Key messages

- Bowel cancer was responsible for around 1 in 8 cancers in Cheshire East in 2012-2014 and around 1 in 11 deaths. There were 889 cancers and 281 deaths.
- More than half of all bowel cancers are preventable through reducing red and processed meat consumption, maintaining a healthy weight and not smoking or consuming too much alcohol. Crewe Town and SMASH are particularly at risk though Cheshire East incidence rates are generally in keeping with England average.
- Mortality rates are lower than England average in Cheshire East and NHS Eastern Cheshire CCG. Deaths from bowel cancer have decreased by 25% since 2001-2003.
- However, 57% of diagnoses occur in men in Cheshire East; yet only 48% of deaths occur in men. Male death rates are significantly lower in NHS Eastern Cheshire CCG than in England but this is not the case for women. This difference requires further investigation.
- There is a need to improve early detection with 53% of bowel cancer diagnoses made at a late stage (which is associated with increasing mortality) in Cheshire East.
- Bowel cancer screening uptake in Cheshire East is 58.9% but is considerably lower in Crewe.
- Local lower gastrointestinal (GI; which includes the bowel) endoscopy rates exceed England average. This is particularly the case for sigmoidoscopy in NHS South Cheshire CCG, which could have implications for the ability to catch cancer at an early stage.
Diet plays a major role in bowel cancer risk. Evidence shows that people are at increased risk when they eat large amounts of red meat and processed meats, such as sausages, bacon, ham and salami. Eating dietary fibre is protective against bowel cancer.

- the bar charts show the proportion of the adult population in each area with some of the known risk factors.
- Crewe town and SMASH* have higher risks due to a poor diet and unhealthy weight.
- the northern parts of the borough generally have a better diet and more people with a healthy weight.
- alcohol consumption is highest in Macclesfield, Poynton area (including Bollington and Disley) and Crewe.

Data source: Modelled estimates 2006-2008 from Public Health England Local Health Website
* SMASH: Sandbach, Middlewich, Alsager, Scholar Green and Haslington
In England, 1-year survival (age-sex-standardised) for patients diagnosed with bowel cancer has steadily increased from 72.6% in 2000 to 80.4% in 2015. Among the 209 CCGs, the difference between the highest 1-year survival estimate in 2015 (85.3%) and the lowest (70.8%) was 14.5 percentage points.

Interpretation should focus on overall trends and the relative position of each CCG in the funnel plots throughout the years. In 2015, there were 19 CCGs across England that had a 1-year survival index significantly higher than the national average, whilst 21 CCGs had 1-year bowel cancer survival estimates significantly lower than the England average. In 2015, one year survival in NHS Eastern Cheshire CCG was 83.4%, which is significantly higher than the England average, and in NHS South Cheshire it was 79.1%, which is similar to the England average.
These charts show how bowel cancer is changing in Cheshire East compared with England. There has been a small decline in new cases in both men and women nationally, but within Cheshire East there has been a rise in female cancer rates in NHS South Cheshire CCG.

In the most recent period from 2012 to 2014, both CCG areas had higher rates of new bowel cancer cases than England though not significantly so.

The most striking feature of the mortality charts is the pronounced fall in death rates in NHS Eastern Cheshire CCG. Whilst male death rates are overall higher than female death rates, there is a difference between the two genders in terms of how local outcomes compare to England averages. Male death rates in Cheshire East are lower than England average. In contrast, death rates are similar to England average for females.

This could indicate that females in Cheshire East are not benefitting to the same extent from factors (e.g. earlier referral, treatments) that seem to be leading to improvements in outcomes amongst males although the reasons for the difference in pattern are ultimately unclear.

There was some variation in bowel cancer incidence rates between localities in Cheshire East in 2009-2014. Male bowel cancer rates were highest in Alderley Edge, Chelford, Handforth and Wilmslow and lower in SMASH.

For females, there was less variation in local bowel cancer incidence rates but rates were again highest in Alderley Edge, Chelford, Handforth and Wilmslow.
The eight areas have been ranked, with the higher bars indicating higher ranks (i.e. not numbers, percentages or rates).

The first bar represents the proportion of positive bowel screening tests, indicating a higher risk of bowel cancer.

The second bar represents GP referral rates for suspected bowel cancer.

The third bar represents the incidence of new cases of bowel cancer.

Although high rates of positive screening tests are seen in the central areas of the Borough, the highest rates of GP referral and new cancers are in the north of the Borough with lower positive screens. This could indicate that there is significant scope here to generate more diagnoses via the screening route. In SMASH and Macclesfield, a relatively low number of cancers are diagnosed overall but a high proportion of screens are positive.
Bowel cancer screening is offered to all men and women aged 60 - 74 in England. Every two years, they're sent a home test kit, which is used to collect a stool sample for a test called faecal occult blood test.

- There is a difference of nearly 10% uptake of screening between the lowest and the highest areas
- Crewe and Macclesfield have the lowest screening uptake, which influences overall CCG and Cheshire East uptake significantly.

Maximising bowel cancer screening uptake will help to save lives

Future developments:

- one-off test called bowel scope screening offered to men and women aged 55
- Introduction of faecal immunochemical testing (FIT) which will make screening easier and more reliable.

Source: Bowel Cancer screening uptake by GP practice 2014/15, PHE Fingertips
Bowel screening is offered every two years when people reach the age of 60. At this age a substantial proportion of people with learning disabilities are being supported by paid care staff in residential care or supported living settings. The bowel cancer screening service sends kits for individuals to produce specimens of their faeces for testing for blood. Whether people with learning disabilities manage to obtain and send back usable specimens may depend on whether a family carer or paid care staff are available to help.

For people aged 60-69, data collected by NHS Digital in 2015-16 showed that in England the overall coverage of bowel screening was 83.4%. Coverage was slightly lower in males than in females and in people aged 60-64. Coverage of bowel screening in NHS Eastern Cheshire CCG and NHS South Cheshire CCG was 78.3% and 61.5% respectively, and both of these figures are lower than England. Younger eligible people had slightly lower coverage rates than older people, but there was relatively little difference between males and females.

For people with a learning disability in England, the overall coverage was 75.1% with younger eligible people covered slightly less completely than older. People with learning disabilities in NHS Eastern Cheshire CCG had generally good screening coverage of 73.3%, although uptake was lower than found in 2014-15, but with higher rates in the 60-64 age group. Coverage in NHS South Cheshire CCG was 64.0%, higher than the previous year.
Early detection of bowel cancer

Ideally, cancers should be diagnosed as quickly and as efficiently as possible through the urgent referral (two week wait) pathway. Locally, less diagnoses are made through this pathway and more diagnoses are made as emergency in South Cheshire CCG area. Source: Public Health England. Health Matters.

As may be seen in the graph above, there are great opportunities in improving survival through potentially shifting diagnoses from stage 4 to even stage 3.

Late stage i.e. stage 3 or 4 diagnoses generally refer to more advanced cancers i.e. larger cancers that have spread into surrounding tissues and lymph nodes and may have spread further.

When those cancers for which staging data are unavailable (approximately 9%) are excluded, it can be seen that nearly 7 in 10 bowel cancers were diagnosed at a late stage in Cheshire East in 2013.

Considerably more cancers were diagnosed very late (at stage 4) in NHS South Cheshire CCG than in NHS Eastern Cheshire CCG. It is difficult to draw definitive conclusions (due to small numbers) but late stage diagnosis appeared to be a considerable issue in Crewe (69% were diagnosed late here) and other South Cheshire localities.

The most common route to diagnosis locally was through GP referral in 2013. 27% of cancers were diagnosed as an emergency in Cheshire East. Emergency presentations appear to be a greater issue in NHS South Cheshire CCG than in NHS Eastern Cheshire CCG. This is important since cancers diagnosed via the emergency route are associated with higher mortality and worse survival.

Emergency presentation is a particular risk in Crewe and Macclesfield where in 2013, 35% were of cancers were diagnosed as an emergency. Over 85s in Cheshire East were at particular risk of being diagnosed via this route.

Source: Cheshire East Public Health Intelligence Team based on information collected and quality assured by the PHE National Cancer Registration and Analysis Service. Access to data was facilitated by the PHE Office for Data Release.
There was some variation in bowel cancer mortality rates between localities in Cheshire East in 2009-2014. Male bowel cancer rates were highest in Alderley Edge, Chelford, Handforth and Wilmslow (in keeping with the higher male incidence here) and lower in Knutsford.

For females, bowel cancer mortality rates were highest in SMASH and lowest in Macclesfield, despite the highest incidence rates occurring in Alderley Edge, Chelford, Handforth and Wilmslow (see page 5).
In 2015/16, colonoscopy rates in both of our two local CCGs are much higher than England average (PHE Fingertips, 2017). In NHS Eastern Cheshire CCG, ten out of the twenty-two GP practices had rates that were significantly higher than England average. In NHS South Cheshire CCG, only two practices had rates that exceeded England average.

Rates for sigmoidscopy in all GP practices in NHS South Cheshire CCG were significantly higher than England average whereas most GP practices in NHS Eastern Cheshire have rates that are consistent with England average. It is possible that this could reflect a tendency to investigate lower GI problems via sigmoidscopy rather than colonoscopy in NHS South Cheshire CCG. This could in turn have implications for the ability to diagnose cancer and precancerous polyps and thus catch cancer at an early stage.

Reasons for the degree of variation in colonoscopy procedure rates and flexible sigmoidoscopy procedures include differences in local non-attendance rates for the procedure, the number of trained endoscopists (gastroenterologists, GI surgeons and nurse endoscopists) per head of local population and endoscopy sessions, the amount of complex therapeutic work undertaken and the number of procedures conducted in the independent sector. Possible reasons for unwarranted variation include differences in: access to endoscopy provision; use of barium enema to image the colon in people with suspected bowel cancer; availability of CT colonography and local protocols for its use; application of guidelines for referral; vetting of referrals for appropriateness; professional practice of GPs and hospital clinicians; local service configuration; volume of activity outsourced to an external provider; numbers of trainees at an NHS Trust and in a region in relation to the list capacity to accommodate training. Public Health England (2017) Atlas of Variation in Health and Healthcare. 2017 Diagnostics. Endoscopy.
RightCare

NHS Rightcare is a programme committed to improving people’s health and outcomes. It makes sure that the right person has the right care, in the right place, at the right time, making the best use of available resources. This is achieved through the use of intelligence and innovation to enable the implementation of sustainable change. The Rightcare programme provides CCGs with focus packs which identify areas that they should be focusing on to improve variation.

Cancer Focus Packs

Focus packs compare the performance of a CCG to the 10 most demographically similar CCGs with respect to cancer. This is used to identify realistic opportunities to improve health and healthcare for the population. According to the packs:

• For NHS Eastern Cheshire CCG, bowel cancer prevalence and detection at an early stage is higher than peer group. Emergency presentations, non-elective spend, premature mortality and one-year survival are consistent with peer group. Bowel cancer screening coverage uptake is slightly lower than peer group.

• For NHS South Cheshire CCG, bowel cancer prevalence, screening coverage and uptake, early stage diagnosis and one-year survival is significantly lower than peer group. Emergency presentations are significantly higher than peer group. Premature mortality and non-elective spend are consistent with peer group average.

Urgent cancer referrals

Urgent cancer referral rate (crude) in NHS Eastern Cheshire CCG in 2015/16 was 535 per 100,000 which was significantly higher than England average. In NHS South Cheshire CCG, this was 446 per 100,000 which was consistent with England average.
Opportunities for improvement/ future developments

• Initiatives to improve prevention of bowel cancer particularly through healthy diets (including reducing red and processed meat consumption and not drinking too much alcohol), maintaining a healthy weight and not smoking

• Earlier diagnosis and in particular shifting diagnoses from stage 4 to earlier in cancer development:
  - Raising awareness of early signs and symptoms of cancer. Visits of the Macmillan bus and Cancer Research UK roadshows are being held locally.
  - Improving bowel cancer screening uptake, particularly in Crewe and Macclesfield. Action on Cancer and Cancer Research UK are working to improve uptake. For example, working with the Fire service to provide leaflets about screening in fire safety checks and working with GP practices to write personalised letters to non-responders.
  - Supporting access to bowel screening uptake amongst older people with learning disabilities.
  - Increasing the number of diagnoses made through the urgent referral for suspected cancer (two week wait) pathway and reducing emergency presentations (particularly in Crewe and Macclesfield)
  - Ensuring that stage 4 diagnoses are made earlier (a particular issue in NHS South Cheshire CCG, especially in Crewe). A new timed pathway for bowel cancer is being implemented to enable a quicker diagnosis and cancer navigators are being introduced to support patients on the suspected bowel cancer pathway and enable them to move through the diagnostic pathway quicker
  - Reviewing access and activity in relation to bowel cancer diagnostics such as colonoscopy to ensure appropriateness

• Improving mortality, particularly amongst women, throughout Cheshire East.

Further information:

• Public Health England. NCRAS. CancerStats: [https://ncww.cancerstats.nhs.uk/](https://ncww.cancerstats.nhs.uk/)
• JSNA sections at [www.cheshireeast.gov.uk/jsna](http://www.cheshireeast.gov.uk/jsna) including:
  - Drugs and alcohol
  - Tobacco

Version control

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<td>Tracey Wright (Service Delivery Manager, CCGs)</td>
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