with GP deprivation, which indicated a statistically significant, moderate positive correlation ($r=0.46; P<0.0001$).

**Figure 31: Correlation of emergency admission rates for lung cancer with deprivation, Suffolk**

![Correlation graph](image)

A linear regression model indicated that one fifth (20.8%) of the variation in emergency admission rates for lung cancer could be explained by deprivation.

In addition to the above, correlation of emergency admission rates for female breast cancer with GP deprivation indicated a statistically significant, weak negative correlation with deprivation ($r=-0.27; P=0.02$). A linear regression model fitted to these data indicated that a total of 7.0% of the variation in emergency admission rates for female breast cancer could be explained by deprivation.

The same analysis by Suffolk CCGs found deprivation to have a statistically significant correlation with diagnosis of cancer through an emergency admission in the following:

**GYWCCG** - Correlation of emergency admission rates for all malignant neoplasms with deprivation scores in general practices in GYWCCG indicated a statistically significant, moderate positive correlation ($r=0.53; P=0.006$). A linear regression model fitted to these data indicated that a total of 28.5% of the variation in emergency admission rates for all cancers in GP practices here could be explained by deprivation ($R^2=0.2853$).
Correlation of emergency admission rates for lung cancer with deprivation scores in general practices in GYWCCG indicated a statistically significant, moderate positive correlation \((r=0.64; \ P=0.0005)\). A linear regression model fitted to these data indicated that a total of 41.3% of the variation in emergency admission rates for lung cancer could be explained by deprivation \((R^2=0.4129)\).

IESCCG - Correlation of emergency admission rates for lung cancer with GP deprivation in IESCCG indicated a statistically significant, moderate positive correlation \((r=0.36; \ P=0.0227)\). A linear regression model fitted to these data indicated that a total of 12.9% of the variation in emergency admission rates for lung cancer could be explained by deprivation.

WSCCG - Correlation of emergency admission rates for lung cancer with GP deprivation in WSCCG indicated a statistically significant, moderate positive correlation \((r=0.54; \ P=0.0064)\), which is displayed in the figure below. A linear regression model indicated that almost a third (29.2%) of the variation could be explained by deprivation.

**Figure 32: Correlation of emergency admission rates for lung cancer with deprivation, WSCCG**

Waveney - None of the correlations for Waveney GP IMD 2015 score and emergency admission rates were strong or significant, indicating that other factors influence emergency admissions here.
Stage of cancer at diagnosis

Cancer staging is to provide information on how far a cancer has progressed. This allows patients and clinicians information to tailor treatment plans and estimate prognosis. In general, stages one and two are relatively low stage, with better prognosis and a more successful treatment rate. Stages three and four are advanced stages, generally with poorer outcomes for the patient. Staging is an evolving process. New research helps to guide system improvements and new technology provides more advanced means of assessing the stage of cancer at diagnosis.

Various factors play a role in accurately staging a cancer, including; the size and number of tumours, local invasion into surrounding structures, local spread to lymph nodes (which are often the first area for spread) and distance spread to other body parts. To assess these, multiple investigations are used and typically include both radiology/imaging, such as computerised tomography (CT) and ultrasound scans. In addition to this, minor surgical procedures might be performed, including biopsy for pathology and histology.

The data below is from the National Cancer Registration and Analysis Service (NCRAS). It represents cancer stages as percentages of new presentations. Trends from 2012-14 indicate the proportion of cases labelled as ‘unknown stage’ decreased over this period. This is likely to be due to improved stage coding and data quality through cancer registration services.

Assessment of 2014 data for Suffolk CCGs, displayed in the figure below shows many similarities. However, there are some significant differences, mainly comparing WSCCG with the other two CCGs. West Suffolk CCG (33%) has a significantly higher proportion of stage one cases than either IESCCG (28%) or GYWCCG (27%). Further, WSCCG had a lower proportion of stage 3/4 cases than GYWCCG (35% vs 42%). This may reflect better detection of cancer at an earlier stage in WSCCG, thus leading to greater proportions of stage one compared to later stages of cancer.

Figure 33: Proportion of all cancers by stage at diagnosis, Suffolk CCGs and England 2014
The earlier a cancer is diagnosed, generally the outcomes for the patient are better. Promoting earlier stage at diagnosis is one of the key aims of the National Awareness and Early Diagnosis Initiative led by The Department of Health, Cancer Research UK, and PHE. Public Health England provides some collective data on invasive malignancies of breast, prostate, colorectal, lung, bladder, kidney, ovary and uterus, non-Hodgkin lymphomas, and melanomas of skin which have been diagnosed at an early stage. The figure below shows the data, which is presented by quarter at England and CCG level. In addition, there is a one-year rolling average for England which combines the most recent year of data. Positively, all Suffolk CCGs have higher early stage cancer diagnosis than the England average.

**Figure 34: Early stage (1&2) cancer diagnosis in Suffolk CCGs**

**Lung cancer**

In 2014, there was a lower proportion of stage two (3.81% vs 7.43%) diagnosis in IESCCG and significantly higher stage 3/4 (77.97% vs 67.51%) than the England average. This is concerning for late presentation of lung cancer in IESCCG. Unlike IESCCG, GYWCCG and WSCCG, proportions of each stage of diagnosis are similar to England throughout 2012-2014.

**Colorectal cancer**

There were few differences between the three CCGs in 2014, with similar proportions of each stage for colorectal cancer diagnoses. The only statistically significant differences were lower proportions of unknown stage in IESCCG (8.82%) and GYWCCG (7.01%) compared to the England average (12.86%). This likely represents good data quality in the CCGs. From 2012-2014, each CCG had similar proportions of each stage at diagnosis across the period. The CCGs stage one proportions are numerically, and in several cases significantly, greater than England throughout the period, except at a single point for IESCCG in 2014.

In 2012, IESCCG had statistically higher proportion of stage one diagnoses than England (19.94% vs 14.42%). However, a downward trend for IESCCG and an upward trend for England result in the significance no longer existing by 2014. This is coupled with an increase in stage two and stages 3/4 diagnosis. Although this is not significant, IESCCG does have higher proportions of later stage diagnosis than England. It is of concern that the area may be seeing a shift to later presentation/diagnosis of colorectal cancer.
Breast cancer

All three CCGs showed similar high proportions of stage 1/2 breast cancer and lower proportions of stage 3/4 and unknown. As previously discussed, IESCCG and WSCCG have achieved higher breast cancer screening rates than England in recent years, which will be an influencing factor in the high proportion of stage one diagnoses. From 2012-2014, each CCG has similar proportions diagnosed each year for all cancer stages.

For IESCCG, the proportion of stages two and 3/4, change very little over the three years and remain similar to the England average. Stage one diagnoses in WSCCG have seen greater increase since 2012 and has resulted in a significantly higher proportion compared to England by 2014 (47.83% vs 40.02%). Although not significant, it is apparent that the proportion of breast cancer at stage one in GYWCCG numerically increases over a three-year period and appears at a faster rate than the England average (40.89 to 46.23% vs 38.12 to 40.02%). This is a positive indication for early diagnosis of breast cancer in GYWCCG.

Prostate

Prostate cancer is the only specific profiled cancer which shows significant differences between CCGs, as well as differences between Suffolk and England. For 2014, in comparison with England, all three CCGs have significantly higher stage two cases.

Over the three-year period of 2012-14, IESCCG had numerical but not significant increases in stage one and two proportions, as well as a decrease in the proportion of stage 3/4 cases. Throughout the period, IESCCG maintained a higher proportion of stage one than England. In 2012, WSCCG had a higher proportion of stage one cases than any of the other areas. However, this fell significantly in 2013 (57.02% to 40.47%) with little change in 2014 (44.95%) and was no longer significantly different from IESCCG in 2014 (44.95% vs 40.27%).

Great Yarmouth and Waveney CCG has stable trends in its proportions from 2012 to 2014. However, the pattern is much different to the other Suffolk CCGs. There is a higher proportion of stage 3/4 cases and lower proportion of stage one and two prostate cancer. In 2012, the proportions of stage 3/4 (35.4%) and stage one (32.06%) cases were similar. However, in 2014 there was a significantly greater proportion of stage 3/4 cases (39.05%) than stage one cases (24.76%). Although the decrease in stage one cases from 2012 to 2014 is not significant, this is of concern.

Sixty-two days to first cancer treatment

If a patient is subsequently diagnosed with cancer following an urgent GP referral (two-week wait) for suspected cancer, there is a national target that 85% of patients will begin their first definitive treatment for that cancer within 62 days. Referral from an NHS screening programme has a 62-day target of 90%. Any referral resulting in an upgrade of a patient’s priority because of suspected cancer by the consultant who is responsible for the patient’s care has no treatment target currently. Nationally this operational standard appears difficult to achieve for urgent GP referrals, with only
82% achieved in 2016/17\textsuperscript{71}. Whereas, the 90% standard for screened patients seems more achievable with 91.8% achieved nationally in 2016/17.

The figures below provide a snapshot from month eight (November) 2017 of Suffolk’s CCGs performance in relation to the operational standard that, 85% of patients will begin their first definitive treatment for cancer within 62 days following an urgent GP referral for suspected cancer. Performance is measured against the England average for the same standard and shows where the expected 85% point is. It should be recognised that this performance will fluctuate each month. However, it is an ambition of the cancer alliances, STPs and NHS England that this target is met every month consistently\textsuperscript{72}.

**Figure 35: Operational standard performance, 62-day to first treatment, month eight 2017, Suffolk CCGs\textsuperscript{73}**

<table>
<thead>
<tr>
<th>GYWCCG</th>
<th>IESCCG</th>
<th>WSCCG</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Graph" /></td>
<td><img src="image2.png" alt="Graph" /></td>
<td><img src="image3.png" alt="Graph" /></td>
</tr>
</tbody>
</table>

Improvement is required in IESCCG and WSCCG based on November 2017 performance, whereas GYWCCG exceeded the standard in the same month.

### 7. Patient experience

The National Cancer Patient Experience Survey has been designed to monitor national progress on cancer care. It aims to:

- provide information to drive local quality improvements
- assist commissioners and providers of cancer care and
- inform the work of the various charities and stakeholder groups supporting cancer patients.

The survey includes all adult NHS patients aged 16 and over, with a confirmed primary diagnosis of cancer. They must be discharged from an NHS Trust after an inpatient episode or day case attendance for cancer related treatment in the months of April, May and June 2016. Patients with primary malignant neoplasms diagnoses (except for non-melanoma skin cancer, mature T/NK-cell lymphomas and carcinoma in situ of breast) were included. Patients with in situ, benign or uncertain, or unknown behaviour tumours were not included in the survey. There were 69 survey questions
to answer in total. Fifty-nine questions related directly to patient experience. Questions were organised as follows:

1. Seeing your GP
2. Diagnostic tests
3. Finding out what was wrong with you
4. Deciding the best treatment for you
5. Clinical nurse specialist
6. Support for people with cancer
7. Operations
8. Hospital care as inpatient
9. Home care and support
10. Care from your general practice
11. Your condition
12. About you

Participants were asked to rate their overall care on a scale of zero (very poor) to 10 (very good). The average rating in 2016 given by the respondents across each of the CCGs is as follows:

- Great Yarmouth & Waveney CCG was 8.8. This average rating was within the expected range for the CCG (8.6-8.9) and higher than the national average of 8.7.\(^\text{12}\)
- Ipswich & East Suffolk CCG was 8.7. This average rating was within the expected range for the CCG (8.6-8.9) and the same as the national average of 8.7.\(^\text{13}\)
- West Suffolk CCG was 8.8. This average rating was within the expected range for the CCG (8.6-8.9) and higher than the national average of 8.7.\(^\text{14}\)

The table below summarises the CCGs performance in relation to the key patient experience indicators. Overall, all three CCGs performed within the expected range. For GYWCCG the proportion of respondents who said that it was easy for them to contact their clinical nurse specialist was higher than the expected whereas for IESCGG this proportion was lower than expected.
Table 16: Patient experience key indicators as case-mix adjusted CCG scored percentage, 2016\textsuperscript{12,15,14}

<table>
<thead>
<tr>
<th>Patient experience (% of positive responses)</th>
<th>GYWCCG</th>
<th>IESCCG</th>
<th>WSCCG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement in decisions: care and treatment</td>
<td>77%</td>
<td>78%</td>
<td>82%</td>
</tr>
<tr>
<td>Provision of information: given name of CNS*</td>
<td>89%</td>
<td>91%</td>
<td>88%</td>
</tr>
<tr>
<td>Provision of information: easy to contact CNS*</td>
<td>93%</td>
<td>82%</td>
<td>83%</td>
</tr>
<tr>
<td>Overall interpersonal relations, respect and dignity</td>
<td>89%</td>
<td>88%</td>
<td>91%</td>
</tr>
<tr>
<td>Care transition: given contact after patient left hospital</td>
<td>95%</td>
<td>94%</td>
<td>94%</td>
</tr>
<tr>
<td>Care transition: support from GP during treatment</td>
<td>65%</td>
<td>64%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Performance Rating

- **Within expected ranges**
- **Higher than expected**
- **Lower than expected**

*Clinical Nurse Specialist

In addition to the performance for the key patient experience indicators, Suffolk’s CCGs performed higher or lower than expected in the following areas.

**Great Yarmouth & Waveney CCG:**

Performed **higher** than the expected range in five out of 59 areas:

- 76% of patients were able to discuss worries or fears with staff during visit
- 72% of patients were given understandable information about whether radiotherapy was working
- 93% of patients stated that overall the administration of the care was very good / good
- 76% of respondents said that the length of time for attending clinics and appointments was right

Performed **lower** than the expected range in one out of 59 areas:

- 14% of participants responded that taking part in cancer research was discussed with them.

**Ipswich & East Suffolk CCG**

Performed **higher** than the expected range in the two out of 59 areas:

- 64% of patients responded that hospital staff gave information on getting financial help
- 88% of patients stated that groups of doctors or nurses did not talk in front of patient as if they were not there

Performed **lower** than the expected range in the two out of 59 areas:
• 71% of patients told they could bring a family member or friend when first told they had cancer

West Suffolk CCG

Performed higher than the expected range in one out of 59 areas:

• 99% of patients stated that doctor had the right notes and other documentation with them

Performed lower than the expected range in one out of 59 areas:

• 74% of patients reported that hospital staff told patients they could get free prescriptions

End of life and palliative care

Whilst dying is inevitable, it is also unpredictable. Therefore, it is vital to offer people choice and control over the things that are important to them. End of life care is support for people who are in the last 12 months of their life. People receiving end of life care should be asked about their wishes and preferences, and those should be considered when planning care at such a difficult time. End of life care provisions should also support the family, carers or other people who are important to patients. Patients have the right to decide where they would like to receive their end of life care and where they want to die. This can be at home or in care homes, hospices or hospitals, depending on patient need and preferences. All people who are approaching the end of life are entitled to high-quality care and dignity, wherever they are being cared for.

End of life care also includes palliative care. This relates to patients with a terminal condition and will often be applicable to cancer patients. Palliative treatment is designed to relieve symptoms and improve patient’s quality of life. It can be used at any stage of illness. Palliative treatment can also mean using medicines to reduce or control the side effects of cancer treatments. It also involves a holistic approach to care through psychological, social and spiritual support to the patient and their family or carers.

The National Survey of Bereaved People (VOICES, Views of Informal Carers – Evaluation of Services) collects information on bereaved people’s views on the quality of care provided to a friend or relative in the last 3 months of life, for England. The survey has taken place for five years, commissioned by NHS England and administered by ONS.

Most recent data from 2015 VOICES is available only at England level and this includes some information specific to cancer. Sub-national data for the period 2012 to 2013 can be accessed at NHS Area Teams boundaries. Geographies below NHS Area Teams level are not available as this would produce small numbers and the results would not be reliable. Data at England and NHS Area Teams level is however
included in this profile to provide an overview of the quality of end of life care for cancer patients in England and overall end of life care in the East Anglia NHS Area.

Figure 36 below looks at overall quality of care for different causes of death. Care rated as outstanding, excellent and good combined do not differ significantly for people rating the care of cancer patients (76%), cardiovascular patients (74%) or patients dying from other causes (75%). However, when examining the ratings for outstanding and excellent only, overall quality of care for cancer patients in the last three months of life is rated significantly higher than care for people dying from cardiovascular disease or other causes. Just under half (47%) of cancer patients had care rated as outstanding or excellent, compared with 38% of cardiovascular patients and 41% of people dying from other causes.75

Figure 36: Overall quality of care by cause of death in the last 3 months of life, England, 2015

Between 2012 and 2013 for the East Anglia NHS Area Team, nearly 52% of cancer patients died in the preferred place of death and this was significantly lower than the proportion of cancer patients in England (56%).76 However, the proportion of cancer patients dying in the preferred place of death was significantly higher than the proportion recorded for cardio-vascular disease and other causes.

In 2015, there were over 2,100 deaths from cancer in Suffolk, making it the most common cause of death for the county. Cancer in people aged under 65 years contributed to 43.5% of all deaths in this age group in 2015. This was above the 75th percentile for England, as displayed in figure 37 below. Nearly half (48%) of all deaths in Suffolk’s residents aged 65 to 74 were due to cancer.
Figure 37: End of Life Care Profiles (Public Health England), top three underlying causes of death in Suffolk, 2015

Of Suffolk’s residents who died from cancer in 2015, 48.9% died in their usual place of residence. This is significantly lower than the proportion for all deaths in Suffolk (52.1%). The trends in deaths in usual place of residence (DiUPR) for cancer patients displayed in the figure below shows a clear increase between 2004 and 2015. The proportion significantly increased by 40% from 29.4% in 2004 to 48.9% in 2015. Evidence suggests that dying at home is what majority of the population would like. Therefore, a death at home can indicate a good level of care at end of life.

Figure 38: Trend in DiUPR, cancer, Suffolk 2004 to 2015

The table below shows the percentage for Suffolk CCGs of DiUPR, cancer in 2004 and 2015, and the percentage increase in the 11-year period. Clearly all areas in
Suffolk have seen a huge improvement in DiURP for cancer patients but WSCCG is the most striking with just over an 82% increase from 2004-2015.

Table 17: Death in usual place of residence, cancer, Suffolk, CCGs and England – Difference from 2004-2015\textsuperscript{16}

<table>
<thead>
<tr>
<th></th>
<th>England %</th>
<th>Suffolk %</th>
<th>GYWCCG %</th>
<th>IESCCG %</th>
<th>WSCCG %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>31.8</td>
<td>29.4</td>
<td>33.1</td>
<td>29.1</td>
<td>27.3</td>
</tr>
<tr>
<td>2015</td>
<td>44.4</td>
<td>48.9</td>
<td>49.9</td>
<td>46.8</td>
<td>49.8</td>
</tr>
<tr>
<td>% change</td>
<td>39.6</td>
<td>66.3</td>
<td>50.7</td>
<td>60.8</td>
<td>82.4</td>
</tr>
</tbody>
</table>

8. Living with and beyond cancer
People who have previously been diagnosed with cancer are often described as ‘cancer survivors’ and are enumerated by cancer prevalence statistic. It is estimated that approximately 2.5 million people living in the UK are cancer survivors.\textsuperscript{78} Increasing cancer survival and the growing/ageing population, leading to more new cancer diagnosis in the UK, mean that the population of survivors is likely to grow substantially in the coming decades. If existing trends in incidence and survival continue, the number of cancer survivors in the UK is projected to increase by approximately one million per decade from 2010 to 2040. Particularly large increases are anticipated in the oldest age groups, and in the number of long-term survivors. By 2040, almost a quarter of people aged at least 65 will be cancer survivors.\textsuperscript{79} Cancer prevalence projections at Suffolk level are not available. However, considering the ageing population in Suffolk, together with increasing numbers of new diagnoses and survival rates discussed earlier, an increase in cancer survivors in the county can be expected. It is important that those people are supported well.

The impact of cancer often does not end when treatment does. The consequences of cancer and its treatment include chronic fatigue, sexual difficulties, mental health problems, and pain. Six months after the end of cancer treatment around 50% of people will have one or more unmet health need. Having cancer can also impact on other aspects of people lives; including their social life and family relationships.\textsuperscript{78}

Macmillan provides a \textit{Recovery Package} for people living with and beyond cancer. The Recovery Package is a series of key interventions which, when delivered together, can greatly improve outcomes for people living with and beyond cancer.\textsuperscript{80} The Recovery Package is central to Macmillan’s aim to achieve its nine outcomes displayed below:
The key elements of the Recovery Package are summarised in figure 40 below. The interventions included in the Recovery Package involve the following elements:

- **Holistic needs assessment (HNA)** and care planning at key points of the care pathway. HNA is a way of assessing all aspects of a person’s needs including physical, social, psychological and spiritual. An effective HNA can identify concerns and problems in order to enable appropriate support to be offered, increase opportunities for self-management and target resources effectively.
- **Treatment summary** completed at the end of each acute treatment phase and sent to the patient and GP.
- **A cancer care review** completed by the GP or practice nurse to discuss the person’s needs. The review should happen within six months of the GP practice being notified that the person has a cancer diagnosis, but this should be the start of an ongoing conversation required across the cancer care pathway.
- **Education and support events**, such as Health and Wellbeing Clinics, to prepare the person for the transition to supported self-management. The event should include advice on relevant consequences of treatment, recognition of issues and who to contact. They should also provide information and support on work and finance, healthy lifestyle and physical activity.
We can start to understand people living with cancer in Suffolk by considering the prevalence of disease in our population. Prevalence describes the proportion of all patients on a GP practice cancer register and is sourced from the Quality and Outcomes Framework (QOF). In 2015/16, there were 24,571 (2016/17 24,982) patients across Suffolk’s CCGs registered with the GP as having cancer. The highest number of registrations in 2015/16 was in IESCCG (9,930), followed by WSCCG (7,652), then GYWCGG (6,989). Please note that only a proportion of patients registered in GYWCCG are Suffolk’s residents (Waveney district, ONS total population 2016 mid-year estimates - 116,514)³¹.

Across GYWCGG in 2015/16, 14 GP practices fell within Suffolk. The crude cancer prevalence ranged between 0.8% and 4.9% of registered patients having cancer recorded on the GP register. Out of a total of 26 GP practices nine (six within Suffolk) had recorded cancer prevalence that was significantly higher that the CCG average (2.9%). In 14 of all practices, the prevalence was significantly higher than the average for England (2.4%). Although practices with higher raw cancer prevalence were more likely to have a high proportion of patients aged 65 and over, this was not true for all practices with significantly higher prevalence in comparison to the CCG’s and/or England average. Out of a total 26 GP practices, nine (three in Suffolk) had recorded cancer prevalence that was significantly lower that the CCG average (2.9%). For two practices the prevalence was significantly lower than the average for England (2.4%).

Across IESCCG the crude cancer prevalence ranged between 1.7% and 4.8% of registered patients having cancer recorded on the GP register. Out of 40 GP
practices, 14 had a recorded cancer prevalence that was significantly higher than the CCG average (2.8%) and for 22 practices the prevalence was significantly higher than the average for England (2.4%). Although practices with higher raw cancer prevalence were more likely to have a high proportion of patients aged 65 and over, this was not true for all practices with significantly higher prevalence in comparison to the CCG’s and/or England average. Out of 40 GP practices 10 had recorded cancer prevalence that was significantly lower than the CCG average (2.8%) and for four practices the prevalence was significantly lower than the average for England (2.4%).

Across WSCCG the crude cancer prevalence ranged between 2.1% and 4.5% of registered patients having cancer recorded on the GP register. Out of 24 GP practices, seven had recorded cancer prevalence that was significantly higher than the CCG average (3.1%) and for 19 practices the prevalence was significantly higher than the average for England (2.4%). Although practices with higher raw cancer prevalence were more likely to have a high proportion of patients aged 65 and over, this was not true for all practices with significantly higher prevalence in comparison to the CCG’s and/or England average. Out of 24 GP practices, six had recorded cancer prevalence that was significantly lower that the CCG average (3.1%) and no practices had the prevalence significantly lower than the average for England (2.4%).

One-year survival
Cancer survival statistics help us understand the percentage of people who are still alive after a certain period (normally one, five or ten years) after a cancer diagnosis. Cancer survival rates have doubled in the last 40 years in the UK and continue to improve. Half of people diagnosed with cancer survive the disease for 10 or more years. Possible explanations include; cancer biology, use of diagnostic tests and screening, stage at diagnosis, access to high-quality care, and data collection practices.

Cancer survival across Suffolk’s CCGs generally shows a continuous improvement. Figure 41 below looks at 1-year survival for all cancer combined, adults (15 to 99 years) diagnosed between 1999 and 2014. For cancers diagnosed in 2014, 69.0% of people survived 1-year in GYWCCG, 68.2% in IESCCG and 71.8% in WSCCG. This compared to 70.4% of people surviving 1-year in England. Only 1-year survival for WSCCG remains better than the average for England. In 2014 IESCCG and GYWCCG 1-year survival was significantly lower than England. However, in 1999, it was significantly better than England.

The gradient of improvement varies between the CCGs and in relation to the England average. The highest increase was in WSCCG, which showed the 1-year net survival improving by 15.8% from 1999 to 2014. In GYWCCG 1-year survival increased by 11.7%. The lowest level of increase from 1999 to 2014 was in IESCCG, which showed the 1-year survival increasing by 8.3%. The rate of improvement for all Suffolk’s CCGs was lower than the 16.2% increase recorded for England.
Lung cancer

One-year survival for lung cancer is generally low. Figure 42 below displays 1-year survival for lung cancer for adults (15 to 99 years) diagnosed between 1999 and 2014. Of lung cancers diagnosed in 2014, 37.7% of people survived 1-year in GYWCCG, 30.5% in IESCCG and 40.3% in WSCCG. This compared to 36.8% of people surviving 1-year in England. For 2014 1-year survival for lung cancer in GYWCCG and WSCCG was similar to England. In IESCCG, 2014 1-year survival was significantly lower than England. The discrepancy between lower one-year survival and lower mortality in IESCCG has been investigated by Public Health Suffolk with no definite causes of concern identified.

All three CCGs do show an improvement. The highest increase was in WSCCG with the 1-year net survival for lung cancer improving by 76.8% from 1999 to 2014. For GYWCCG 1-year survival for lung cancer increased by 53.9%. The lowest level of increase was in IESCCG, which showed the 1-year survival increasing by 16.9% between 1999 and 2014. For both GYWCCG and WSCCG, the rate of improvement was higher than the 51.4% increase recorded for England.

The proportion of lung cancers diagnosed at late stage is high, around 50% and this can partially explain the low 1-year survival. This is the case in IESCCG for example, where 55% of lung cancers are diagnosed at stage 4. This impacts on successful treatment options and outcomes.
Colorectal cancer

In colorectal cancers diagnosed in 2014, 75.3% of people survived 1-year in GYWCCG, 77.7% in IESCCG and 80.5% in WSCCG. This is compared to 77.2% of people surviving 1-year in England. In 2014, 1-year survival for colorectal cancer in WSCCG was significantly better than England. In GYWCCG and IESCCG, it was similar to England.

All three CCGs show an improvement. The highest increase was in WSCCG, with the 1-year net survival for colorectal cancer improving by 13.7% from 1999 to 2014. For GYWCCG 1-year survival increased by 9.9% between 1999 and 2014. The lowest level of increase was in IESCCG, with 1-year survival for breast cancer increasing by 6.6%. Only WSCCG had a rate of improvement which was higher than the 11.9% increase recorded for England.

Breast cancer

One-year survival for breast cancer diagnosed between 1999 and 2014 is high. For breast cancers diagnosed in 2014, 95.0% of people survived 1-year in GYWCCG, 97.3% in IESCCG and 95.6% in WSCCG. This compared to 96.5% of people surviving 1-year in England. For 2014 1-year survival for breast cancer for IESCCG and WSCCG was similar to England. The most recent 1-year survival in GYWCCG was significantly lower than England.

All three CCGs show an improvement. However, the gradient of the improvement varies between the CCGs and to the England average. The highest increase in 1-year net survival for breast cancer was in WSCCG, which improved by 2.8% from
1999 to 2014. For IESCCG 1-year survival increased by 2.3%. The lowest level of increase was in GYWCCG, with 1-year survival for breast cancer increasing only by 0.5% in the period. The rate of improvement for all Suffolk's CCGs was lower than the 4% increase recorded for England.

9. Modernising cancer services

With the continuing growth of the ageing and elderly population, along with improvements in early diagnosis, it is expected that demand for NHS cancer treatment services will grow significantly in coming years.

The necessity to reduce variation in treatment and outcomes was clearly stated in the Five Year Forward View and has been emphasised in each visionary document since. It was stated this would be done by: ensuring implementation of existing NICE guidance and quality standards, and promoting transparency of performance data by institution and also along pathways from diagnosis.

Over the past two to three years, CCGs across the country have been reviewing and implementing the NHS RightCare approach. The approach focuses on maximising value and reducing variation in healthcare process and outcomes. Using carefully developed tools and products produced by NHS RightCare, CCGs have a baseline of information to start understanding, investigating and refocusing their service delivery to achieve better value and healthcare for their population.

Commissioning for Value is one of the NHS RightCare approaches and Focus Packs for each CCG have been produced in partnership between NHS England and Public Health England for several conditions, including cancer. Within each of the focus packs is a pathway on a page which provides an overview of CCG performance along the cancer pathway, shown as the percentage difference from the average of their similar 10 CCGs. This allows commissioners to understand how performance in one part of the pathway might affect outcomes further along and identify potential opportunities for improvement. Pathways on a page have been produced by NHS RightCare for breast, lower GI (cancers affecting the digestive system) and lung cancers for all three Suffolk CCGs.

The pathways on a page show variation between the three Suffolk CCGs and provide some indication of where opportunities for improvement might be possible in the three cancer pathways. Very little of the findings are statistically significant, however, much of the pathways need some further local interpretation to fully understand the CCG performance at each stage.

Displayed in figure 43 below is an example of a pathway on a page. This one is for WSCCG lower GI cancer. Areas for improvement (red and significantly worse than similar 10 CCGs) include; bowel cancer screening, emergency presentations for colorectal cancer and non-elective spend. Despite this, patient outcomes appear to be good in WSCCG, with lower GI cancer detected at an early stage, <75 mortality
from colorectal cancer and 1-year survival (breast, lung and colorectal combined) all significantly better (green) than the similar 10 CCGs. It should be noted that the cost of emergency presentations and non-elective spend in this pathway could potentially be reduced. In addition to the better and worse performance identified, there are six areas which require local interpretation. If local partners can understand if these areas are better or worse, there are again significant potential opportunities for improvement or best practice examples in four areas of the pathway; deprivation, obesity prevalence 16+, urgent GP referrals (all cancer) (per 100,000 population) and elective spend.

Figure 43: NHS RightCare Commissioning for Value, Cancer Focus Pack, May 2016. WSCCG pathway on a page, lower GI cancer

Some specialised cancer services would be expected to consolidate into specialist centres with increasing responsibility for developing networks of supporting services. Multidisciplinary teams (MDT) have become widely embedded in practice and are essential for ongoing high-quality cancer treatment provision. It is hoped that MDTs will be supported in improving their practices in terms of efficiency and effectiveness, and learning from each other on a national scale. The evidence is growing that cancer outcomes are improved when specialist surgeries are performed by teams with high throughput of patient numbers. Service-level outcome or performance data would likely be important to drive reduction in variation across the country.

The potential for improvement in outcomes with service centralisation must be balanced against another stated priority, which is to make supportive care for cancer patients.
patients available close to people’s homes. For example, chemotherapy could be delivered in smaller hospitals and through expanded primary care\(^2\). Provision of chemotherapy in settings closer to home is likely to improve patient satisfaction with cancer services and may also provide cost efficiencies within the system.

These aims are important, especially in light of the fact that the number of patients receiving chemotherapy is growing, reaching 150,000 in 2015-2016\(^4\). The benefits of treatment provision close to home must, however, be balanced against patient safety and management of adverse effects – concerns which are likely to grow considering the increasing complexity of treatment regimens and their risks.

Electronic chemotherapy prescribing has been nationally mandated for some time, but uptake and compliance is still not adequate\(^2\). Efforts to capitalise on the benefits of electronic prescribing for patient safety and data accrual need to be pushed forward.

New funding routes (e.g. fast-track) have provided for patient access to new cancer drugs approved by NICE. The Cancer Drugs Fund has been restructured into a managed access fund\(^8\) that supports provision of new drugs for a set period prior to a definitive decision is made by NICE to approve or reject use. This ensures that treatments are restricted or stopped when found to be lacking in clinical or cost-effectiveness through standard health technology assessment performed by NICE. This aims to maximise value for money in drug expenditure across the wider NHS cancer budget. The re-design has also meant that NICE appraisals start much earlier, with the aim of publishing draft guidance prior to a drug receiving marketing authorisation, and final guidance within 90 days of marketing authorisation where possible\(^4\).

The Independent Cancer Taskforce stated that update of radiotherapy is less in the UK than in other countries, and that there is potential for gains in outcome by increasing the number of patients provided with this treatment\(^4\). There were 134,000 radiotherapy treatments in 2015-2016\(^4\). Whilst some gains have been made to drive adoption of radiotherapy for more patients, there is still more to be done. Newer techniques, such as intensity-modulated radiotherapy, stereotactic radiosurgery and stereotactic radiotherapy are becoming more commonplace, and the increase in demand for these services must be supported into the future\(^2,4\).

Radiation therapy has been undergoing a large-scale orchestrated nationwide upgrade, which will ensure that regardless of where they live, all patients will have access to sustainable high-quality modern radiation treatments, and this effort continues, with a total planned investment of £130 million over the coming two years\(^4\). Looking to the future, investment in new radiation therapy equipment must become sustainable, as it is recommended that linear accelerators are replaced after 10 years of operation to maintain up-to-date innovations and patient safety.
In addition to the growing role for specialised molecular testing in the improved diagnosis and classification of cancer, these techniques have increasing roles in deciding on treatment strategies (“theranostics”) – epitomising the principles of personalised medicine. The complexity and wealth of information provided by these techniques will grow with the advent of new technologies and development of our understanding of the implications of these findings for patient management.

Some of the additional anticipated benefits of this growth include identification of cost-saving opportunities where molecular tests can indicate that a patient will not respond to a particular treatment, and therefore the cost and adverse effect burden of this treatment can be avoided. Access to these molecular diagnostics and “theranostics” must be standardised across cancer services and supported by commissioners where appropriate.

Through the Cancer Recovery Package, it was hoped that acute care would be coordinated and planned appropriately between primary and acute care. Acute oncology services need to have their impact on outcomes and patient experience evaluated appropriately, and then re-visited with the development of acute services generally.

Certain special groups of cancer patients are to be specifically targeted for improvements in treatment. For example, older patients diagnosed with cancer present with issues which often relate to having multiple co-morbidities, frailty, and lack of social support, which together are barriers to them accessing the best available treatments. Comprehensive care pathways for older cancer patients that involve geriatricians and allied health professionals are proposed as potential models to follow in optimising outcomes and patient experience (including physical and emotional support) for this especially vulnerable group.

Cancer services for children and young people have been effectively centralised into specialist centres where major treatment decisions are made, and shared-care units where much of the routine care is provided. Specialist network development must continue along best practice guidelines, and service evaluation scrutinise where the opportunities for improvement lie. As a priority, the proportion of children and young people offered participation in and recruited into clinical trials is hoped to be increased.

Early access to allied health professional support (e.g. physiotherapy, occupational therapy, speech and language therapy and dietetics), is hoped to support improved quality of life for cancer patients, and enable them to return home more quickly after treatment. Research has been commissioned to help develop a new quality of life metric for cancer patients, to ensure that each person is cared for individually and appropriately. Guidance for commissioners to support people living with and beyond cancer was also published in 2016.
It is also hoped that engagement with palliative care services is done earlier along the cancer timeline, when future difficult management decisions can be anticipated and planned for effectively. The Government's commitment to making palliative care services patient-centred and responsive to the patient experience has been emphasised in their recent response to a public consultation on this issue\textsuperscript{19}. End of life care is also hoped to take place increasingly in community settings.

10. Commissioning, accountability and provision.
The commissioning of cancer services is complex and can involve many commissioning bodies, depending on cancer type. There are 200 types of cancer, of which 50% are classified as rare\textsuperscript{20}. Each of these may require several interventions and has its own unique care pathway. In addition, there is the complexity of coordinating services across the treatment and care pathway for each patient. This will usually involve a combination of health and social care teams in general practice, the community, acute general hospitals and in specialist or tertiary centres. Macmillan summarises the cancer pathways in relation to prevention, screening, referrals, diagnostics, treatment, follow up, rehabilitation and survivorship, and palliative and end of life care as follows\textsuperscript{83}:

- **Prevention** – responsibilities are approximately split between Public Health England (PHE) 50%, local authority 25% and CCGs 25%.
- **Screening** – responsibilities are approximately split between PHE 90%, NHS England primary care commissioning 10%.
- **Accident & Emergency** – responsibilities are 100% with CCG.
- **GP Referral** – responsibilities are approximately split between NHS England primary care commissioning 50% and CCGs 50%.
- **Diagnostics** – responsibilities are approximately split between CCGs 90% and NHS England, specialised commissioning 10%.
- **Treatment** (radiotherapy, chemotherapy, specialist surgery, and non-specialist surgery) – NHS England, specialised commissioning hold 100% of the responsibility for everything other than non-specialist surgery, which is 100% the responsibility of the CCG.
- **Follow up/Surveillance** – responsibilities are approximately split between CCGs 95% and NHS England, specialised commissioning 5%.
- **Rehabilitation & Survivorship** – responsibilities are approximately split between CCGs 80% and local authorities 20%.
- **Palliative Care & End of life Care** – responsibilities are approximately split between CCGs 80% and local authorities 20%.

In addition to prevention, the responsibilities of public health departments include; reduction of inequalities, and an assurance function of cancer screening services and HPV vaccination.\textsuperscript{84}
The more specialised areas within cancer are best commissioned for populations covering 1.5-2 million and therefore sit with NHS England to commission centrally through specialised commissioning. Cancer is one of six National Programmes of Care (NPoCs) overseeing the commissioning of specialised and highly specialised services by NHS England and covers:

- Radiotherapy (all)
- Chemotherapy (currently all - there are plans to review chemotherapy for common cancers in terms of elements that could be commissioned by CCGs in the future)
- Specialised Cancer Surgery
- Specialised Cancer Diagnostics
- Children and Young Adult Cancer Services (all)

The below figures display a summary of the cancer pathways and split of commissioning responsibilities for each of Suffolk CCGs. Although a large proportion of cancer patients within each CCG will follow the pathway, some patients may choose to receive treatment elsewhere.

There are many similarities and differences in the commissioning and provision of cancer services in each of the Suffolk CCGs. Depending on where patients live will influence where they are most likely to attend for cancer services and treatment. More streamlined approaches are being investigated through the STP to make the patient journey as satisfactory as possible.

Figure 44: Cancer pathway and split of commissioning responsibilities for treatment at James Paget University Hospitals NHS Foundation Trust, GYWCCG

![Cancer pathway diagram](image-url)
11. Conclusion and recommendations
There is a huge amount of data, information and evidence available on cancer, from primary prevention right through the cancer pathway to end of life. Public Health Suffolk have identified findings using the Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020 as a framework to understand Suffolk’s position on cancer. Prevention and healthcare surrounding cancer is complex, but work is underway through the STP and cancer alliance to synthesise and improve patient and clinician navigation and experience of cancer services.
It is widely recognised across the county that Suffolk has an aging population. It is expected that over 65s will see the biggest increase over the next 10 years, followed by further increases in over 85s in the next 20 years. With an aging population, it can be expected that cancer will become even more prominent. Suffolk should plan for this expected increase in age and with-it cancer cases. As expected and similar to the national picture, Suffolk should recognise:

1. Prostate cancer (male specific) is the number one cancer in Suffolk. It has the highest number and proportion of incidence in the county,
2. As expected and seen nationally, men in Suffolk have a significantly higher incidence rate for most cancers compared to women, and
3. Men in Suffolk under the age of 75 have a significantly higher mortality rate from cancer than women.

In addition to this, all cancer incidence has been increasing across the county from 2005 to 2015 (30% - ASR 8%). Findings within this profile such as; better than average cancer screening uptake and coverage, higher achievement of the two-week wait referrals target, lower cancer diagnosis via emergency presentation, decreasing mortality and continuous improvement of one-year survival indicate good detection and more people in Suffolk now survive cancer.

Using *The time is now, prevention strategy*, Suffolk has a vehicle to drive a prevention at scale approach. This encompasses cancer prevention through priorities such as; decreased tobacco use, increased physical activity, increase those who are a healthy weight, decrease excessive alcohol consumption and promoting making every contact count (MECC). Reducing population exposure to modifiable risk factors through prevention will help to reduce cancer cases across Suffolk. In addition to prevention in lifestyle factors, it is imperative that work with PHE to improve HPV vaccine coverage continues.

As already mentioned, compared to England, Suffolk generally performs well on cancer screening programmes, exceeding the national targets. However, decreasing trends across the CCGs and programmes mean there is no room for complacency and additional efforts should be made to at least stabilise trends if not reverse them. Targeting more deprived GP practices and those with higher proportions of non-white ethnic populations with information and advice is likely to be beneficial. This profile finds correlations with these GP factors and all cancer screening programmes coverage.

As discussed earlier, the NHS Five Year Forward View identified an urgent need to reduce the proportion of patients diagnosed with cancer through an emergency admission to hospital. In the main Suffolk has lower diagnosis of cancer in this way, however, some variation between GP practices and the distribution of diagnosis through this route has been identified. This presents potential opportunities for some targeted awareness raising with patients and clinicians within those practices.
Further to this, this profile identifies statistically significant correlations between IMD 2015 deprivation score of GP practice and cancer diagnosis through emergency admissions to hospital. As above for screening programmes, targeted messaging and campaigns in more deprived GP practices could be beneficial in helping to detect cancer earlier and reduce diagnosis through this route even more.

It is hoped that early detection of cancer will improve treatment options and outcomes. It is positive that WSCCG has a significantly higher proportion of stage one cancer diagnosis than England and the other two Suffolk CCGs. Supporting this finding, one-year survival of all cancers in WSCCG has remained better than the England average since 1999.

Unfortunately, many cancers are diagnosed at a late stage (3/4). In Suffolk, GYWCCG and IESCCG had a significantly greater detection of all cancers at late stage (3/4) than England, whereas, WSCCG was similar to England. These findings highlight possible opportunities to learn from WSCCG in improving the stage of cancer at diagnosis across the county.

It is encouraging to learn that patient experience of cancer services in Suffolk is very positive, with all three CCGs exceeding their expected ranges in the National Cancer Patient Experience Survey 2016. With cancer one of the main causes of death in Suffolk, it is important to ensure that as many people as possible die as they wish and in their place of choice. Although Suffolk appears to provide a good level of care at the end of life, more work is planned throughout 2018 to improve further across the county and this should be supported.

We know that in 2016/17, there were nearly 30,000 people living with cancer in Suffolk and this is likely to increase. By ensuring that the right support is available as described by Macmillan in *The Recovery Package* and achieving the Macmillan nine cancer outcomes, it is hoped to improve patient experience living with and beyond cancer.

Finally, there are various potential opportunities for improvement identified through modernising cancer services and commissioning, accountability and provision. The NHS RightCare Commissioning for Value Focus Packs provide a wealth of information for CCGs and STPs to focus efforts towards improvement in cancer processes and pathways. In addition to this, the commitment of SNEE STP to improve cancer services for patients and clinicians will likely come to fruition with the development of their cancer strategy and appropriate utilisation of the new funding released to the STP.
Glossary of key terminology

- Significantly refers to “statistical significance” using appropriate tests of significance and denoted by 95% confidence intervals, Chi-square statistic and p values. Unless otherwise indicated p value of <0.05 is considered significant.

- Clinical Commissioning Groups (CCGs) were created following the Health and Social Care Act in 2012 and replaced Primary Care Trusts on 1 April 2013. They are clinically-led statutory NHS bodies responsible for the planning and commissioning of health care services for their local area. There are now 195 CCGs in England.

- Sustainability and Transformation Partnerships (STPs) are five-year plans covering all aspects of NHS spending in England. Forty-four areas have been identified as the geographical ‘footprints’ on which the plans are based, with an average population size of 1.2 million people. Most STP leaders come from CCGs and NHS or foundation trusts, but a small number come from local government.

- Integrated Care System (ICS) is NHS organisations, in partnership with local councils and others to take collective responsibility for managing resources, delivering NHS standards, and improving the health of the population they serve.

- Lower Layer Super Output Area (LSOA) is a geographic area designed to improve the reporting of small area statistics. The minimum population is 1000 and they are as consistent in population size as possible. Each postcode in England and Wales has an LSOA.

- Age-standardised rates (ASR) control for the difference in distribution of the population by age and provides a standard picture by removing age as a contributory factor to the findings. This helps to understand how much of the finding is due to chance or another factor.

- Chi Square is a statistical test to measure against what is expected and understand how likely it is that variables in a data set are due to chance.

- Correlation is where the line of best fit falls within all the data points. To understand how much of the variation observed within the plots could be due to an identified factor (e.g. deprivation or ethnicity), R² is calculated.

- Epidemiology is the study of the distribution and determinants of health-related states or events (including disease, e.g. cancer).
References


42. Information from the Health impacts of air pollution page, with references. National Clean Air Day.


68. What is Cancer Staging? American Joint Committee on Cancer.


78. Macmillan. *Living With And Beyond Cancer.*


82. NHS England Cancer Drugs Fund Team. Appraisal and funding of cancer drugs from July 2016 (including the new Cancer Drugs Fund) – a new deal for patients, taxpayers and industry.


Annex

Annex 1 – Details of analysis and variables in the data

- Desktop research and review of national and local evidence to set the context and frame the profile.
- Analysis of Suffolk population using mid-2016 population estimates provided by the Office for National Statistics. Projections up to 2039 are based on this.
- Cancer incidence and mortality for all cancers (excluding non-melanoma skin cancers ICD-10 C44) and selected cancers (bowel, lung, breast, prostate, cervical, Non-Hodgkin lymphoma, melanoma skin cancer, kidney, bladder, head and neck and pancreas) in Suffolk are from available data on the National Cancer Registration and Analysis Service (NCRAS), CancerStats up to 2013-2015. Data is presented by specified age groups and age standardised incidence rates (all ages and those aged under 75) depending on the scope of the analysis.
- Modifiable risk factors (data from 2013 up to 2016) have been analysed using Public Health England (PHE) fingertips data. Information compares Suffolk to England and nearest statistical neighbours.
- Cancer diagnosis from 2006-2013 in Suffolk has been analysed using directly standardised rates. Further analysis using Elliss-Brookes et al' eight ‘Routes to Diagnosis’ combined into screen detected, managed, emergency presentation and other.
- Uptake of cancer screening programmes between 2015-2016 in Suffolk have been correlated with GP Indices of Multiple Deprivation (IMD) 2015 score and proportion of non-white ethnicity by GP practice. Ethnicity data by LSOA was obtained from the 2011 Census and April 2015 registered population was used. Comparison has been made between Suffolk County Council and its nearest statistical neighbours for benchmarking performance.
- Two-week wait referrals in Suffolk CCGs have been compared using PHE fingertips cancer profiles. The data periods range from 2012-2013 up to 2016-2017.
- Cancers in Suffolk diagnosed via emergency presentation to hospital has been analysed by each CCG individual GP practice per 100,000 population 2015-16. More recent age-sex standardised emergency admission rates to hospital, pooled data for financial years 2014/15-2016/17 has been correlated with GP IMD 2015 score for Suffolk and each CCG.

*Non-melanoma skin cancers (ICD-10 C44) are often excluded from cancer incidence analysis for several reasons. They are very common and less likely to be fatal unlike other cancer sites. Registrations of this cancer type are likely to be less complete and accurate due to multiple tumours occurring in one individual. Additionally, many cases are diagnosed and treated in GP surgeries and therefore possibly not recorded on the cancer register.
Stage of cancer at diagnosis has been analysed using 2012-2014 data available from the National Cancer Registration and Analysis Service (NCRAS). It has been analysed by CCG and specified cancer sites (lung, colorectal, breast and prostate).

Patient experience has been reported using the National Cancer Patient Experience Survey 2016. In addition, end of life care profiles available on PHE fingertips have been used as an indicator of patient experience.

Prevalence of cancer in Suffolk has been measured by CCG using data reported on the Quality and Outcomes Framework (QOF) 2015/16.

One-year survival data has been compiled from the Office for National Statistics and Index of Cancer Survival for Clinical Commissioning Groups in England: Adults Diagnosed 1999 to 2014.

Annex 2 – Suffolk’s nearest statistical neighbours
The Chartered Institute of Public Finance and Accountancy (CIPFA) have created a model which seeks to measure similarities between Local Authorities. The area most similar to Suffolk is ranked as 1 and least similar as 15. The CIPFA nearest neighbour set has been developed to aid local authorities in comparative and benchmarking exercises, and specific family groups are generated based upon a wide range of socio-economic indicators. As highlighted by CIPFA each local authority is unique. Not only are its social and physical characteristics different to those of other authorities, but its traditions, organisation and practices are distinctive. The CIPFA Nearest Neighbours Model adopts a scientific approach to measuring the similarity between authorities, taking many of these issues into account. Used across both local and central government, the model has importantly been used in recent years within the Audit Commission’s value for money profiles.

<table>
<thead>
<tr>
<th>Area Name</th>
<th>Neighbour Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suffolk</td>
<td>-</td>
</tr>
<tr>
<td>Worcestershire</td>
<td>1</td>
</tr>
<tr>
<td>Norfolk</td>
<td>2</td>
</tr>
<tr>
<td>Gloucestershire</td>
<td>3</td>
</tr>
<tr>
<td>Warwickshire</td>
<td>4</td>
</tr>
<tr>
<td>Somerset</td>
<td>5</td>
</tr>
<tr>
<td>Derbyshire</td>
<td>6</td>
</tr>
<tr>
<td>Staffordshire</td>
<td>7</td>
</tr>
<tr>
<td>Nottinghamshire</td>
<td>8</td>
</tr>
<tr>
<td>Lincolnshire</td>
<td>9</td>
</tr>
<tr>
<td>Cumbria</td>
<td>10</td>
</tr>
<tr>
<td>North Yorkshire</td>
<td>11</td>
</tr>
<tr>
<td>Leicestershire</td>
<td>12</td>
</tr>
<tr>
<td>Northamptonshire</td>
<td>13</td>
</tr>
<tr>
<td>Essex</td>
<td>14</td>
</tr>
<tr>
<td>Buckinghamshire</td>
<td>15</td>
</tr>
</tbody>
</table>
Annex 3 – The time is now: A prevention strategy for Suffolk to reduce demand in the health and care sector by improving health 2016-2021, Priority 2

**Outcome:**
Improve direct and indirect support to those who wish to change their lifestyle

<table>
<thead>
<tr>
<th>Aim</th>
<th>Specific Actions</th>
<th>How it will be measured</th>
<th>Lead Organisation</th>
<th>Timescale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease tobacco use in Suffolk by continuing to drive forward the actions agreed as part of Aspiring to a Tobacco Free Suffolk (see Appendix 2)</td>
<td>Improve the effectiveness of the Suffolk Tobacco Alliance though completing the Public Health England facilitated Clear self-assessment and make appropriate changes Alliance to agree an action plan including measures and timescales Action plan to go to HWB March meeting</td>
<td>Completion of self-assessment with recommended changes for implementation Action plan completed and agreed by all organisations on Tobacco Alliance Action plan considered by Board</td>
<td>SCC-PH and Tobacco Alliance Member organisations of Tobacco Alliance SCC-PH</td>
<td>Dec. 2015 Feb. 2016 March 2016</td>
</tr>
<tr>
<td>Increase the proportion of those who are physically active in Suffolk with the specific focus on the priorities agreed by the HWB: active aging, a physical activity habit for life, walking, cycling and increasing activity amongst those with disability</td>
<td>Implement the Suffolk Walking Strategy 2015-2019 Implement the Suffolk Cycling Strategy Implement the Suffolk Disability Sport and Physical Activity Strategy Increase physical activity among older people by: Making “fit Villages” programme in rural villages sustainable Scope integrations of physical activity into the commissioning intentions of mental health commissioners Develop evidence based programmes through the healthy lifestyle service for Increasing numbers to 3000 Individuals at high risk each year</td>
<td>Dept for Transport walking statistics Dept for Transport cycling statistics Sport England Active People Data UEA evaluation Sport England PH contract monitoring</td>
<td>SCC - MAC districts and boroughs SCC - MAC districts and boroughs SCC - MAC districts and boroughs SCC - MAC districts and boroughs SCC-PH</td>
<td>2019 2020 2019 April 2017 Sept. 2016 April 2017 - developed April 2018 delivered to 1000 people</td>
</tr>
<tr>
<td>Aim</td>
<td>Specific Actions</td>
<td>How it will be measured</td>
<td>Lead Organisation</td>
<td>Timescale</td>
</tr>
<tr>
<td>------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>-----------------------------------------</td>
<td>------------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Increase the proportion of the Suffolk population with healthy weight by providing opportunities for the Suffolk population to improve their diet and increase the support available to those at risk who wish to decrease their weight</td>
<td>Agree a Suffolk Food charter across the public, voluntary and private sector with actions that can be monitored</td>
<td>PH contract monitoring - KPI</td>
<td>SCC-PH</td>
<td>1,660 people seen 2016/17 7,500 people seen 2019/20</td>
</tr>
<tr>
<td></td>
<td>Establish a Healthy Food Award Scheme</td>
<td>Endorsement of the charter and monitoring through the Suffolk HWB</td>
<td>SCC-PH</td>
<td>May 2016</td>
</tr>
<tr>
<td></td>
<td>Offer a programme to support increasing numbers of at risk people each year to reach a healthy weight</td>
<td>Award scheme embedded into District and Borough Council Environmental Health assessment of food outlets.</td>
<td>District and borough Councils</td>
<td>April 2017</td>
</tr>
<tr>
<td>Decrease excessive alcohol consumption by continued multiagency support to deliver the Suffolk Alcohol Strategy</td>
<td>Complete the over 50s Alcohol Needs Assessment</td>
<td>NA available on JSNA site</td>
<td>SCC-PH</td>
<td>March 2016</td>
</tr>
<tr>
<td></td>
<td>Refresh Alcohol Strategy Action plan in view of new CMO guidance and the NA. Include actions to increase identification of excessive intake and increase alcohol screening and brief interventions</td>
<td>Action plan agreed by JCG for MH/LD and D&amp;A</td>
<td>SCC-PH</td>
<td>April 2016</td>
</tr>
<tr>
<td></td>
<td>Action Plan and progress report to HWB</td>
<td>Agreed by Board</td>
<td>SCC-PH</td>
<td>July 2016</td>
</tr>
<tr>
<td>Support the public and voluntary sector workforce to fully understand their role in promoting healthy lifestyles including the promotion of the Making Every Contact Count programme</td>
<td>Encourage staff to complete the training programme provided through the IHLS</td>
<td>PH contract monitoring</td>
<td>IHT/WSH/JPH/SCH/ACS/Vol Sector</td>
<td>April 2016</td>
</tr>
<tr>
<td></td>
<td>Increase appropriate referral to the IHLS for advice and support</td>
<td>PH contract monitoring</td>
<td>IHT/WSH/JPH/SCH/ACS/Vol Sector</td>
<td>April 2017</td>
</tr>
<tr>
<td></td>
<td>Promote healthy lifestyle champion training within the public sector, voluntary sector and within communities</td>
<td>PH contract monitoring</td>
<td>SCC-PH</td>
<td>Dec 2016</td>
</tr>
<tr>
<td></td>
<td>Develop and test “prevention link workers” between HLS and GP practices across Suffolk</td>
<td>PH contract monitoring</td>
<td>SCC-PH</td>
<td>Dec 2016</td>
</tr>
</tbody>
</table>
### Annex 4 – Public Health England Fingertips, Two-week wait referral indicators

The table shows how each of Suffolk’s CCGs perform compared to England within the 25th-75th percentiles, above the 75th (higher bold) or below the 25th (lower bold).

#### Two-week wait referral indicators, Suffolk CCGs compared to England

<table>
<thead>
<tr>
<th>Indicator and period</th>
<th>England value</th>
<th>GYWCCG value</th>
<th>IESCCG value</th>
<th>WSCCG value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-week wait referrals for suspected cancer (number per 100,000 population) 2016/17</td>
<td>3,164</td>
<td>3,121</td>
<td>3,063</td>
<td>3,593</td>
</tr>
<tr>
<td>Two-week referrals resulting in a diagnosis of cancer (conversion rate: as % of all TWW referral) 2016/17</td>
<td>7.6%*</td>
<td>10.4%*</td>
<td>10.9%*</td>
<td>8.0%*</td>
</tr>
<tr>
<td>Number of new cancer cases treated (detection rate: % of which resulted from a TWW referral) 2016/17</td>
<td>51.0%*</td>
<td>49.4%*</td>
<td>54.4%*</td>
<td>49.9%*</td>
</tr>
<tr>
<td>Two-week wait referrals for suspected breast cancer (number per 100,000 population) 2016/17</td>
<td>561</td>
<td>511</td>
<td>613</td>
<td>615</td>
</tr>
<tr>
<td>Two-week referrals resulting in a diagnosis of cancer (conversion rate: % of all TWW referral) 2016/17</td>
<td>8.3%*</td>
<td>9.6%*</td>
<td>11.1%*</td>
<td>8.7%*</td>
</tr>
<tr>
<td>Two-week wait referrals for suspected skin cancer (number per 100,000 population) 2016/17</td>
<td>12,894</td>
<td>13,970</td>
<td>12,428</td>
<td>15,140</td>
</tr>
<tr>
<td>Two-week referrals resulting in a diagnosis of cancer (conversion rate: % of all TWW referral) Five years combined data 2012/13 - 16/17</td>
<td>48.7%*</td>
<td>44.1%*</td>
<td>51.0%*</td>
<td>46.6%*</td>
</tr>
<tr>
<td>Two-week wait referrals for suspected lower GI cancers (number per 100,000 population) 2016/17</td>
<td>2,052</td>
<td>2,704</td>
<td>2,060</td>
<td>2,159</td>
</tr>
<tr>
<td>Two-week referrals resulting in a diagnosis of cancer (conversion rate: % of all TWW referral) Five years combined data 2012/13 - 16/17</td>
<td>476</td>
<td>258</td>
<td>383</td>
<td>469</td>
</tr>
</tbody>
</table>

* PHE fingertips declare there is a data quality issue with the value