Overview of all cancers
This chapter provides an overview of cancer in Cheshire East. Further detail and assessment of local needs is included in individual JSNA sections on lung cancer, breast cancer, bowel cancer, upper gastrointestinal cancer, cervical cancer and skin cancer.

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Key messages
• The number of cases of cancer has dramatically increased over the past 20 years whilst mortality has fallen, reflecting an increasingly older population demographic, improved diagnosis and better treatment.
• 4 in 10 cancers are potentially preventable through improvements in lifestyle as well as through a reduction in occupational and environmental exposures. Overall, risk factors in Cheshire East are lower than the England averages, but there are areas, particularly in the south of the borough where risk factors are much higher.
• Cancer incidence across Cheshire East is in keeping with the England average though rates are higher in South Cheshire CCG area.
• There are stark differences in cancer outcomes between our two CCG areas and between smaller areas within the borough. Cancer outcomes are particularly poor in Crewe.
• Cancer mortality in Cheshire East is significantly lower than the England average though mortality rates have not fallen as quickly in NHS South Cheshire CCG. One year survival (linked with late diagnosis) has improved over time and in 2015 it was significantly higher than the England average in NHS Eastern Cheshire CCG and similar to the England average in NHS South Cheshire CCG.
Summary of burden of cancer in Cheshire East
There were 7216 new cancers diagnosed in Cheshire East in 2012-2014. The three most common cancers diagnosed were breast, male genital organs (largely prostate) and bowel cancer.

A very different pattern is observed for cancer deaths (of which there were 2992 in 2012-2014). The three most common causes of cancer deaths were lung, upper gastrointestinal (oesophageal, stomach and pancreatic) and bowel cancer. These three cancer types were responsible for 44% of all cancer deaths. Improving cancer outcomes amongst patients with these tumour types may thus yield large gains in local mortality rates.

There are opportunities to reduce bowel cancer deaths through improved screening uptake.
Cancer Risk Factors

1 in 2 people born after 1960 in the UK will be diagnosed with cancer during their lifetime (Cancer Research UK, accessed July 18). However, **many of these cancers are potentially preventable** through changing lifestyle and other risk factors.

- **Overweight/obesity:** 2/3 of adults in Cheshire East are overweight or obese (similar to England average of 64.8%)
- **Poor diet:** not enough fruit & vegetables; too much red and processed meat; not enough fibre; too much salt.
  - **44.8%** of adults in Cheshire East do not eat ‘5 a day’ on a usual day (similar to England average of 47.7%)
- **Lack of physical activity:** 27.4% of adults in Cheshire East are physically inactive (similar to England average of 28.7%)

Cancer is also linked with:
- Occupational exposures
- Infections
- UV radiation
- Radiation
- HRT

Smoking: Cheshire East Adult Smoking Prevalence in 2016: estimated between 10.6% and 15.9% (similar to the England average: 15.5%)*

*Data source: Annual Population Survey

Alcohol: In Cheshire East, the alcohol-specific hospital admission episode rate in 2016/17: 629 per 100,000 (significantly higher than England average of 563 per 100,000)

• **Lack of physical activity:** 27.4% of adults in Cheshire East are physically inactive (similar to England average of 28.7%)

There are vast differences in the prevalence of risk factors across Cheshire East resulting in vast differences in cancer risk and incidence.

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Cancer survival in England is generally worse than that of European neighbours. Research has indicated that this is the result of late stage diagnosis. Later diagnosis tends to lead to worse outcomes as cancers are more advanced and harder to treat. This can be the result of initial delays in people presenting to their GP with cancer signs & symptoms and/or delays in healthcare pathways. Screening and rapid GP referrals for suspected cancer are generally associated with better outcomes. Improving local cancer outcomes can be supported by taking steps to increase the proportion of people diagnosed via the screening and rapid referral routes.

National data from 2006-2013 indicates that in this time period in England, 30% of cancers were detected via the rapid referral for suspected cancer (urgent) route and 22% of cancers were diagnosed via emergency presentation. 1 in 20 cancers were diagnosed via screening. See table below:

### Routes to Diagnosis (England)

<table>
<thead>
<tr>
<th></th>
<th>Screen detected</th>
<th>Urgent GP referral for suspected cancer</th>
<th>Other GP referral</th>
<th>Other outpatient</th>
<th>Inpatient elective</th>
<th>Emergency presentation</th>
<th>Other or Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons</td>
<td>5%</td>
<td>30%</td>
<td>26%</td>
<td>10%</td>
<td>2%</td>
<td>22%</td>
<td>4%</td>
</tr>
<tr>
<td>Male</td>
<td>1%</td>
<td>28%</td>
<td>30%</td>
<td>11%</td>
<td>3%</td>
<td>23%</td>
<td>4%</td>
</tr>
<tr>
<td>Females</td>
<td>10%</td>
<td>32%</td>
<td>22%</td>
<td>8%</td>
<td>2%</td>
<td>21%</td>
<td>4%</td>
</tr>
<tr>
<td>Under 50</td>
<td>3%</td>
<td>34%</td>
<td>28%</td>
<td>11%</td>
<td>3%</td>
<td>15%</td>
<td>7%</td>
</tr>
<tr>
<td>50-59</td>
<td>12%</td>
<td>30%</td>
<td>26%</td>
<td>10%</td>
<td>3%</td>
<td>14%</td>
<td>5%</td>
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<tr>
<td>60-69</td>
<td>11%</td>
<td>29%</td>
<td>27%</td>
<td>10%</td>
<td>3%</td>
<td>16%</td>
<td>4%</td>
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<tr>
<td>70-79</td>
<td>2%</td>
<td>31%</td>
<td>28%</td>
<td>10%</td>
<td>2%</td>
<td>22%</td>
<td>3%</td>
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<td>0%</td>
<td>29%</td>
<td>25%</td>
<td>9%</td>
<td>2%</td>
<td>31%</td>
<td>4%</td>
</tr>
<tr>
<td>85+</td>
<td>0%</td>
<td>24%</td>
<td>21%</td>
<td>8%</td>
<td>2%</td>
<td>41%</td>
<td>5%</td>
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There are more screen detected cancers in women, reflecting the availability of female specific screening programmes e.g. breast and cervical cancer. Emergency presentations tend to increase with age and indeed are most common route to diagnosis in those aged 80 and over. Routes to diagnosis will be further considered in individual cancer JSNA sections.
Cancer incidence is **5.1% higher than the England average** in NHS South Cheshire CCG, suggesting a higher prevalence of cancer risk factors.

Nationally, the rate of new cancer cases is **25% higher in males than in females**. The rate of new cancer cases in males and females in Cheshire East is very similar to the England average, with the rate for males being 22.8% higher than for females.

In England, the rate of new cases of cancer increased by 8.8% between 2001-2003 and 2012-2014. Cancer risk increases with age so with more people in older age groups there is a greater risk of developing the disease. Better screening and detection also means that cancers are more likely to be diagnosed. Since cancer can take years or even decades to develop, increases seen today can reflect historic risk factors. The equivalent increase in Cheshire East was 36.2%, with a similar increase across both CCGs. This is higher than the increase in England over the same time period. The dip in the graph between 2004-06 to 2008-10 relates to a data quality issue which has improved over time.

### Cancer Incidence, Directly Standardised Rates (DSR) per 100,000, with 95% confidence intervals (CIs), 2012-2014

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th></th>
<th>Females</th>
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<th>Persons</th>
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<tr>
<td></td>
<td>Number of Cases</td>
<td>DSR</td>
<td>LCI</td>
<td>UCI</td>
<td>Number of Cases</td>
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<tr>
<td>England</td>
<td>450780</td>
<td>684.5</td>
<td>682.5</td>
<td>686.5</td>
<td>432077</td>
<td>546.1</td>
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<td>Cheshire East</td>
<td>3693</td>
<td>685.5</td>
<td>663.3</td>
<td>708.4</td>
<td>3523</td>
<td>558.1</td>
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<td>NHS Eastern Cheshire CCG</td>
<td>1919</td>
<td>649.8</td>
<td>620.7</td>
<td>680.0</td>
<td>1926</td>
<td>550.3</td>
</tr>
<tr>
<td>NHS South Cheshire CCG</td>
<td>1774</td>
<td>726.3</td>
<td>692.4</td>
<td>761.8</td>
<td>1597</td>
<td>567.1</td>
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Source: Cancer Data, [https://www.cancerdata.nhs.uk/incidence](https://www.cancerdata.nhs.uk/incidence)
The graph above demonstrates that the incidence of all cancers for males in Crewe and SMASH (Sandbach, Middlewich, Alsager, Scholar Green and Haslington) was significantly higher than the Cheshire East average. There was little variation among females.

Prevention activity should therefore be focussed in both these clusters, considering any potential gender differences in how messages may be received.
Cheshire East has a cancer mortality rate of 260 per 100,000 which is 8.7% lower than the England average. The NHS Eastern Cheshire CCG rate is 13.9% lower than the England average, which is significant. The lower rate in NHS South Cheshire CCG is not significantly different from England.

Nationally, cancer death rates amongst males are 46% higher than those amongst females. The equivalent difference in Cheshire East is 38.9%. The cancer mortality rate in males in Cheshire East is 10.7% lower than the England average and in females, 6% lower. Whereas the rate of new cancers has increased, the rate of cancer deaths has decreased. In England, the decrease was 11.4% between 2001-2003 and 2012-2014. The respective recorded decreases in death rates for Cheshire East, NHS Eastern Cheshire CCG and NHS South Cheshire CCG were 17.0%, 19.8% and 14.0%. These decreases are the result of earlier diagnosis and better treatment over time resulting in better outcomes.

The decrease in rate is not reflected in the number of deaths, which has increased over time. In England, the number of deaths increased by 4.5% between 2001-2003 and 2012-2014. The respective recorded increases for Cheshire East, NHS Eastern Cheshire CCG and NHS South Cheshire CCG were 4.9%, 1.9% and 8.6%.
The pattern of variation across the localities is different for mortality than incidence e.g. Knutsford has lower than expected mortality when you consider the incidence. The type of cancer, geographical variation in risk factors and variations in local pathways need to be considered along with the success of public awareness campaigns with different demographic groups in order to understand this variation better.

Mortality rates for both males and females in Crewe are significantly higher than the Cheshire East average, indicating that Crewe should be an area of focus.
There is a strong relationship between poor one year survival and late stage diagnosis. Nationally, survival at one year for all cancers increased from 61.2% in 2000 to 72.3% in 2015. This vast improvement is replicated locally and NHS Eastern Cheshire CCG currently has rates above the England average, with NHS South Cheshire CCG having rates similar to the England average. The graph below shows the improvement in one year survival since 2011, which is most pronounced in NHS South Cheshire CCG. The bottom graph shows the placement of NHS Eastern Cheshire and NHS South Cheshire CCG relative to all other CCGs for cancers diagnosed in 2015. Five year survival rates which are more reflective of the quality of treatment are unavailable at CCG level.

A Cancer Alliance for Cheshire and Merseyside has been established which aims to be the local delivery vehicle for national Cancer Strategy.

Be Clear on Cancer Campaigns: These campaigns are led by Public Health England in partnership with NHS England, the Department of Health and Cancer Research UK. They aim to improve early diagnosis of cancer by raising public awareness of signs and/or symptoms of cancer, and thus promote presentation to GPs as soon as possible. [http://www.cancerresearchuk.org/health-professional/early-diagnosis-activities/be-clear-on-cancer](http://www.cancerresearchuk.org/health-professional/early-diagnosis-activities/be-clear-on-cancer)

Action on Cancer in Central Cheshire: Through the Cancer Commissioning Board for South Cheshire and Vale Royal which has representation from several local partners including Clinical Commissioning Groups, Mid-Cheshire NHS Foundation Trust, Macmillan, Public Health, Cancer Research UK and Healthwatch, there is an Action on Cancer initiative. Partners aim to inform, educate and empower our local population, communities (e.g. through targeted social marketing and recruitment of community cancer champions) and a range of professionals to be more aware of signs and symptoms, to present earlier to their GP and to participate in the cancer screening programmes where appropriate.

Cancer screening

In the UK, around 5% of cancers are diagnosed via screening (National Cancer Registration and Advice Service, 2016) and there are currently three cancer screening programmes.

Breast screening is offered every 3 years to women aged 50-70 and women aged over 70 can self-refer to screening. 31% of female breast cancers diagnosed in England in 2013 were diagnosed via screening. (For more information about local services see: [East Cheshire and Stockport](http://www.eastcheshire.nhs.uk) or [Crewe](http://www.crewe.nhs.uk).

Bowel cancer screening encompasses two programmes. Firstly, a home testing kit for blood in a stool sample for people aged 60-74 (with self-referral for those aged over 75). Nine percent of bowel cancers diagnosed in England in 2013 were diagnosed via screening. Secondly, a newer test for those aged 55 which involves finding and removing any small bowel growths, called polyps, that could eventually turn into cancer. This is the bowel scope screening test. (Bowel Cancer Screening Helpline: 0800 707 6060).

Cervical cancer screening checks the health of cells in the cervix. It is offered every 3 years to those aged 25-49 and every 5 years to those aged 50-64. In England in 2013, 31% of cervical cancer (in-situ) were diagnosed via screening. For more information see: [NHS Choices](http://www.nhs.uk).
Opportunities for improvement / future developments

- Taking steps to reduce the prevalence of cancer risk factors amongst Cheshire East residents thus preventing cancers would yield high health gains particularly in South Cheshire where there is a higher rate of new cases and where more pronounced inequality is observed. Interventions aimed at primary prevention are associated with a high return on investment.
- Increase public awareness of cancer signs and symptoms.
- Improving uptake in cancer screening locally (particularly that of bowel cancer screening) would enable many cancers to be either prevented or detected at an early stage.
- Although outcomes are generally better in Eastern Cheshire, in order to ensure that improvements in outcomes keep pace with the rest of England, a partnership focused on local delivery of the national cancer strategy should be established.
- Ability for GPs to refer directly to lifestyle services, such as One You, and to refer patients directly for diagnostic tests rather than via specialists.
- Identify variations in local pathways with a focus on Crewe.

Further information:

- Alcohol and drugs JSNA and Tobacco JSNA sections: [www.cheshireeast.gov.uk/jsna](http://www.cheshireeast.gov.uk/jsna)
- PHE’s National Cancer Intelligence Network and Macmillan Cancer Support (2016). Local Cancer Intelligence. [http://lci.cancertoolkit.co.uk/](http://lci.cancertoolkit.co.uk/)

Version control

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<td>New JSNA section created to replace the cancer incidence and referrals and cancer diagnosis sections</td>
<td>Charlotte Simpson (Public Health)</td>
<td>Tracey Wright (Service Delivery Manager - CCGs)</td>
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JSNA section contributors: Rhonwen Ashcroft, Adam Roscoe, Anna Whitehead, Sara Deakin, Julie Sin (Public Health)
Appendix: NHS Eastern Cheshire Clinical Commissioning Group

Emergency Presentation

87 in 100,000 people received emergency diagnoses (2014/2015). This is similar to England average (89 in 100,000).

Diagnosis

1265 people diagnosed (2014)

577 new cases per 100,000 people. England average is 608 per 100,000.

Stage at Diagnosis

53% of cancers are diagnosed early (Rolling 1 year average at Q1 2014). England average is 49%.

Death

235 in 100,000 died of cancer in 2014. England average is 281 per 100,000.

Survival

1-year survival: 70.9% (2014) This is similar to England average (70.2%)

England 5-year survival: 49.2% (2009)

520 people died from cancer in 2014.

GP Referral

2612 in 100,000 people were referred to hospital by their GP for cancer investigations (Two week wait) (2014/2015). This is similar to England average. 9.8% of these people were found to have cancer. This is higher than the England average.

Treatment

87.7% positive overall experience of care (2014) This is consistent with England average (89%)

99.5% of patients treated within 31 days (2015/2016) (Target 96%)

87.4% of patients start treatment within 62 days of referral (2015/2016) (Target 85%)

Overview of all cancers JSNA (page 12 of 13)
**Deaths**

- 284 in 100,000 died of cancer in 2014
  - England average is 281 per 100,000
- 491 people died from cancer in 2014.

**Diagnosis**

- 1116 people diagnosed (2014)
- 629 new cases per 100,000 people. England average is 608 per 100,000.

**Stage at Diagnosis**

- 50% of cancers are diagnosed early (Rolling 1 year average at Q1 2014)
- England average is 49%

**Emergency Presentation**

- 98 in 100,000 people received emergency diagnoses (2014/2015)
  - This is consistent with the England average (90 in 100,000)

**GP Referral**

- 2535 in 100,000 people were referred to hospital by their GP for cancer investigations (Two week wait) (2014/2015)
  - This is lower than England average
  - 10.4% of these people were found to have cancer
  - This is higher than the England average

**Treatment**

- 90.1% positive overall experience of care (2014)
  - This is consistent with England average (89%)
- 100% of patients treated within 31 days (2015/2016)
  - (Target 96%)
- 89.7% of patients start treatment within 62 days of referral (2015/2016) (Target 85%)

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**Overview of all cancers JSNA (page 13 of 13)**