NHS Warrington Clinical Commissioning Group

WARRINGTON Health & Wellbeing Board

WARRINGTON Borough Council

Warrington

Joint Strategic Needs Assessment

Cancer

2019

Reader Information

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Circulated to	Warrington JSNA Steering Group
Version	1.1
Status	Final
Date of release	December 2019
Review date	December 2022
Description	This document aims to provide an overview of cancer epidemiology and service delivery across Warrington. As part of the Joint Strategic Needs Assessment (JSNA), it considers a wide range of factors that affect the health and wellbeing of the people of Warrington. The objective of the JSNA is to involve partner organisations such as the local authority, NHS, Police, Fire and Rescue and third sector organisations to provide a top level, holistic view of current and future need within the borough. The JSNA is used to agree key priorities to improve the health and wellbeing of our communities and reduce health inequalities.
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Contents

1. Executive Summary

Cancer is a leading cause of death nationally and locally, responsible for nearly three out of ten deaths in Warrington. This JSNA describes what we know about cancer in Warrington to determine areas of need and develop recommendations for future action and commissioning. It examines the local risk factors for developing cancer, cancer diagnosis, new cancer cases, treatment and deaths and describes the current services that are in place and service user's experiences.

Cancer Prevention: Nearly four out of ten cancers are potentially avoidable through changes in lifestyle behaviour and notably half of all cancer deaths in Warrington are from tumour types linked to smoking, obesity, poor diet and unsafe alcohol consumption. Higher levels of cancer risk factors in areas of socio-economic disadvantage highlight the need to target lifestyle behaviour change programmes and environmental modifications to these communities, in line with the principles of proportionate universalism, to address cancer inequalities across the borough.

Cancer Screening and Immunisation: Cancer screening programmes play an important role in finding cancer at an early or pre-cancerous stage and improving the chances of recovery. Whilst good progress has been made with local rates of participation in breast and bowel cancer screening, there is a particular need to focus on cervical cancer screening coverage, which has demonstrated a steady decline in rates over the last few years. There is also wide cross-borough variation in screening coverage rates for all three programmes, with lower levels of uptake in GP practices serving the most deprived communities.

The Human Papilloma Virus (HPV) vaccine offers protection from the most common HPV types that cause cervical, vulval, penile, head and neck cancers. It is currently given to girls in school year 8 (aged 12-13 years) and has been extended to year 8 boys in the 2019/20 school year. HPV vaccination coverage in Warrington has fluctuated over recent years and remains below the 90% national target. Effective awareness raising and minimisation of barriers to screening and immunisation are required to increase public awareness of the benefits of screening and vaccination and encourage participation, particularly in lower socioeconomic groups. The introduction of a new, bowel screening test (Faecal Immunochemical Test or FIT) in 2019/20, which only requires collection of one sample rather than three, will assist in achieving this.

Cancer Incidence and Prevalence: The incidence of cancer represents all new cases diagnosed each year, whilst cancer prevalence measures the proportion of the population diagnosed with cancer at any one time. Incidence of cancer is increasing in Warrington, with higher rates of new cancers in local men and in areas with greater deprivation. The four most common new cancer diagnoses in Warrington residents are breast, lung, prostate and colorectal cancers. Incidence of lung cancer is significantly greater in Warrington compared with England, and our local rate of new bowel cancers is also slightly higher than the national average. There is a need to reduce new cases of respiratory and gastrointestinal (GI) cancer through targeted primary prevention initiatives to lower rates of smoking, unsafe alcohol consumption, obesity and unhealthy diets and increase levels of physical activity in our local population.

Cancer prevalence is also rising year on year in Warrington, reflecting both increases in cancer incidence and survival, resulting from more effective treatments. This indicates an expanding need for survivorship programmes to help those living with cancer to live healthier lifestyles, self-manage and increase their quality of life.

Cancer Diagnosis: Warrington has higher levels of Two Week Wait (2WW) urgent referrals for suspected cancer than England but a lower conversion rate to cancer diagnoses. There is considerable variation in 2WW rates between Warrington GP Practices, linked to the older age of registered patients. 2WW referrals for suspected lung cancer remain significantly lower than breast and lower-GI cancers. Notably, a greater proportion of new lung and colorectal cancers are diagnosed following emergency presentation at hospital compared with breast and prostate cancers, and late stage diagnosis, when the cancer is more advanced and spread, is also higher for lung and bowel cancers. This indicates a key priority to increase public awareness of lung and colorectal cancer symptoms and the importance of early presentation to their GP to facilitate prompt referral for diagnosis.

The introduction of the new 28-Day Faster Diagnosis Standard for cancer, currently being piloted in Warrington, will help patients receive their result quicker and facilitate those with a cancer diagnosis to start their treatment sooner. It requires a review of current local diagnostic capacity and extended implementation of straight to test and timed diagnostic pathways for more cancer types, supported by the roll-out of Rapid Diagnostic and Assessment Centres across Cheshire and Merseyside.

Cancer Treatment: More Warrington cancer patients are treated within 62 days of their referral and 31 days from agreement to treat for radiotherapy and surgery than the average across England overall. However, patients require more information about relevant local clinical research trials to support informed participation as part of their treatment options.

Cancer Mortality and Survival: Cancer mortality in Warrington has declined over time, however the rate of reduction has been lower than for cardiovascular disease. Locally, men are more likely to die of cancer than women and mortality rates overall, and for those below 75 years, are significantly higher in the most deprived areas of Warrington. The greatest proportion of deaths are from respiratory and digestive cancers, which are largely preventable through lifestyle change.

Over recent years, the gap in breast cancer mortality between Warrington and England has narrowed, however local deaths from lung cancer remain significantly higher than experienced nationally. Experience with cardiovascular disease demonstrates that mortality can be reduced with targeted effort and there is an equal need to reduce deaths from cancer through primary prevention, as well as improving early detection, treatment and survival rates.

Advances in cancer treatment and the quality of cancer services has resulted in improved survival, with three-quarters of Warrington patients alive one-year following diagnosis. The increased numbers of people living with and beyond cancer are likely to have other health conditions and complex needs requiring on-going support through the Cancer Survivorship programme.

Over recent years the number of Warrington patients with terminal cancer receiving palliative care and dying in their usual place of residence has increased, with four out of ten deaths occurring in the home or nursing home. However, deaths in hospital still account for nearly half of all local deaths and options to extend the provision of community based end of life care should be explored to allow residents to die in a place of their choice.

Patient Participation: The national cancer patient survey 2017 has found a higher level of concern in Warrington patients with regard to the communication and explanation of diagnostic tests and cancer diagnosis than experienced in England overall. This demonstrates a need to engage local patients in the development of accessible information, tailored to their needs.

Recommendations

In Warrington, areas with greater deprivation experience higher levels of cancer risk factors, incidence and deaths and lower uptake of cancer screening programmes. These communities should be prioritised for primary prevention interventions and messaging to increase awareness of the signs and symptoms of cancer, the importance of early presentation and the benefits of screening participation. Cancer incidence and mortality rates are also greater in local men, highlighting the need to target gender-appropriate messages and initiatives to male-orientated settings, such as workplaces across the borough. Lifestyle behaviour change programmes need to be undertaken at both individual level, using awareness campaigns, training and services, and at population level through policy development, environmental adaptation and regulatory legislation to support healthy choices across the life-course.

- Prevention action should include:
  - Enhanced and appropriately targeted access to specialist stop smoking services.
  - Delivery of smoking cessation, support for those with low to moderate alcohol risk and provision of healthier food options by hospitals.
  - Creation of a completely smokefree environments in line with national targets. This will be supported by the additional NHS England smokefree funding allocation to Clinical Commissioning Groups (CCG's) from 2021/22.
  - Embedding systematic delivery of lifestyle advice and referral to support services for patients and their carers across the cancer pathway, supported by Making Every Contact Count (MECC) training for staff and volunteers.

- Maximising the health-promoting potential of the Warrington Local Plan and Transport Plan to create urban environments and infrastructure that are supportive of healthy lifestyle choices.

- Multi-organisational support for national legislation to restrict marketing of unhealthy food high in fat, sugar and salt to children and young people, introduce alcohol minimum unit pricing and strengthen the licensing of commercial sunbed businesses.

- Provision of accessible information to increase public awareness of the benefits of cancer screening programmes, including transgender, easy-read and translated resources, supported by verbal messages from health professionals and community volunteers.

- Development of a primary care cancer screening dashboard to update Warrington GP Practices on their coverage rates, supported by a practice screening toolkit and training.

- Completion of a local consultation and audit of cervical cancer screening to identify access issues and implementation of appropriate solutions.

- Further develop local pathways, systems and infrastructure to support the introduction of FIT, roll-out of sigmoidoscopy and the extension of HPV vaccination to year 8 boys in the 2019/20 school year.

- Continued promotion of the signs and symptoms of cancer, focusing on lung and colorectal cancers, to raise public awareness and encourage timely presentation to primary care.

- Undertake training with primary care practitioners to ensure understanding of cancer signs and symptoms and clinical pathways to facilitate prompt referral and better patient outcomes.

- Inclusion of early cancer diagnosis quality improvement key performance indicators in the future GP contract and screening coverage key performance indicators in the Primary Care Network contract from 2020/21, in addition to review of the Learning Event Analysis (LEA) for all cancer cases diagnosed through emergency routes.

- Support the introduction of the 28-Day Faster Diagnosis Standard in 2020 through a review of local diagnostic capacity, extension of timed and straight to test diagnostic pathways for more cancer types, and roll-out of Rapid Diagnostic and Assessment Centres in partnership with the Cheshire and Merseyside Cancer Alliance.

- Undertake insight work with Warrington patients diagnosed with cancer to develop accessible information on diagnostic tests, cancer diagnosis and treatment options to increase levels of understanding and informed choice.

- Increased promotion of opportunities for Warrington patients to participate in relevant clinical research trials as part of their treatment options through consultation discussions, online and printed resources.

- Review options for the future delivery of the Cancer Survivorship programme to meet the increasing need of local people living with and beyond cancer.

- Undertake further analysis of palliative and end of life care through the development of a JSNA chapter for Warrington.

- Explore local options to extend the provision of community based palliative care to enable more Warrington patients to die in a place of their choice.

2. Context

2.1 Aim

Cancer is the leading cause of early death in England, exceeding deaths from heart disease and stroke, respiratory conditions, dementia and self-harm[1]. Locally, cancer is now a major killer in Warrington, accounting for nearly three out of every ten deaths (27%) across the borough. This report aims to assess cancer epidemiology and service delivery across Warrington to evaluate need, review provisions and set priorities in line with the NHS Long Term Plan[2]. It examines who are most at risk of developing cancer, cancer incidence and mortality trends, current services locally available to those living with and beyond cancer and service user's experiences.

2.2 Understanding Cancer

Cells are the basic building blocks that make up the organs and tissues of the human body. Each cell contains the genetic material required to grow and maintain its normal function. In a healthy immune system, the body has several protective mechanisms in place to prevent production of cancerous cells.

However, this process can be hindered, leading to the cells in a particular part of the body growing and multiplying uncontrollably, forming a lump, known as a tumour. Tumours can either be 'benign' containing non-cancerous cells or 'malignant' where the cells are cancerous. Without treatment, malignant tumours continue to spread, attacking and destroying surrounding healthy tissue and organs[3]. The body is made up of different cell types which can give rise to a range of over 200 cancer types[3].

Whilst it is not known what exactly causes the uncontrollable cell growth, there are a number of potential triggers that can set it off and increase the likelihood of cancer including; toxic chemicals such as tobacco smoke, genetics, hormones, viruses and radiation[4].

Treatment is not always successful and is dependent on the type and aggressiveness of the tumour. Better treatment outcomes are also achieved with earlier diagnosis, illustrating the importance of cancer screening programmes in identifying pre-cancerous or early cancerous changes before they have fully established.

In the UK, one in two people will develop cancer in their lifetime and it is responsible for over a quarter of all deaths[5]. Rates of new cases have steadily risen over the last two decades whilst mortality rates have fallen, suggesting overall progress in treatment outcomes for cancer.

However, rising incidence rates indicate a need for stronger prevention efforts to stop cancer before it happens and positively impact on population health and wellbeing, the economy, productivity and healthcare services. Reducing rates of cancer incidence and deaths is therefore a key priority for Warrington's population.

2.3 National Context

In view of the complex and diverse nature of cancer, an effective population-wide strategy should be multi-faceted, encompassing; epidemiological surveillance, healthy lifestyle environments and promotion, cancer screening and immunisation programmes, early diagnosis and treatment pathways, life-enhancing survivorship programmes and appropriate end of life care.

2.3.1 Improving Outcomes: A Strategy for Cancer

In January 2011, the Department of Health published a national strategy '*Improving Outcomes: A Strategy for Cancer*', which set out an ambition to save an additional 5,000 lives from cancer each year by 2015 and attain outcomes achieved by European counterparts[6]. It aimed to facilitate greater public access to information and choice, increase earlier diagnosis and treatment, improve patient experience and quality of life and reduce inequalities. The strategy outlines four overriding strategic goals to address the burden of cancer:

1. Reduce the incidence of cancers which are preventable through lifestyle changes.
2. Improve access to cancer screening for all population groups and introduce new screening programmes where there is evidence they will save lives and are recommended by the UK National Screening Committee.
3. Achieve earlier diagnosis of cancer to increase the effectiveness of treatment and improve survival rates.
4. Ensure that all patients have access to the best possible treatment.

2.3.2 Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020

NHS England set up a national Independent Cancer Task Force, comprising experts across the cancer community, to formulate a strategy to achieve these goals. The five-year NHS cancer strategy, '*Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020*' was published in July 2015, with the aim of saving 30,000 lives by 2020[7]. This identified the following recommendations across the cancer patient pathway:

- Reduce the growth in the number of cancer cases primarily through addressing lifestyle behaviours.
- Improve survival by increasing uptake of screening, early diagnosis and better treatment in addition to extending research and innovation.
- Improve patient experience through empowerment to undertake decisions regarding their treatment and care, personal access to online results and records and two-way communication with healthcare professionals.
- Enhance patient quality of life after treatment and at end of life.

The NHS has committed to delivering the Taskforce's strategy and has placed cancer at the centre of the NHS Long Term Plan[2] with commitments to:

- Enhance upstream prevention of risk factors such as smoking, poor diet, obesity, alcohol and drug use.

- Increase the proportion of cancers diagnosed at stage 1 and 2 to 75% of cancer patients by 2028 via cancer symptom awareness-raising and lower referral thresholds.
- Increase bowel and cervical cancer screening uptake and efficacy via introduction of the one-sample Faecal Immunochemical Test and Human Papilloma Virus (HPV) primary screening by 2020 and expansion of diagnostic capacity.
- Extend lung health checks using mobile CT scanners in community settings by 2022.
- Accelerate access to diagnosis through introduction of a new 28-day diagnosis standard in April 2020, supported by pathway formation, roll-out of Rapid Diagnostic Centres (RDCs) and financial investment in new CT and MRI scanners.
- Increase provision of new, safer and precise treatments including advanced radiotherapy techniques and immunotherapies to improve survival rates and reduce variation and inequalities in treatment.
- Expand participation in genomic testing and research for patients newly diagnosed with cancer from 2020.
- Ensure universal access to personalised care, including holistic needs assessment, a care plan, health and wellbeing information and support via a Clinical Nurse Specialist or support worker for every person diagnosed with cancer by 2021.
- Implement stratified follow-up pathways for people concerned their cancer may have recurred for all clinically appropriate cancers by 2023.
- Introduce a quality of life metric to measure the long-term impact of cancer and inform service delivery.

2.3.3 Outcome Frameworks

Improved outcomes for the population are monitored through three national frameworks:

1. NHS Outcomes Framework (NHSOF)[8]
2. Public Health Outcomes Framework (PHOF)[9]
3. Adult Social Care Outcomes Framework (ASCOF)[10]

The frameworks include a series of indicators that focus on cancer prevention, treatment and care that can be used to measure progress against the national strategy and local plans. The PHOF includes a set of indicators in domains 2 and 4, which focus on: supporting people to live healthier lifestyles that reduce the risk of developing cancer; participation in cancer screening and immunisation programmes; and reductions in the number of people living with preventable ill health.

The emphasis of the NHSOF is to assess that patients receive timely and appropriate cancer treatment, whilst the ASCOF measures those that need care and support are receiving appropriate services. Several indicators are included in more than one outcome framework. For example, reducing under 75 mortality from cancer is shared across the NHSOF (indicator 1.4)[8] and PHOF (indicator 4.5)[9].

2.3.4 National Cancer Guidance and Programmes

A range of nationwide cancer guidance and programmes have been implemented to support the national cancer strategies, including:

- The National Institute for Health and Care Excellence (NICE) has published a number of clinical and operational evidence-based guidelines relevant for cancer healthcare delivery for primary and secondary care structures. NICE guideline ng12 *'Suspected Cancer: Recognition and Referral'* sets out recommendations for timely identification and patient-centred management of cancer by clinicians[11]. It also enables the general population to understand what to expect from the healthcare system should they have symptoms suggestive of cancer.

- 'Be Clear on Cancer Campaigns', led by Public Health England, started in 2010 to increase public awareness of cancer signs and symptoms and encourage those with symptoms to visit their doctor early[12]. Campaigns have focussed on several different types of cancer symptoms for breast, bowel, lung, ovarian, bladder, kidney, skin and stomach cancers.

- The National Cancer Drugs Fund[13] was established by the government in 2016 to facilitate earlier access to promising new cancer drugs.

- The National Cancer Vanguard[14] provides national funding for bids for local cancer services which fulfil any of the following organisational frameworks: Multi-Speciality Community Provider (MCP), Integrated Primary and Acute Care Systems (PACS), Enhances Health in Care Homes (EHCH), Acute Care Collaborations (ACC), Urgent and Emergency Care (UEC).

- Regional Cancer Alliances were formed in 2016 to bring together networks of clinical and managerial leaders across health and social care organisations to transform and drive coordination and improvement of cancer care delivery within their local area[15]. NHS England committed £200 million in transformation funding in 2017-2019 to support Cancer Alliances to implement innovative ways of diagnosing cancer earlier and to improve the care of those living with cancer, with emphasis on personalised care. There are 19 Cancer Alliances across England and each has an action plan and funding agreement in place with NHS England, which sets out specific goals for the local delivery of the recommendations of the Independent Cancer Taskforce[7]. Warrington falls within the geographical footprint of the Cheshire and Merseyside Cancer Alliance[16].

- Following recommendations of the Next Steps on the NHS Five Year Forward View report[17], ten Rapid Diagnostic and Assessment Centres (RDCs) were piloted in different parts of the country, with the aim of accelerating cancer diagnosis[18]. These centres predominantly review patients with non-specific symptoms for cancers such as blood and stomach cancers, who may have accessed healthcare services many times before being referred for tests. The goal is to achieve rapid turnaround in diagnosis before proceeding to appropriate treatment. From 2019, the NHS will start the roll-out of new RDCs across the country[2].

- The Cancer Workforce Plan, led by Health Education England, outlines strategies to recruit, train and retain the necessary workforce to meet objectives in cancer care

improvement[19]. This includes three-year targets to secure an additional 200 clinical endoscopists and 300 reporting radiographers nationally.

2.4 Local Context

There is strong commitment amongst local partners to address cancer in the borough. Warrington is a partner within the Cheshire and Merseyside Cancer Alliance[16], which aims to drive improvements in cancer care across the region. The Alliance adopts a multi-faceted approach to preventing cancer to ensure outstanding cancer care provision across Cheshire and Merseyside, with a focus on quality, patient experience and sustainability. It is striving to become the most ambitious and effective cancer alliance in England and has published its '*Cancer Alliance Development Programme and 2019/20 Planning*' strategy[20] that details specific actions for the region to achieve by 2020 across four priority areas:

1. **Development of Effective and Efficient Services, Delivering Sustainable Operational Performance.**
    a. Comprehensive review of urology services.
    b. Implementation of Faecal Immunochemical Test pathway for symptomatic patients.
    c. Support a networked approach to pathology and radiology, improve access to endoscopy and optimisation of Multi-Disciplinary Team cancer services.
    d. Alignment of colorectal and prostate pathways.
    e. Implementation of oesophago-gastric timed pathway.

2. **Cancer Screening and Early Diagnosis**
    a. Implement a non-responder engagement programme for bowel, breast and cervical screening utilising a community mobilisation approach and text message alert system for cervical screening.
    b. Develop vague symptoms model and deliver sustained service aligned to the Rapid Diagnostic Centre principles.
    c. Pilot and roll-out the Rapid Diagnostic Centre model.
    d. Implementation of targeted lung health checks utilising mobile CT scans in community settings in Halton and Knowsley.

3. **Provision of Personalised Care**
    a. All patients to have access to personalised support from diagnosis, including those with secondary cancer.
    b. Increase the number of breast cancer patients on a remote surveillance pathway to two-thirds.
    c. Full implementation of personalised follow-up and self-management for a minimum of 50% of colorectal and prostate cancer patients; ensuring all Trusts have protocols and systems to support remote surveillance.

4. **Pathways, Genetic Testing and Smoking Cessation**
    a. Development and implementation of optimal gynaecological and head and neck cancer pathways.

b. Design and implementation of an approach to improve universal access to psychological care, pre- and rehabilitation for all people affected by cancer.
c. Ensure access to genetic testing, starting with lynch and rare cancers.
d. Deliver stratified follow-up protocols and remote monitoring in gynaecology, haemato-oncology, advanced colorectal and lung cancer.
e. Extend the CURE project to an additional hospital trust to reduce smoking prevalence to below 13%.

In addition to national performance standards, these regional objectives provide a framework for the transformation of cancer outcomes in Warrington over the next couple of years via the Warrington CCG's draft '*Cancer Strategy for Warrington*'[21].

Other local strategies and plans have been produced to prevent cancer and improve treatment and care outcomes. This includes Warrington Health and Wellbeing Board's '*Well Warrington, Health and Wellbeing Strategy for Warrington 2019-2023*'[22], which sets out the commitment to increase healthy life expectancy and reduce inequalities in the borough, with specific priorities for Warrington to be a place where:

- There is a strong, system-wide focus on promoting wellbeing, preventing ill-health and addressing inequalities (priority 7).
- There is a sustained focus on addressing lifestyle risk factors and protecting health (priority 8).
- Self-care is supported, with more people managing their own conditions (priority 10).
- People age well and live healthy fulfilling lives into old age (priority 12).

These will be delivered through a number of local public health programmes striving to reduce lifestyle risk factors and prevent cancer, which are outlined in section 3. The Cheshire and Merseyside Screening and Immunisation Team at NHS England has also developed the '*Cheshire and Merseyside Cancer Screening Awareness Events Calendar 2019/20*'[23] to improve screening uptake rates and reduce unwarranted variation in regional coverage. This is supported locally by the historical appointment of a dedicated cancer screening post, funded by Warrington CCG, and the *'Warrington Screening and Immunisation Plan 2019/20'*[24], which has specific cancer screening actions to reduce inequalities in uptake via:

- Completion of a local consultation and audit of cervical screening to identify and address issues regarding patient access e.g. evening clinics, workforce capacity and training across GP Practices.
- Reviewing and updating the bowel screening promotional materials and promotional activity to support the roll-out of the new Faecal Immunochemical Test (FIT) in 2019/20.

Locally, these plans are delivered through partnerships between Warrington Borough Council (WBC), Warrington CCG, NHS Trusts, NHS England (NHSE), Public Health England

(PHE) and the Third Sector, with coordination and governance by the following local and regional groups:

- Warrington Cancer Action Team, chaired by Warrington CCG with core members from WBC Public Health, Warrington and Halton Hospitals NHS Foundation Trust, Bridgewater Community Healthcare NHS Foundation Trust, Livewire, Cancer Research UK and Macmillan Cancer Support.

- Warrington End of Life Steering Group, chaired by Warrington CCG with core members from WBC, Warrington and Halton Hospitals NHS Foundation Trust, Bridgewater Community Healthcare NHS Foundation Trust, St Rocco's Hospice and Macmillan Cancer Support.

- Warrington Health Protection Forum, chaired by WBC with core members from Warrington CCG, St Helens CCG, Warrington and Halton Hospitals NHS Foundation Trust, Bridgewater Community Healthcare NHS Foundation Trust, North West Boroughs Healthcare NHS Foundation Trust, NHSE and PHE.

- Cheshire and Merseyside Bowel Cancer Screening Board, chaired by the Cheshire and Merseyside screening and immunisation team at NHS England.

- Cheshire and Merseyside Breast Cancer Screening Board, chaired by the Cheshire and Merseyside screening and immunisation team at NHS England.

- Cheshire and Merseyside Cervical Cancer Screening Board, chaired by the Cheshire and Merseyside screening and immunisation team at NHS England.

- Cheshire and Merseyside Screening and Immunisation Oversight Group (SIOG)

- Cheshire and Merseyside Cancer Prevention Steering Group

- Cheshire and Merseyside Cancer Alliance Oversight Group.

3. Risk Factors

Whilst the aetiology of cancer is multi-factorial and complex, there are a number of factors that can increase the risk of developing the disease[1]. A risk factor can be broadly categorised as either 'modifiable' where the factor is avoidable or 'non-modifiable' where the factor is inevitable. Where a risk factor is non-modifiable, little can be done to circumvent its effects. Regarding cancer, this includes risk factors such as age, sex and genetic make-up.

Therefore, it is the modifiable risk factors which are central to cancer prevention strategies. This includes lifestyle factors such as smoking, poor diet, physical inactivity, obesity and high alcohol consumption or exposure to carcinogenic chemicals, radiation and infections. Whilst deprivation may be modified as a risk factor, this is dependent on population-level, social, economic and political policies and interventions that influence the wider determinants of health such as education and employment and welfare benefits rather than actions of individuals.

3.1 Non-modifiable Risk Factors

Common non-modifiable risk factors for cancer are:

3.1.1 Age

Whilst, people of any age can experience cancer, the likelihood of developing the disease increases with age. As the body ages, its natural protective mechanisms against cancer gradually work less effectively thus increasing the risk of cancerous cells developing. Nearly two-thirds (63%) of people who develop cancer are aged over 65 years and more than a third (36%) are over 75 years[25].

Warrington has an estimated average age of 40.4 years, which is slightly above the national estimated average of 40 years[26]. As table 1 highlights, in 2017, 18.3% of the Warrington population were aged over 65 years, equating to 38,303 residents. However, the proportion of older people varies by ward, ranging from 10.2% in Chapelford and Old Hall to 28.6% in Penketh and Cuerdley. In particular, Appleton, Culcheth, Glazebury and Croft, Lymm North and Thelwall, Penketh and Cuerdley, Rixton and Woolston wards have an older population at higher risk of cancer, which will influence incidence, prevalence and mortality rates.

Table 1: 2017 Warrington Population Aged 65+ years by Ward

New Ward	Total population*	Number Aged 65 and over	Percentage aged 65 and over
Westbrook	6,293	945	15.0%
Latchford East	8,725	1,044	12.0%
Chapelford & Old Hall	11,857	1,214	10.2%
Bewsey & Whitecross	11,798	1,219	10.3%
Poulton South	6,104	1,328	21.8%
Stockton Heath	6,981	1,402	20.1%
Lymm South	6,500	1,436	22.1%
Poplars & Hulme	12,561	1,455	11.6%
Grappenhall	7,225	1,534	21.2%
Fairfield & Howley	11,967	1,547	12.9%
Burtonwood & Winwick	6,427	1,578	24.6%
Latchford West	7,712	1,594	20.7%
Great Sankey North & Whittle Hall	8,677	1,647	19.0%
Great Sankey South	11,605	1,762	15.2%
Birchwood	10,436	1,862	17.8%
Orford	11,890	1,867	15.7%
Poulton North	10,059	2,172	21.6%
Rixton & Woolston	9,291	2,244	24.2%
Appleton	10,128	2,395	23.6%
Lymm North & Thelwall	11,507	2,484	21.6%
Culcheth, Glazebury & Croft	11,790	2,668	22.6%
Penketh & Cuerdley	10,170	2,907	28.6%
Total Warrington	**209,704**	**38,303**	**18.3%**

*Office of National Statistics 2017 mid-year population

3.1.2 Sex

Males and females are at risk of different types of cancers according to their reproductive organs. For example, females are at risk of cervical and ovarian cancer and are much more likely to develop breast cancer, whereas males have a risk of prostate and testicular cancer.

3.1.3 Genetics

An individual's genetic makeup can predispose them to certain cancers or affect the body's protective mechanisms against cancer. Between 5 and 10% of cancer cases are associated with a family history of cancer[25]. Patients diagnosed with cancer are offered genetic testing to facilitate subsequent genetic screening and identification of other family members at increased risk of cancer and also to inform decisions regarding preventive interventions or treatment[2]. For example, women receiving an ovarian cancer diagnosis and those diagnosed with breast cancer under the age of 50 years, are offered testing for the BRCA1 and BRCA2 genes[21]. Similarly, patients younger than 50 years that receive a colorectal cancer diagnosis are offered a genetic test for Lynch Syndrome[21]. Whilst genetic makeup is still largely considered to be a non-modifiable factor, advances in gene technology could alter this in the future.

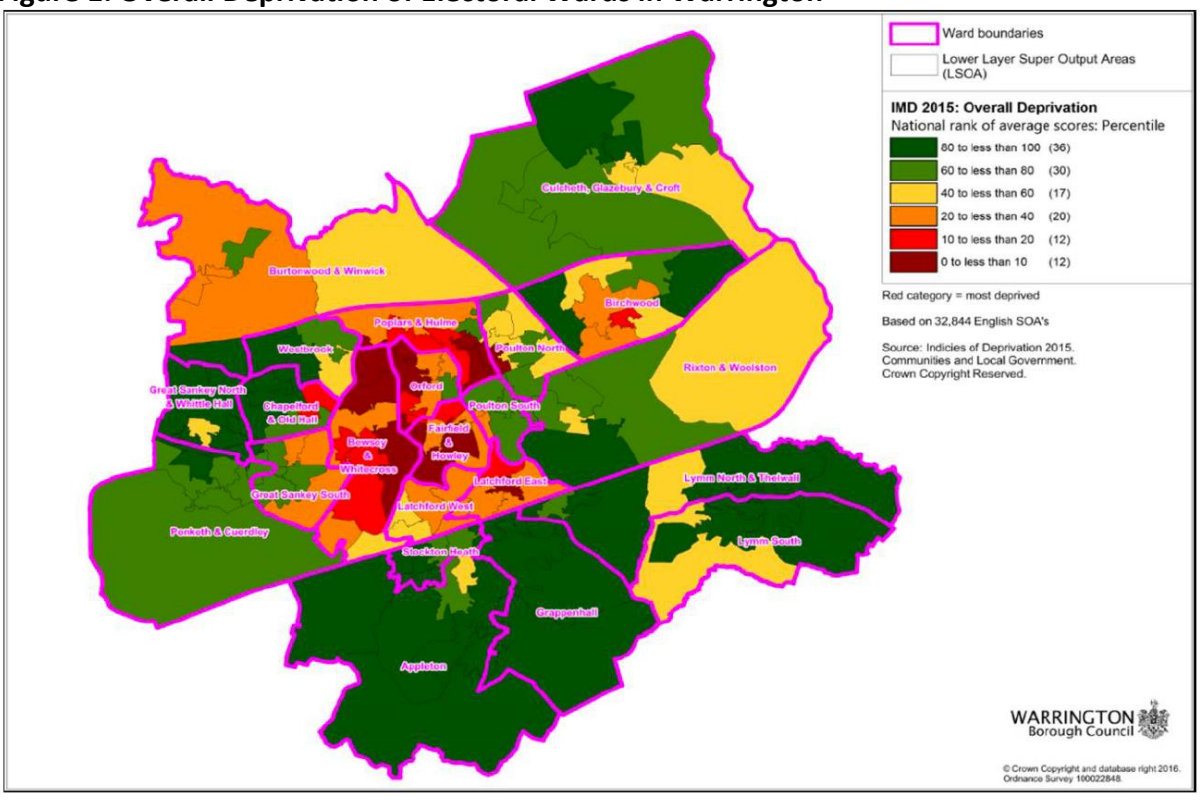
3.1.4 Deprivation

People living in deprived communities are more likely to have unhealthy lifestyles with higher rates of smoking, poor diet and obesity and are at higher risk of developing and dying from many cancers. Nationally, cancer incidence rates are higher for the most deprived areas of England compared with the least deprived for oesophageal, stomach, pancreas, colorectal, cervical, penile, kidney, bladder cancers, leukaemia and lymphoma[27]. Furthermore, age standardised cancer mortality is 50% higher in the most deprived populations than in the least deprived[27]. Consequently, healthy lifestyle programmes should be delivered on a proportional universalism basis, targeting services to those in greatest need in order to address health inequalities.

For other cancers such as breast, prostate, testis and malignant melanoma, the converse is true, with higher incidence rates demonstrated in the most affluent groups compared with the most deprived[27]. This perhaps in part reflects the higher life-expectancy and greater participation in breast screening and Prostate Specific Antigen (PSA) testing in least deprived population groups.

Area deprivation is measured using the English Index of Multiple Deprivation (IMD), which aggregates data relating to seven economic, social, health and housing indicators into a total deprivation score[28] and ranks the position of areas against each other. Warrington ranks as the 147th most deprived out of 326 local authorities in the country[29]. This places Warrington within the 45th centile, meaning that 55% of local authorities are less deprived than Warrington.

Figure 1: Overall Deprivation of Electoral Wards in Warrington



There are 22 electoral wards in Warrington[30], with significant variation in deprivation scores. Figure 1 demonstrates that higher levels of deprivation are concentrated within the central wards of Warrington; Bewsey and Whitecross, Poplars and Hulme, Fairfield and Howley, Latchford East and Orford, with the least deprived wards; Appleton, Grappenhall, Lymm North and Thelwall, Lymm South and Stockton Heath located in the South of the Borough.

3.1.5 Low Immunity

Low immunity can result from; an organ transplant and medication to prevent organ rejection by the body, infection with Human Immunodeficiency Virus (HIV) or medical syndromes such as common variable immunodeficiency (CVID)[31]. People with poor immunity are more likely to develop lymphomas and certain types of skin cancer, particularly non-melanomas[31]. They are also at greater risk of cancers with a viral or bacterial origin, including cervical, stomach and liver cancers.

3.2 *Modifiable Risk Factors:*

As table 2 highlights, nearly four out of 10 cancers (37.7%) are readily preventable, through healthy lifestyle changes, immunisation and screening[32]. Therefore, creating supportive environments to assist Warrington residents to live healthier lives[6] and participate in vaccination and screening programmes is essential to reduce their risk of developing cancer.

Table 2: Number and Percentage of Preventable Cancers by Risk Factor in the UK, 2015

Risk Factor	Number of Preventable Cancer Cases*	Percentage of All New Cancer Cases^	Cancer Types
Smoking	54,271	15.1%	Bladder, bowel, kidney, lung, laryngeal, oral cavity and pharynx, oesophageal, pancreatic, stomach
Overweight/ Obesity	22,761	6.3%	Bowel, breast, kidney, liver oesophageal, pancreatic, uterine
Poor Diet+	17,045	4.7%	Bowel, larynx, oral cavity and pharynx, oesophageal, pancreatic, stomach
UV Radiation	13,604	3.8%	Skin including malignant melanoma
Occupation e.g. asbestos	13,558	3.8%	Bladder, leukaemia, kidney, mesothelioma
Infections	13,086	3.6%	Anal, cervical, liver, hodgkins lymphoma, oral cavity, stomach, non-hodgkins lymphoma, vaginal, vulval
Alcohol	11,894	3.3%	Bowel, larynx, oral cavity and pharynx, oesophageal, liver
Ionising Radiation	6,954	1.9%	Lung, leukaemia
Air Pollution	3,591	1.0%	Lung
Not Breastfeeding	2,582	0.7%	Breast
Physical Inactivity	1,917	0.5%	Bowel, breast, uterine
Hormone Treatmentα	2,178	0.6%	Breast, ovarian, uterine

*Source: Cancer Research UK, 2015[32] ^Total 359,960 new cancer cases in UK in 2015[33] +Defined as eating processed meat and too little fibre α Post-menopausal hormone replacement therapy and oral contraceptives

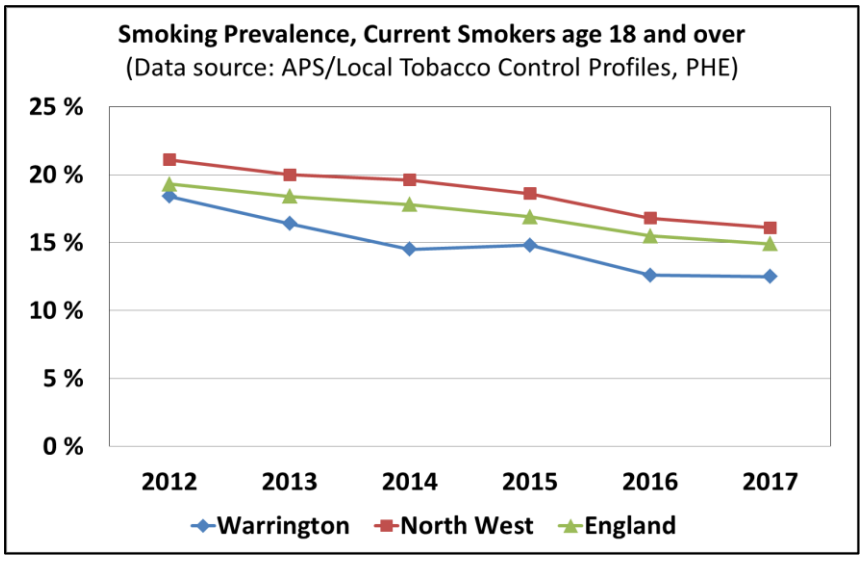
3.2.1 Smoking

Smoking tobacco is the single largest preventable cause of cancer in the UK, responsible for 15% of cancer cases and over a quarter of all cancer deaths[4]. Lung cancer is the most common cancer associated with smoking; around 9 out of 10 people who develop lung cancer are smokers. Smoking also increases the risk of developing cancers of the oral cavity and pharynx, oesophagus, bladder, cervix, kidney, pancreas, bowel and stomach[25,32].

Smoking negatively impacts on the whole economy in Warrington, with an estimated cost of £44.7 million each year[34]. This includes £9.5 million in NHS costs to treat smoking-related illnesses; £4.7 million in social care costs due to smoking-related diseases (£2.6 million to WBC and £2.1 million to self-funders); £29.4 million in lost productivity; and £1.1 million in house fires. Additionally, local smokers collectively spend £43.1 million on tobacco products each year, representing an average annual expenditure of £2,050 per smoker, which could otherwise be spent on other goods such as food from the local economy[35].

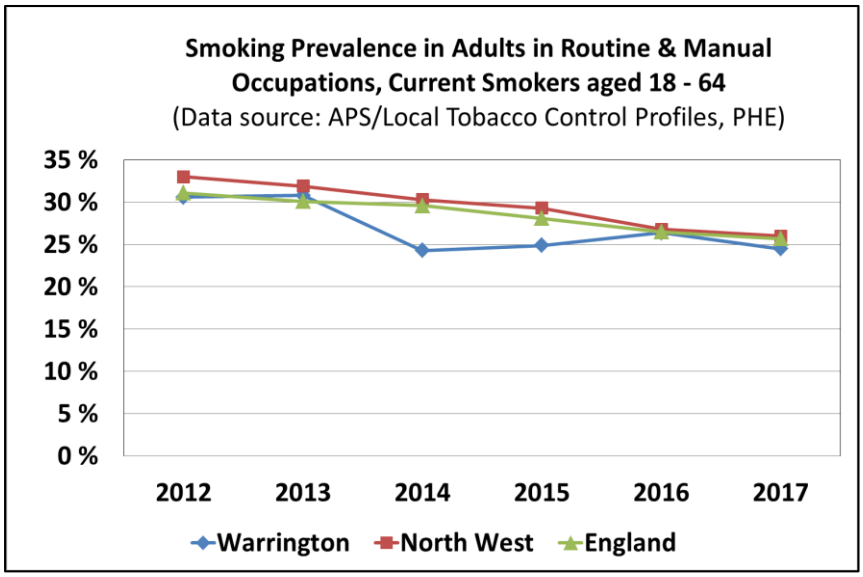
Overall smoking prevalence has significantly reduced over recent years, with 12.5% of adults in Warrington regularly smoking tobacco in 2017[36], achieving the national target to reduce adult smoking prevalence to below 13% by 2020[7] (figure 2). This is the lowest level reported for the borough and is considerably lower than comparative levels in the North West (16.1%) and in England (14.9%)[36].

Figure 2: Smoking Prevalence in Adults, 2012-2017



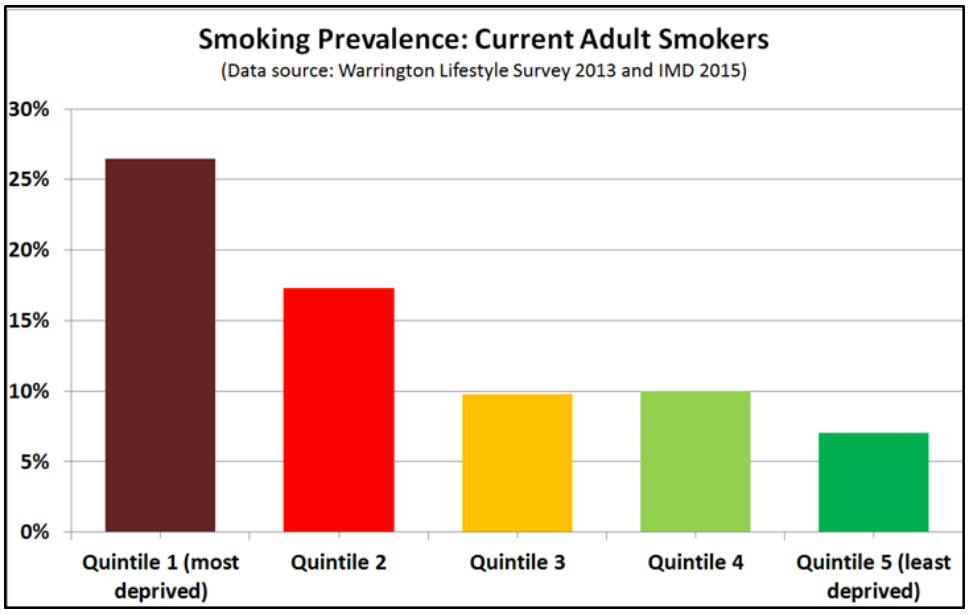
However, smoking rates remain twice as high in adults employed in routine and manual occupations in Warrington (24.5%), the North West (26.0%) and in England (25.7%; Figure 3) and exceed the 21% prevalence target for this group[7]. Locally, smoking prevalence in this group reduced in 2017, following two years of increases, which in part can be attributed to the efforts of the Smokefree Warrington team.

Figure 3: Smoking Prevalence in Adults in Routine and Manual Occupations, 2012-2017



Furthermore, there is a strong correlation between smoking and deprivation across the borough (figure 4), compounding the relationship between deprivation and poor health. People living in the most deprived areas of Warrington are nearly four times as likely to be smokers than those living in the least deprived (26% vs 7%)[28,37].

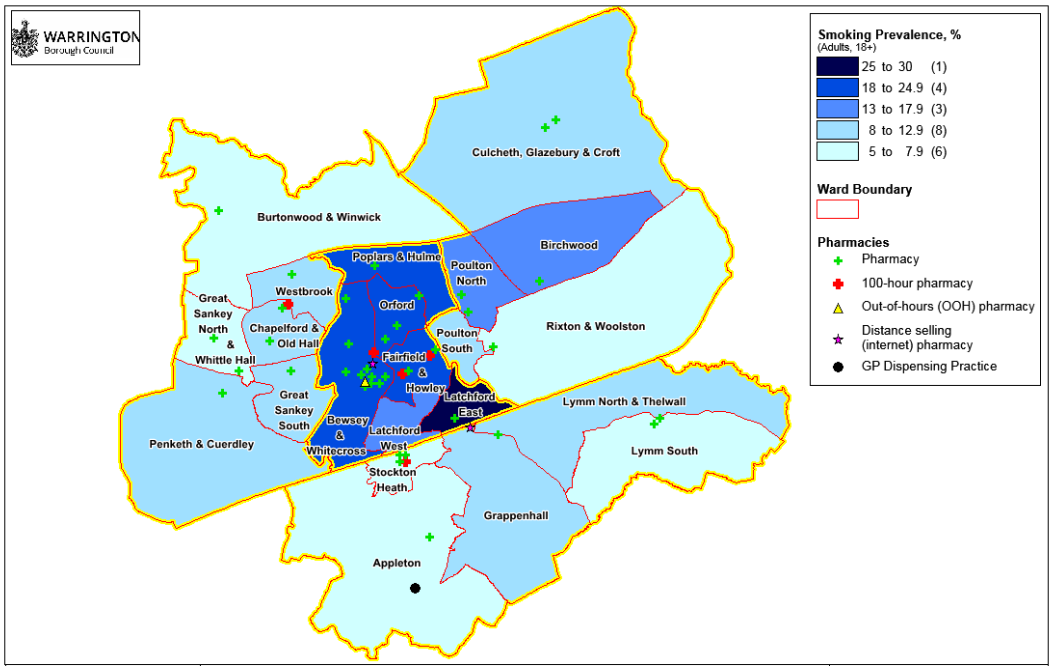
Figure 4: Smoking Prevalence by Socio-economic Deprivation



As figure 5 shows, geographically higher levels of smoking are concentrated in more deprived communities living in the inner wards of Warrington, with prevalence over four times higher in Latchford East than in least deprived Appleton (28.1% compared with 5.7%)[37]. Smoking is also twice as common among people living with a mental health condition and even higher in those with severe mental illnesses[38]. Analysis based on 2014/15 GP Practice registration data, estimated that 43.8% of adults with a severe mental illness in Warrington were a current smoker, compared with 45.0% in the North West and 40.5% in England[37]. Lesbian, gay and

bisexual communities and those from a mixed multiple ethnic background are also more likely to smoke[39]. Helping disadvantaged smokers quit is the best way to reduce health and social inequalities[38].

Figure 5: Smoking Prevalence by Ward in Warrington, 2013



Smoking Prevention

Dissuading people from starting to smoke and helping current smokers to quit is critical in reducing the incidence of cancer[6]. The vast majority of smokers start their habit as teenagers[40]. In response, Warrington operates the Smokefree Schools Award programme, which requires all schools to have a comprehensive smokefree policy, supported by young people's cessation services, classroom sessions and delivery of national smokefree campaigns.

Stop smoking services (SSS) offering nicotine replacement therapy and behavioural support have been proven to be the most effective way to help smokers quit, with smokers four times more likely to succeed using these services than going alone[40]. The Smokefree Warrington Team delivers targeted stop smoking support to groups most likely to smoke. This includes specialist provision for young people, pregnant women, workplace employees and inpatients of Warrington Hospital. Brief intervention and smoking cessation training are also provided across a wide range of organisations, including the hospital, mental health settings, workplaces, high schools, pharmacies, prisons and GP Practices to assist people in their care to quit smoking.

During 2017/18, 1,567 Warrington smokers set a quit date with the SSS[41], which was the highest recorded over the previous five years[37] (figure 6). Nearly three-quarters (73.3%; n=1,148) of the 1,567 smokers who set a quit date, successfully quit at four weeks[41], which is greater than the previous four years (871, 855, 852 and 870 quits respectively)[37]. Furthermore, as figure 7 illustrates, the rate of Warrington smokers setting a quit date (7,363

per 100,000 population) and successfully quitting (5,394 per 100,000 population) was twice as high in 2017/18 as the North West and England, which have experienced a decline in rates of quitting attempts and successes over recent years.

Figure 6: Number of Warrington Smokers Setting a Quit Date and Quitting

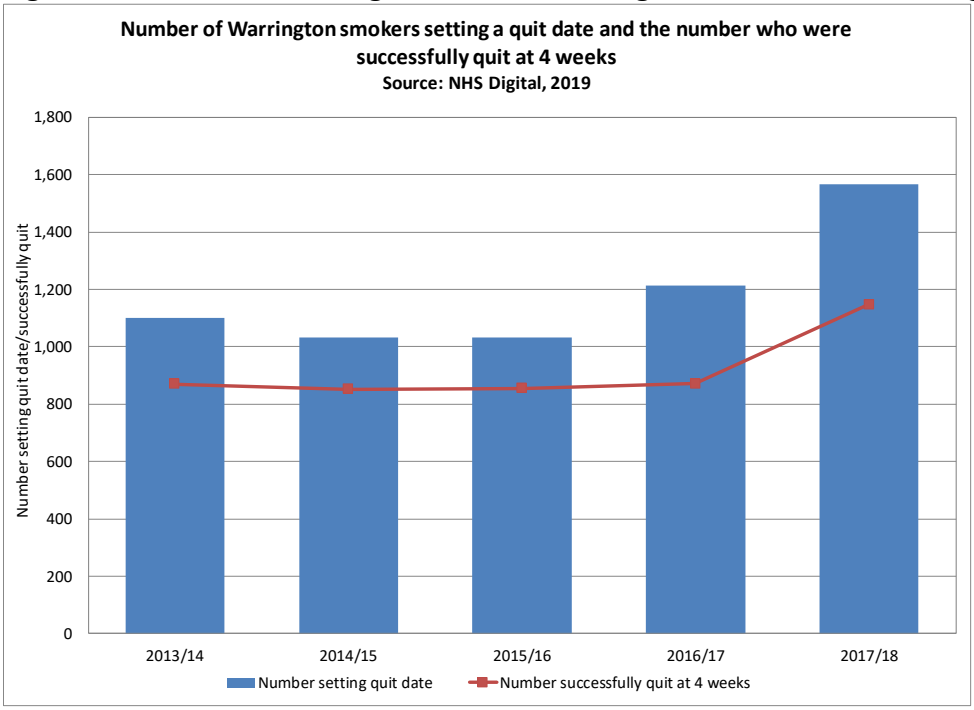
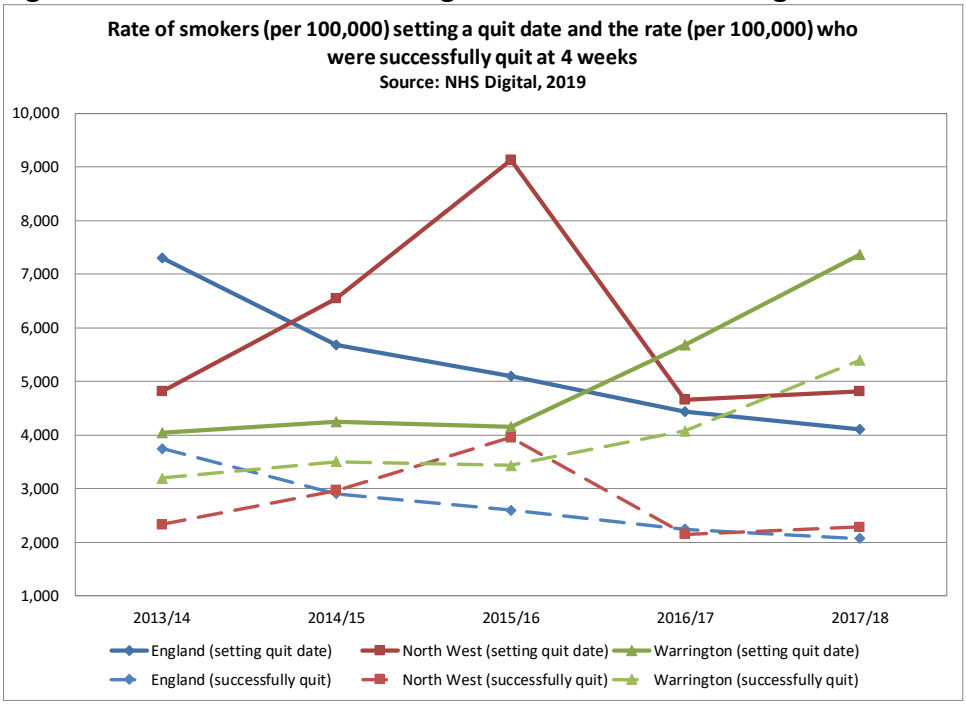


Figure 7: Rates of Smokers Setting a Quit Date and Quitting



During 2018, a CLeaR 2.0 peer review[42] was undertaken to assess the Warrington tobacco control programme. This identified clear recommendations for the formation of a

Warrington Tobacco Control Alliance and for Warrington Hospital to become smokefree in line with NICE '*Public Health Guidance 48 Smoking cessation: acute, maternity and mental health services*'[43], the universal smoking cessation offer of the NHSE CQUIN[44] and Long Term Plan[2].

Tobacco Control Priorities

- Formation of a multi-disciplinary Warrington Tobacco Control Alliance and supporting three-year strategy.
- Implementation of NICE Public Health Guidance 48[43] and the NHSE CQUIN[44] by Warrington Hospital in partnership with the Smokefree Warrington Team to become a completely smokefree environment, in terms of staff, patients and visitors. This includes universal delivery of brief interventions, access to stop smoking behavioural support and nicotine replacement therapies for patients to quit or abstain whilst in hospital and will be supported by the additional NHSE smokefree funding allocation to CCG's from 2021/22[2].
- Smokefree Warrington Team to continue targeted stop smoking support to geographical communities and populations with higher rates of smoking, including routine and manual workers and those living with a mental health condition, to reduce their smoking rates to 20% or less.
- Ensure each contact across the cancer pathway provides an opportunity for a brief intervention in relation to lifestyle behaviour through provision of MECC brief intervention training to staff and volunteers, and dissemination of information to signpost patients and their carers to support services. This includes the majority of patients not receiving a cancer diagnosis.
- Continue to promote and encourage sign-up to the Smokefree Schools programme and extend to all Children's Centres.
- Ongoing enforcement programme by the WBC Public Protection team to reduce sale of illicit tobacco products and underage sales.
- Multi-sector support for campaigns to increase public awareness of the benefits of being smokefree and how to access quit support e.g. Health Harms.
- Continue to develop smokefree environments in workplaces, third sector spaces and open public places.

3.2.2 Diet and Obesity

Being overweight or obese and having a poor diet are the most preventable causes of cancer after smoking, linked to 6.3% and 4.7% of cancers in the UK respectively (table 2)[32]. Obesity increases the risk of several cancers including bowel, uterine, kidney, liver, oesophageal, pancreatic and breast after the menopause[25]. As well as the implications for body fat content, a healthy diet has been shown to be protective against cancer. Diets high in fibre, fruit and vegetables and low in processed or red meat have been linked to a lower risk of bowel and other cancers[25]. However, 2017/18 data illustrates that only half (52.5%) of adults in Warrington eat the recommended five or more daily portions of fruit and vegetables, compared with 54.8% in the North West and 57.4% in England[45].

Breastfeeding can also reduce the risk of developing breast cancer, with levels of risk lowering with longer breastfeeding duration[46]. Locally, 62.3% of new mothers in Warrington initiate breastfeeding, with only 37.9% continuing at 6-8 weeks after birth, which is considerably lower than England (74.5% and 42.7% respectively)[47]. Rates of breastfeeding are also significantly lower in our more deprived communities. In 2017/18, only half (52%) of new mothers living in the 20% most deprived areas of Warrington initiated breastfeeding compared to three-quarters (76%) of those from the 20% least deprived areas, with 29% and 54% continuing at 6-8 weeks respectively.

Alarmingly, levels of obesity in England have significantly risen since the 1980's, with almost two-thirds of adults and one-third of children classified as overweight or obese[45,48]. The latest 2017/18 data demonstrates that 66.9% of Warrington adults are overweight or obese, which is considerably higher than the North West (64.3%) and England (62.0%)[45]. Unhealthy diet and obesity are life-course issues, often starting in childhood[49]. Overweight and obese children are more likely to become obese adults with a higher risk of cancer and premature death[50]. Data collected from the 2017/18 national child measurement programme indicate that one in four of Warrington children aged starting primary school at 4-5 years are overweight or obese, rising to one in three of those leaving in Year 6 aged 10-11 years[48] (figures 8 and 9).

Historically, the prevalence of overweight/obesity in Warrington children has been lower than the North West or England. However, in 2017/18 the local overweight/obesity rate in reception children rose to 25.9%, significantly higher than 22.4% in England and 23.9% in the North West (figure 8). Whilst a significant rise was also observed in the prevalence of overweight or obese year 6 children from 30.8% in 2016/17 to 33.0% in 2017/18 (figure 9), this remains lower than the regional and national rates (35.5% and 34.3%, respectively). Increasing the availability of affordable, healthier food, promoting a healthy diet and maintaining a healthy weight throughout life are therefore priorities in Warrington to decrease levels of cancer incidence. A whole-systems approach should be adopted targeting coordinated action at individuals, communities and the social circumstances in which they live[51,52].

Figure 8: Proportion of Reception Children That Are Overweight or Obese

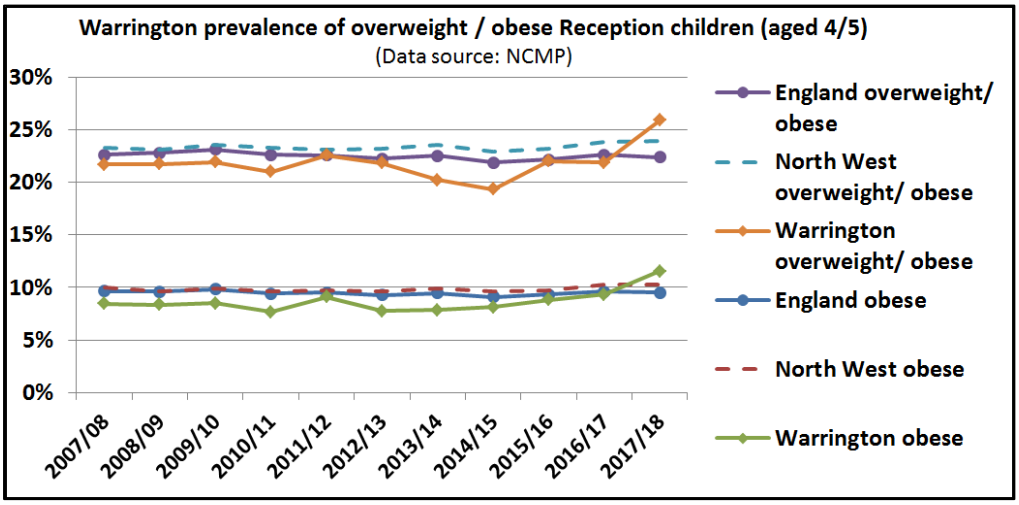
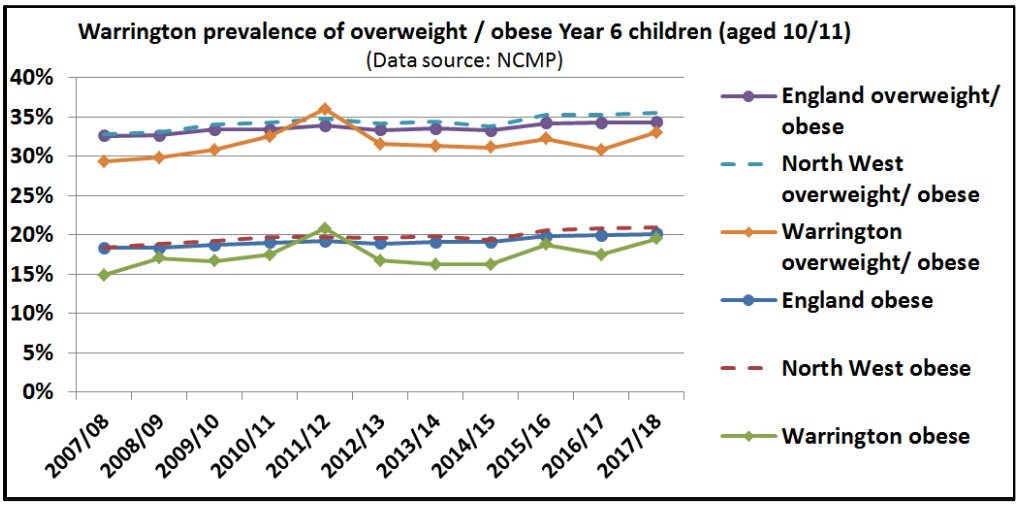


Figure 9: Proportion of Year 6 Children That Are Overweight or Obese



Diet and Obesity Priorities

- Adopt the Public Health England Whole Systems Approach to Obesity to support Warrington residents to maintain a healthy weight and be physically active. The development of this national framework is expected to be finalised in summer 2019.
- Inclusion of health within the Warrington Local Plan and Transport Plan policies to ensure urban design and transport infrastructure provide a supportive environment for healthy lifestyle choices. This includes: public transport to healthy food outlets[53], planning regulations restricting fast food outlet density and proximity to schools[54], improved housing food preparation and storage facilities[55] and availability of community food growing gardens and farmers markets[56].
- Ensure access to affordable healthier food and beverage options, healthier eating and physical activity advice in nurseries, children's centres, schools, colleges, residential and care homes and Warrington Hospital and discouragement of product placement or private partnerships with companies producing foods high in fat, sugar or salt (HFSS) through the Healthier Together Award, procurement and contractual policy. This will include delivery of strengthened action by Warrington Hospital to restrict HFSS foods and beverages in line with the 2019 hospital food standards and requirements of the NHS standard contract[2].
- Multisectoral support for campaigns to increase public awareness, choice and preparation of healthier food and drink options e.g. Change4Life campaign.
- Provision of information, motivational assistance and supportive, breastfeeding-friendly venues for women to initiate and continue breastfeeding.
- Provision of weight management pathways and services for adults, young people and children.
- Advocate for national regulation of unhealthy HFSS food advertising across all media[57].

3.2.3 Physical Activity

Physical inactivity increases the risk of bowel, uterine and post-menopausal breast cancer, accounting for 0.5% of cancers in the UK[25,32]. Maintaining regular levels of physical activity is therefore a protective factor against cancer. 2017/18 data highlights that 59.6% of adults in Warrington undertake the Chief Medical Officer's recommended minimum levels of 150 minutes of physical activity, in bouts of 10 minutes or more, every week[58,59]. This is significantly lower than that achieved regionally in the North West (64.7%) or in England (66.3%)[58,59].

Nearly one quarter of Warrington adults (24.6%) are classed as physically inactive (less than 30 minutes of physical activity per week) and remain at risk of poorer health[58,59]. This is slightly worse than the North West (23.4%) or England (22.2%). Furthermore, levels of inactivity increase with age and deprivation[60]. Lower participation in physical activity may in part be the result of a reduction in levels of active travel, increases in sedentary occupations and decreased opportunities to participate in sports and leisure activities.

Consequently, multiagency working to increase levels of participation in physical activity among people living and working in Warrington remains a priority. The '*Let's Get Moving! Active Warrington Strategy 2017-2020*'[61], outlines Warrington's vision to be an increasingly healthy and active town, encouraging residents to be more active to improve mental and physical wellbeing, increase life chances and support prosperity. The strategy adopts a life-course approach and aims for all residents to achieve a minimum of 30 minutes of physical activity per week.

There is also increasing evidence that physical activity during and after cancer can lessen the impact of cancer treatment side-effects such as fatigue, anxiety and depression, improve quality of life and reduce the risk of cancer recurrence in survivors of breast, colorectal and prostate cancer[6,62-67]. Guidelines stipulate that in order to be beneficial, cancer survivors should be physically active for more than three hours per week and undertake a combination of aerobic and resistance activity[62]. Research has also found supervised group activity to be more effective than home-based programmes[62]. Further to this, Livewire have been trained via the Wright Foundation Cancer Rehabilitation programme to deliver cancer rehabilitation, palliative enablement and survivorship programmes for all Warrington residents diagnosed with cancer to access lifestyle behaviour change support, including a physical activity programme to improve their physical function, wellbeing and survival.

Physical Activity Priorities

- Continue working collaboratively with planning and transport decision-makers to ensure the importance of physical activity is understood and factored into future urban design and transport decisions and developments to provide a supportive environment for all residents to be physically active e.g. pedestrianised areas, cycle paths, play streets initiatives and green corridor routes.
- Work with local businesses, schools and policy makers to develop active travel plans and enable participation in active transport, including cycling and walking.
- Build capacity in the sports, leisure and community sector to improve access to, and maintenance of facilities and groups to maximise the numbers of people being physically active.
- Capitalise on existing national and local campaigns to raise public awareness of the benefits of physical activity and the local opportunities to be physically active throughout the life course, including the use of green spaces for recreation and exercise.
- Support the delivery of inclusive, mass participation events to create a social movement and enable all members of the community to take part in physical activity.
- Work with the third sector to develop a support network that helps small sports and leisure clubs flourish, providing a range of participation opportunities to adults, children, young people and families to encourage residents to be physically active.
- Continued provision of the cancer rehabilitation, palliative enablement and survivorship programmes to ensure all Warrington residents diagnosed with cancer have access to support to increase their levels of physical activity, quality of life and survival.

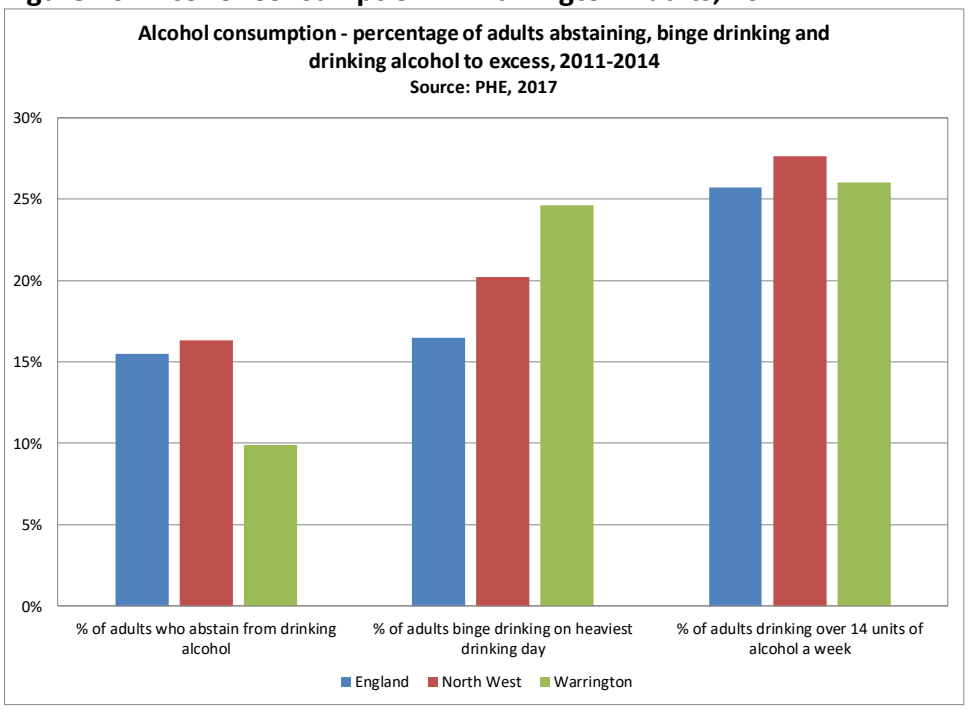
3.2.4 Alcohol

There is increasing debate regarding what constitutes a 'safe' or 'lower risk' level of alcohol consumption in relation to cancer prevention. Alcohol is a carcinogen and is associated with around three in every 100 cancers (3.3%)[32]. High to moderate consumption increases the risk of cancer of the oesophagus, liver, bowel, and breast[68].

National guidelines recommend that men and women should not regularly drink more than 14 units of alcohol, spread over three or more days, per week to reduce the risk to health[69]. As figure 10 shows, one in four (26%) Warrington adults drink unsafe levels of alcohol units, which is similar to the England average (26%) and lower than the North West (28%). However, binge drinking is more prevalent locally (25% of Warrington adults), compared with regional (20%) and national levels (17%).

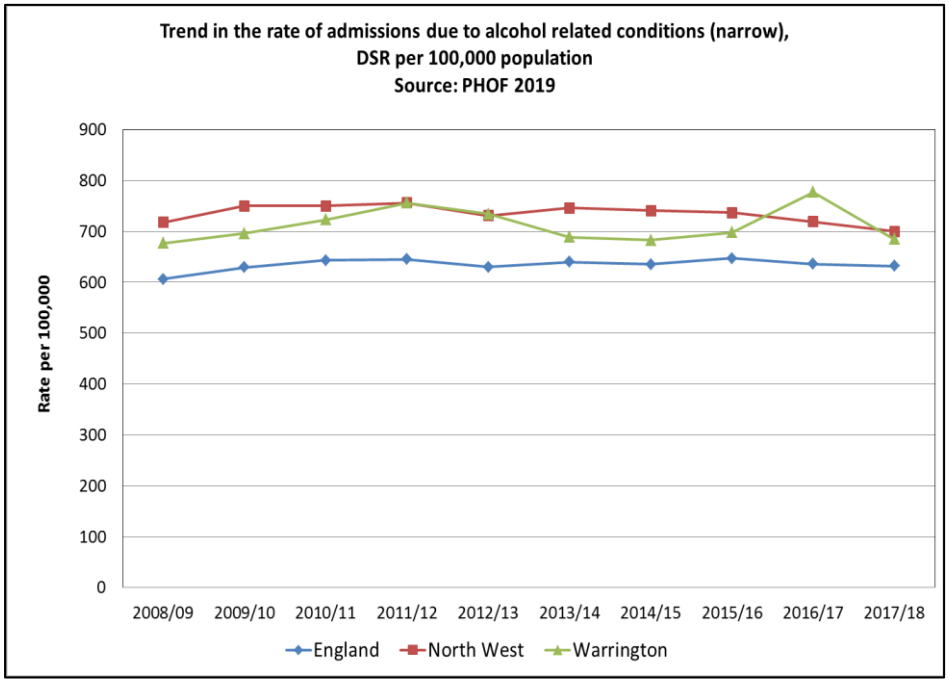
The economic impact of alcohol misuse in Warrington is considerable, estimated at £93.6 million per year and £456 per head of population. This includes £17.7 million in NHS costs, £6.1 million in social care, £44.9 in lost productivity and £24.9 in crime and licensing[70].

Figure 10: Alcohol Consumption in Warrington Adults, 2017



As figure 11 illustrates, in 2017/18 the rate of hospital admissions due to alcohol-related conditions in Warrington reduced to 685 per 100,000 population from the previous year. However, whilst the local rate of alcohol-related admissions has fallen below the North West rate (700 per 100,000 population), it remains consistently and significantly higher than the rate for England (632 per 1000,000 population). Hospital admission rates in Warrington are substantially higher for men than women and are also significantly higher in the most deprived wards[70].

Figure 11: Hospital Admissions due to Alcohol Related Conditions, 2008-2018



In response, the multi-agency Warrington '*Alcohol Harm Reduction Strategy 2016-2019*'[70] addresses alcohol-related harm through the following areas and priorities:

- Support national and regional action to reduce alcohol harm.
- Manage the availability and responsible retailing of alcohol.
- Increase the provision of alcohol identification and brief advice.
- Provide a comprehensive, effective and accessible treatment system.

Alcohol Priorities

- Universal delivery of alcohol identification and brief advice (IBA) by health, social care, criminal justice, emergency service, early years, education and third sector frontline workers utilising the AUDIT C tool[71], supported by training and pathway formation, to empower service users to make informed decisions regarding their alcohol consumption and support referral to treatment services. This will include delivery of the alcohol NHSE CQUIN[44] by Warrington Hospital in line with prevention targets of the Long Term Plan[2].
- Continued provision of the alcohol treatment system and support network for individuals with risky consumption levels in the community and custodial settings, including medical stabilisation, relapse prevention, therapeutic interventions, family support, recovery and aftercare.
- Development of alcohol policies and delivery of age-appropriate alcohol harm awareness education to adults within workplace settings and children and young people at early years, educational and youth settings, supported by information for parents and carers.
- Multiagency support for national and local campaigns to increase public awareness of alcohol unit guidelines and alcohol related harm and encourage attitudinal and behavioural change to consumption e.g. Change4Life and One You.
- Continued enforcement and test-purchasing operations, training and inspection of on and off licenced premises to reduce underage and illicit alcohol sales.
- Review planning and licensing regulations of on and off licensed premises to restrict their availability, proximity to schools and opening hours in accordance with levels of alcohol-related harm.
- Delivery of the 'Drink Less, Enjoy More' campaign to challenge drinking cultures and reduce preloading, binge drinking and sales to intoxicated people in licenced venues, supported by a multiagency communication network of alcohol champions.
- Provision of town centre safe havens and street pastors to protect vulnerable users of the late-night economy.
- Advocate for national legislation to strengthen regulation of the alcohol industry and retailers, including: above-inflation increases in alcohol duty; introduction of universal alcohol content labelling; minimum unit pricing; inappropriate sales of high strength product restrictions; and marketing, promotion and deep discounting limits.
- Enhanced enforcement of drink-driving through random breath testing.

3.2.5 Occupational and Environmental Exposure

Exposure to radiation or carcinogenic chemicals in the natural environment or workplace as a result of poor air quality, workplace hazards or other incidents can place individuals at risk of developing cancer[72]. An estimated 3.8% and 1.9% of cancers in the UK are linked to occupational exposure or ionising radiation, respectively[32].

Radon gas is a carcinogen and the second leading cause of lung cancer after tobacco[73]. It is a naturally occurring, radioactive gas that is created as uranium in the earth's crust decays. Higher levels are experienced in particular areas of the UK such as the South West of England and parts of Wales in line with geological rock formations. Radon gas can seep up from the ground into buildings, however levels can be significantly reduced through installation of under-floor ventilation systems.

Mesothelioma is a rare type of cancer that affects the linings of the lung and abdomen. Nine out of ten cases are as a result of occupational exposure to asbestos, which was widely used in the ship-building industry and building construction in the UK until it was banned in 1999. The number of buildings currently containing asbestos in Warrington is not known. However, intact, undamaged buildings and adherence to managed systems for safe removal during construction do not present a risk to health.

Shift work that disrupts the circadian rhythm is recognised as potentially carcinogenic and has been linked to breast cancer[74]. Consequently, promoting good health within the workplace setting is an important component of the life course approach[6]. Research demonstrates the benefits of having a healthy workforce to employees, businesses and the wider economy, including reduced levels of sickness absence, increased productivity and higher staff retention[75]. Further to this, Warrington Borough Council has been accredited to the '*Workplace Wellbeing Charter*'[76] and also offers advice, training and support to local businesses to maintain and improve levels of staff health and wellbeing. The council also advocates other businesses across Warrington to sign up to the Charter.

Occupational and Environmental Priorities

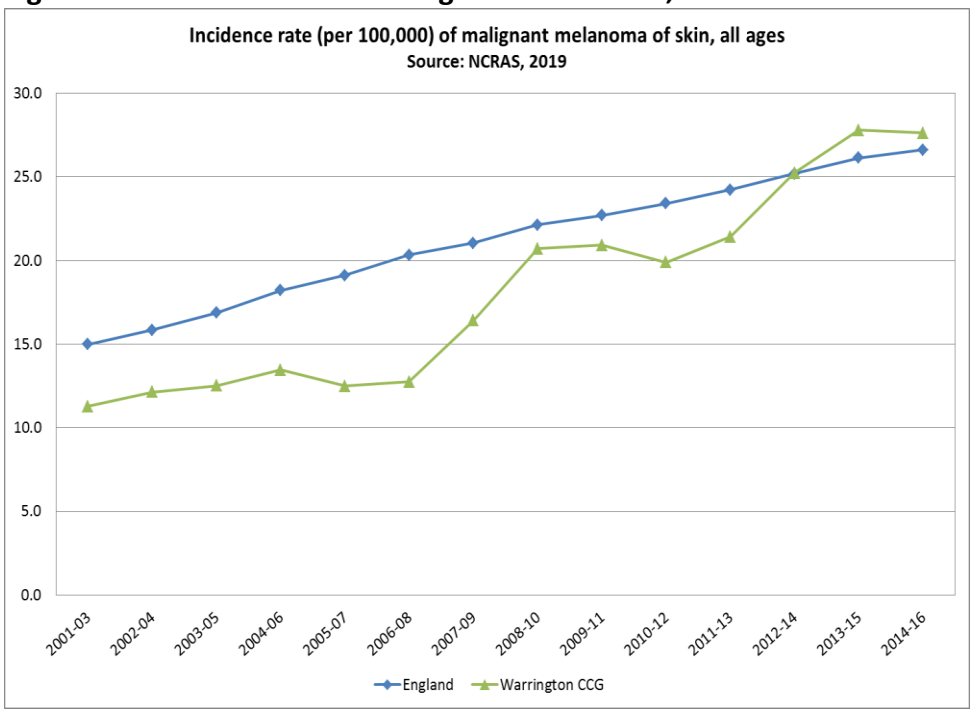
- Multi-agency support and promotion of the Workplace Wellbeing Charter to increase the number of Warrington businesses signed-up to the scheme.
- Ensure that NHS and local authority organisations have appropriate policies and systems for the management and removal of asbestos from their sites.
- Continued compliance by Warrington businesses with workplace regulations to limit employee exposure to radiation and carcinogenic substances.

3.2.6 UV Radiation

Ultra violet (UV) radiation from sunlight or a sunbed is a carcinogen, responsible for nearly four percent of cancers (3.8%) nationally[32]. Excessive exposure to UV radiation is the leading cause of skin cancer due to the damage that it causes to the DNA of skin cells. There are several factors that affect the risk of developing skin cancer including; exposure to the sun's rays without protection, use of sunbeds, fair eye and skin colour and family history[77].

There are two main types of skin cancer; Non melanoma skin cancer, including basal cell carcinoma and squamous cell carcinoma, and melanoma skin cancer. Melanoma is the most serious form of skin cancer and accounts for the majority of skin cancer deaths. It is often fast growing and if left untreated can spread to other parts of the body. Over the last 30 years, incidence rates of malignant melanoma in the UK have more than doubled[78]. Locally, the rate of new melanoma cases has significantly increased and is now higher than observed nationally (figure 12). In 2014-16, there were 27.6 new cases of melanoma skin cancer in Warrington per 100,000 population, compared with 26.6 per 100,000 in England.

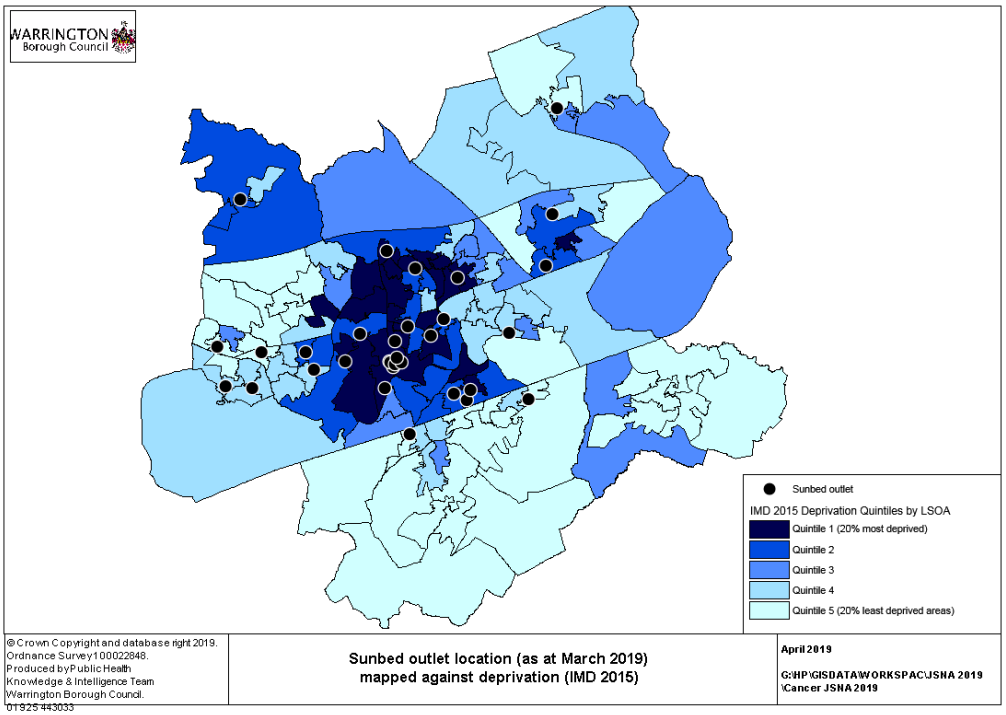
Figure 12: Incidence Rate of Malignant Melanoma, 2001-2016



Whilst many cases of skin cancer are caused by over-exposure to the sun, there is extensive evidence to suggest that sunbeds also increase the risk of developing skin cancer[79-81]. Melanoma skin cancer is 59% higher in people using a sunbed before the age of 35 years compared with non-users[82] and an estimated 100 melanoma skin cancer deaths in the UK each year are attributed to sunbed use[83,84].

Further to this, the General Product Safety Regulations 2005[85] require that all commercial sunbeds do not exceed a maximum UV radiation output of 0.3 Watts per square metre (W/m^2) and the Sunbeds (Regulation) Act 2010 prohibits young people under 18 years of age from using a commercial sunbed[86]. However, a regulatory inspection of 31 local sunbed businesses by the WBC Public Protection Team in 2015, highlighted that over a third (36.4%) of the 139 sunbeds tested were above the maximum emissions limit and half of ten premises subjected to test-purchasing allowed an under-18 to access a sunbed[87]. Whilst subsequent operations at these outlets confirmed 100% compliance following cautioning and advice, introduction of legislation legally requiring sunbed businesses to register with the Local Authority would strengthen future law enforcement.

Figure 13: Sunbed Businesses in Warrington, 2019



There are currently 31 commercial sunbed premises in Warrington. As figure 13 illustrates a large majority of these outlets are in areas of greater deprivation, with only two located within the least deprived south Warrington wards. This facilitates use by more deprived communities, thereby perpetuating existing health inequalities and poorer health outcomes[88]. Almost nine out of ten skin cancers (86%) are preventable[77] through avoiding sunbed use, over exposure to the sun and skin burning by covering up with clothes, hats and sunglasses; seeking shade between 11am and 3pm; and using sunscreen SPF 30+.

UV Radiation Priorities

- Development and implementation of sun protection policies at early years, educational and youth settings and outdoor workplace settings via sign-up and implementation of the Workplace Wellbeing Charter. This includes the use of hats, sunscreen, sunglasses and shade provision to protect children and employees from over exposure to UV rays and raise awareness of the importance of early detection.
- Continue intelligence-led test-purchasing and compliance operations of sunbed businesses by WBC Public Protection Team to reduce underage access.
- Work with planning decision-makers to include artificial and natural shade provision in new building and communal outdoor developments outlined in the Warrington Local Plan.
- Promotion of sun and sunbed safety messages to increase public awareness and implementation of skin cancer prevention activities.
- Advocate for national legislation to strengthen regulation of sunbed businesses and introduce Local Authority licensing.

3.2.7 Infections

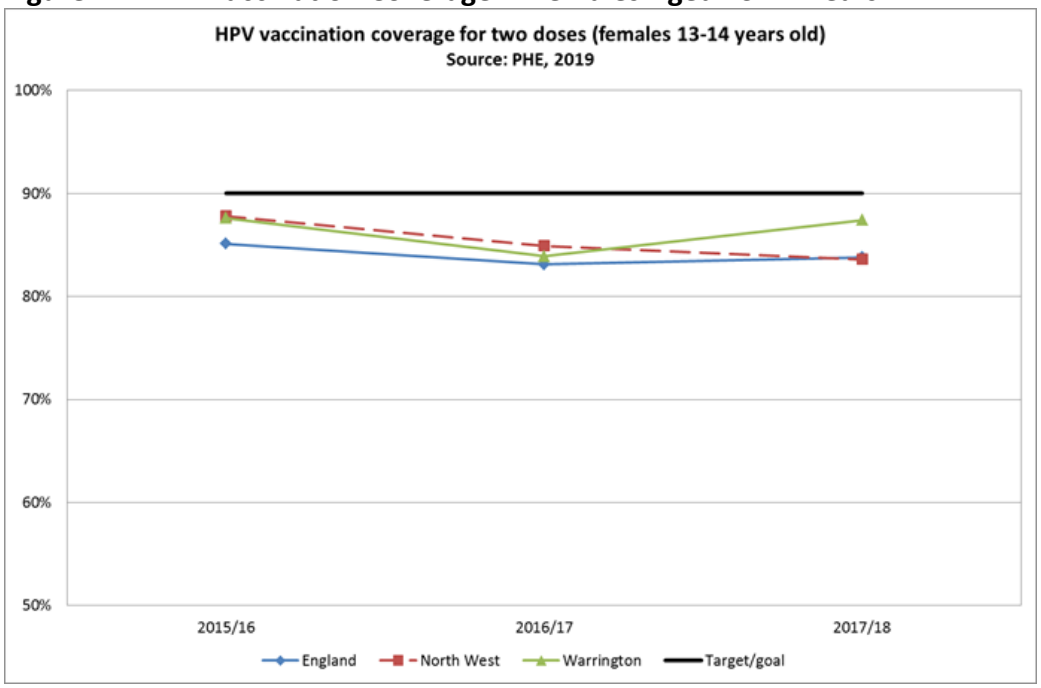
Around 3.6% of cancers in the UK are caused by infectious organisms[32]. One of the most common viruses that can affect cancer risk is Human Papilloma Virus (HPV). HPV is responsible for most cases of cervical cancer and is also linked to head and neck, anal and genital cancers[89]. Infection with Hepatitis B or C viruses can lead to liver cancer, the Epstein-Barr virus is connected to some types of lymphoma and Helicobacter pylori bacterial infection has been linked to stomach cancer[90].

3.2.7.1 Human Papilloma Virus

The Human Papilloma Virus (HPV) vaccine offers protection from the common HPV types 6, 11, 16 and 18, which cause most cervical cancers as well as vulval, penile, head and neck cancers. Since 2008, the vaccine has been routinely offered to girls aged 12 to 13 years in school year 8, with a second dose given six to twelve months later[91]. Girls can also be vaccinated at their GP Practice up to their eighteenth birthday as part of a catch-up programme. In 2018, the Joint Committee on Vaccination and Immunisation (JCVI), an independent advisory committee to the Department of Health, recommended extending the vaccination programme to boys in the same age group from the 2019/20 school year. Men who have sex with men are also eligible for the vaccine from the NHS.

The national goal for HPV vaccination coverage is 90%. Uptake in Warrington is higher than the North West and England, with 87.4% of 13-14-year-old girls receiving two doses of the vaccine in 2017/18, compared with 83.6% regionally and 83.8% nationally (Figure 14). However, uptake decreased locally in 2016/17 and therefore sustained activity to increase the numbers of girls accepting vaccination is a priority.

Figure 14: HPV Vaccination Coverage in Females Aged 13-14 Years



3.2.7.2 Hepatitis

Chronic infection with hepatitis B and C causes liver cirrhosis and primary liver cancer[90]. Hepatitis B is passed on through direct contact with infective blood, semen and other bodily fluids from unprotected sex, unsterilised surgical equipment and needles, injecting drug use and from mother to baby during pregnancy or childbirth[92]. From autumn 2017, hepatitis B vaccination has been routinely offered to all babies as part of the 6-in-1 vaccine at 8, 12, and 16 weeks of age, with additional doses at birth, 4 weeks and one year to those born to infected mothers[93]. The NHS vaccine is also available to protect individuals at greater risk, such as healthcare workers, those frequently changing sexual partners or injecting drugs[93].

Hepatitis C is mostly transmitted via exposure to the blood of an infected person[92]. There is no vaccine to protect against hepatitis C, however, there are several harm reduction initiatives that can be used to minimise the risk of transmission e.g. needle exchange programmes for injecting drug users.

Infections Priorities

- Increase uptake of the HPV vaccine among 13-14-year-old girls to the 90% national target.
- Implementation of the HPV vaccination programme to boys in school year 8 within the 2019/20 school year.
- Achieve the 95% coverage target for the 6-in-1 primary childhood vaccine.
- Promote public awareness of the transmission routes and health consequences of hepatitis B and C, focusing on higher risk groups.
- Continued provision of hepatitis B vaccine and risk reduction initiatives to those at higher risk of hepatitis B and C.

3.2.8 Hormones

The use of post-menopausal, hormone replacement therapy (HRT) is associated with an increased risk of developing breast, ovarian and uterine cancers[32]. However, the clinical benefits of using HRT when medically denoted outweigh the greater cancer risk and research has demonstrated that the risk declines to that of pre-HRT use within a few years of stopping therapy.

4. Cancer Screening Programmes

Screening programmes are offered to people who appear healthy but may be at higher risk of a disease or condition. Cancer screening programmes play an important role in detecting cancer at an early or pre-cancerous stage to stop it occurring or to significantly improve the chances of recovery. Nationally, there are three cancer screening programmes targeting breast, bowel and cervical cancers. Overall, screening detects over 5% of all cancers[94], including 31% of breast cancers[95], 17.5% of cervical cancers[96] and 9.5% of bowel cancers[97].

The success of screening programmes is assessed by coverage and uptake levels. Coverage measures the proportion of the entire eligible population which is successfully reached by the programme. Uptake denotes the proportion of those offered screening who undertake it and can illustrate the acceptability, availability or convenience of the programme.

Cancer screening uptake is notably lower in particular groups, including people living with a mental health condition, physical or learning disability, LGBT, transgender and non-binary individuals, deprived and BAME communities[98-101]. This is linked to a number of factors, such as embarrassment, fear, language, cultural and physical barriers. For example, transgender and non-binary people may not be invited for breast and cervical screening due to their registered GP practice gender.

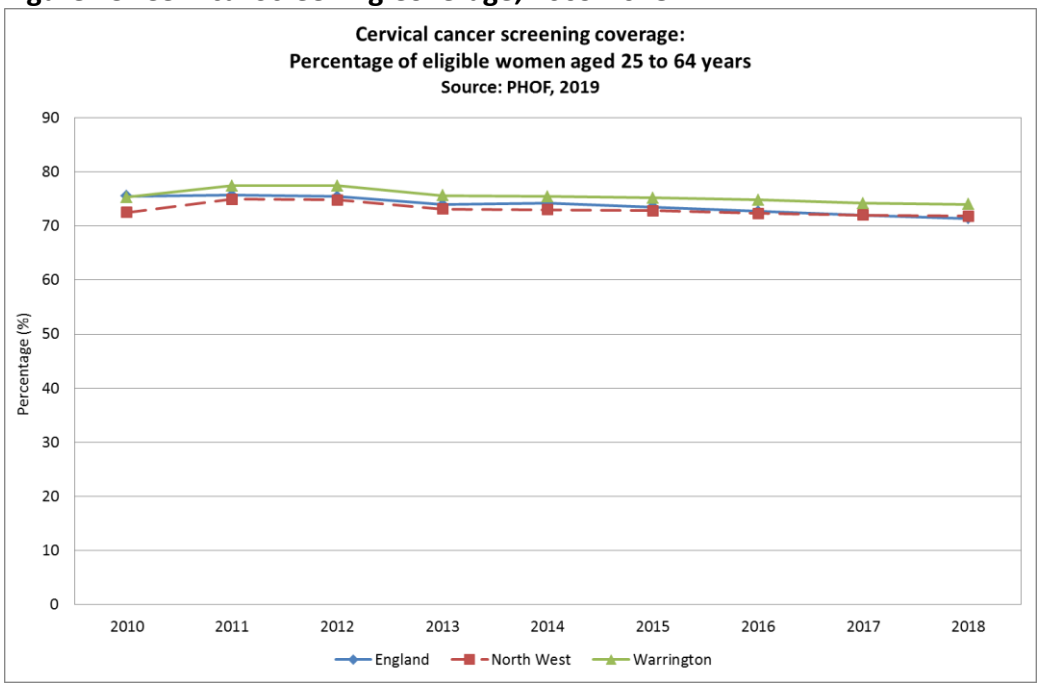
Difficulties in accessing screening should be addressed through provision of primary care training, accessible information in easy-read and translated formats, enhanced primary care recording and sharing of ethnicity, gender and disability status with screening services, provision of female radiographers and sample-takers, translators and chaperones and extended appointments.

4.1 Cervical Screening

The NHS Cervical Screening Programme prevents cancer by detecting and treating abnormal cervical cells. It is offered free of charge to all women and anyone with a cervix aged 25 to 64 years[102]. Individuals aged 25 to 49 years are invited to attend for screening every three years, whilst those aged 50 to 64 years are invited every five years. Screening is also offered to those aged 65 years and over who have not been screened since the age of 50 and those that have received recent abnormal test results.

A sample of cells is collected from the cervix, which is tested in the laboratory for high risk types of HPV that cause the cells to change. Samples testing positive for HPV are then examined for abnormal cell changes, known as dyskaryosis using cytology. Individuals with cervical abnormalities are offered diagnostic testing with colposcopy and treatment. Locally, individuals can access cervical screening from their GP Practice or opportunistically via the Warrington Sexual Health Service, whilst attending other sexual health services at weekly clinics at Orford Jubilee and Bath Street Health and Wellbeing Centres.

Figure 15: Cervical Screening Coverage, 2009-2018

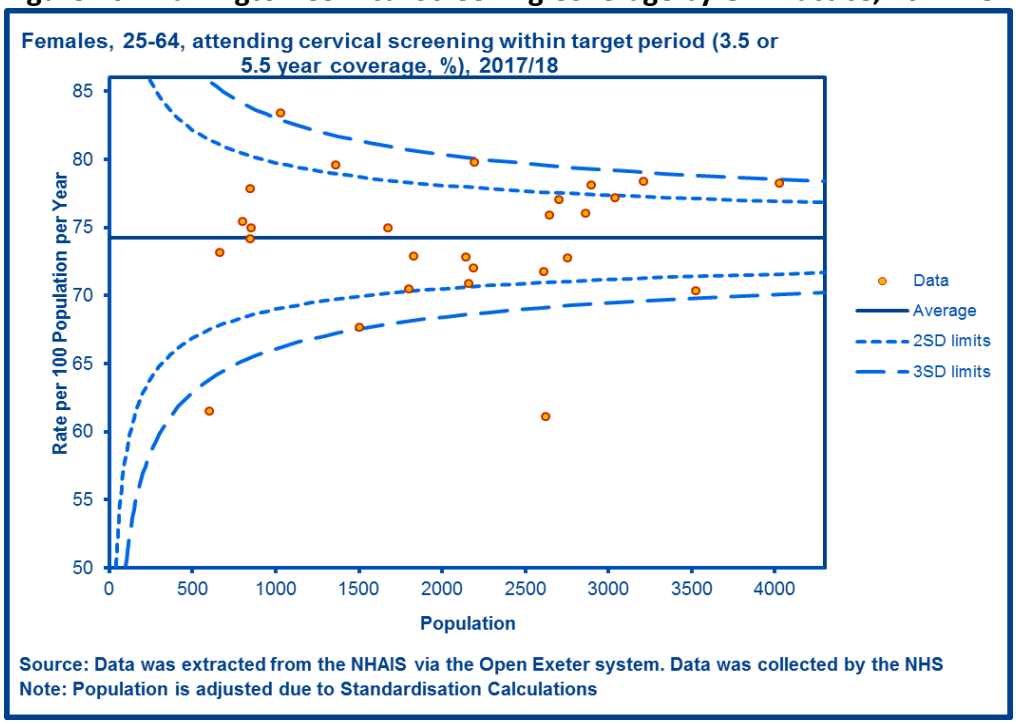


The national target for cervical screening coverage is 80% and over and 98% or more of those screened should receive their written results within 14 days of the sample being taken. Data reveals a trend of declining cervical screening uptake, with one in four women not attending for cervical screening in 2018 (figure 15). The proportion is even higher for BAME groups, those with a disability and lesbian and bisexual women[98].

In Warrington, cervical cancer screening coverage has slightly declined over the last eight years to 74.0% in 2018 (figure 15). Although this is higher than the regional (71.8%) and national averages (71.4%), it remains consistently lower than the national target. Participation is also lower in younger, eligible women. In 2018, cervical screening uptake among Warrington women aged 25-49 years was 72.9%, compared to 76.1% of those aged 50-64 years. This is reflective of national trends, with comparative uptake rates in England of 69% and 76.2% respectively.

As figure 16 demonstrates, there is also significant variation in cervical screening coverage across Warrington GP practices. In 2017/18 coverage ranged from 61.1% to 83.4%, representing a 22.3% difference between the highest and lowest performing practices. Six practices had significantly higher coverage than the Warrington average, with only one achieving the national target. Coverage for four practices was significantly below the Warrington average.

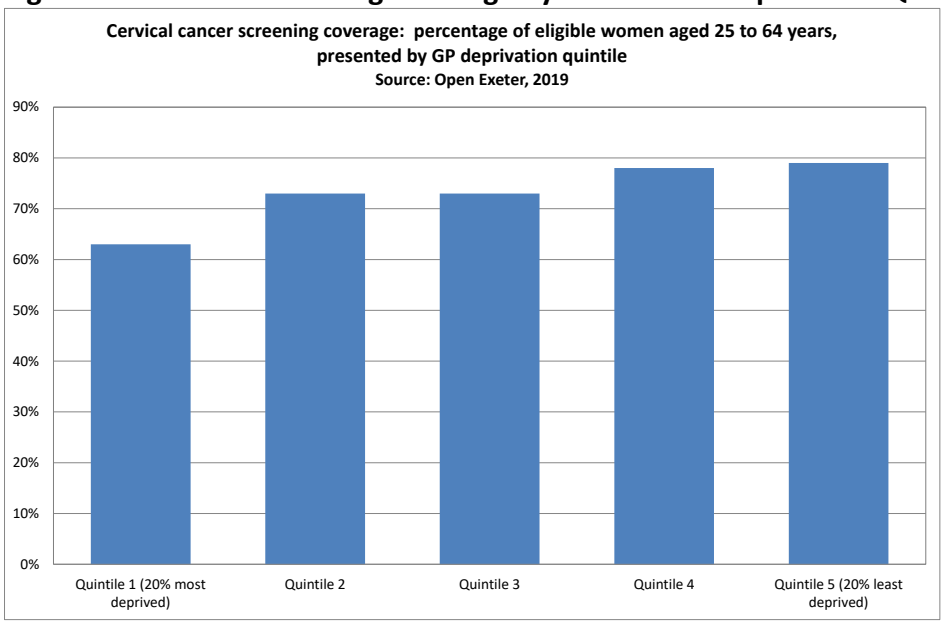
Figure 16: Warrington Cervical Screening Coverage by GP Practice, 2017-18*



* GP Practices outside the 2 SD limits line of the chart have cervical screening coverage levels, which are statistically significantly higher or lower than the Warrington average ($p<0.05$). Those outside the 3 SD limits line have cervical screening coverage levels that are highly significantly lower or higher ($p<0.001$) than the Warrington average.

The variation in cervical cancer screening coverage across Warrington GP practices is reflective of their catchment population. Analysis of screening uptake by GP Practice deprivation quintile demonstrates a decrease in screening uptake rates with higher deprivation. As figure 17 demonstrates, cervical screening coverage in GP practices belonging to quintile 1 (20% most deprived) is only 63%, compared with 79% for GP practices belonging to quintile 5 (20% least deprived). Reducing inequalities in cervical screening uptake and increasing overall uptake therefore remains a local priority.

Figure 17: Cervical Screening Coverage by GP Practice Deprivation Quintile, 2018



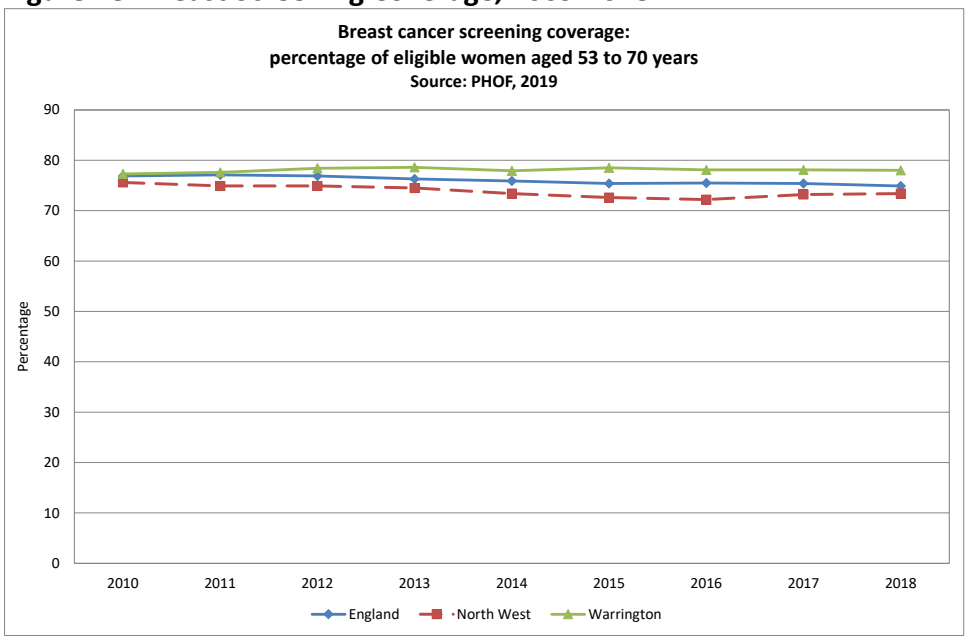
4.2 Breast Screening

The NHS England Breast Screening Programme uses x-rays (mammography) to identify abnormalities in breast tissue to detect breast cancer at an early stage and reduce deaths from the disease[103]. It is offered free of charge, every three years, to women aged between 47 and 73 years, after which they can self-refer. Women at higher risk of breast cancer due to familial genes can be screened earlier from 40 years, and more frequently on an annual basis. Women registered with Warrington GP practices are invited to attend screening at the Breast Screening Units based in Bath Street Health and Wellbeing Centre and Warrington Hospital, which is delivered by an all-female team.

The national target for breast cancer screening coverage is 70% and over. There are also service standards that stipulate a minimum of 90% of all eligible women should be recalled within a 36-month period to maintain screening cycle and 95% of those screened should receive their results within two weeks.

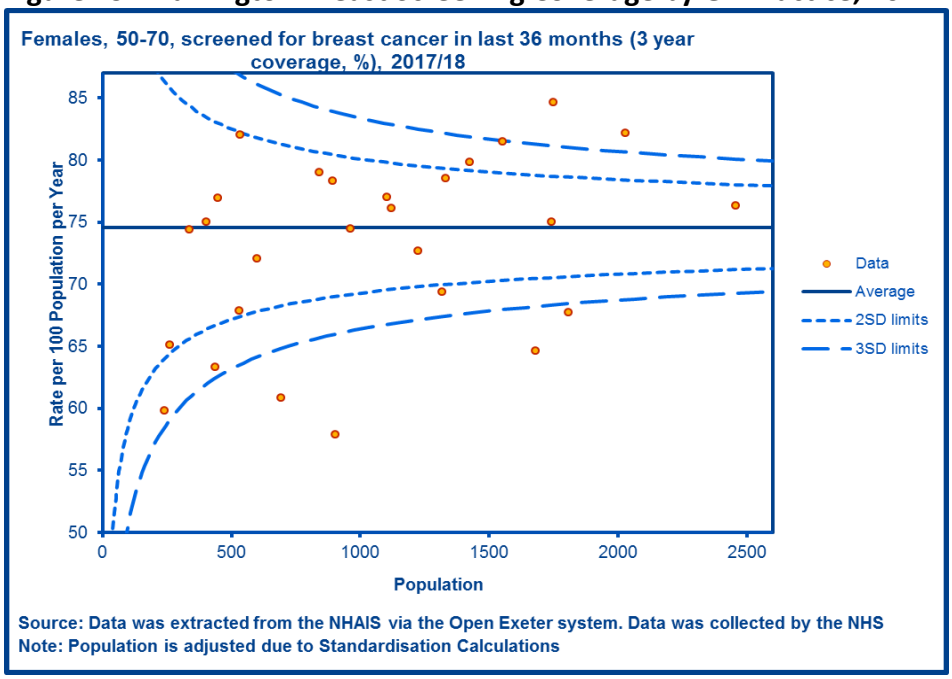
Over the past five-years, there has been a small year-on-year reduction in the proportion of eligible women screened for breast cancer in both the North West and England, with coverage dropping to 73.4% and 74.9% respectively in 2018 (figure 18). Positively in Warrington, there has been an overall, small upward trend in coverage with some minor year on year variation. Coverage has also been consistently higher than that achieved in both the North West and England, reaching 78.0% in 2018.

Figure 18: Breast Screening Coverage, 2009-2018



However, this overall trend, masks wide variation across the borough. Figure 19 demonstrates the distribution of breast cancer screening coverage across GP practices in Warrington, which ranges from 57.9% to 84.7%. In 2017/18, two-thirds of Warrington practices (18/27) achieved the national 70% coverage target and four had significantly higher coverage rates than the Warrington average. However, breast cancer screening coverage in seven practices, was significantly below the local average.

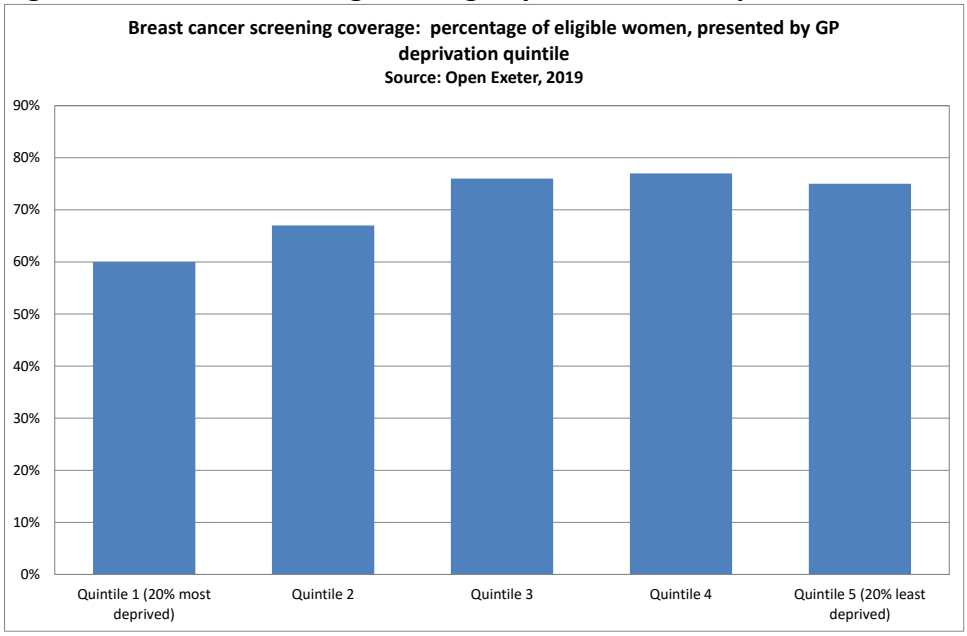
Figure 19: Warrington Breast Screening Coverage by GP Practice, 2017-18



* GP Practices outside the 2 SD limits line of the chart have breast screening coverage levels, which are statistically significantly higher or lower than the Warrington average ($p<0.05$). Those outside the 3 SD limits line have breast screening coverage levels that are highly significantly lower or higher ($p<0.001$) than the Warrington average.

Again, this variation in breast cancer screening coverage across Warrington GP practices is indicative of the deprivation level of the areas in which patients live. Figure 20 demonstrates a decrease in breast screening coverage rates with higher deprivation, dropping to only 60% participation among eligible women registered with GP practices belonging to quintile 1 (20% most deprived). As a third of all breast cancers are screen-detected[95], this variation in breast screening participation needs to be addressed to reduce inequalities in breast cancer mortality.

Figure 20: Breast Screening Coverage by GP Practice Deprivation Quintile, 2018

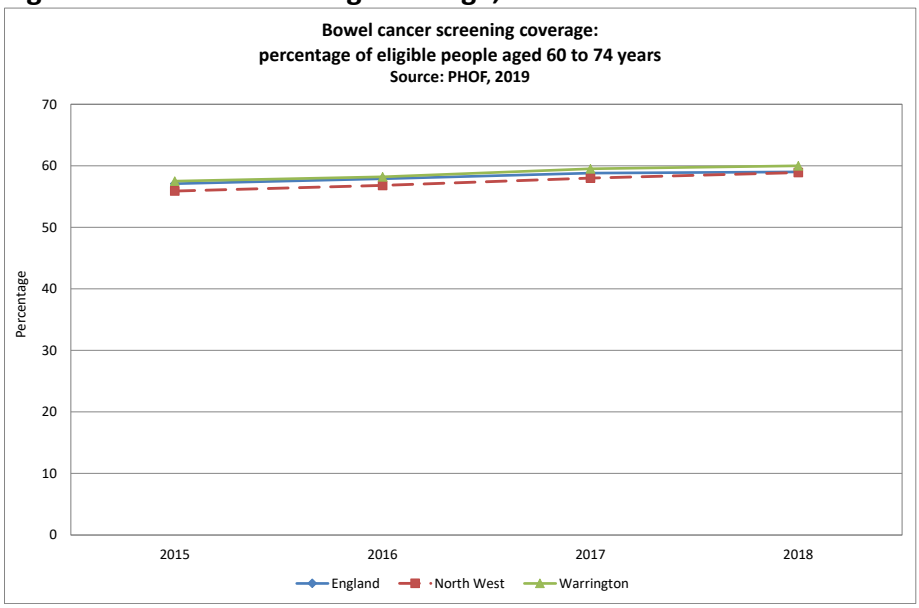


4.3 Bowel Screening

The NHS England Bowel Screening Programme detects bowel cancer at an early stage, when treatment is more likely to be effective. It also prevents cancer through detecting and removing polyps that may develop into cancer over time. Currently, a bowel cancer screening kit is offered to men and women aged 60-74 years registered with a GP Practice, every two years[104]. People aged 75 years and over can also request a kit to continue two-yearly screening. National plans are being developed to lower the starting bowel screening age to 50 years[2].

Eligible individuals are first sent an invitation letter and explanatory leaflet, followed by a kit two-weeks later to complete at home and post to a laboratory for analysis. Currently the kit requires two samples from three separate stools to be collected (six in total), which are tested for traces of blood using the Faecal Occult Blood Test (FOBT). However, this is being replaced nationally during 2019/20 by a new, simpler Faecal Immunochemical Test (FIT) kit, which only requires collection of one stool sample. Pilot studies have demonstrated that this test can increase uptake by 7%, particularly in more deprived and BAME communities, with historically lower levels of screening participation[2]. People with a positive test are offered a colonoscopy. Additionally, people aged 55-59 years are offered a one-off bowel scope screening test using a flexible video camera (sigmoidoscopy) to look for abnormalities inside the rectum and bowel.

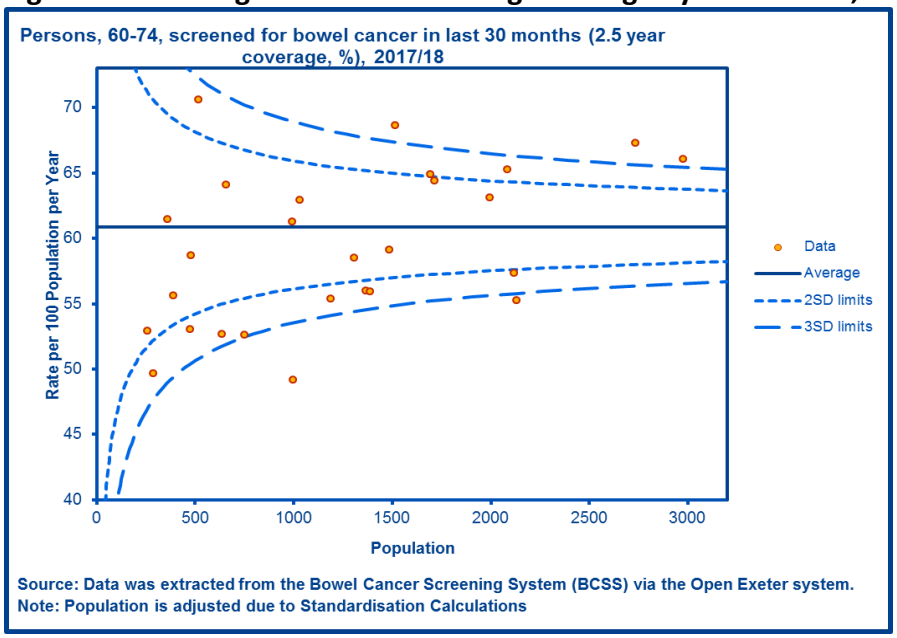
Figure 21: Bowel Screening Coverage, 2015-2018



The national target for bowel screening coverage is 60% and over. Standards also require that 80% or more of returned screening kits should be assessed by the laboratory within three calendar days. In Warrington, coverage has steadily risen from 57.5% of the eligible population receiving screening for bowel cancer in 2015 to 60.0% in 2018, in line with the national target (figure 21). This is slightly higher than the North West and national coverage averages of 58.9% and 59.0% respectively. No significant differences were noted in screening participation rates between local men and women. However, analysis of

Warrington GP data demonstrates that participation by local people with a learning disability was considerably lower, with only 37.5% (45/120) completing bowel screening.

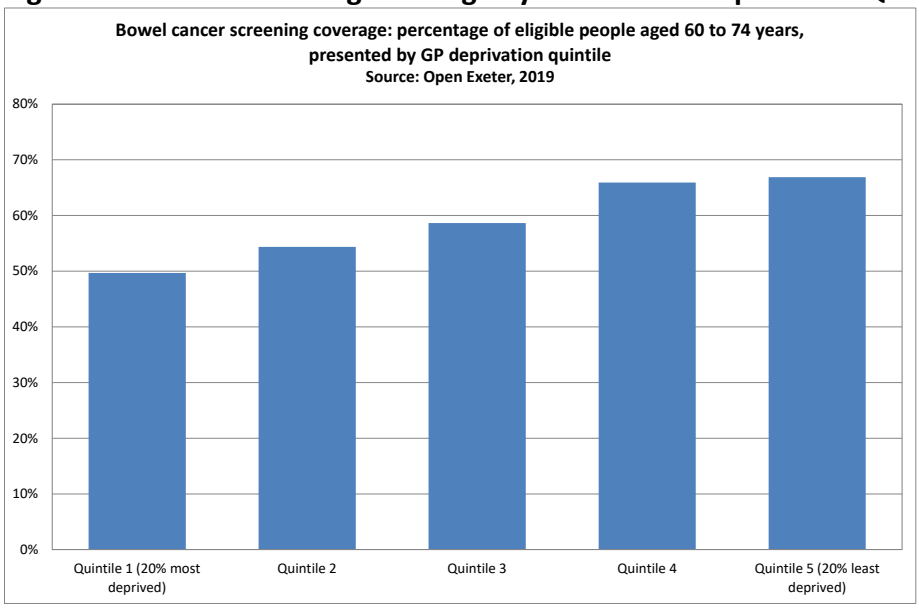
Figure 22: Warrington Bowel Screening Coverage by GP Practice, 2017-18



* GP Practices outside the 2 SD limits line of the chart have bowel screening coverage levels, which are statistically significantly higher or lower than the Warrington average ($p<0.05$). Those outside the 3 SD limits line have bowel screening coverage levels that are highly significantly lower or higher ($p<0.001$) than the Warrington average.

Whilst Warrington overall has achieved the national target, there is also significant cross-borough variation in screening coverage by GP practice, linked to social deprivation. As figure 22 illustrates, in 2017/18 coverage ranged from 49.2% to 70.6%, equating to a 21.4% variation between the highest and lowest performing practice. Only 44.4% of Warrington practices (12/27) achieved the 60% national coverage target. Six practices exceeded the Warrington coverage average and 10 practices were significantly below average.

Figure 23: Bowel Screening Coverage by GP Practice Deprivation Quintile, 2018



Further analysis of screening coverage by GP Practice deprivation quintile demonstrates a marked decrease in screening uptake rates with higher deprivation (figure 23). Only half (50%) of the eligible population registered with GP Practices in the 20% most deprived quintile participated in bowel screening in 2018, compared with two-thirds (67%) of least deprived practice populations.

The reasons for cancer screening non-attendance are complex and may include, but are not restricted to, limited service access due to the offered appointment times, difficulties with getting to the location, competing work or childcare issues and low awareness of the importance and benefits of cancer screening tests. Targeted interventions to improve rates of cancer screening participation among communities in areas of higher deprivation is a priority to address screening inequalities and support the early identification and prevention of cancer.

Cancer Screening Priorities

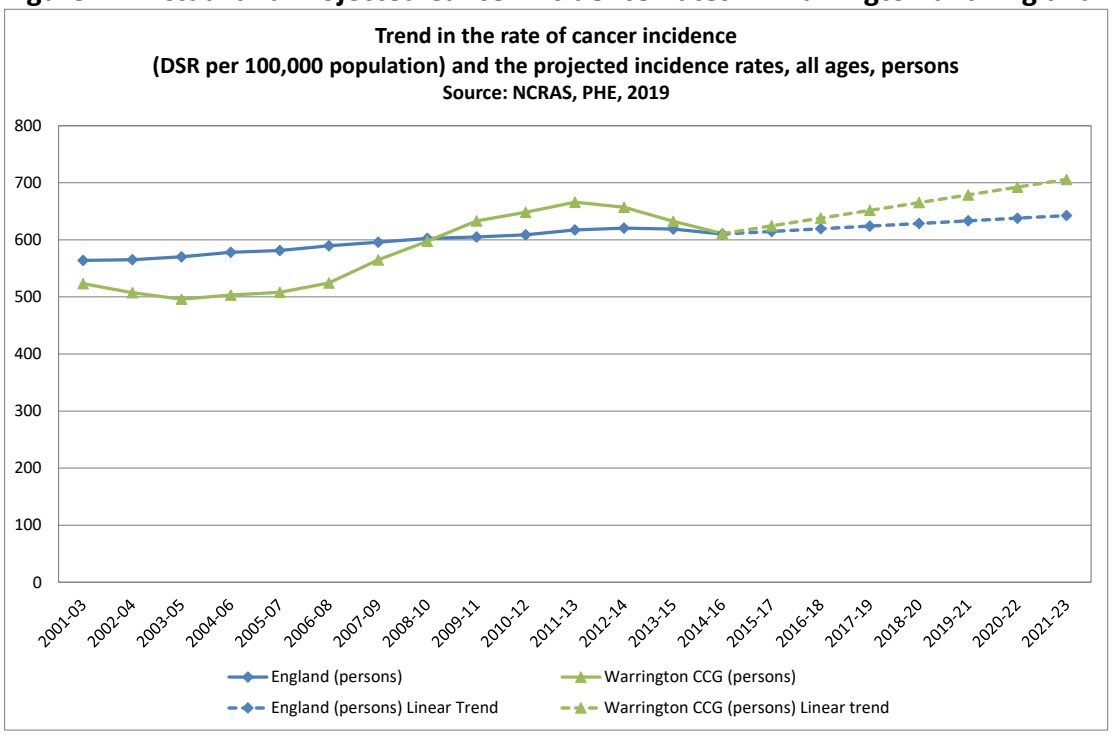
- The current development of a local primary care cancer screening dashboard will demonstrate uptake at GP Practice level, supported by a practice toolkit and training to disseminate advice for increasing screening uptake. This includes appointment of practice screening champions, removal of ghost patients and ensuring accuracy of patient contact details, electronic alerts, SMS reminders and endorsement letters.
- Universal primary care recording and sharing of patient disability, language and transgender/non-binary status with screening services, supported by patient consent, to facilitate provision of appropriate (trans, easy-read and translated) information via GP Practices, screening services and the community learning disability team to enhance levels of awareness, informed consent and participation in cancer screening[99,98,105].
- Incorporation of cancer screening coverage key performance indicators into the Primary Care Quality Framework and GP Contract, and Primary Care Network contract from 2020/21, to reduce variation and screening inequalities.
- Completion of a cervical screening audit to identify gaps and issues regarding patient access and implementation of solutions e.g. evening clinics, increased workforce capacity and training across GP Practices.
- Multidisciplinary support for national and local campaigns to increase uptake of cancer screening, including the roll-out of the new Faecal Immunochemical Test (FIT) in 2019/20.
- Implementation of a cervical screening telephone intervention pilot utilising community volunteers at one GP Practice with low coverage.
- Work in partnership with the Bowel Cancer Screening Hub and NHS England Cheshire and Merseyside Screening and Immunisation Team to support full, local roll-out of sigmoidoscopy for all individuals aged 55-59 years, registered with a Warrington GP.
- Continue the Warrington CCG cancer screening post to coordinate, underpin and integrate activities to increase cancer screening uptake rates.

5. Cancer Incidence

The incidence of cancer indicates all the new cases of cancer diagnosed and registered with the Cancer Registration Service each year. As figure 24 illustrates, following adjustment for age, the 2014/16 three-year average cancer incidence rate for Warrington was 611 new cases per 100,000 population annually, which is in line with the England average of 610 new cases per 100,000 population.

This graph demonstrates a steep year on year rise in cancer incidence in Warrington over the last decade, reflecting the ageing population, increases in lifestyle risk factors and more accurate cancer registration data. The linear forecast implies that if this trend continues, the local incidence rate will increase to 706 new cancer cases per 100,000 population annually by 2021/23, exceeding the national estimated incidence rate of 643 per 100,000 population by 9.7%.

Figure 24: Actual and Projected Cancer Incidence Rates in Warrington and England



Figures 25 and 26 demonstrate cancer incidence in different age groups in Warrington men and women respectively. Overall, males are more likely to be diagnosed with cancer than females, both locally and nationally. In 2014/16, the annual incidence rate in Warrington men was 662 new cancer cases per 100,000, which was slightly lower than the average 674 new cancers per 100,000 in England. The respective cancer incidence rate for women in the same time period was 560 new cases per 100,000 in Warrington and 547 per 100,000 in England.

This may be reflective of the greater levels of unhealthy lifestyle behaviour such as smoking, poor diet and unsafe alcohol consumption in men or their higher levels of occupational exposure to carcinogenic chemicals and radiation[106].

Figure 25: Age Specific Incidence Rate of All Cancers in Warrington Men

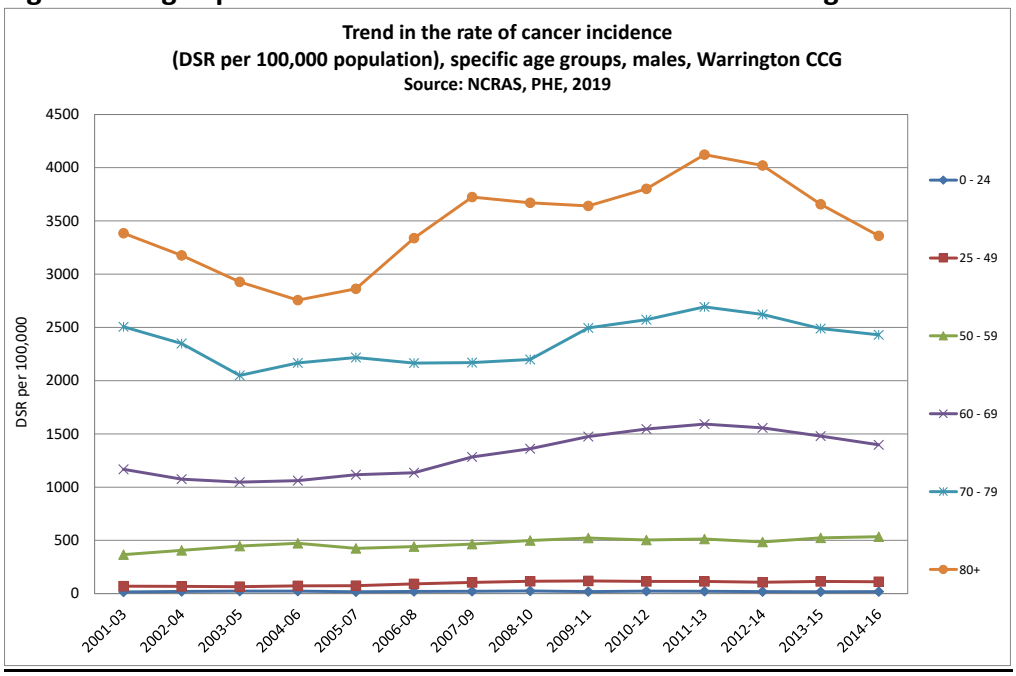
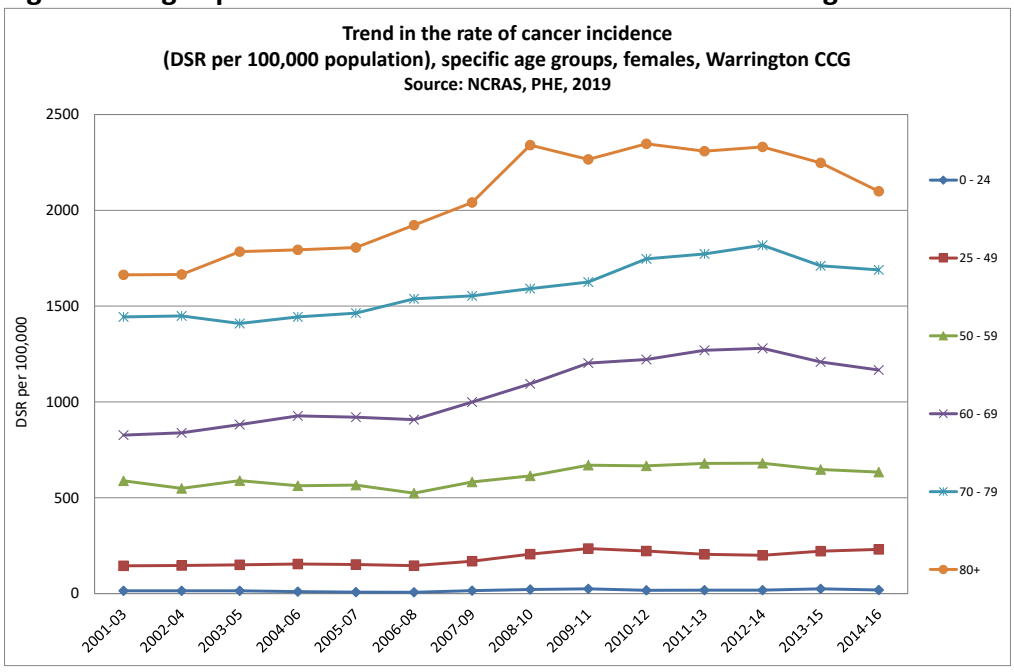


Figure 26: Age Specific Incidence Rate of All Cancers in Warrington Women



Although the lifetime risk of developing cancer is one in two[5], the rate of cancer incidence increases with age, and is highest in those aged 80 years and above for both men and women (figures 25 and 26). In Warrington, between 2014 and 2016, there was an average 2,730 new cases of cancer per 100,000 all persons aged 80+ each year, compared with 19

new cases per 100,000 population aged 24 years or younger. These older age groups are likely to have other co-morbidities, which could increase the complexity of care they need. Analysis by gender also demonstrates that whilst men had a higher cancer incidence rate than women from the age of 50, for the younger 25-49 age group, females had a higher incidence rate than males (231 per 100,000 and 112 per 100,000 respectively).

Between 2014 and 2016, a total of 3,468 new cancers were diagnosed in Warrington residents (excluding skin cancers other than malignant melanoma); 1,742 in men (50.2%) and 1,726 in women (49.8%). The number of new cases for each tumour type for all persons are illustrated in figure 27.

Table 3 demonstrates the ten most common new cancer cases in men and women in Warrington during this time period, with the comparative ranking in England. The most common new cancer diagnoses in local men were prostate, lung and colorectal cancers, whereas for women, breast, lung and colorectal were the most common new cancer cases.

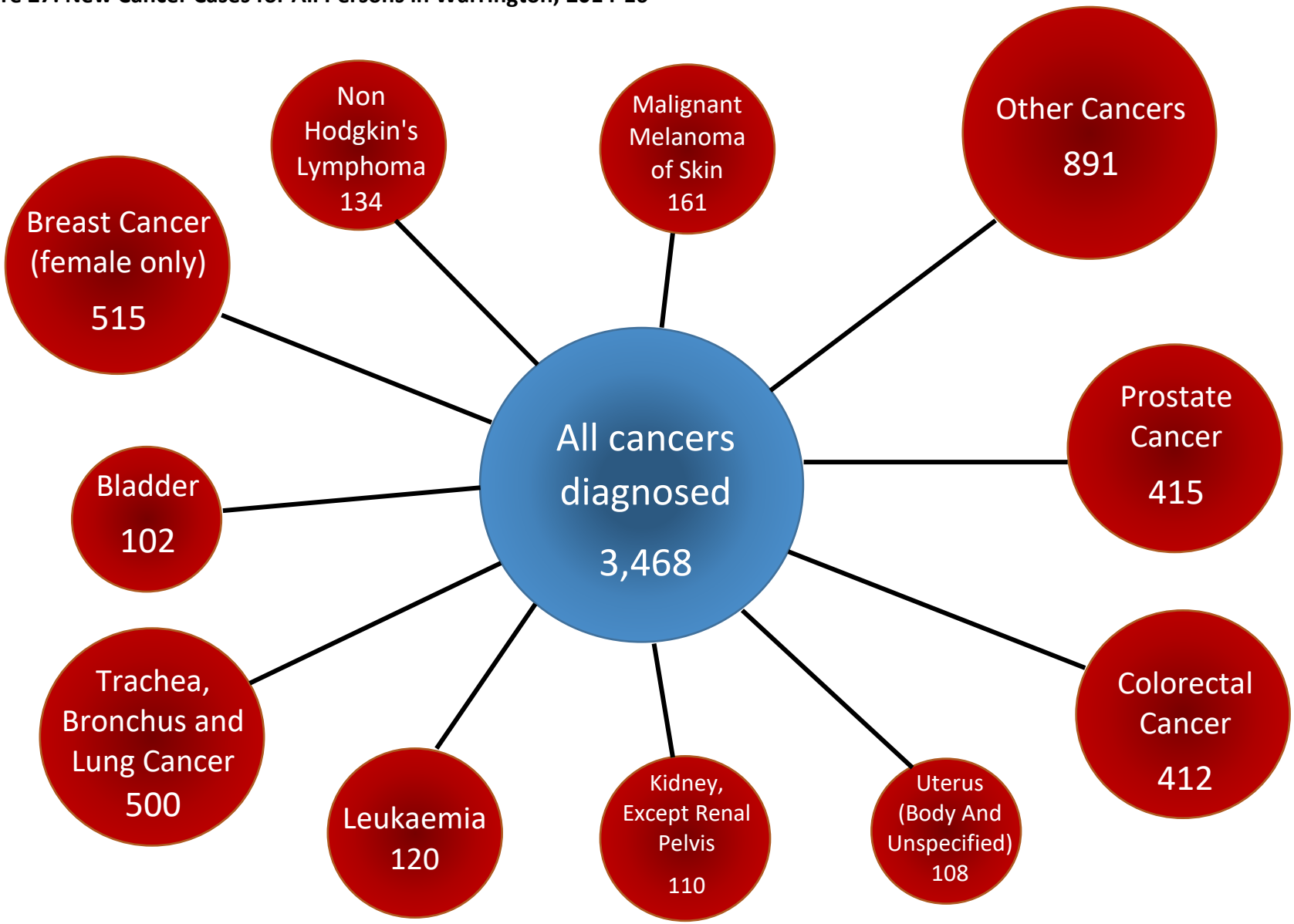
The rank order of new cancer types in Warrington is generally in line with that experienced nationally, with the exception of pancreatic cancer, which has a lower incidence locally in both men and women than England, and cervical cancer, which comprises a greater number of new cases locally. These differences may be reflective of the relatively small number of new cancer cases at local level and should therefore be treated with some caution. However, further audit of new cancer registrations would assist in evaluating potential factors for these discrepancies.

Table 3: Number of New Cancer Cases Diagnosed 2014-16 by Gender

Males			
Cancer Type	**Number of Cases**	**Warrington Rank**	**England Rank**
Prostate	415	1	1
Trachea, Bronchus And Lung	253	2	2
Colorectal	243	3	3
Non Hodgkin's Lymphoma	84	4	5
Malignant Melanoma	79	5	4
Leukaemia	78	6	9
Bladder	71	7	6
Kidney,	70	8	7
Oesophagus	43	9	8
Stomach	40	10	
Pancreas			10

Females			
Cancer Type	**Number of Cases**	**Warrington Rank**	**England Rank**
Breast	515	1	1
Trachea, Bronchus And Lung	247	2	2
Colorectal	169	3	3
Uterus	108	4	4
Malignant Melanoma	82	5	5
Ovary	73	6	6
Non Hodgkin's Lymphoma	50	7	6
Leukaemia	42	8	10
Cervix	41	9	
Kidney	40	10	9
Pancreas			8

Figure 27: New Cancer Cases for All Persons in Warrington, 2014-16



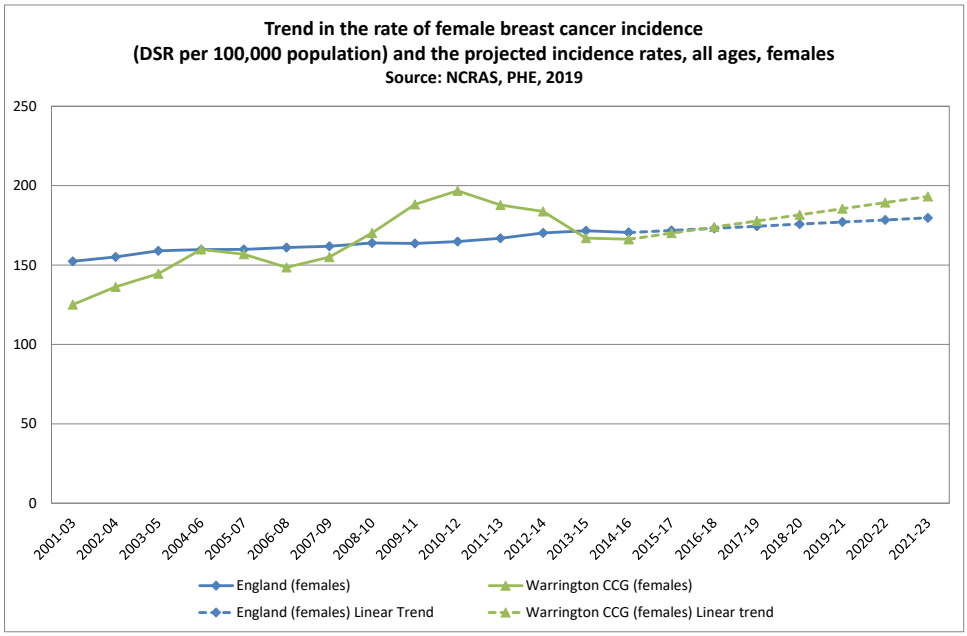
Breast, prostate, lung and colorectal are the most commonly diagnosed cancers and are responsible for the greatest burden of cancer both locally and nationally (Table 3). The incidence of each of these cancers in Warrington is explored in turn.

5.1 Breast Cancer Incidence

Breast cancer is the most common cancer diagnosis in women, comprising nearly one in three (29.8%; 515/1,726) of new Warrington female cancer cases in 2014-2016. Whereas the national incidence of breast cancer has slowly risen over the last 15 years, the incidence in Warrington women significantly increased from 2001, peaking between 2010 and 2012, before falling to an annual average of 166 new cases per 100,000 women during 2014-16 (figure 28). This is slightly lower than the national breast cancer incidence rate of 170 new cases per 100,000 women per year.

However, trend analysis demonstrates that newly diagnosed breast cancer cases are predicted to increase by 16% in Warrington to an average 193 per 100,000 per year by 2023, higher than the estimated England rate of 180 per 100,000 (figure 28) if previous trends were to continue.

Figure 28: Actual and Projected Breast Cancer Incidence Rates

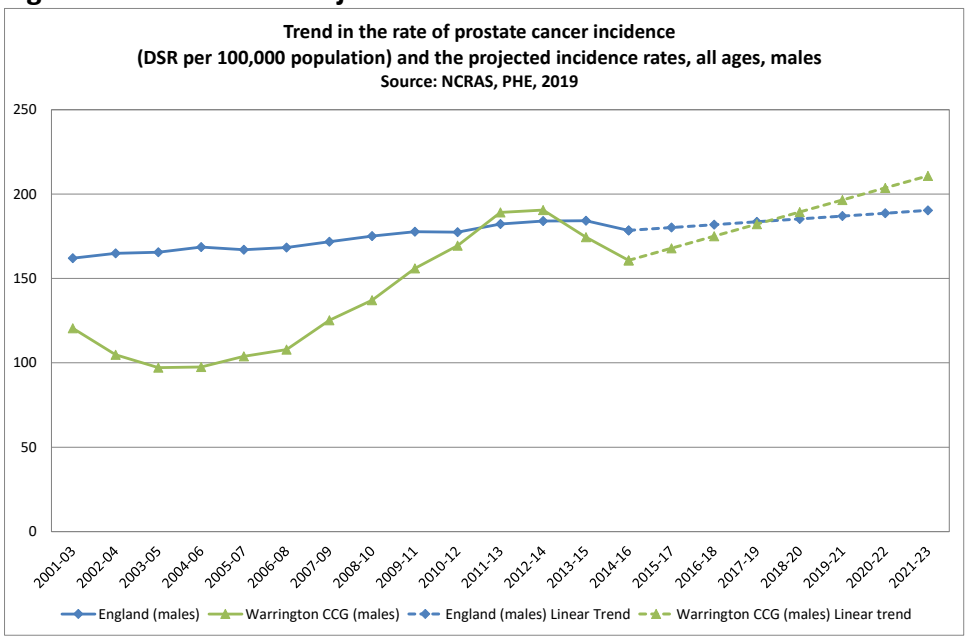


5.2 Prostate Cancer Incidence

Prostate cancer is the most common cancer diagnosed in men, accounting for nearly a quarter (23.8%; 415/1,742) of newly diagnosed male cancers in Warrington in 2014-16 (figure 27). As figure 29 illustrates, prostate cancer incidence has slowly increased year-on-year in England, with an average annual rate of 178 new cases per 100,000 men between 2014 and 2016. However, at local level, incident cases of prostate cancer initially dropped between 2001 and 2005 and then rose considerably each year until 2014, before decreasing again to 161 new cases per 100,000 men per year during 2014-16 (figure 29); 11% lower than the national rate. This may highlight issues with the accuracy of local data recording and further investigation of new prostate cancer registrations would assist in quantifying

the factors contributing to this fluctuating trend in incidence rates over time. Furthermore, forecasting illustrates that in line with the ageing population, prostate incidence rates are estimated to substantially increase by 31% to 211 new cases per 100,000 men in Warrington, compared with 190 per 100,000 men in England by 2023 (figure 29) if previous trends were to continue.

Figure 29: Actual and Projected Prostate Cancer Incidence Rates

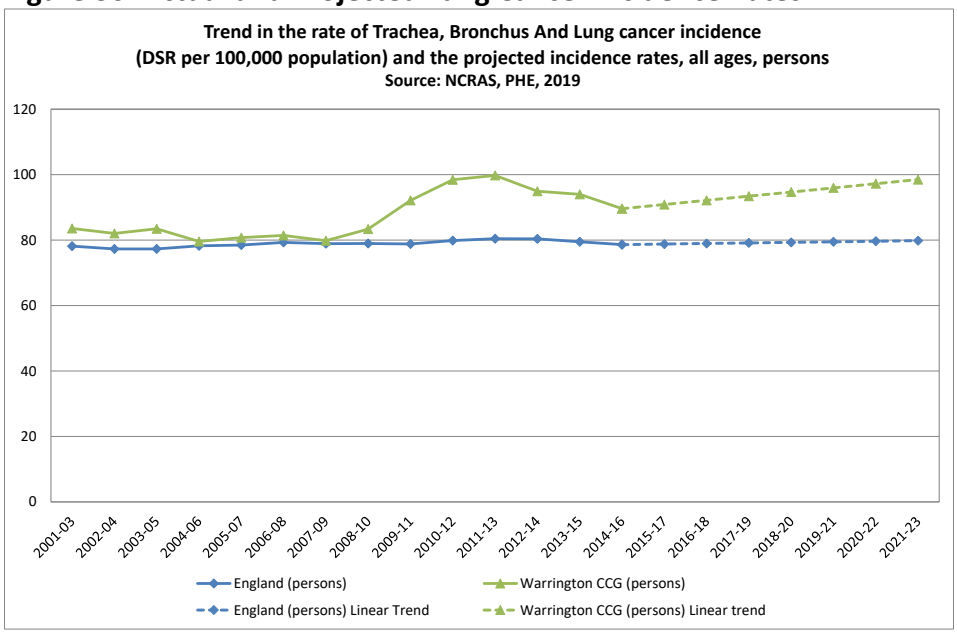


5.3 Lung Cancer Incidence

For both Warrington males and females, lung cancer accounted for around 1 in 7 new cancer registrations between 2014 and 2016 (figure 27). Whilst the lung cancer incidence rate has remained stable in England, with an average of 79 new cases per 100,000 population per year in 2014-16, the incidence rate in Warrington has steeply risen over the last decade, remaining significantly higher than England for every time period since 2009-11 (figure 30). In 2014-16, the annual lung cancer incidence rate in Warrington was 14% higher than England at 90 new cases per 100,000 people. Additionally, forecasts suggest that the lung cancer incidence gap between Warrington and England will widen further by 2023, with the local rate rising to 98 new cases per 100,000 people, 23% higher than the national forecast of 80 new lung cancers per 100,000 population (figure 30) if previous trends continue.

Differences are also noted in lung cancer incidence by gender. Historically, men have had higher rates of lung cancer diagnosis than women, both locally and nationally. However, this trend is now changing, with lung cancer incidence reducing in men but significantly increasing in women. In Warrington, lung cancer diagnosis has reduced 10% among males over the last 16 years to an average 98 new cases per 100,000 men per year in 2014-16. Conversely, the rate of new lung cancer cases in local women has risen by 41% in the same time period to 81 new diagnoses per 100,000 females in 2014-2016. This pattern of lung cancer incidence is related to the gender transformation in levels of smoking prevalence over the last forty years.

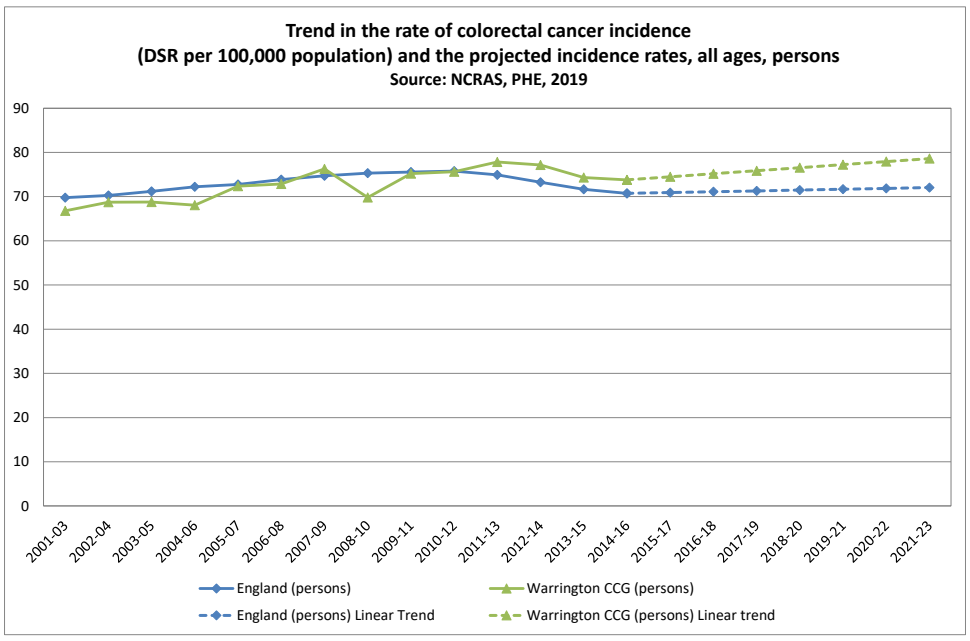
Figure 30: Actual and Projected Lung Cancer Incidence Rates



5.4 Colorectal Cancer Incidence

There were 412 new cases of colorectal cancer diagnosed in patients registered with Warrington GP Practices in 2014-16, representing just over one in eight of new cancer registrations. The incidence of colorectal cancer has steadily risen over time in both Warrington and England to an average 74 new cases per 100,000 and 71 new cases per 100,000 per year in 2014-16, respectively. Linear forecasts suggest that if this trend continues, the local incidence rate will increase to 79 new colorectal cancer cases per 100,000 population annually by 2021/23, exceeding the national estimated incidence rate of 72 per 100,000 population by 10%.

Figure 31: Actual and Projected Colorectal Cancer Incidence Rates

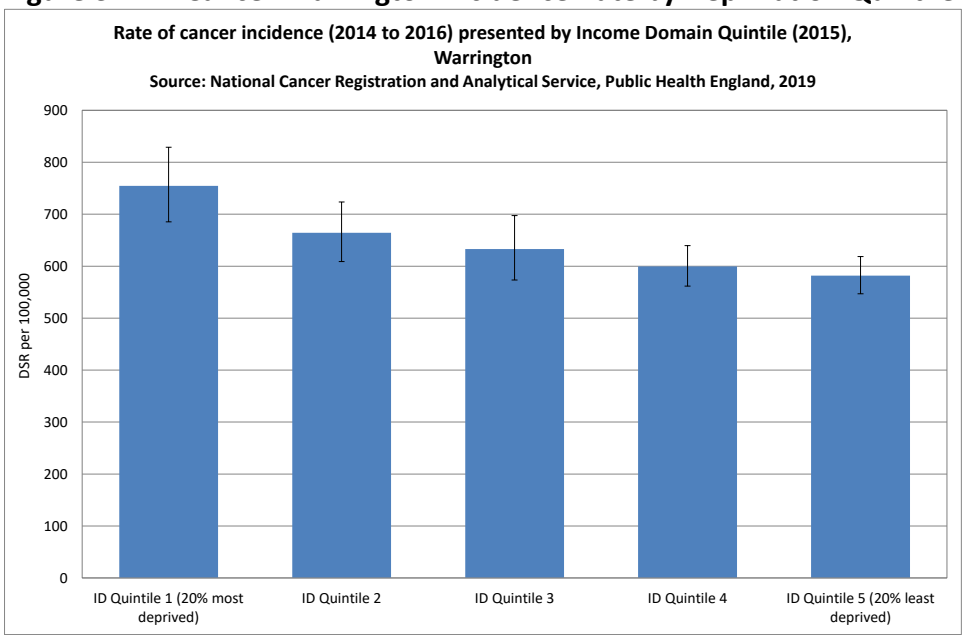


Historically, colorectal cancer incidence has been significantly higher in men, compared with women, at both local and national level. In 2014-16, an average of 93 new cases of colorectal cancer were diagnosed annually per 100,000 men in Warrington, which was 69% higher than the incidence rate in women (55 new cases per 100,000 females). These gender differences are in part reflective of men's poorer lifestyle behaviour[106].

5.5 Cancer Incidence and Deprivation

A relationship also exists between the number of new cancer cases and level of deprivation. As figure 32 demonstrates, at all ages, the rate of cancer incidence in Warrington residents' increases with greater deprivation. In 2014-16, the annual cancer incidence rate among the 20% most deprived communities in Warrington was 755 new cases per 100,000 population, which is substantially higher than the 582 new diagnoses per 100,000 for the least deprived and the Warrington average (figure 24). This pattern of cancer incidence is illustrative of the higher levels of unhealthy lifestyle behaviour, such as smoking (figure 4), physical inactivity[60] and unsafe alcohol consumption[70] and lower screening uptake rates in more deprived communities.

Figure 32: All Cancer Warrington Incidence Rate by Deprivation Quintile

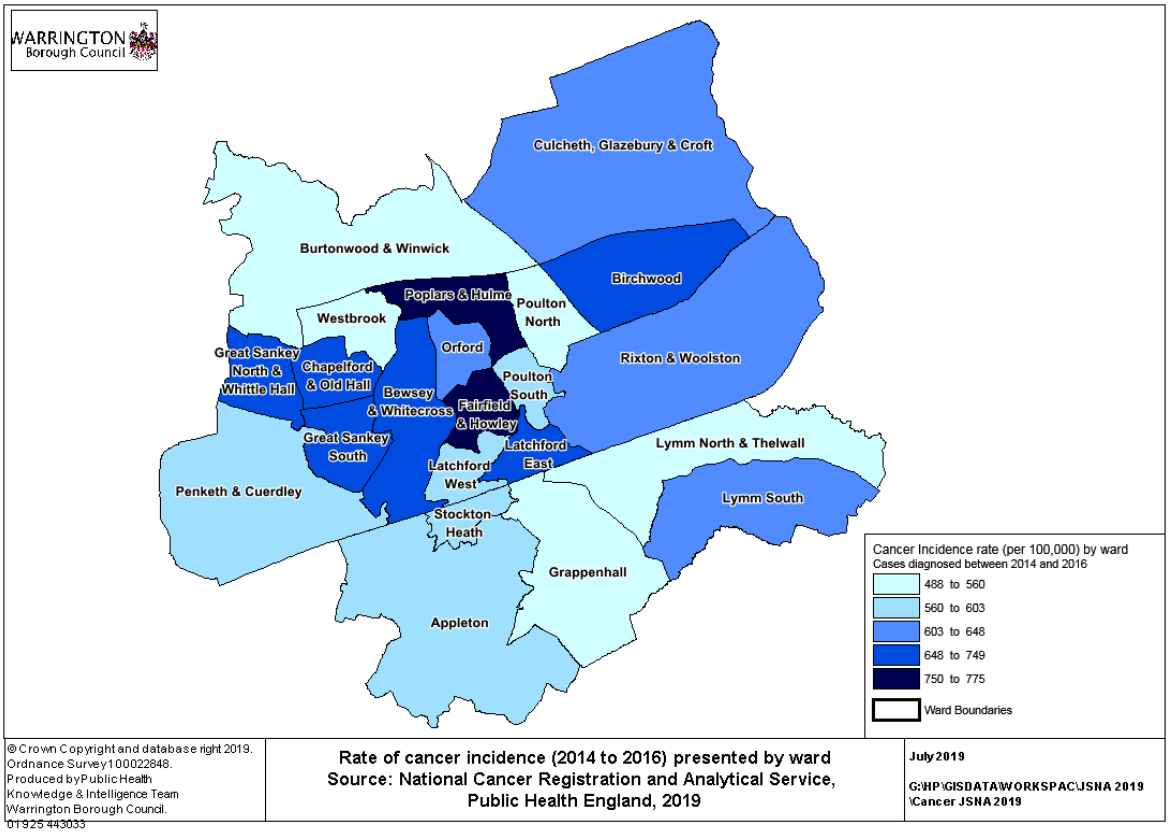


Analysis of cancer incidence within the different Warrington neighbourhoods also reveals notable variation and cancer inequalities across the borough. At ward level, in 2014-16, cancer incidence rates were predominantly higher than the overall Warrington rate in areas with greater deprivation (figure 33). This is particularly notable for Fairfield and Howley, Poplars and Hulme, which rank among the most deprived wards in Warrington (figure 1) and have significantly higher rates of new cancer diagnoses than the remainder of the borough (758 per 100,000 and 775 per 100,000 respectively).

This is in stark contrast to the least deprived wards in Warrington such as Appleton, Grappenhall, Lymm North and Thelwall, which experienced cancer incidence rates well below the local average (560 per 100,000, 489 per 100,000 and 543 per 100,000

respectively). Primary cancer prevention programmes and initiatives to increase rates of participation in cancer screening should therefore be targeted to the most deprived communities to address inequalities in cancer incidence.

Figure 33: All Cancer Incidence Rate by Warrington Ward, 2014-16



Cancer Incidence Key Priorities

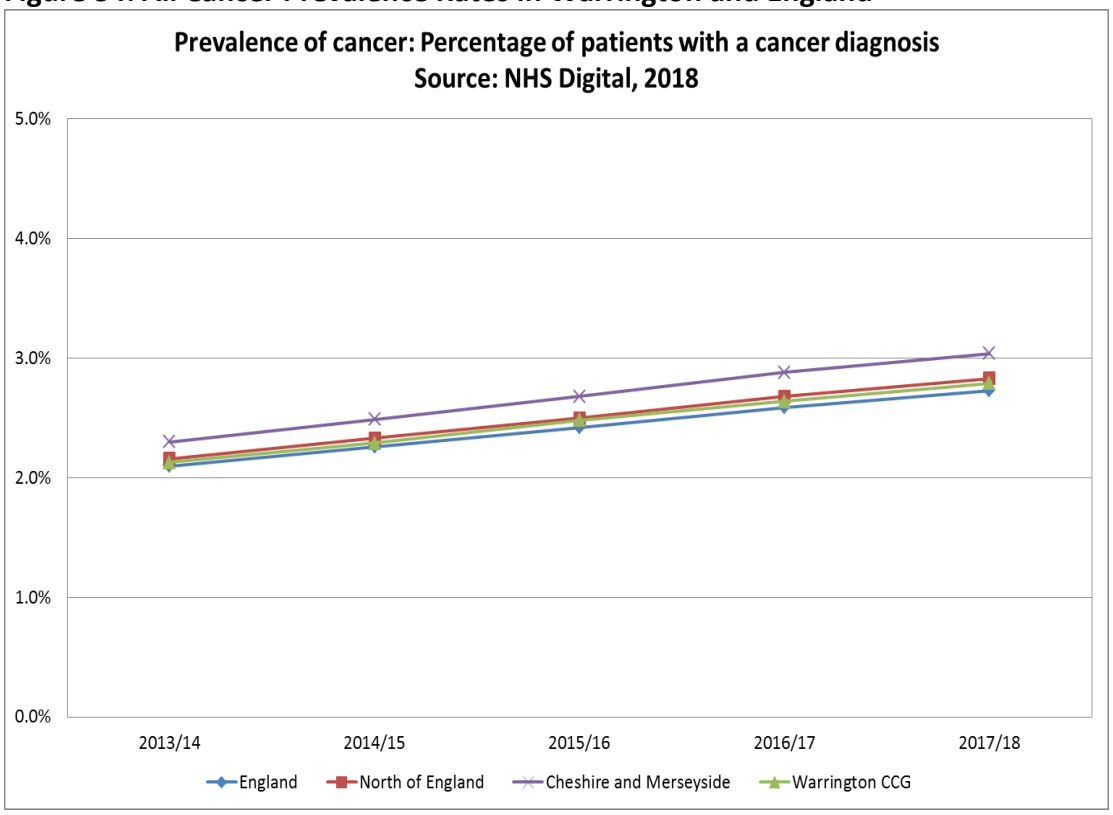
- Undertake a primary care audit of the pancreatic cancer pathway to investigate the discrepancy between the local and national new registrations, review practice and inform improvements.
- Review the prostate cancer pathway and data recording systems to elucidate potential factors contributing to the variation in incidence rates.
- Target lifestyle behaviour change programmes, environmental modifications and initiatives to increase participation in cancer screening programmes to people living in the most deprived wards to address inequalities in cancer risk factors, screening uptake and cancer incidence across the borough.

6. Cancer Prevalence

Cancer prevalence measures the proportion of the population diagnosed with cancer at any one time. This includes both new and existing cancer cases but excludes non melanoma skin cancers. It is measured by the percentage of patients that are registered with a GP Practice and recorded on the Practice cancer register. In 2017/18, 6,080 patients registered with GP Practices in Warrington were living with a cancer diagnosis, equating to 2.79% of all patients. This is comparable with the North of England and England cancer prevalence rates (2.83% and 2.73% respectively), but slightly lower than Cheshire and Merseyside (3.04%).

As Figure 34 demonstrates, cancer prevalence has been steadily increasing year-on-year in Warrington, in line with both regional and national trends. This reflects improvements in primary care cancer recording, greater incidence of cancer and increased survival as more people continue to live longer with cancer as a result of earlier detection and effective treatment.

Figure 34: All Cancer Prevalence Rates in Warrington and England



There is variation in cancer prevalence between GP Practices across the borough, ranging from 1.1% to 4.1% in 2017/18. This may be illustrative of differences in the case mix of registered patients, such as their age structure and lifestyle factors, cancer screening uptake rates and survival. As expected, practices located in areas with greater proportions of older residents e.g. Stockton Heath, Penketh and Cuerdley, Culcheth, Glazebury and Croft (table 1) have substantially higher cancer prevalence than those serving a younger demography e.g. Bewsey and Whitecross.

7. Routes to Cancer Diagnosis

Early diagnosis of cancer is important to improve survival and quality of life for patients. Evidence demonstrates that patients generally achieve better prognosis and treatment outcomes if they are identified early, through GP pathways with subsequent planned elective cancer treatment. Where cancer is diagnosed as a result of emergency admission to hospital, this usually indicates more advanced disease, with less effective treatment and poorer survival rates[6].

In order to diagnose cancer earlier, patients need to be aware of the signs and symptoms of possible cancer and present to primary care. Equally, health professionals need to recognise cancer signs and symptoms in order to refer patients for diagnostic tests. There are a number of routes through which patients are diagnosed with cancer[94]:

- **Screening** – Detected via the breast, bowel and cervical cancer screening programmes.
- **Two Week Wait** – The patient is referred urgently with a suspicion of cancer on an accelerated pathway.
- **GP Referral** – The patient is not referred under the Two Week Wait referral route but through routine or urgent referral.
- **Other Outpatient** - Via an elective, outpatient appointment as a result of self-referral, consultant to consultant or another referral.
- **Inpatient Elective** – As a result of a planned hospital admission.
- **Emergency Presentation** – Diagnosis when a patient is admitted to hospital via an Accident and Emergency Department, emergency GP referral or emergency transfer.
- **Death Certificate Only** – diagnosis by death certificate.
- **Unknown** – The patient record does not contain information regarding route of cancer diagnosis.

As figure 35 illustrates, over the last decade, significantly more cancers in Cheshire and Merseyside patients are being diagnosed following a Two Week Wait referral, rising from one in four diagnoses in 2006 to one in three in 2016. This corresponds with a notable reduction in diagnosis through emergency hospital presentation from a quarter of cancer cases in 2006 to less than a fifth in 2016.

This is reflective of increases in the general population's awareness of cancer and health professional referral, partly resulting from implementation of the 'Be Clear on Cancer' campaigns[12], health professional training, NICE guidelines[11] and optimal diagnostic pathways.

Figure 35: Routes to Diagnosis of All Cancers, Cheshire and Merseyside, 2006-16

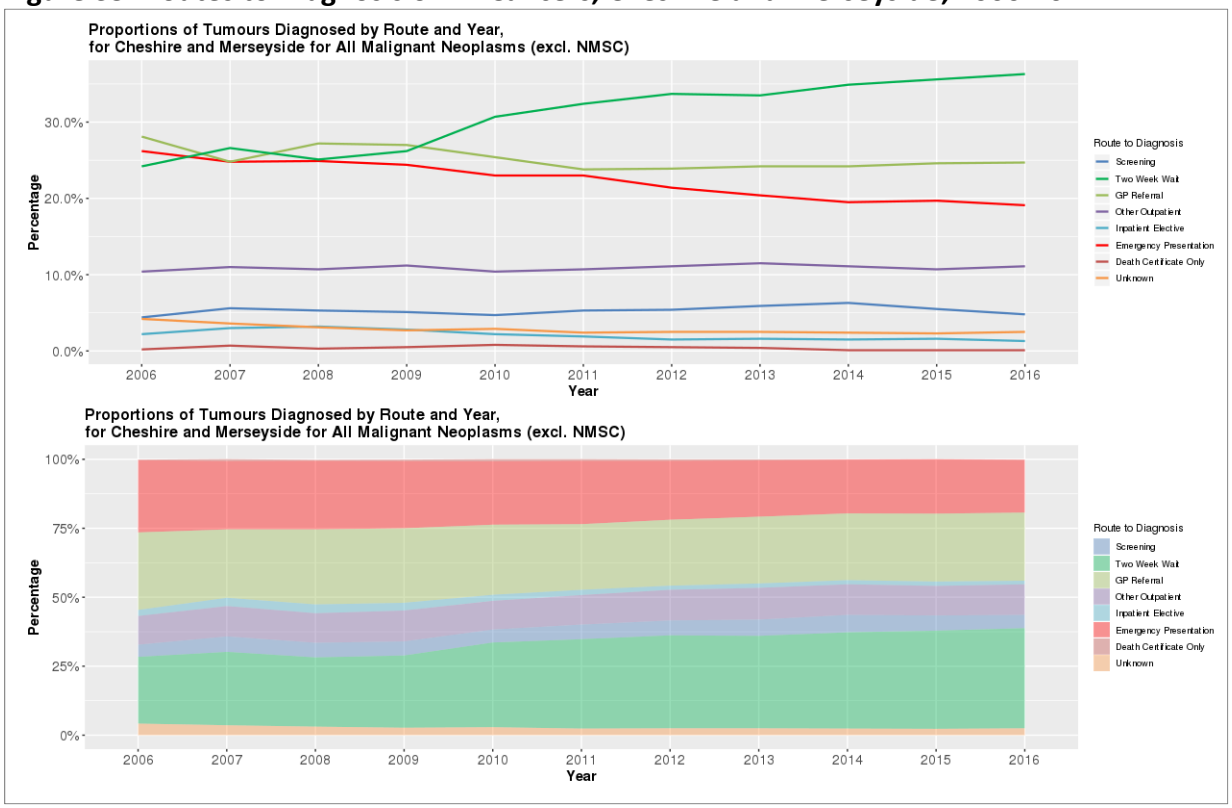


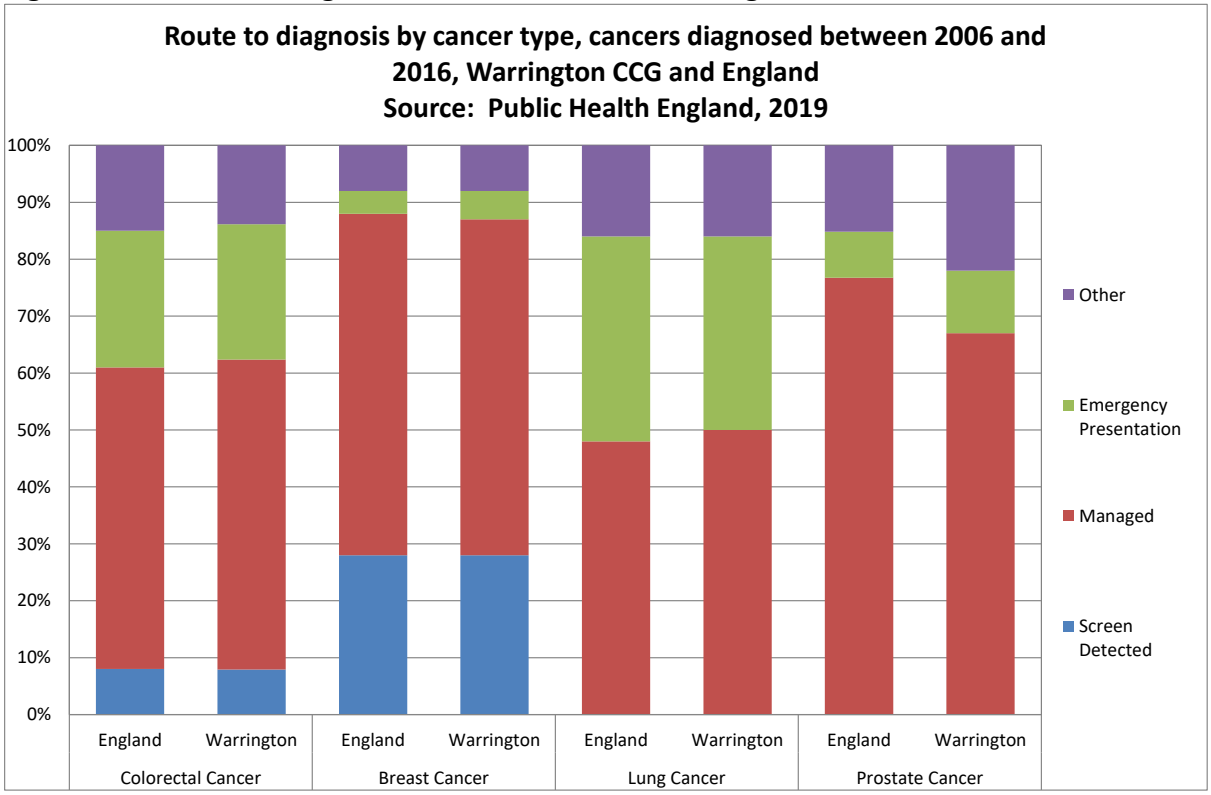
Figure 36 demonstrates the route to diagnosis for the four most common cancers in Warrington and England between 2006 and 2016. These are classified into four groups; managed (Two Week Wait and other planned routes), emergency presentation (via an emergency referral or admission), screen-detected (breast, bowel and cervical cancer screening) and other. This illustrates that there are major variations between the prominence of emergency presentations between the different tumour types. At both local and national level, a greater proportion of lung cancer (34% and 36% respectively) and colorectal cancer (24% and 24% respectively) cases were diagnosed as a result of emergency presentation, compared with breast (5% and 4% respectively) and prostate cancers (11% and 8% respectively).

Future efforts to facilitate primary care referral and earlier diagnosis of lung and colorectal cancers should therefore focus on raising the general public's awareness of the signs and symptoms of these cancers, encouraging timely primary care presentation in those with symptoms and increasing participation in colorectal cancer screening, supported by health professional training.

No significant differences were noted between the routes to diagnosis for breast, colorectal and lung cancers in Warrington and England over the ten-year period. However, a significantly smaller proportion of prostate cancers were diagnosed through planned, managed routes locally (67% of diagnoses) than nationally (76% of diagnoses), with more cases categorised as 'other' due to the unavailability of relevant information (22% and 15%

respectively). This illustrates the need for enhanced recording of diagnosis pathway data in prostate cancer patient notes.

Figure 36: Routes to Diagnosis of Breast, Colorectal, Lung and Prostate Cancer, 2006-16



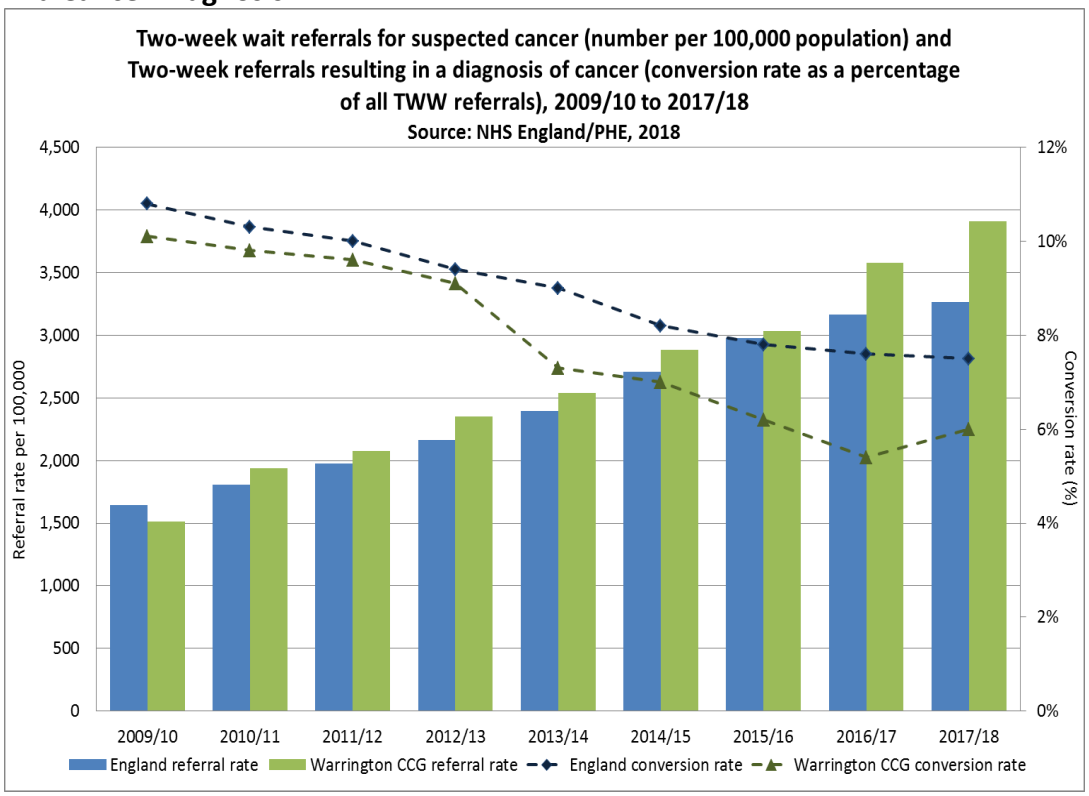
8. Two Week Wait (2WW) Referrals

The Two Week Wait (2WW) suspected cancer pathway aims to accelerate cancer diagnosis presenting in primary care, in order to improve outcomes through timely access to specialist review and treatment initiation. Prompt diagnosis is also beneficial in reducing unnecessary anxiety in the majority of patients referred under this pathway that do not receive a cancer diagnosis[7].

Patients whose GP suspects they have cancer are urgently referred under this pathway and are seen by a specialist team within two weeks. NICE guidelines[11] provide clinicians with the frameworks and eligibility criteria to maximise the identification and referral of patients with symptoms suggestive of cancer through the two-week wait pathway. In 2015, the threshold for referring patients with suspected cancer for investigation was lowered (the positive predictive value reduced from 5% to 3%), thereby increasing the number of people that could potentially be referred[11].

Figure 37 demonstrates that 2WW referrals for suspected cancer have substantially increased for both England and Warrington since 2009/10. Overall, the 2WW referrals for Warrington have been consistently higher than that for England and have increased at a faster rate. Since 2009/10, the Warrington 2WW suspected cancer referral rate increased by 158.5% to 3,909 referrals per 100,000 population in 2017/18. The corresponding increase for England 2WW referrals over the same time period was 98% to a peak of 3,263 referrals per 100,000 people in 2017/18.

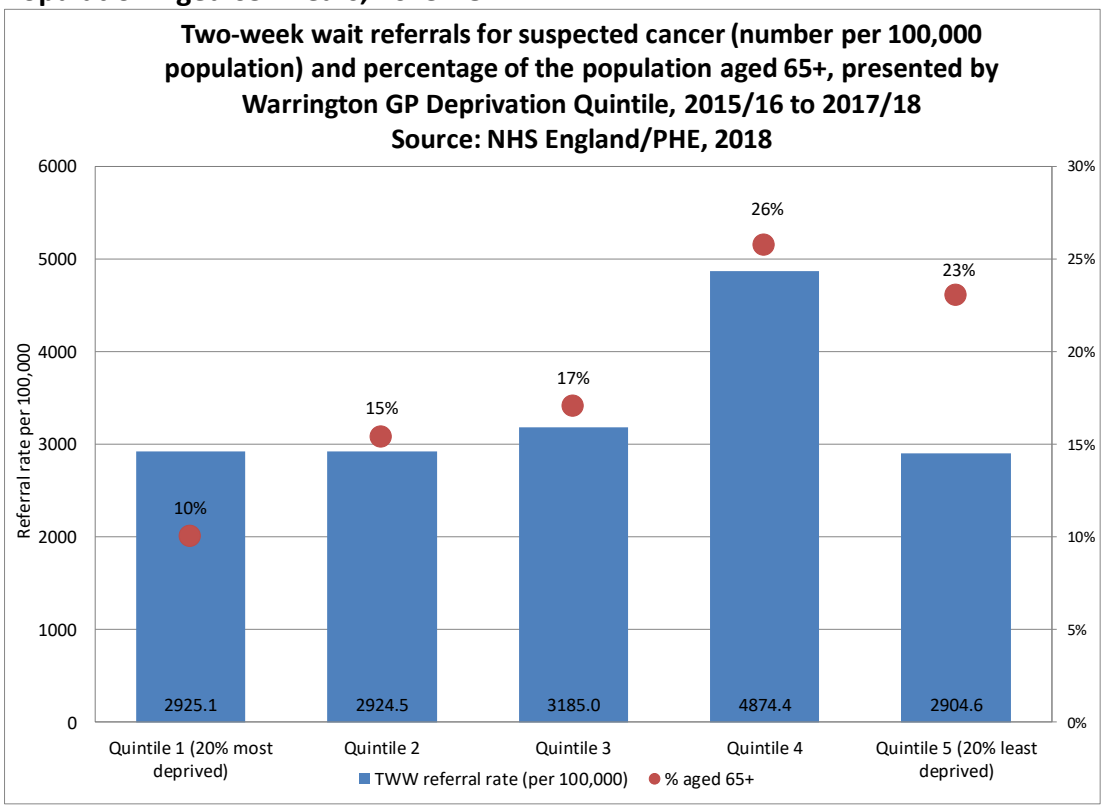
Figure 37: 2WW Referral Rate for Suspected Cancer and Proportion (%) Resulting In a Cancer Diagnosis



Only a proportion of referrals for suspected cancer will result in an actual diagnosis and this is known as the conversion rate. For both England and Warrington, the increase in 2WW referrals has corresponded with a reduction in the conversion rate (figure 37). Nationally, the conversion rate has declined from 11% in 2009/10 to 8% in 2017/18. Notably, the reduction in Warrington has been more marked, decreasing from 10% in 2009/10 to 6% in 2017/18, and has been substantially lower than England since 2013/14. This may indicate an overuse of the 2WW pathway in Warrington e.g. referral of the 'worried well' or alternatively, reflect the stage of patient presentation. Patient populations who present late with cancer symptoms are easier to diagnose and consequently a higher conversion rate may be a result of late presentation, rather than a reflection of clinical practice.

The level of 2WW referrals varies considerably across Warrington GP Practices, with a fourfold difference between the lowest referring practice (1,733 referrals per 100,000 people) and the highest (6,991 referrals per 100,000 people) in 2017/18. Differences were also observed in the conversion rates between practices, ranging from 2% to 9% in 2017/18.

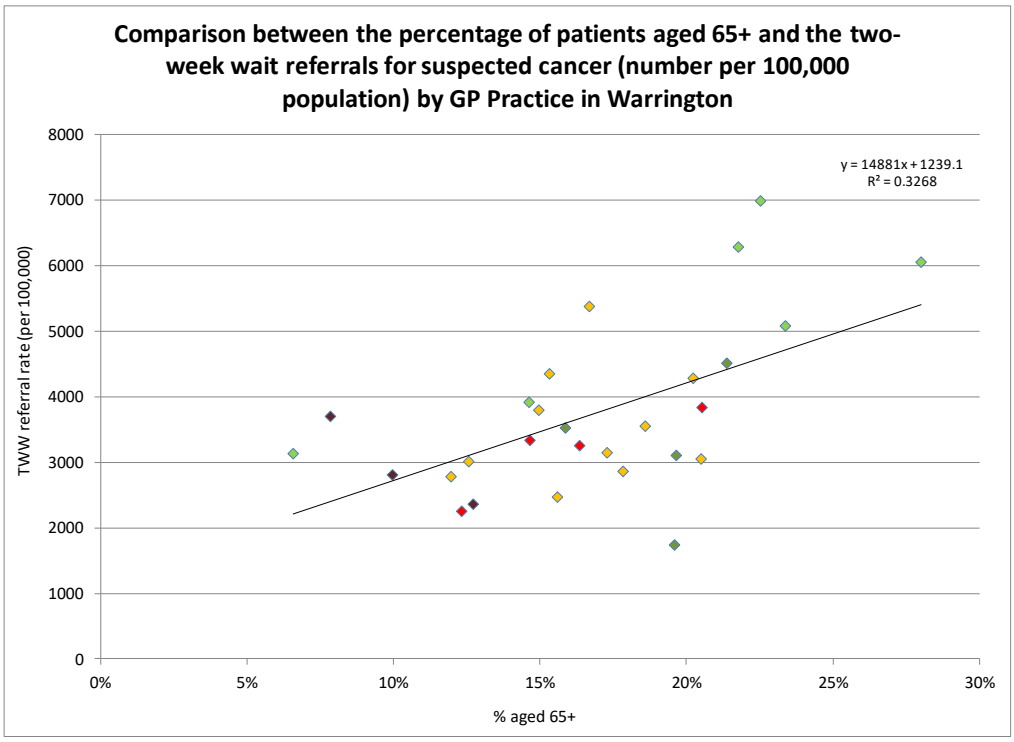
Figure 38: Warrington 2WW Referral Rate by Deprivation and Proportion (%) of Population Aged 65+ Years, 2015-18



The reasons for this variation in 2WW suspected cancer referrals across Warrington GP practices are likely to be complex but in part, is reflective of their catchment populations. As figure 38 highlights, analysis of the 2WW referral rate by GP Practice deprivation quintile does not demonstrate an association with deprivation, with no difference in referral rates between the GP Practices located in the 20% most deprived areas and those in the 20% least deprived areas (2,925 referrals per 100,000 and 2,904 referrals per 100,000 respectively).

However, there is a relationship between 2WW referral rates and patient population age. GP practices with greater proportions of older registered patients aged 65 years and over, who are at higher risk of cancer, have higher 2WW referral rates than those with younger patient profiles (figure 39).

Figure 39: Warrington 2WW Referral Rate by Proportion (%) of Population Aged 65+ Years

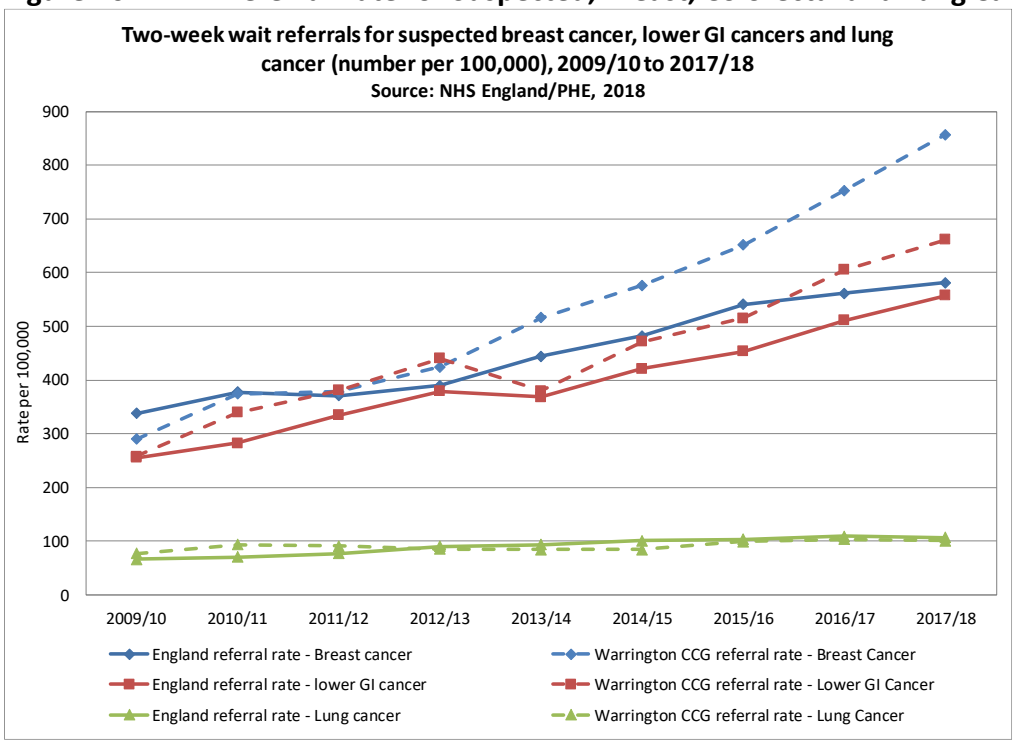


There is also notable variation in the 2WW referral rates between the different cancer types. As figure 40 shows, the 2WW referral rate for suspected lung cancer is considerably lower than that for suspected breast and lower gastro-intestinal (GI) cancers. Since 2009/10, 2WW referrals for suspected breast cancer have steadily increased by 71.9% in England, rising to 581 referrals per 100,000 women in 2017/18. The corresponding increase in Warrington is noticeably higher, rising by 195.5% in the same time period from 290 referrals per 100,000 women in 2009/10 to 857 per 100,000 women in 2017/18.

A similar trend is shown for 2WW referrals for suspected lower-GI cancers, which have increased by 118.4% in England and more markedly, by 156.2% in Warrington between 2009/10 and 2017/18. The 2WW referral rate for suspected lower-GI cancers in 2017/18 was 661 per 100,000 people in Warrington, which was 18.7% higher than the national average of 557 per 100,000 people.

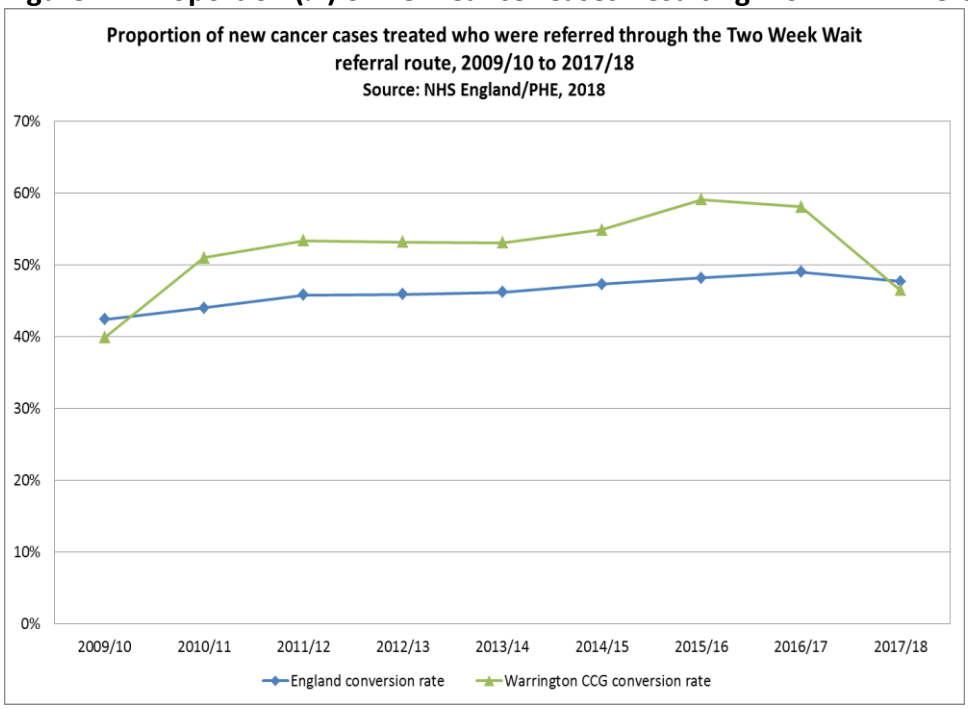
However, referrals for suspected lung cancer have not experienced the equivalent increases during this time period and have remained consistently lower at both national and local level. In 2017/18, the 2WW referral rate for suspected lung cancer was 107 per 100,000 population in England and 101 per 100,000 people in Warrington. Future action should therefore focus on increasing public and health professional awareness of lung cancer symptoms and rates of referral to facilitate early diagnosis and treatment.

Figure 40: 2WW Referral Rate for Suspected, Breast, Colorectal and Lung Cancers



The cancer detection rate measures the proportion of new cancer cases that are treated. Figure 41 denotes the detection rate for new cancer cases receiving treatment that were referred through the 2WW route at local and national level. This illustrates that whilst the proportion of new treated cancers resulting from a 2WW referral steadily improved in England from 42% in 2009/10 to 48% in 2017/18, the increase for Warrington was greater, in keeping with our higher 2WW referral rates (figure 37).

Figure 41: Proportion (%) of New Cancer Cases Resulting From 2WW Referral

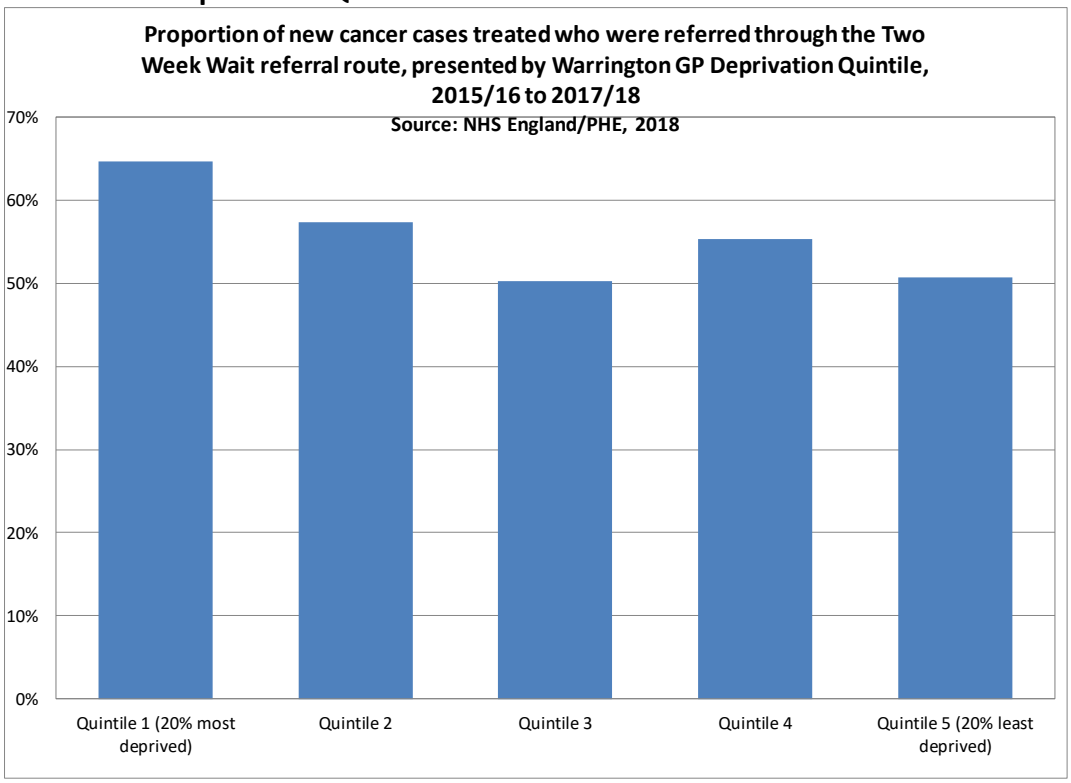


Since 2010/11, Warrington's cancer detection rate through the 2WW has been significantly higher than England, until 2017/18, when it substantially declined below the national average to 46.5%. This recent decline may reflect the smaller numbers of cancers cases treated locally; however further exploration of the cancer detection data is required to elucidate factors contributing to this reduction.

As figure 42 demonstrates, there is an association between the cancer detection rate and deprivation, with a greater proportion of cancer cases treated through the 2WW route in Warrington GP Practices located in more deprived areas. Between 2015 and 2018, 65% of new treated cancers resulted from a 2WW referral by practices located in the 20% most deprived areas of Warrington, compared with 51% referred from practices in the 20% least deprived areas.

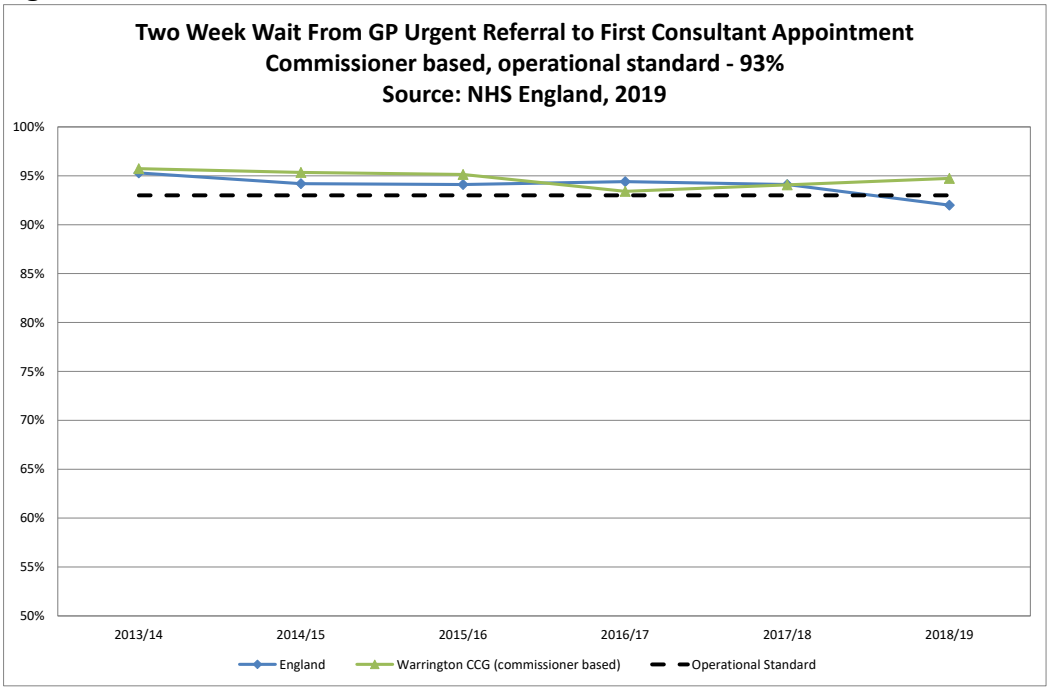
The reasons for this are multifaceted, but could include a number of possible contributing factors, such as the higher levels of lifestyle cancer risk factors e.g. smoking, poor diet and obesity in more deprived patient populations; their lower uptake of cancer screening and proportionally fewer cancers diagnosed through this route; greater levels of late presentation with cancer symptoms; or differences in clinical practice. Further audit of new Warrington cancer cases would assist understanding of this correlation.

Figure 42: Proportion (%) of New Cancer Cases Resulting From 2WW Referral by GP Practice Deprivation Quintile



There is a national operational standard stipulating that a minimum of 93% of patients referred for suspected cancer under the 2WW pathway should be seen by a specialist within 14 days of referral[107]. Historically, NHS services in Warrington have consistently achieved this target, often exceeding the overall performance in England (figure 43). In 2018/19, 94.7% of the 10,073 Warrington patients urgently referred under the 2WW pathway had their first consultant appointment within two weeks of GP referral, which was higher than the national average of 92.0%.

Figure 43: All Cancers Two Week Wait Performance, 2013-19

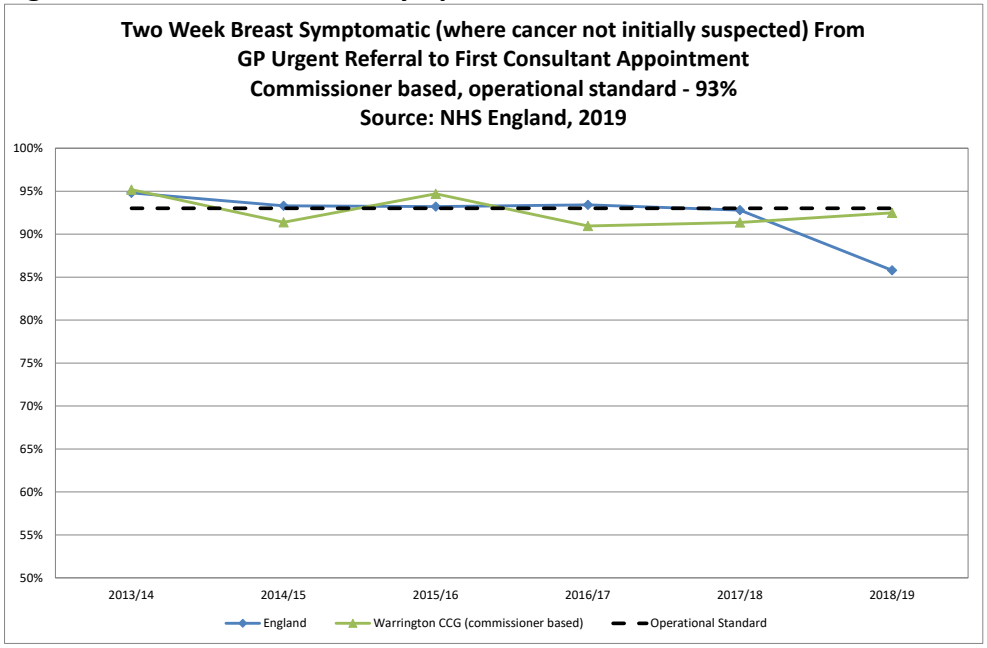


There is also a national standard that at least 93% of patients referred for investigation of breast symptoms should have their first hospital assessment within a maximum of two weeks, even if cancer is not initially suspected[107]. However, as figure 44 demonstrates, some patients experiencing breast symptoms and referred by Warrington GP Practices have waited longer than two weeks to be seen by a specialist. Service data indicates that the numbers of Warrington patients referred under this pathway has decreased year-on-year from 1,079 in 2013/14 to 652 in 2018/19. However, despite this drop in referrals, the proportion of women seen by a breast cancer specialist within two weeks decreased from 2015/16 onwards and has remained below the 93% operational target thereafter (figure 44).

The latest 2018/19 data shows that 92.5% of Warrington symptomatic breast referrals had their first consultant appointment within two weeks. Whilst this is lower than the national standard, it is considerably higher than the overall performance in England, which significantly decreased in 2018/19 to an average 85.8% of women having their appointment within two-weeks of referral. This may be illustrative of patient's rescheduling their initial appointment dates outside of the two-week timeframe and demonstrates the need to advise women of the importance of attending their appointments to assist prompt

diagnosis. Given the ageing population and predicted increases in local breast cancer incidence (figure 28), this needs to be addressed as a matter of priority.

Figure 44: Two Week Breast Symptomatic Performance, 2013-19



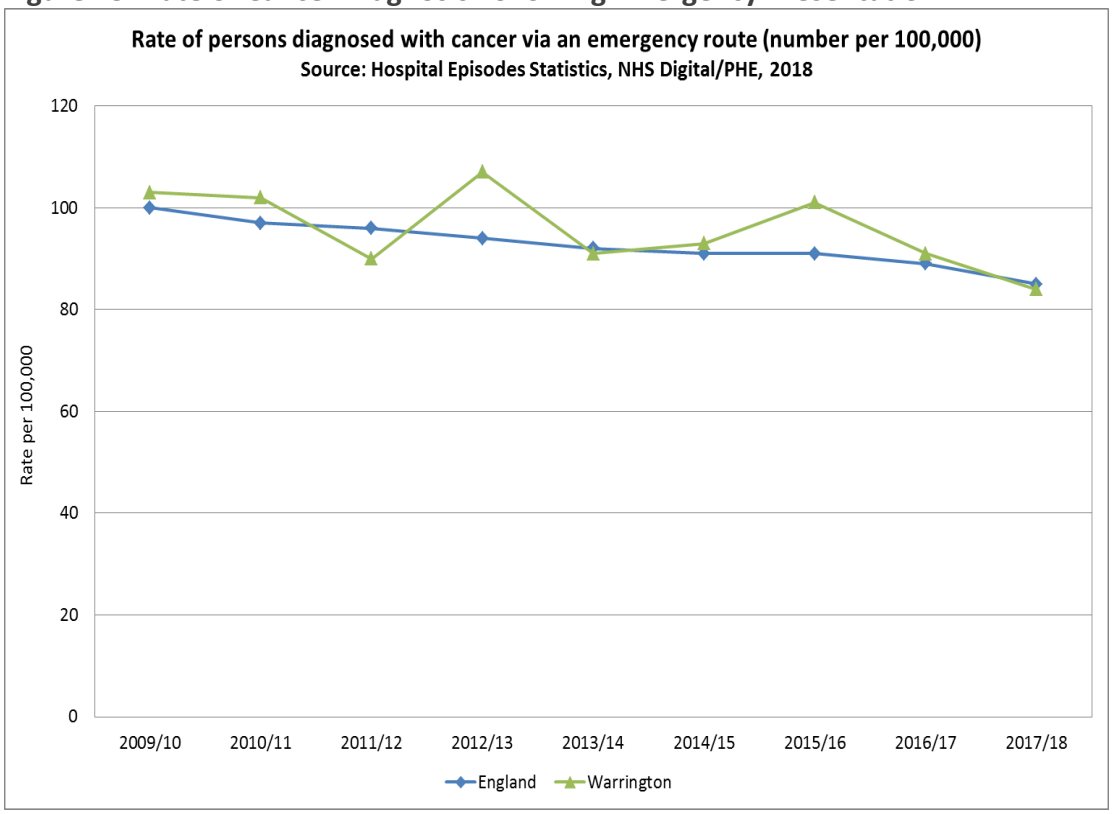
From April 2020, the current two-week cancer diagnosis target, will be replaced by a new national performance standard, the **28-Day Faster Diagnosis Standard**, which will ensure that 95% of patients referred urgently by their GP or from screening will receive a definitive diagnosis or ruling out of cancer within 28 days of clinical suspicion of cancer[2,107]. This is currently being piloted in Warrington and means that patients diagnosed with cancer will be able to start their treatment sooner, and those without cancer will receive their result quicker, thereby alleviating levels of stress and anxiety.

9. Emergency Cancer Presentation

Emergency cancer presentation illustrates new cancer cases that are detected when a patient is admitted to hospital as an emergency. In contrast to the two-week wait pathway, emergency presentations of cancer point to a delayed and more severe cancer stage with worse outcomes for the patient in terms of experience as well as treatment.

Positively, figure 45 demonstrates that the rate of cancer diagnosed via an emergency route has decreased over time for both England and Warrington, reducing by 15% and 18.5% respectively since 2009/10. In 2017/18, 84 cancer cases per 100,000 people were diagnosed as a result of an emergency admission in Warrington, which is similar to the national average at 85 cancer cases per 100,000 population.

Figure 45: Rate of Cancer Diagnosis Following Emergency Presentation



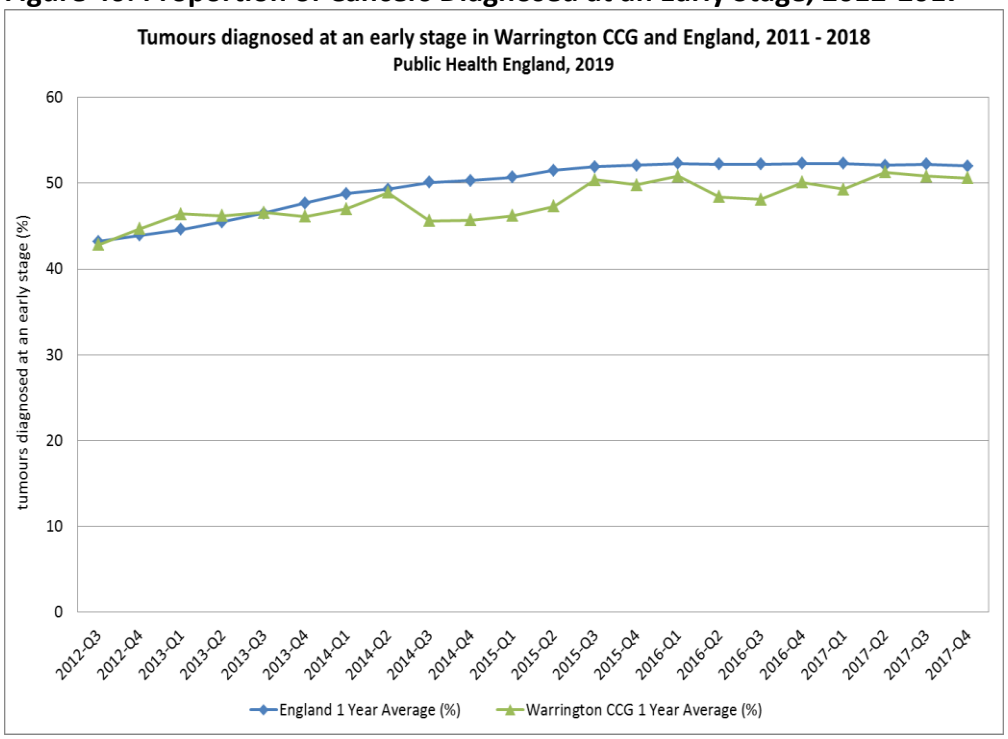
There appears to be no statistical association between the rate of emergency cancer diagnoses and deprivation. Analysis of 2015-2018 cancer diagnosis data does not reveal any significant differences in emergency cancer presentation rates by GP Practice deprivation quintile.

10. Cancer Staging

Cancer staging is a system that describes the size of a cancer tumour and how far it has spread. Cancers are generally divided into four stages; stages 1 and 2 describe early cancers that are small and have not spread, whilst stages 3 and 4 depict larger, more advanced cancers that have spread outside of the original site. Evidence demonstrates that the earlier a cancer is diagnosed (at stage 1 and 2) and the patient receives treatment, the greater the chance of survival[6,108]. Further to this, NHS England has set a national target that by 2028, 75% of cancer patients will be diagnosed at stage 1 or 2[2].

As figure 46 illustrates, there has been a gradual increase in the percentage of cancers diagnosed early at both national and local level. However, since quarter 4 2013, the proportion of cancers diagnosed at an early stage in Warrington (where staging information was available) has remained consistently lower than England. In 2017, 50.6% of cancers diagnosed in Warrington were identified at an early stage, compared with 52% in England.

Figure 46: Proportion of Cancers Diagnosed at an Early Stage, 2012-2017



These increases are most likely due to an improvement in data completeness. During recent years, there has been a national drive to increase the recording of the stage in all newly diagnosed cancers[6], which has resulted in a reduction in the proportion of cancer cases recorded as unknown. As figure 47 demonstrates, in Warrington the proportion of new cancer diagnoses with a recorded valid stage increased from 70% in 2012-14 to 80% in 2015-17. This is in line with improvements in cancer stage recording in England, which increased from 69% to 81% during the same time period.

Figure 47: Staging of All Diagnosed Cancers 2012-2017

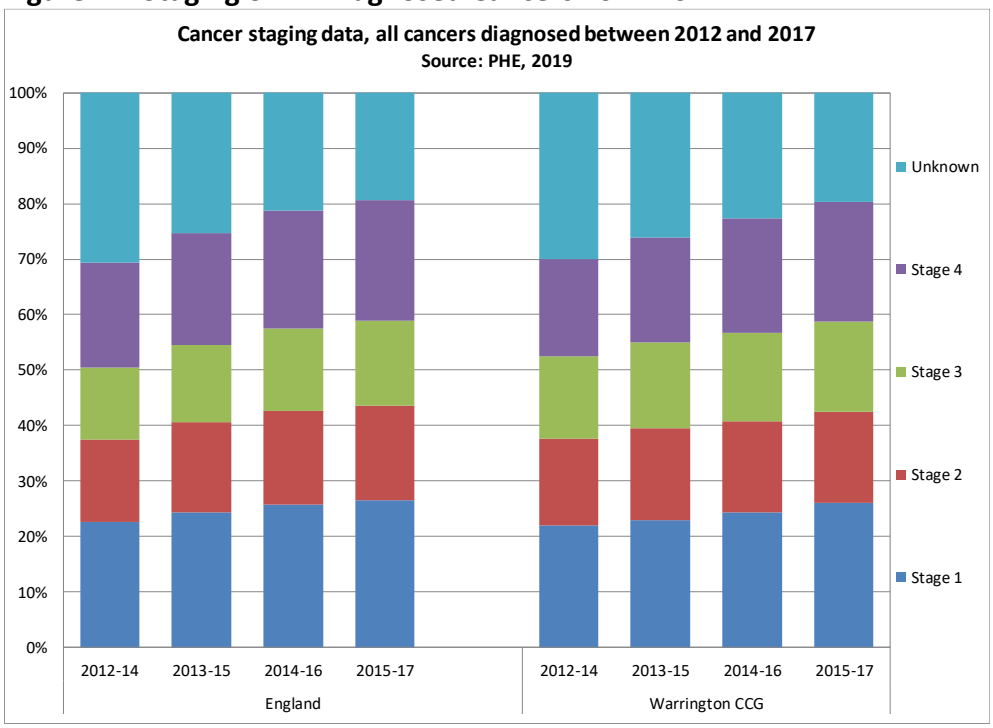
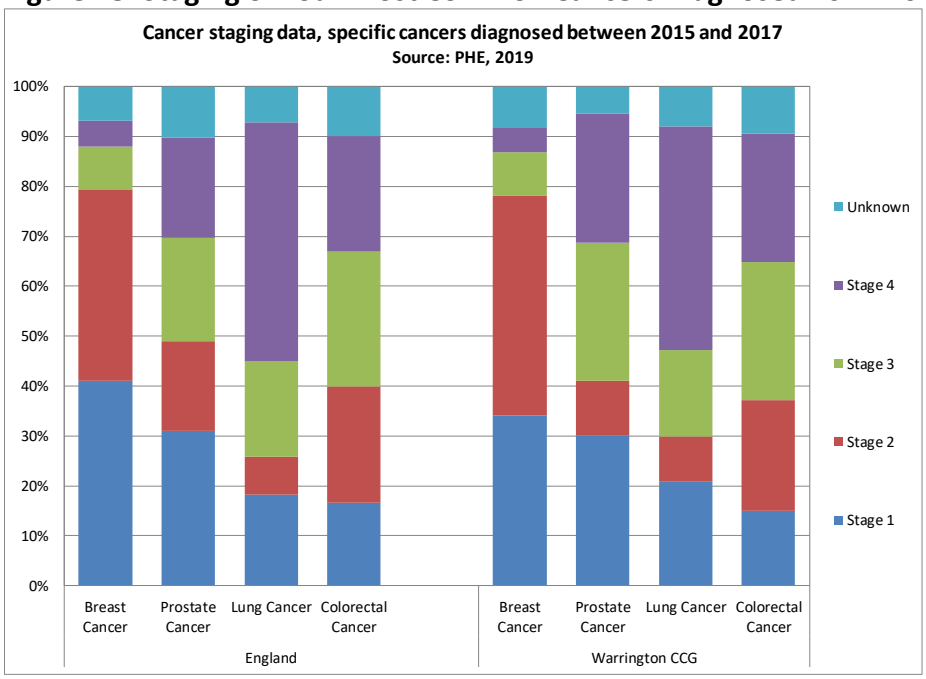


Figure 47 also shows that during 2015-17, more than a third (38%) of Warrington cancer patients were diagnosed at a late stage (stage 3 or 4), which was comparable to England (37%). However, analysis by cancer type demonstrates significant variability in the proportion of new cancers that were diagnosed at an advanced stage. Figure 48 outlines the staging of the four most common diagnosed cancers, breast, colorectal, lung and prostate in Warrington and England between 2015 and 2017. This illustrates that two-thirds of new lung cancer patients were diagnosed at a late stage of the disease (62% in Warrington and 67% in England) and half of new colorectal cancer patients (54% in Warrington and 50% in England), which is exhibited by the number of deaths from these diseases (figure 58).

Notably, a greater proportion of new prostate cancer patients in Warrington had late-stage tumours, than in England (54% and 41% respectively), however this may reflect greater local levels of data completeness. Conversely, nearly eight out of ten breast cancer patients are diagnosed at an early stage (78% in Warrington and 79% in England), which is reflected in the high rates of survival (figure 68). This may be attributed, in part to the success of the breast cancer screening programme[95] and campaigns raising awareness of potential breast cancer signs and symptoms.

This finding highlights the continued need to promote messages of early symptoms of cancer, particularly lung and colorectal cancers, the importance of seeking prompt medical advice and participating in cancer screening programmes to the Warrington population, whilst also ensuring health professionals recognise these symptoms and fully understand local diagnosis pathways to support appropriate and timely referrals.

Figure 48: Staging of Four Most Common Cancers Diagnosed 2012-2017



Cancer Diagnosis Priorities

- Multi-sector support for the 'Be Clear on Cancer' campaigns to increase public awareness of the signs and symptoms of cancer and the benefits of seeking help earlier, with emphasis on lung and colorectal cancers.
- Ensure universal use of NICE evidence-based guidance[11] within GP Practice systems and templates, supported by the delivery of primary care education, to increase recognition of the signs and symptoms of cancer and appropriate identification and referral of patients at risk of cancer.
- Development of a primary care dashboard demonstrating 2WW referral rates and conversion rates at GP Practice level to identify variation and inform action.
- Provision of GP education and patient information regarding the importance of attending appointments resulting from a two-week breast symptomatic referral to facilitate prompt diagnosis.
- Review the Learning Event Analysis (LEA) for all patients diagnosed with cancer via an emergency route to collectively share best practice, lessons learnt and inform action.
- Inclusion of early diagnosis quality improvement key performance indicators in the future GP contract.
- Examine current systems to increase levels of recording of routes to prostate cancer diagnoses.
- Undertake an audit of new treated cancer cases to explore differences in local trends and between GP Practices to enhance clinical practice and optimise patient outcomes.
- Extend implementation of timed diagnostic pathways for more cancer types and review diagnostic capacity during the local pilot to support the introduction of the 28-Day Faster Diagnosis Standard in 2020 and achievement of the 95% operational target.

11. Cancer Treatment

Cancer treatment options vary according to the cancer type and stage. Conventionally, the earlier the cancer diagnosis, the better the chance of successful response to treatment[6]. The most common treatment options include surgery, chemotherapy and radiotherapy, either alone or in combination with one another[109]. Hormone therapy is also used to slow or stop the growth of breast and prostate cancers, which use hormones to grow[109]. Other emerging therapies also exist for certain cancer types such as immunotherapy, bone marrow and stem cell transplants[109]. More recently, precision medicine has also been introduced, which uses genetic testing to guide the selection of cancer treatments most likely to be successful for individual patients[2,109].

Where treatment cannot achieve cure, patients may still benefit from cancer therapies to alleviate symptoms or prolong quality of life. There continues to be significant focus on research towards improvement of cancer treatment, with the aim of further increasing cancer survival. Warrington patients are offered the opportunity to participate in clinical trials as part of their treatment options.

Nationally, there are a number of waiting time performance standards in place that aim to ensure timely patient access to cancer treatment and reduce anxiety related to treatment delays[6,107]:

One-month (31 day) Targets from Diagnosis to Treatment
These targets indicate the timeframe within which a patient should receive their first cancer treatment following agreement of their treatment plan with a doctor. An overall indicator stipulates that at least 96% of patients should wait no more than one month (31 days) for their first, definitive cancer treatment, from the date a decision to treat is made, for all cancers[107]. There are also additional targets regarding the waiting times for specific cancer treatments[107]:

- At least 94% of patients should wait a maximum of 31 days for subsequent treatment, where the treatment is surgery.
- At least 98% of patients should wait a maximum of 31 days for subsequent treatment, where the treatment is an anti-cancer drug regimen.
- At least 94% of patients should wait a maximum of 31 days for subsequent treatment, where the treatment is a course of radiotherapy.

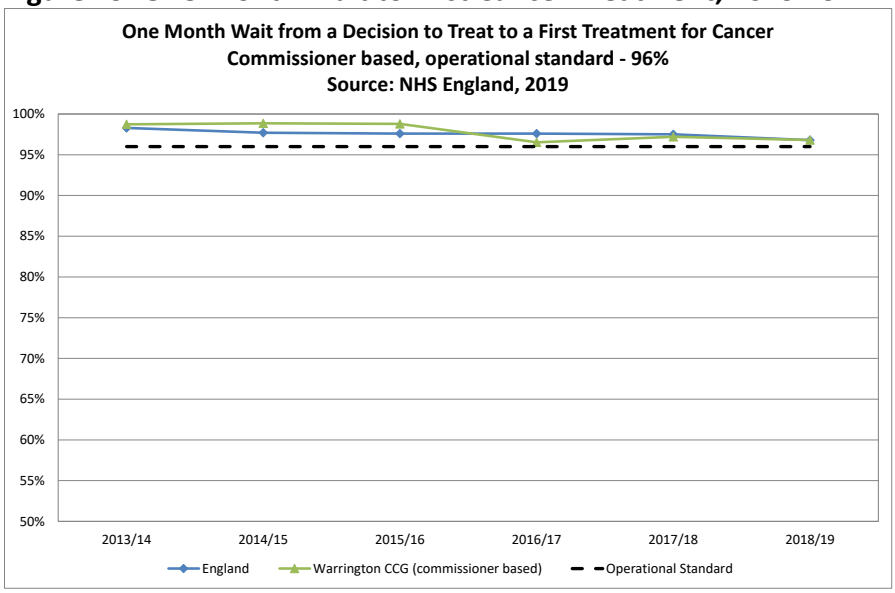
Two-month (62 day) Targets from Referral to Treatment
These targets specify the timeframe within which a patient should have received their first cancer treatment following an urgent referral by their GP, a cancer screening programme or consultant. There are three performance indicators for this outcome:

- At least 85% of patients receiving an urgent GP referral for suspected cancer should wait no more than two months (62 days) for their first definitive treatment, for all cancers.

- At least 90% of patients with an urgent referral from an NHS cancer screening programme should wait no more than two months (62 days) for their first definitive treatment.
- Patients should wait a maximum 62 days for their first definitive treatment following a consultant's decision to upgrade the priority of the patient (no specific target required)

As figure 49 demonstrates, NHS services commissioned in England and locally by Warrington CCG have consistently exceeded the target for a minimum 96% of patients to receive their first cancer treatment within 31 days of agreeing their treatment plan with a doctor. In 2018/19, 1,256 Warrington patients had a first treatment for cancer, which is 59% higher than the 790 patients in 2013/14. Overall, 96.8% of Warrington patients received treatment within 31 days, which is in line with the national average (96.8%) and above the 96% target. This target was met for all but four months during 2018/19.

Figure 49: One-Month Wait to First Cancer Treatment, 2013-19



Figures 50, 51 and 52 highlight the 31-day waiting time performance for patients in England and Warrington to receive their subsequent anti-cancer drug regimens, radiotherapy or surgery treatments, respectively. These demonstrate that generally more Warrington patients are treated within 31 days than required by the national standards for all three treatments.

In 2018/19, 98%, 98.4% and 98.1% of Warrington patients received their subsequent anti-cancer drug regimens, radiotherapy and surgery within 31 days of the decision to treat, exceeding performance for England overall for radiotherapy and surgery. Notably, whilst the proportion of patients receiving their subsequent surgery within 31 days in England dropped below the 94% operational target to 93.2% in 2018/19, performance was maintained in Warrington (figure 52). This may reflect national rises in the cancer incidence rate and demand for surgical treatment, coupled with a national shortage of specialist cancer doctors.

Figure 50: One-Month Wait to Subsequent Drug Treatment

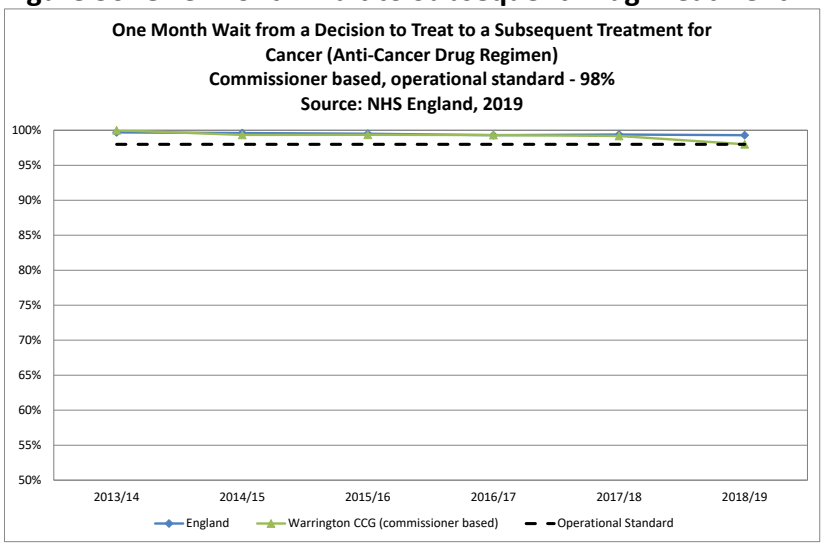


Figure 51: One-Month Wait to Subsequent Radiotherapy

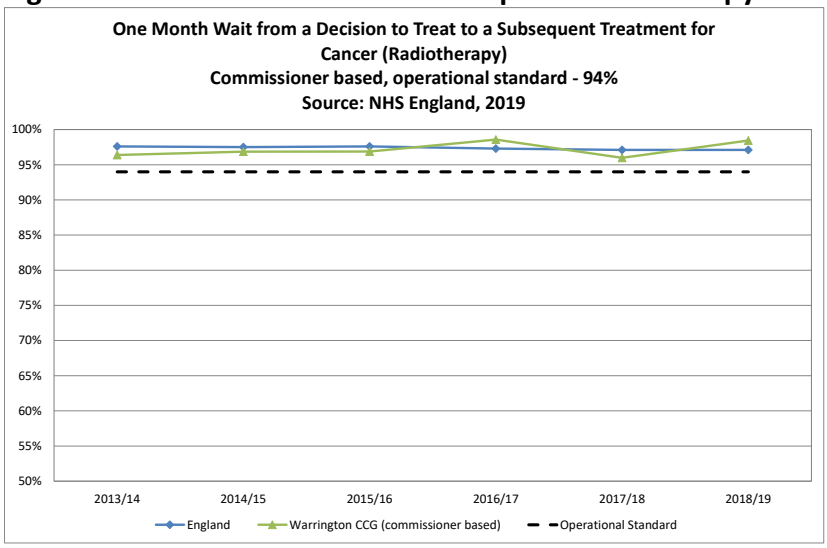
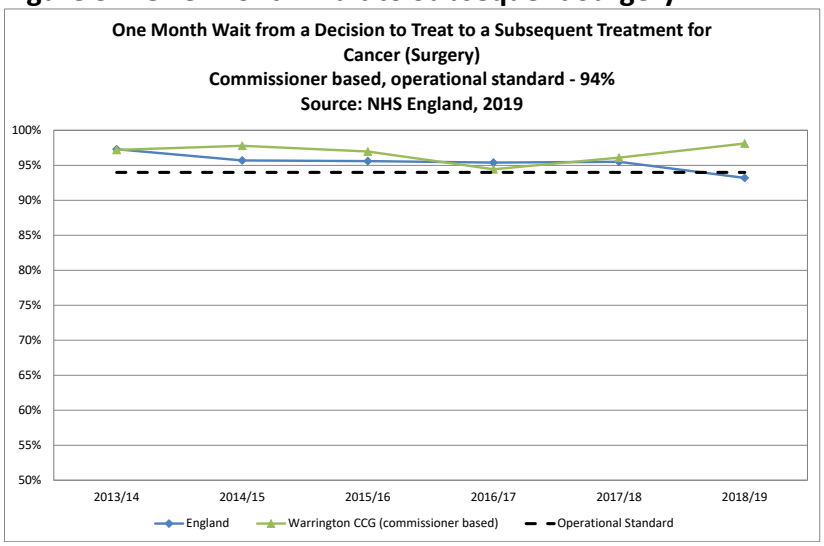


Figure 52: One-Month Wait to Subsequent Surgery



However, a different picture is seen for the 62-day waiting time performance. As figure 53 illustrates, NHS services at both national and local level have often failed to achieve the target for at least 85% of patients to start treatment for their cancer within 62 days of being urgently referred by their GP, with performance for Warrington patients only improving in recent years.

In 2018/19, 588 Warrington patients were treated for cancer after being urgently referred by their GP. This was 40% higher than the 420 referred and treated in 2013/14. In total, 85.9% of these patients were treated within 62 days of their urgent GP referral, achieving the 85% national target and exceeding that of England overall (79.1%). However, performance for Warrington CCG fluctuated during 2018/19, missing the 85% target for six months of this year. This is reflective of the variation in waiting times across the different cancer pathways and cancer care providers treating Warrington patients, and highlights that new ways of working and pathway redesign e.g. straight to test, are essential to manage increasing demand and quicken cancer diagnosis and treatment.

Figure 53: Two-Month Wait to First Cancer Treatment from Urgent GP Referral

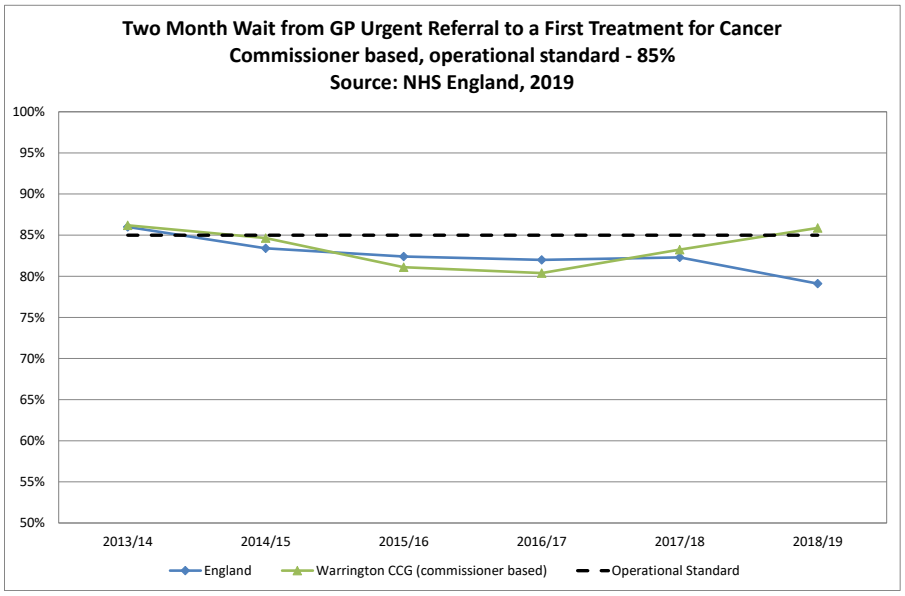
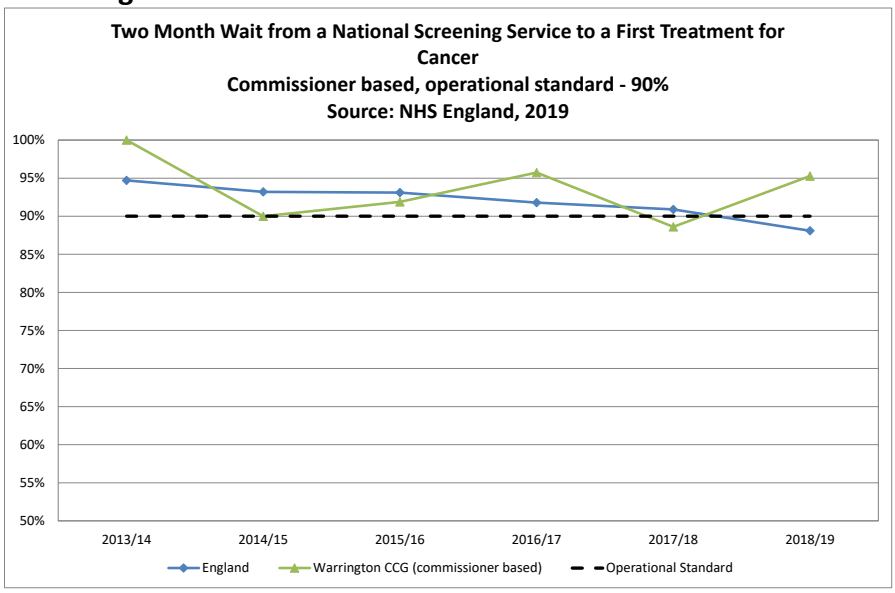


Figure 54 demonstrates the 62-day cancer treatment waiting time performance following an urgent referral from a cancer screening programme at local and national level. Notably, the proportion of patients receiving treatment within 62 days of referral by this route in England has consistently decreased year on year and fell below the 90% target in 2018/19 to 88.1%.

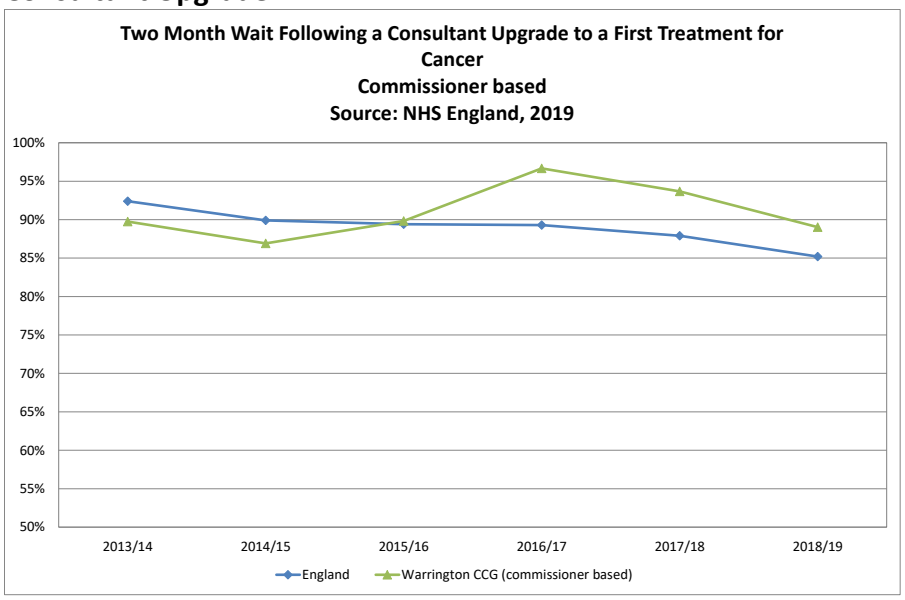
Positively, local NHS services have generally exceeded in treating more than the minimum 90% of Warrington patients referred by this route within 62 days, with the exception of 2017/18 when performance dropped to 88.6%. During 2018/19, 95.3% of Warrington patients started to receive their cancer treatment within 62 days of referral from a national screening service, which was substantially higher than that achieved nationally (figure 54).

Figure 54: Two-Month Wait to First Cancer Treatment from Urgent Screening Referral



There is currently no national target stipulating the minimum proportion of patients starting cancer treatment within 62 days after being upgraded in priority by a consultant. However, as figure 55 demonstrates, the proportion of patients receiving treatment within 62 days under this route has been higher in Warrington than nationally since 2015/16. In 2018/19, 89.0% of Warrington patients upgraded by a consultant started their cancer treatment within 62 days, compared with 85.2% for England.

Figure 55: Two-Month Wait to First Cancer Treatment Following Consultant Upgrade



Cancer Treatment Priorities

- Support the roll-out of Rapid Diagnostic and Assessment Centres across Cheshire and Merseyside to accelerate cancer diagnosis and treatment[18].
- Maintain and monitor the straight to right test pathway for colorectal cancer to support definitive diagnosis, achievement of the 28-day faster diagnosis and 62-day cancer treatment targets.
- Explore administration of cancer drugs within community settings to facilitate treatment closer to home, following publication of associated guidance.

12. Cancer Mortality

Death rates from cancer in people of all ages now equal those from cardiovascular disease in Warrington, accounting for 264 deaths per 100,000 and 265 deaths per 100,000 respectively in 2015-17 (figure 56). Furthermore, cancer is now the leading cause of premature deaths in those aged less than 75 years across the borough (figure 57; 137 per 100,000 in 2015-17). This is in part, due to advancements made in successfully treating and reducing deaths from heart disease and stroke as well as the increasing number of older people in the population and highlights the need to focus on cancer prevention, earlier detection and treatment.

Figure 56: All Age Cancer and Cardiovascular Disease Mortality Rates

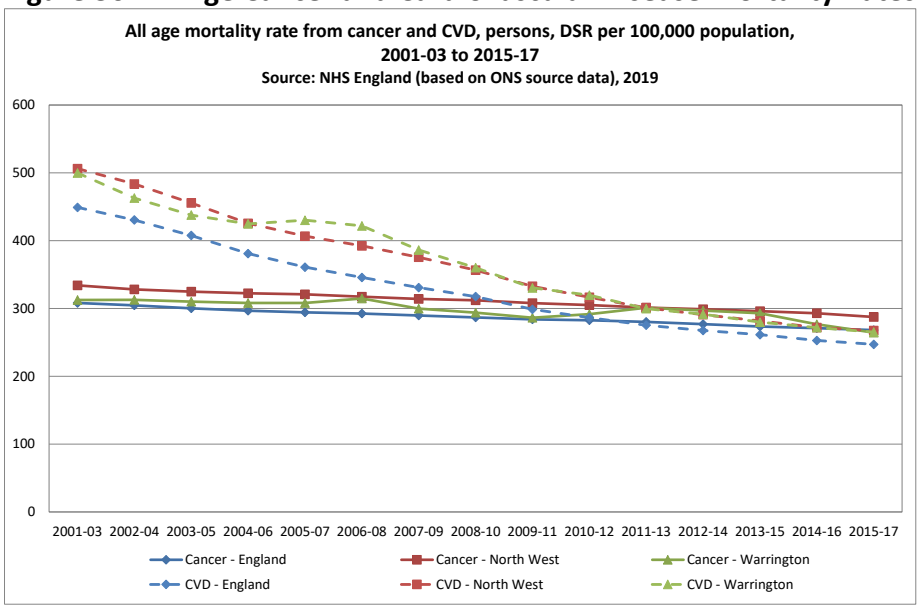


Figure 57: Under 75 Cancer and Cardiovascular Disease Mortality Rates

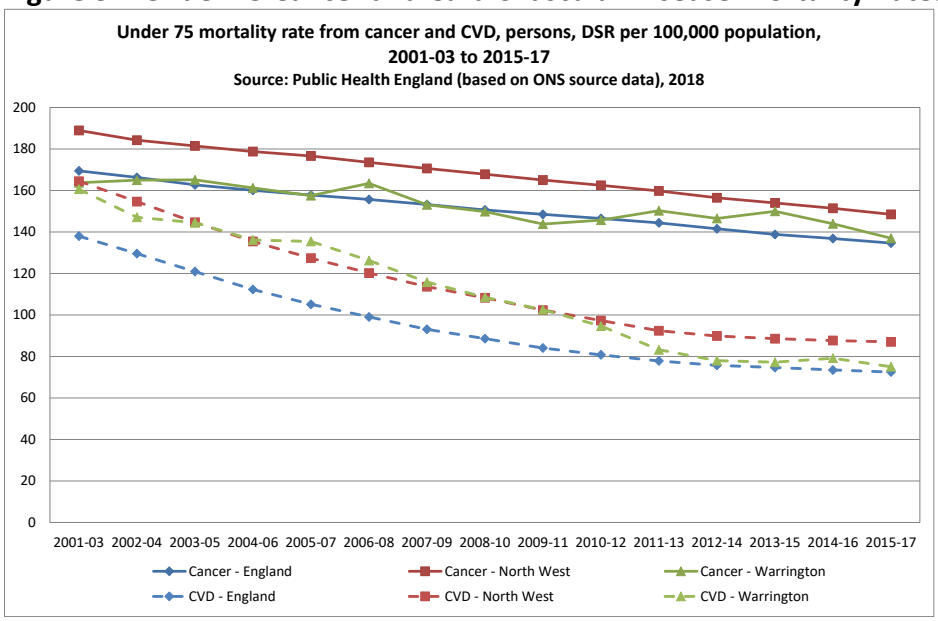
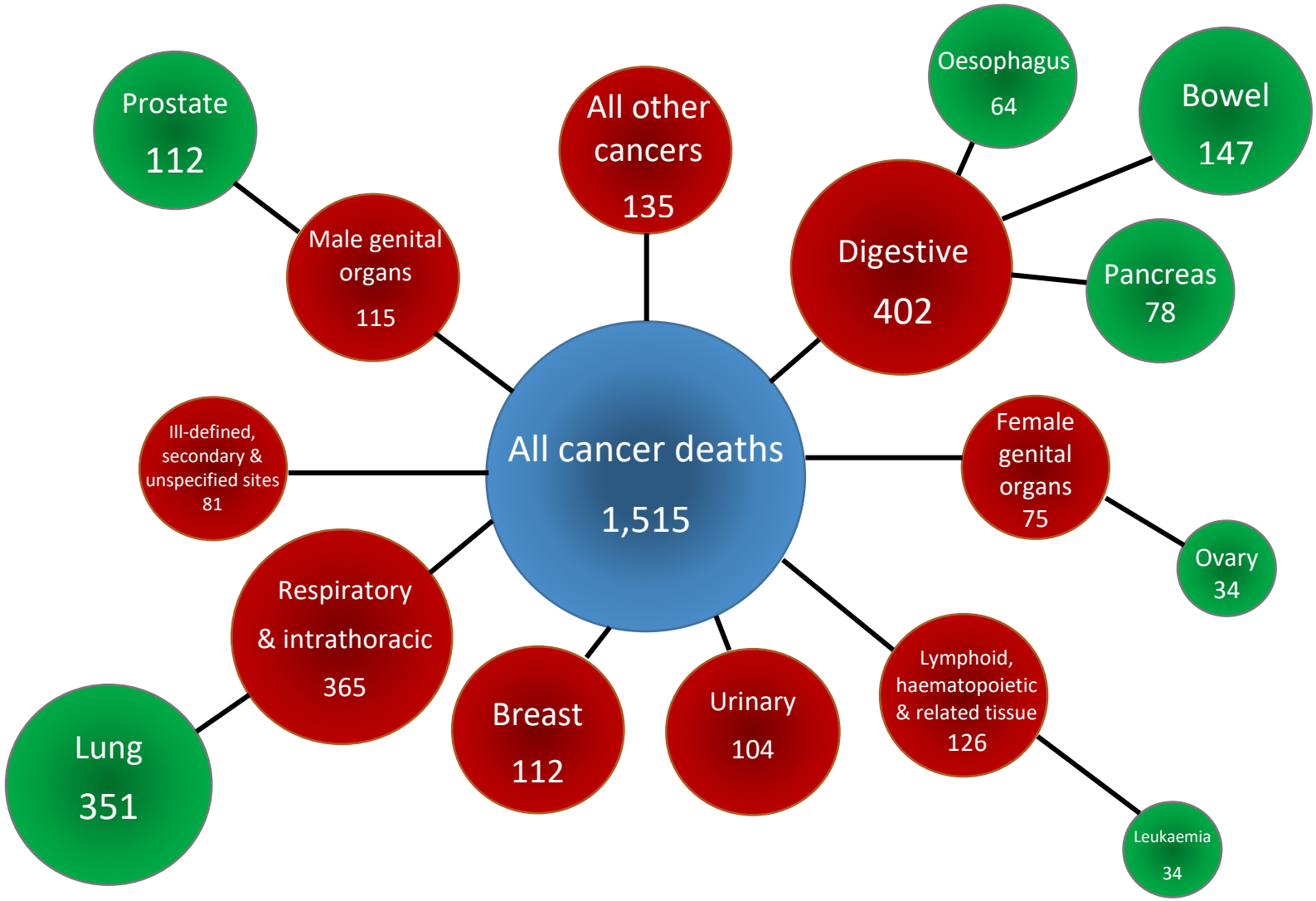


Figure 58: Deaths from Cancer, 2015-17

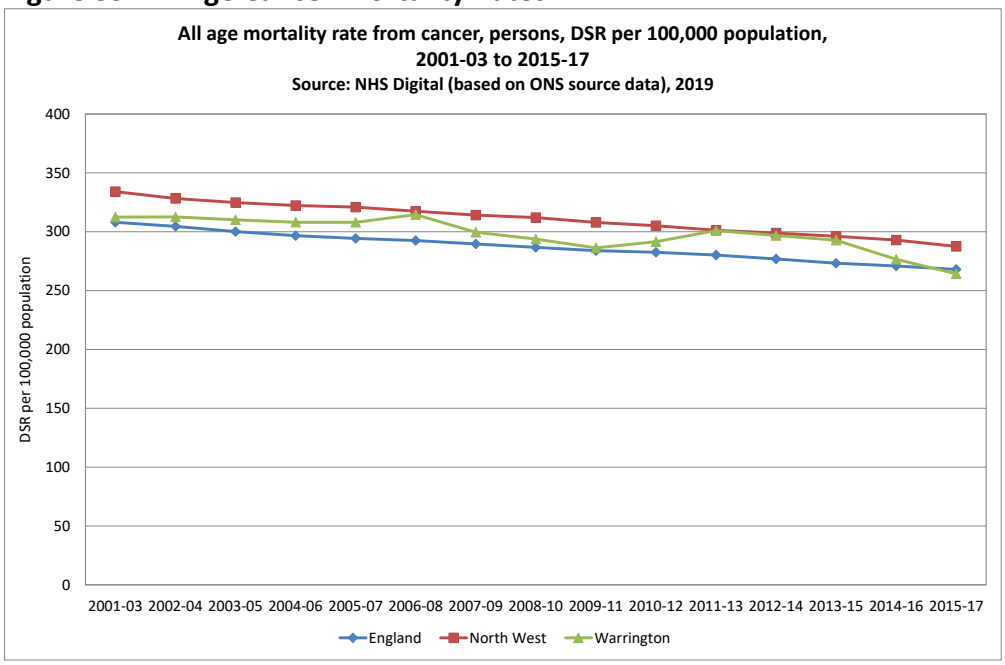


Between 2015 and 2017, there were 1,515 deaths due to cancer in Warrington. Figure 58 outlines the number of cancer deaths in the borough by tumour type. The most common cancers causing death were: lung (351 deaths); colorectal (147 deaths); breast (112 deaths); and prostate (112 deaths). The largest proportion of deaths were for cancers of the digestive (colorectal, oesophagus and pancreas), respiratory and intra-thoracic systems; together accounting for half of all deaths (50.6%; 767/1,515). Notably, a large proportion of these cancers are associated with unhealthy lifestyle behaviour such as smoking, unsafe alcohol consumption and poor diet and are therefore potentially avoidable.

The trend in the cancer mortality rate in people of all ages has on the whole shown a reduction since 2001, decreasing by 15.4% in Warrington, 14.1% in the North West and 13.0% in England (figure 59). Whilst both regional and national cancer death rates have incrementally reduced year-on-year, in Warrington, there was an increase for the three-year periods 2006-2008, 2010-2012 and 2011-2013, followed by a steady decline thereafter. Between 2015 and 2017, an average of 264 people per 100,000 died of cancer in Warrington each year, which was comparable with the annual cancer mortality rate in England (268 per 100,000) and 8% lower than the North West (287 per 100,000).

Males have a higher rate of cancer mortality than females, at both local and national level. Between 2015 and 2017, an average of 318 men per 100,000 died of cancer in Warrington annually, compared with 228 per 100,000 women. The respective annual cancer mortality rates in England in the same time period were 327 deaths per 100,000 males and 226 deaths per 100,000 females. This is illustrative of the higher rates of cancer incidence in men compared with women and that they are also less likely to seek diagnosis for early signs of cancer than their female counterparts[106].

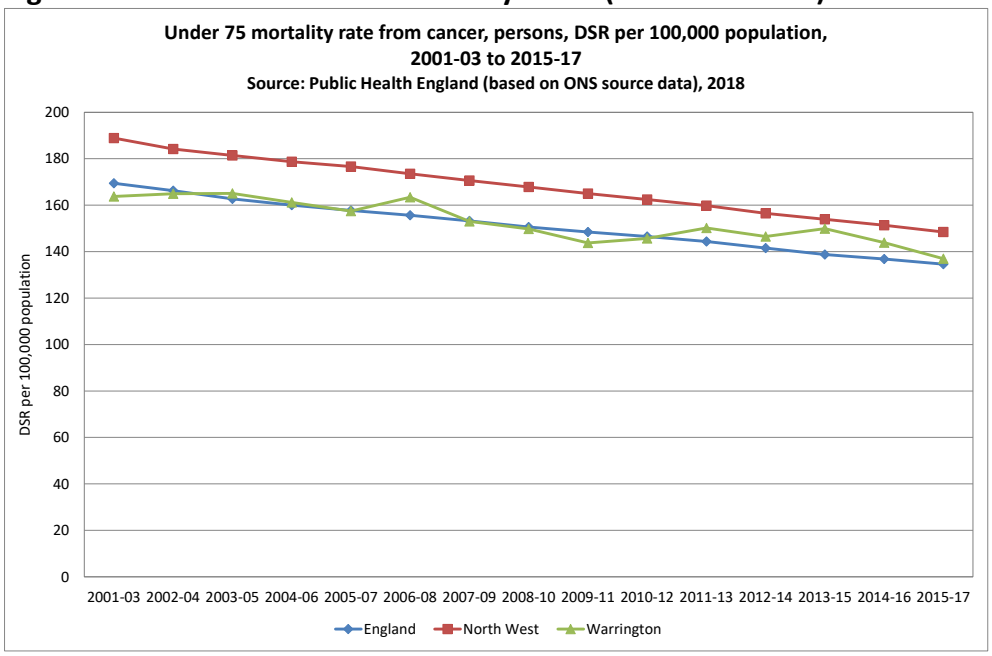
Figure 59: All Age Cancer Mortality Rates



A similar pattern to the all-age cancer mortality is seen in premature deaths from cancer in the under 75 population. As figure 60 demonstrates, there has been a steady decline in

premature cancer mortality in Warrington, the North West and England; reducing by 16.5%, 21.7% and 20.1% respectively since 2001. In 2015-2017, the annual rate of cancer mortality in Warrington (137 deaths per 100,000) remains at a similar level to what is observed nationally (135 deaths per 100,000) and 7.4% lower than the North West (148 deaths per 100,000).

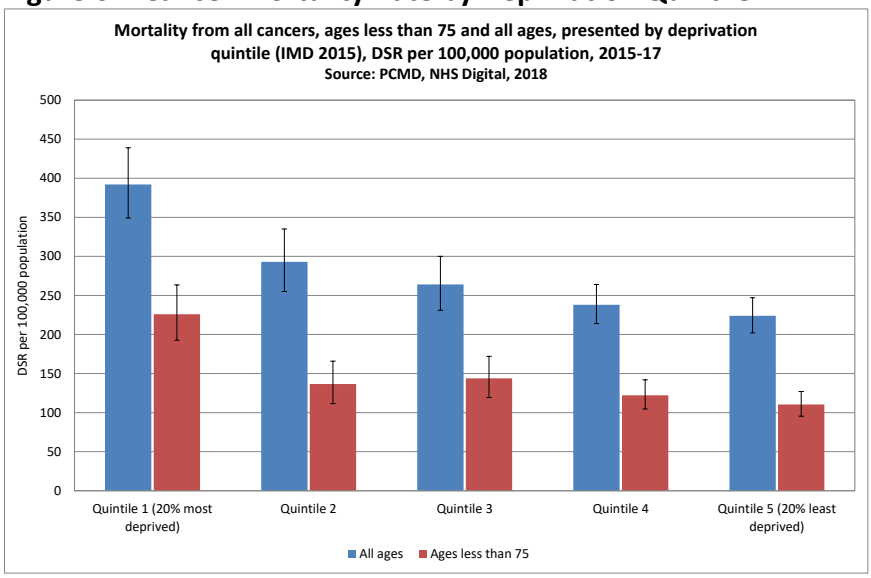
Figure 60: Premature Cancer Mortality Rates (Under 75 Years)



Nationally, a significant association has been demonstrated between higher mortality rates from cancer and increasing levels of deprivation[27]. Analysis at local level also shows that in line with patterns of cancer incidence (figure 32), cancer death rates are significantly higher in people living in the most deprived areas of Warrington, than the remaining areas. Figure 61 illustrates that in 2015-2017, at all ages, the cancer mortality rate in the 20% most deprived areas was 75% higher than the 20% least deprived areas (392 deaths per 100,000 vs. 224 deaths per 100,000 respectively).

Furthermore, more cancer deaths occur at a younger age in the most deprived areas of the borough (figure 61). In excess of twice as many people (105%) living in the 20% most deprived areas die prematurely from cancer as those living in the 20% least deprived areas (226 deaths per 100,000 vs. 110 deaths per 100,000 respectively).

Figure 61: Cancer Mortality Rate by Deprivation Quintile



Further analysis at ward level also demonstrates an association between higher rates of cancer mortality and deprivation. Figures 62 and 63 illustrate the all age and premature cancer mortality rates across the Warrington electoral wards during 2013-2017. These demonstrate that the wards with the greatest deprivation (figure 1) also have significantly higher cancer death rates for all age and the under 75 populations than experienced overall in Warrington, namely Bewsey and Whitecross, Latchford East, Orford, Poplars and Hulme. Consequently, cancer prevention programmes supporting the adoption of healthy lifestyles and messages to increase public awareness of cancer signs and symptoms, the importance of early diagnosis and participation in cancer screening programmes should be targeted to these areas to address these significant inequalities in cancer mortality across the borough.

Figure 62: All Age Cancer Mortality Rates by Ward

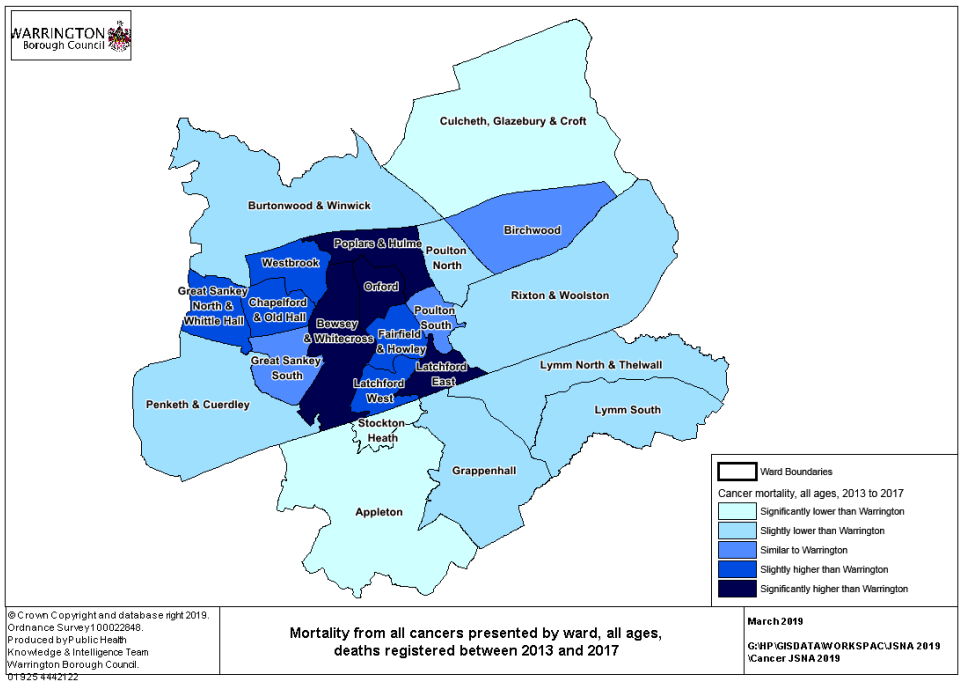
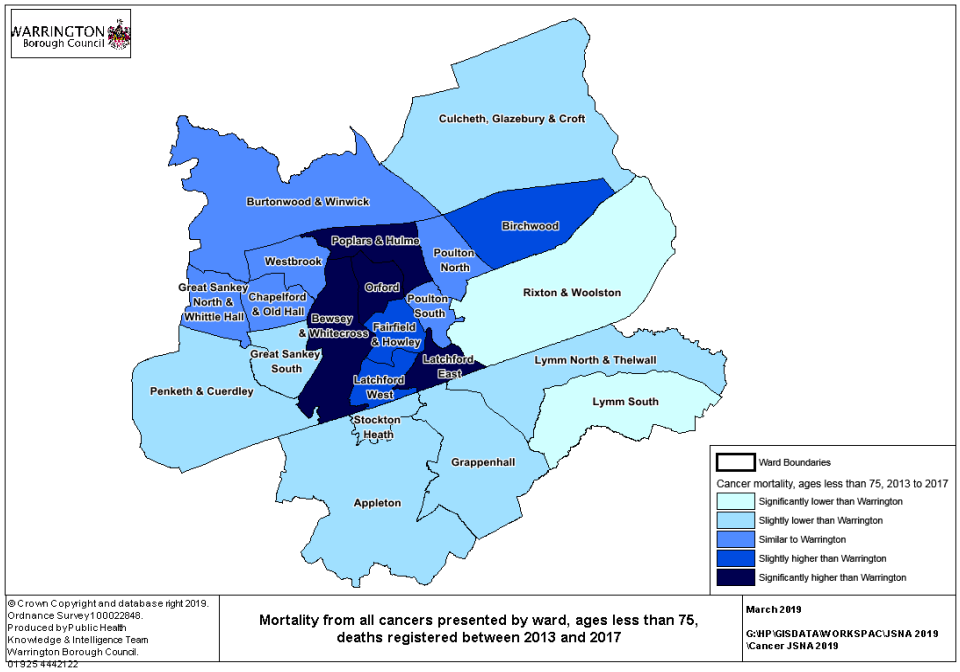


Figure 63: Premature Cancer Mortality Rates (Under 75 Years) by Ward

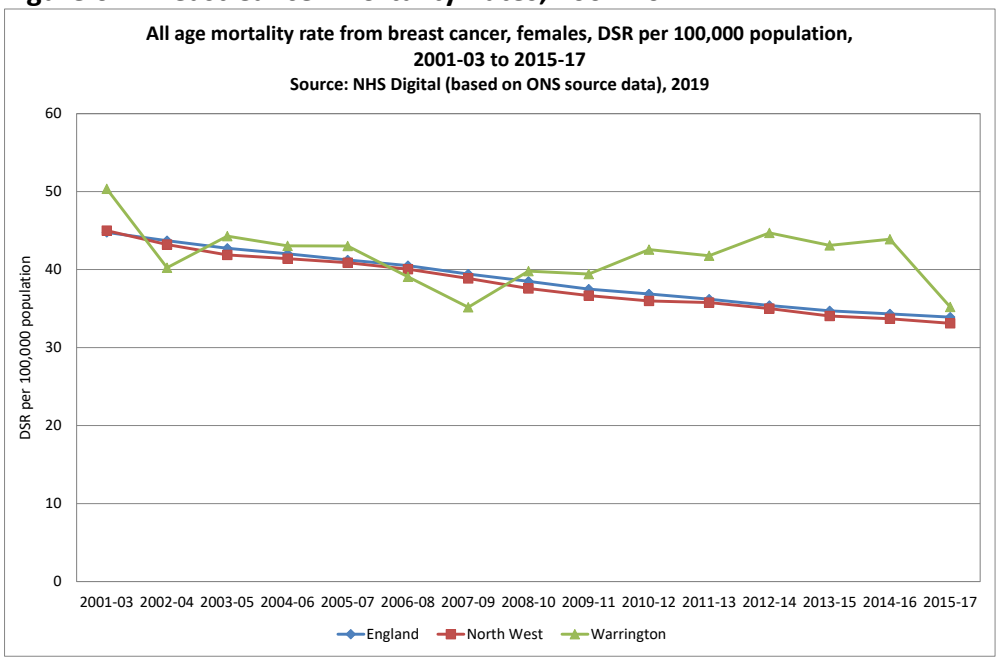


12.1 Breast Cancer Mortality

Figure 64 shows the breast cancer mortality rates in females of all ages between 2001 and 2017. This highlights that since 2001 deaths from breast cancer have steadily reduced by a quarter in the North West (26.7%) and England (24.4%). Whilst breast cancer mortality in Warrington has also reduced by 30%, the rate has fluctuated in line with the breast cancer incidence trend (figure 28). Local death rates from breast cancer initially decreased to below the regional and national averages in 2007-2009, followed by a period of steep increase until 2014-2016 before sharply reducing in 2015-17. This upward trend in the rate of breast cancer mortality was not seen regionally or nationally, where rates continued to reduce.

The most recent data highlights that the breast cancer mortality gap between Warrington and the North West and England has now narrowed. In 2015-2017, the annual rate of breast cancer deaths in Warrington was 35 per 100,000 women, comparable with regional (33 deaths per 100,000) and national (34 deaths per 100,000) rates.

Figure 64: Breast Cancer Mortality Rates, 2001-2017

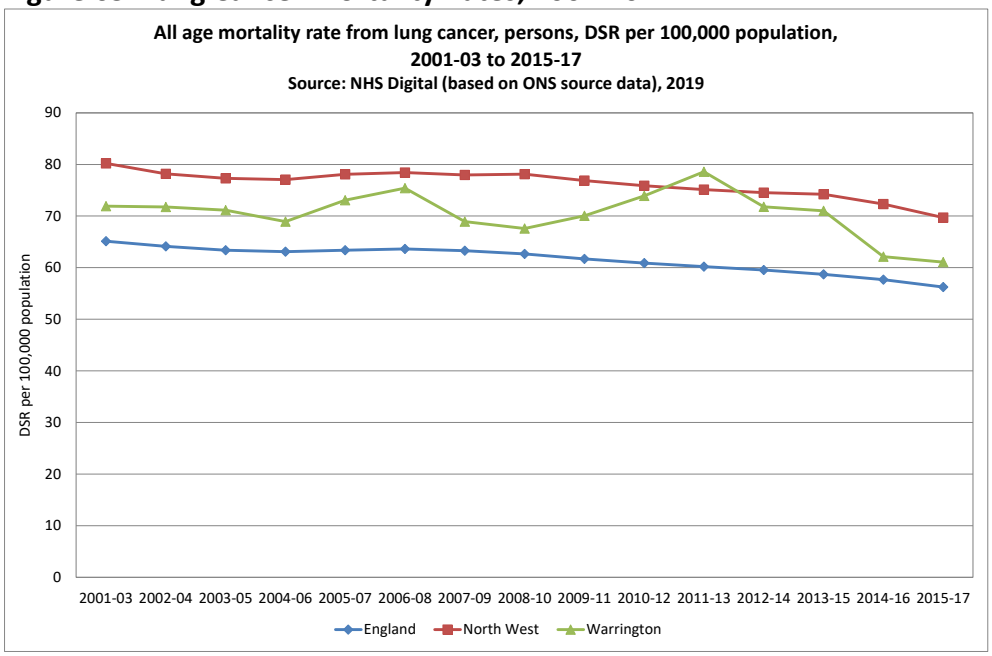


12.2 Lung Cancer Mortality

Whilst there has been a reduction in the all-person lung cancer mortality rates since 2001, in line with trends in lung cancer incidence (figure 30), the death rate from lung cancer has been consistently higher in Warrington compared to England and lower than North West, with the exception of 2011-2013 (figure 65). In 2015-2017, there was an average of 61 deaths from lung cancer per 100,000 people each year in Warrington, which was 8.9% higher than the annual lung cancer mortality rate in England (56 deaths per 100,000 people) and 12.9% lower than the North West (70 deaths per 100,000 people).

As demonstrated with lung cancer incidence, there are also differences in the trend of mortality from lung cancer between the genders. Whilst rates remain higher for Warrington men than women, all age lung cancer mortality is decreasing for males, from 98 deaths per 100,000 men in 2001-2003 to 66 deaths per 100,000 in 2015-2017; representing a 32.7% reduction. In contrast lung cancer mortality has slightly increased by 7.5% in Warrington women within the equivalent time-period, from 53 deaths per 100,000 women in 2001-2003 to 57 deaths per 100,000 in 2015-2017. This is reflective of the historical patterns of tobacco smoking between the sexes.

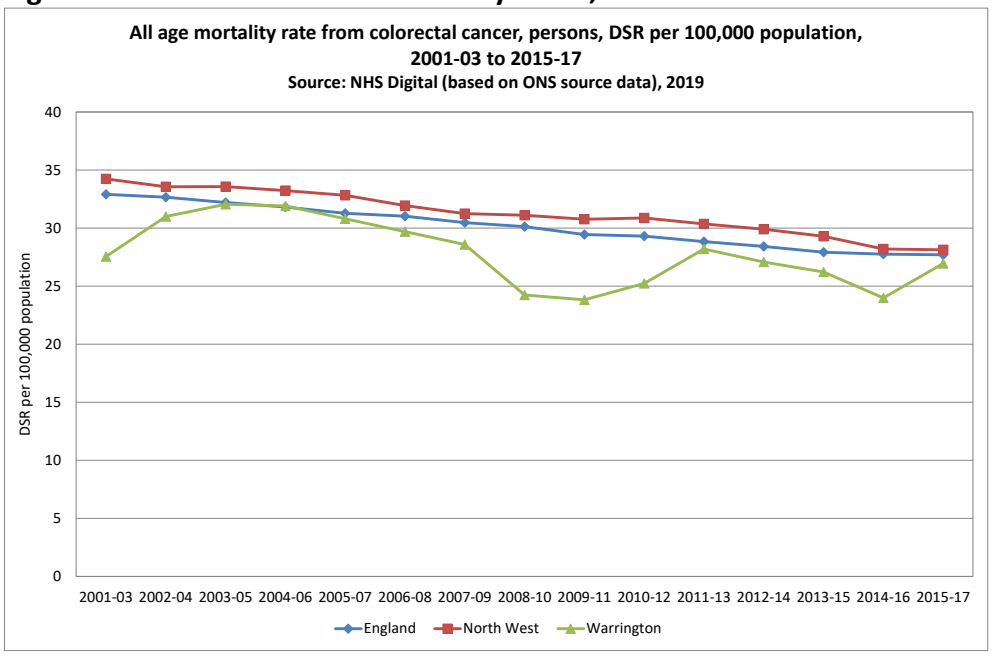
Figure 65: Lung Cancer Mortality Rates, 2001-2017



12.3 Colorectal Cancer Mortality

In line with colorectal cancer incidence rates (figure 31), the rate of colorectal cancer deaths has been historically lower in Warrington than experienced regionally and nationally and has not decreased as extensively over the last 17 years. As figure 66 demonstrates, since 2001 the all person colorectal mortality rates reduced by 17.7% in the North West, 15.2% in England and only 3.6% in Warrington. In 2015-2017, Warrington had a similar colorectal mortality rate (27 deaths per 100,000 population) to the regional and national averages (both 28 deaths per 100,000 people).

Figure 66: Colorectal Cancer Mortality Rates, 2001-2017



In line with gender differences in colorectal cancer incidence, the rate of colorectal cancer deaths is significantly higher in men compared with women. Locally, during 2015-2017, the annual colorectal cancer mortality rate was 43.5% higher in Warrington males compared with females, with an average 33 deaths per 100,000 men and 23 deaths per 100,000 women. Higher levels of colorectal cancer mortality in men may also be indicative of their tendency to present later with bowel cancer symptoms and more advanced disease[106].

Cancer Mortality Priorities

- Target lifestyle behaviour change programmes and environmental modifications to people living in the most deprived wards e.g. Bewsey and Whitecross, Latchford East, Orford, Poplars and Hulme to address inequalities in cancer risk factors (smoking, physical inactivity and obesity) and reduce inequalities in cancer mortality across the borough.

- Deliver gender-appropriate messages to increase public awareness of the signs and symptoms of cancer, the benefits of early diagnosis and participating in cancer screening programmes, focusing on deprived areas and men and supported by primary care training.

13. Cancer Survival

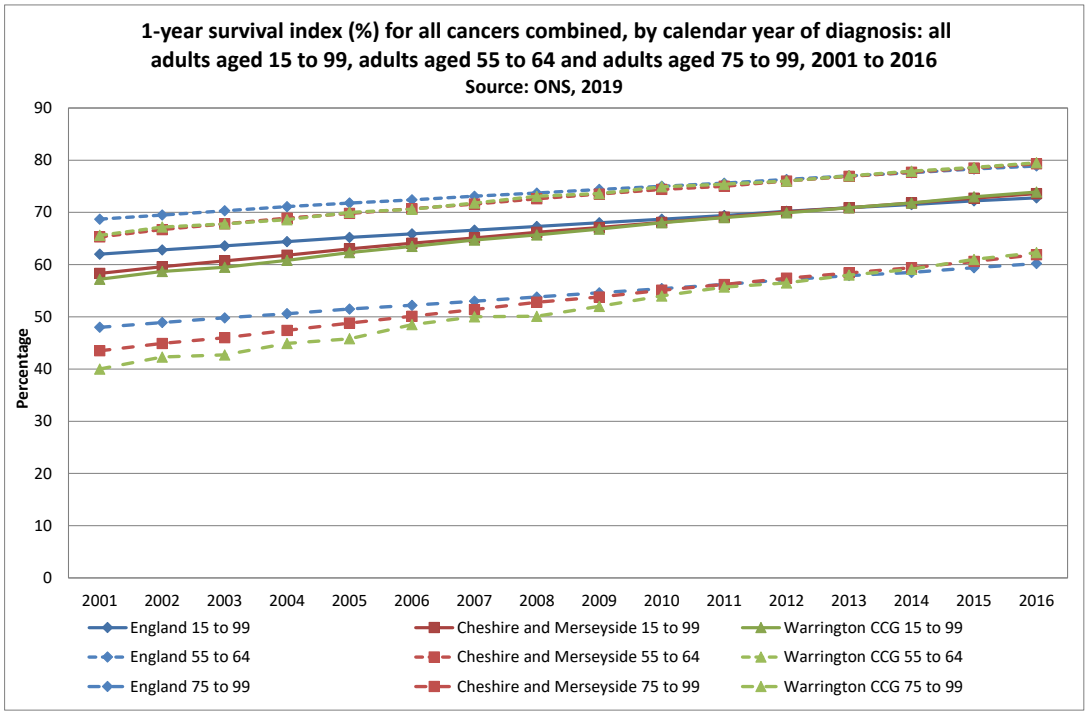
13.1 One-year Survival

Huge progress has been made in improving cancer survival. People diagnosed with cancer in the UK now live ten times longer than they did 40 years ago, with half of those diagnosed surviving for 10 years or more[110]. In 2015, it was estimated that there were 2.5 million people living with cancer in the UK and this is projected to increase to four million by 2030[110].

Figure 67 demonstrates an improvement in one-year survival rates for all cancers over time at national, regional and local level. The one-year survival index for England steadily increased by 17% from 62% in 2001 to 73% in 2016. Although survival rates in Warrington were significantly lower than England until 2010, recent improvements have resulted in an overall increase of 29% between 2001 and 2016, closing the survival gap with England. In 2016, nearly three-quarters (74%) of people diagnosed with cancer in Warrington were alive one year later, in line with the Cheshire and Merseyside average (74%).

A similar pattern is seen for the three main cancers, breast, lung and colorectal combined. In 2016, the one-year survival rate for breast, colorectal and lung was 73.4% in Warrington, which was similar to the regional and national averages (73.9% and 73.1% respectively). These positive increases in cancer survival rates are illustrative of advances in cancer treatment and improvements in the quality of cancer services.

Figure 67: One-year Survival Index (%) for All Cancers Combined in Adults Aged 55-64 Years and 75-99 Years



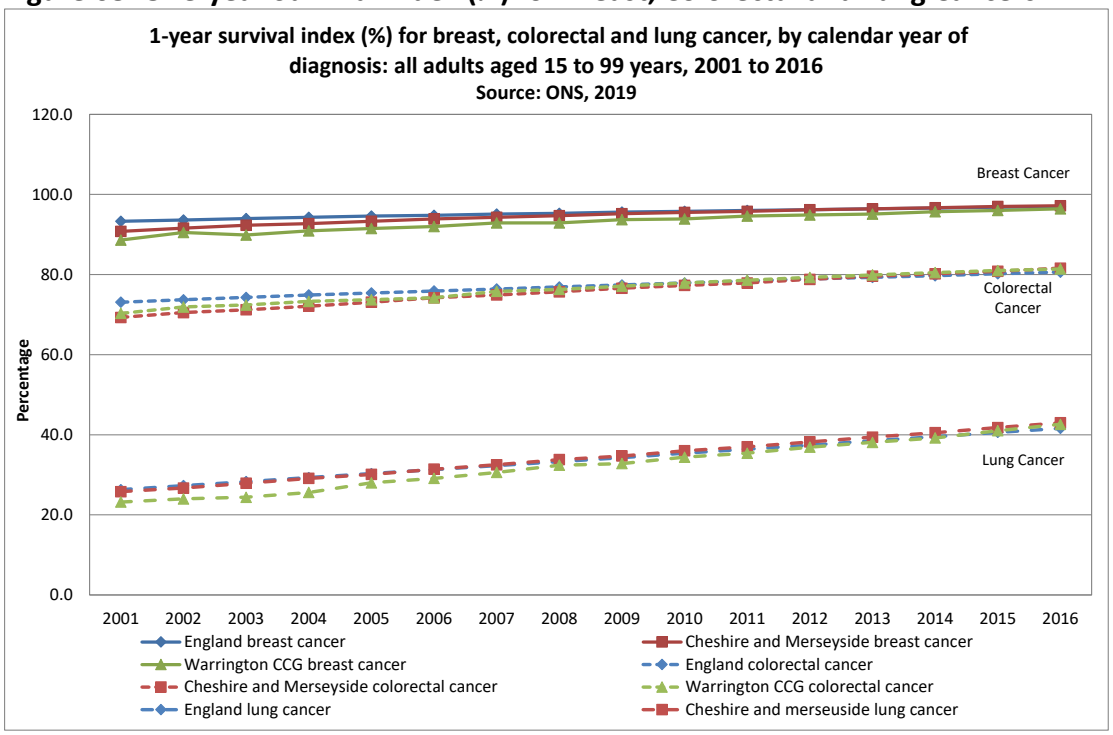
However, cancer survival rates decrease with advancing age. As figure 67 highlights, survival in the 55-64 year age group is significantly higher than the 75-99 year age group at local,

regional and national level for every time period. In 2016, 80% and 79% of people aged 55-64 years in Warrington and England were alive one-year following cancer diagnosis. However, this decreased substantially for those aged 75-99 years, with only 62% if those in Warrington and 60% in England surviving one-year post-diagnosis. This may be attributed to the presence of other co-morbidities such as coronary heart disease, hypertension, chronic respiratory disease, diabetes and poorer physical condition of the older age group lowering treatment options, completion rates and resulting outcomes[111].

There is also huge variation in the one-year survival rate between different types of cancer[112]. Figure 68 shows the separate one-year survival index for breast, colorectal and lung cancers. It illustrates that in 2016 in Warrington and England, breast cancer had the best survival rate (96.4% and 96.9% respectively), followed by colorectal cancer (81.4% and 80.6% respectively) and then lung cancer (42.6% and 41.6% respectively). Within Warrington, one-year survival rates for breast and colorectal cancers have slightly improved by 9% and 16% respectively over the last 15 years, reducing the survival gap with England. The corresponding increases in survival rates for England during the same time period were 4% for breast cancer and 10% for colorectal cancer.

Whilst less than half of people receiving a lung cancer diagnosis are alive one year later, considerable improvements have been made in survival from the disease between 2001 and 2016; increasing by 84% in Warrington and 58% in England. Messages to increase public awareness of the signs and symptoms of lung cancer and the importance of reporting potential symptoms to their GP as early as possible should continue to optimise earlier diagnosis, better treatment outcomes and subsequent survival.

Figure 68: One-year Survival Index (%) for Breast, Colorectal and Lung Cancers



13.2 Palliative Care

Palliative care assists patients that can't be cured to manage pain and be as comfortable as possible, supporting their physical, psychological, spiritual and social needs[113]. It is delivered by a multi-disciplinary team including hospital doctors, GP's, community nurses, social workers, physiotherapists, occupational therapists, counsellors and chaplains in a wide range of settings, such as the patient's home, care home, hospital or hospice.

The Gold Standards Framework stipulates that around 1% of patients registered with GP Practices will be in the last year of life and should be recorded on a supportive care register to facilitate coordination of appropriate palliative care[113]. A large proportion of these patients are likely to have cancer. In Warrington this equates to 2,180 of the total 218,036 registered patients in 2017/18. Local analysis of death data demonstrates that on average 0.9% of patients registered with Warrington GP Practices die each year, equating to 1,888 deaths. Of these, 3% were due to external causes such as a road traffic accidents or suicides and 1,831 were for known conditions including cancer, organ failure, frailty and dementia. Therefore, we would expect the total number of Warrington patients predicted to be in the last 12 months of life and included on supportive care registers to be 1,831-2,180. However, in 2017/18, a total of 545 patients on a GP practice list in Warrington were registered as receiving palliative care. This is considerably lower than expected and illustrates a need to improve identification of palliative patients in need of supportive care.

13.3 Place of Death

End of life care is an important component of palliative care, which aims to help people in the last year of their life to live as well as possible and die with dignity[114]. Patients nearing the end of their life should be given the choice about their care preferences and where they would like to die, whether this is their own home, a care home, supported housing, a hospice or hospital, to ensure a compassionate and dignified end of life[114].

Figure 69: Place of Death in Warrington Residents, 2004-17

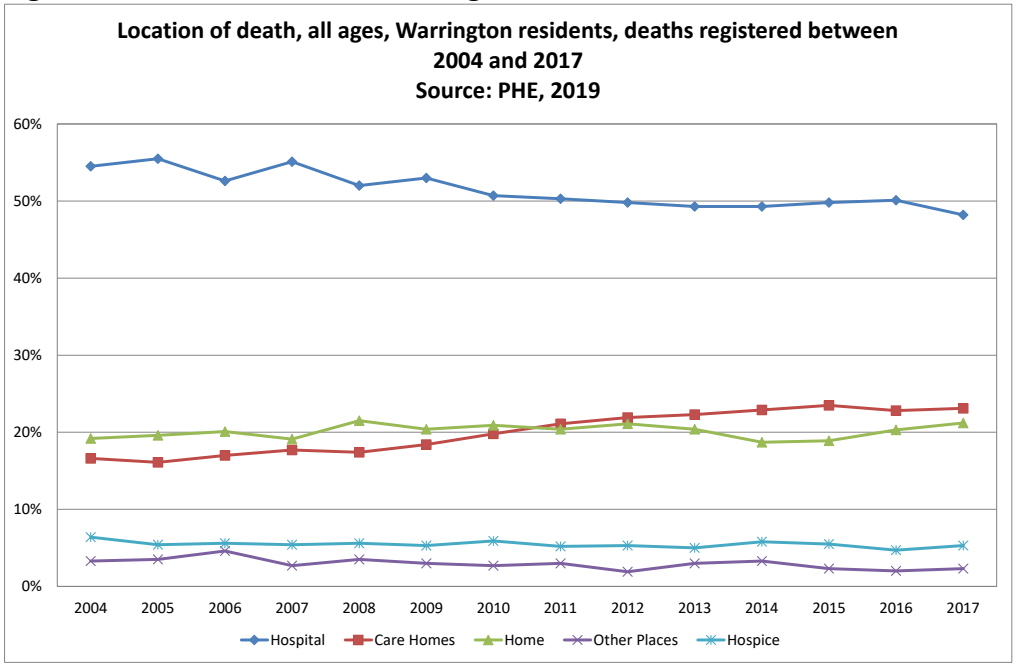
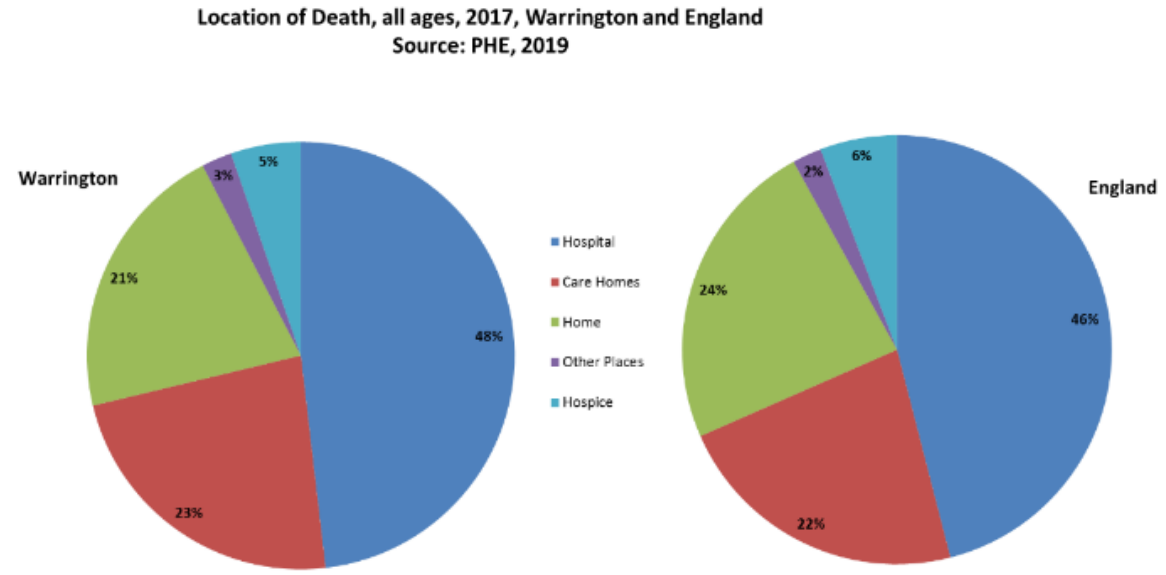


Figure 69 outlines the place of death of Warrington residents of all ages between 2004 and 2017. It illustrates that deaths in hospital are reducing in favour of local people's usual place of residence. During this time period, deaths in hospital decreased by 11.6% to 48.2% in 2017, whilst those in care homes significantly increased by more than a third (39.2%) to nearly a quarter (23.1%) of all deaths in 2017. Both the proportions of hospice and home deaths remaining fairly static over the thirteen-year period, comprising 5.3% and 21.2% of all 2017 deaths respectively. This trend is in line with that experienced nationally in England in the equivalent time period.

A national survey in 2015 found that eight out of ten (81%) patients approaching the end of their life wanted to die at home, close to their family and friends[115]. However, as figure 70 illustrates, in 2016 only 44.3% of Warrington residents died in their usual place of residence, either their own home or a care home. Nearly half of all deaths occurred in hospital for both the Warrington population (48%) and England overall (46%) and one in twenty people died in a hospice.

Options to extend the provision of end of life care and support available in the community should therefore be considered in line with patient expectations to die at home[6, 115].

Figure 70: Place of Death in Warrington and England in 2016

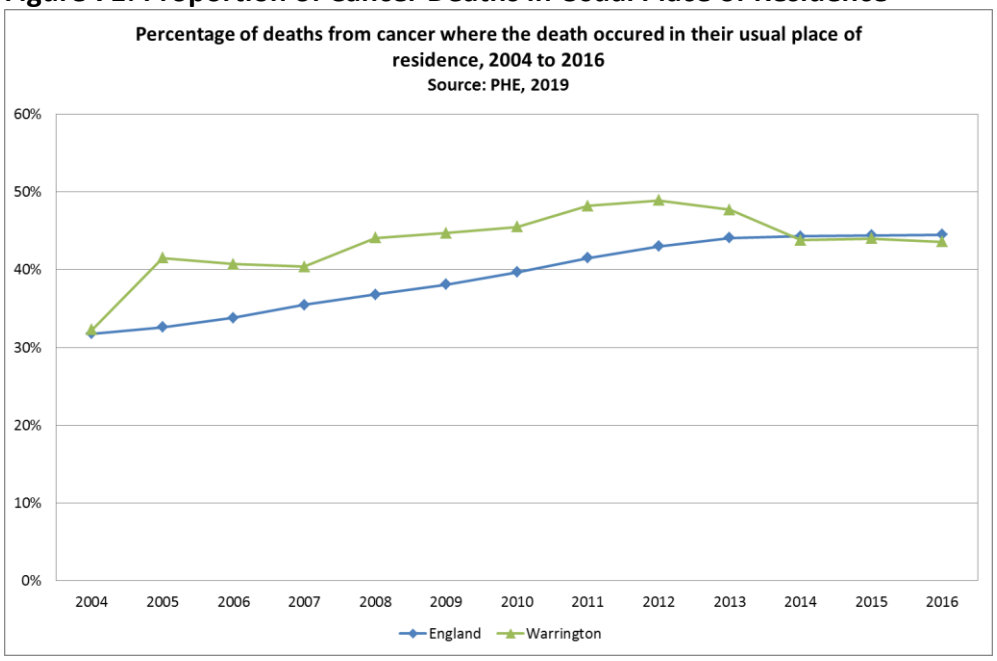


In line with overall deaths, the proportion of Warrington cancer patients dying in their usual place of residence has also increased by 37.5% from 32% in 2004 to 44% in 2016 (figure 71). This is comparable with the 40.6% increase nationally, from 32% to 45% during the same time period.

Whilst the proportion of deaths in the usual place of residence steadily rose, year on year in England, the increase in Warrington was initially more marked, peaking to 49% in 2012, before declining to 44% in 2014 and plateauing thereafter (figure 71). There are a number of

factors that may have contributed to this local trend and these should be further explored through the development of an End of Life JSNA chapter for Warrington.

Figure 71: Proportion of Cancer Deaths in Usual Place of Residence*



*Defined as home, care home and religious establishments

Cancer Survival and End of Life Care Priorities

- Delivery of messages to increase public awareness of the signs and symptoms of cancer, particularly lung cancer, and the importance of reporting potential symptoms to their GP as early as possible.
- Review future delivery of the Cancer Survivorship programme in line with the increasing numbers of local people living with and beyond cancer.
- Undertake further investigation of palliative and end of life care in Warrington through the development of a JSNA chapter.
- Improve the identification of patients in the last year of life and their inclusion in supportive care registers to optimise management of end of life care.
- Review the delivery and provision of end of life care in the community to support a greater number of people with terminal cancer to die in a place of their choice[6, 115].

14. Cancer Services

Warrington CCG commissions a range of community and NHS services for cancer care and wider support of those receiving a diagnosis, their families and carers:

14.1 Primary Care

Primary care is the first point of access for any patient presenting with symptoms of possible cancer. Typically, GP practices are the primary community-based infrastructure responsible for assessing individuals presenting with concerning symptoms and referring for further diagnostic tests. Warrington residents have access to 27 GP Practices across the borough.

During 2018, an audit of new cancer cases diagnosed in 2014 was undertaken with four GP Practices in Warrington in order to improve rates of early cancer diagnosis and subsequent patient outcomes. The audit used a bespoke template to collect a comprehensive dataset and case study examples on new cancer diagnoses in order to review current practice, identify potential improvements and inform future actions, such as proactive safety netting.

14.2 Secondary Care

Warrington and Halton Hospitals NHS Foundation Trust is responsible for the provision of emergency and secondary care for the local population delivered through two key sites: Warrington Hospital and Halton General Hospital. Warrington Hospital provides the majority of emergency care and complex surgery, whilst Halton General Hospital predominantly delivers elective, lower risk surgical care such as breast surgery. Cancer outpatient clinics and diagnostic services are available at both sites.

Currently, most Warrington patients receiving a cancer diagnosis have the option to choose whether they have their outpatient appointments at Warrington or Halton General Hospitals, and in some cases where they will receive their treatment. For a small group of patients with less common types of cancer or confounding health conditions, it is more appropriate to have their treatment in a specialist setting. For example, surgical treatment for patients diagnosed with head and neck cancer is provided at Aintree University Hospital, Liverpool and those with gynaecological cancers have surgery at the Liverpool Women's Hospital.

Cancer patients are supported by a multi-disciplinary team (MDT) and are allocated a cancer nurse specialist (CNS) who act as their key worker to coordinate care and support. Patients can access a range of support services including benefits advice, complementary therapies and counselling. They are also proactively recruited to join available clinical trials from the national portfolio.

14.3 Tertiary Care

The Clatterbridge Cancer Centre (CCC) is a tertiary centre providing specialist oncology services to residents across Cheshire and Merseyside, including Warrington. The centre provides highly specialised non-surgical cancer care, including chemotherapy, immunology and radiotherapy, once patients have been referred to their services following diagnosis and assessment in secondary care hospitals. The centre is currently based in Wirral and has a

satellite radiotherapy centre on the Aintree University Hospital campus and the satellite 'CANtreat Centre' on the Halton General Hospital site for non-complex chemotherapy and immunotherapy treatments for common cancers. The latter purpose built unit, funded by the CANtreat charity and staffed by CCC, is predominantly a nurse-led service that allows patients to have their treatment closer to home.

In response to rising cancer incidence, survival rates and subsequent healthcare service demand, a new cancer hospital is being built in Liverpool called the Clatterbridge Cancer Centre-Liverpool, which will open in 2020. This will be the new main base for tertiary cancer care in the region and the location of all the inpatient beds.

14.4 Reconfiguration of Oncology Services

The rate of cancer incidence is rising, which means every year services have to respond to growing demand. Cancer survival rates have also doubled over the last 40 years, with around half of patients now surviving the disease for more than ten years[110]. This means many more patients are being supported to live well with and beyond cancer, which puts extra pressure on services.

Additionally, an increasing number of new therapies to treat cancer are becoming available, which means the number of treatments offered is increasing; requiring even more joined up patient care. Therefore specialist teams of staff who can work closely together to ensure the delivery of high quality care and access to research, consistently throughout the year are needed. However, national and local evidence demonstrates a shortage in the supply of specialist cancer doctors (Medical and Clinical Oncologists), which has resulted in significant workforce gaps, placing great pressure on the specialist workforce that cannot keep pace with growing demand.

In response, CCC believes that if it does not make operational changes to service delivery, patients will face increased waiting times, will not have standardised access to support services or equal access to clinical trials and more patients will face increased travel to access the Cancer Centre. Staff and services will become overwhelmed by growing demand in the future and may start to fail, resulting in patients potentially facing poorer outcomes or quality of care if services are not reconfigured.

Therefore to sustain the future high quality of services, Warrington CCG are currently working in partnership with other CCG's, CCC and patients to review and develop options for the provision of local cancer services, in line with a model already operating in Wirral and North Mersey and CCC's relocation to Liverpool in 2020.

14.5 Third Sector

14.5.1 Macmillan Cancer Support

Macmillan Benefits Advice Service

Research has highlighted that four in five people suffer a loss of income following a cancer diagnosis, experiencing an average decrease of £570 a month[116] as a result of loss of work

earnings and additional costs from travelling to regular medical appointments, home modifications, heating bills, home and gardening services. This burden of debt is a source of increased stress, anxiety and poor mental health at a time when people need to focus on their cancer treatment and recovery. However, knowledge and awareness regarding the availability of benefits and financial help is low. In response, the Benefits Advice Service delivered by Citizens Advice Warrington, in partnership with Livewire and St Rocco's Hospice, offers specialist advice, advocacy and information on debt, welfare benefits and entitlements to people affected by cancer. It also seeks to provide equitable access to good quality information and a range of services that provide holistic support regarding housing, pensions and employment.

The service is free and confidential, and Benefits Advisors can advise on several issues including benefits, income maximisation and accessing charitable sources of support, including Macmillan grants. It can help people with legal advice, the claiming process, advocacy, and representation at appeals and tribunals. During 2018, the service received 248 referrals and assisted Warrington residents to be awarded a total of £735,842, including £30,100 in Macmillan grants.

Macmillan Community Information and Support Service (MCISS)
The Information and Support Service offers help, advice and support to people seeking further information on cancer and those affected by the disease in Warrington. The service is based at Orford Jubilee Health and Wellbeing Centre and provides information regarding the signs and symptoms of cancer, where to go if you are worried about symptoms, different types of cancer and local support services. Currently, specially trained volunteers offer low-level advice, however Macmillan is working collaboratively with Warrington CCG to develop and expand the service to offer more comprehensive and expert advice.

The Macmillan team, employed by Bridgewater Community Healthcare NHS Foundation Trust and based at St Rocco's hospice in Warrington, also offer support and advice to patients with cancer, their families and carers, both within the hospice and in patients own homes. This includes symptom control, emotional and psychological support and information about their illness and treatments. An equivalent service is also provided for Warrington patients attending Halton General Hospital onsite at the Delamere Centre. This offers advice and a variety of support services including counselling, complementary therapies, make-up, wig and bandana tutorials, lymphedema therapies and the '*Moving Forward*' survivorship course.

Macmillan Support Line
The national Macmillan Support Line offers confidential support to people living with cancer, their families and carers. It's free to call on 0808 808 00 00 and is available 7 days a week between 8am and 8pm. People can seek advice about benefits, bills and financial support, employment rights, treatment and symptom management or can speak to a cancer information advisor about what matters most to them, including emotional support and practical information. The Support Line also offers guidance and help for people to find the right information and support in Warrington. In 2018, 220 Warrington residents utilised the Support Line.

Macmillan Mobile Information and Support (MISS)
This service is available to anyone, whether they have a cancer diagnosis, have a friend or relative affected by cancer, or are worried about cancer. A dedicated mobile team of highly qualified Macmillan professionals, including radiographers, dietitians and financial experts travel across the country on a fleet of six Macmillan buses and park at markets, shopping centres and libraries. The team also man Macmillan information stands in shopping centres, hospitals, libraries and exhibitions, and visit places of worship, community groups, workplaces, festivals, and other ad-hoc events where people may wish to seek support, e.g. car boot sales. They offer specialist advice on a variety of issues including; cancer signs and symptoms, screening, treatments and side effects, finances and employment rights, how to support someone with cancer, survivorship and recurrence. Cancer information leaflets are also provided. During 2018, the team spent 50 hours in Warrington and gave information and support to 970 local people.

Macmillan Website
The website provides information for anyone who is seeking support, advice, or guidance on cancer or how to get involved with Macmillan through fundraising, volunteering and campaigning. It also outlines the cancer support services available in Warrington on the *'In Your Area'* page. There is an online community for people to ask Macmillan experts specific questions or talk to others who understand what they're going through. The website is being refreshed in 2019 to improve its accessibility and visibility; facilitating faster and easier access to information.

14.5.2 St Rocco's Hospice
St Rocco's Hospice offers care for people diagnosed with a life-limiting illness to enable them, as far as possible, to lead their lives in the way that they would wish and also provides end of life care for patients with complex symptoms. Warrington patients and carers can either self-refer or be referred by healthcare professionals, with care coordinated with their GP, who retains overall responsibility. All referred patients are assessed by an MDT to tailor care appropriate to their circumstances and needs.

The Hospice provides a variety of on-site services including: a ten-bed inpatient unit, outpatient clinics, telephone support hub, physiotherapy, occupational therapy, breathlessness and fatigue management, cancer rehabilitation sessions, counselling, mindfulness sessions, complimentary therapy, creative therapy and bereavement support. It also undertakes outreach work within patient's homes and the wider community such as the hospice at home night sitting service, home therapy sessions, volunteer befrienders visits, Bereavement Cafe's and the 'Roc On' project with schools exploring loss and relationships.

14.5.3 Cancer Research UK
Cancer Research UK (CRUK) work collaboratively with Warrington CCG to improve patient outcomes. A CRUK Health Professional Engagement programme offers free, tailored and practical support to help improve cancer outcomes in GP Practices. This includes: individual GP Practice visits to increase understanding of cancer data, access to the latest evidence and best practice, cancer audit, clinical and non-clinical training sessions and advice to

optimise clinical systems. This service can assist in enhancing practice cancer prevention activity, increase patient uptake of cancer screening programmes, improve cancer referral practices and facilitate communication with secondary care.

14.5.4 John Holt Cancer Support Foundation

The John Holt Cancer Support Foundation is a cancer support charity based in Warrington, which provides practical support, advice and guidance to individuals and families affected by cancer through a number of activities, therapies and counselling.

14.5.5 Wired Adult and Young Carers Services

Carer's play a pivotal role in supporting the physical, practical and emotional needs of people with cancer and it is important that they receive the information, advice and support that they require to maintain their own levels of health and wellbeing. Wired Carers Service is an independent charity commissioned by Warrington Borough Council and Warrington CCG to provide support and enhance the lives of carers of all ages in Warrington. It offers a range of services to accommodate the different circumstances and changing needs of carers. This includes information on available support services, carers assessments, confidential counselling, stress management, therapy sessions, hospital discharge and GP liaison support, an Emergency Card service, social events, training and volunteer opportunities. Weekly and monthly drop-in support groups are held at different venues across the borough such as Warrington Hospital, community centres and schools.

14.6 Recovery Package

All cancer patients will have access to a personalised recovery package from the point of diagnosis by 2021[2]. A comprehensive care plan is developed between the patient and their care team, which identifies and addresses their physical health, mental wellbeing and other support needs such as welfare and benefits advice. This includes the following components[7] in line with the NHS Comprehensive Model for Personalised Care standards[117]:

1. A holistic needs assessment and individualised care plan, undertaken within 31 days of diagnosis, at the end of treatment, during significant health changes or when requested by the patient, supported by Macmillan training.
2. Information on the short and longer-term side-effects of treatment.
3. A treatment summary produced on completion of each acute phase of treatment.
4. A cancer care review, undertaken with a GP or Practice Nurse, to outline the support required to maintain quality of life during treatment. Locally, this has been supported by practice nurse training and development of guidelines.
5. Access to health and wellbeing information and events to assist patient self-management of their health.
6. Referral to rehabilitation, employment and welfare support services.
7. Information on signs and symptoms of cancer recurrence and re-entry into specialist support if required.

Warrington patients can access two six-week programmes delivered by Livewire in partnership with St Rocco's Hospice and Citizens Advice Warrington, which provide physical and psychological support throughout the different stages of their treatment. The '*Positive*

Through Treatment' cancer rehabilitation programme offers a range of tailored physical activity sessions, mindfulness techniques, occupational therapy, fatigue management skills, creative remedies, lymphoedema awareness, benefits and healthy lifestyle advice to help patients, their families and carers cope with treatment. It is delivered weekly from Orford Jubilee Health and Wellbeing Centre. The '*Helping you live as well as you can for as long as you can'* is a weekly palliative enablement support programme held at St Rocco's Hospice. It provides patients with gentle chair-based exercise, physiotherapy, relaxation techniques, creative remedies, benefits advice and help to eat healthily and regulate emotions. Both of these programmes can be accessed via heath professional or self-referral.

Additionally, a Cancer Survivorship programme has recently been developed to empower those living with and beyond cancer to live healthier lifestyles and self-manage, return to work, be able to recognise signs and symptoms of possible recurring cancer and access support. The latter will be further supported by the implementation of stratified follow-up pathways for breast cancer in 2019, prostate and colorectal cancers in 2020 and all other clinically appropriate cancers by 2023[2].

14.7 Quality Surveillance Programme

The Quality Surveillance Programme, formerly the National Peer Review Programme, is a national quality assurance programme, which annually assesses NHS cancer services provided by acute hospital and community trusts[118]. It aims to improve the quality of care for people with cancer by:

- Ensuring cancer services are as safe as possible.
- Increasing the clinical effectiveness of care and outcomes for cancer patients.
- Improving the patient and carer experience.
- Providing development and learning for services.

During 2018/19, a number of cancer services provided by Warrington and Halton Hospitals NHS Foundation Trust were reviewed under the Quality Surveillance Programme, including:

- Breast
- Colorectal
- Lung
- Local Head and Neck
- Diagnostic Gynaecology
- Acute Oncology and Cancer of Unknown Primary (CUP)
- Clinical Chemotherapy
- Urology

A review was also undertaken by Bridgewater Community Healthcare NHS Foundation Trust for the skin cancer service. No serious concerns or immediate risks were identified by the review of these services, with all teams reporting high levels of compliance.

Cancer Services Priorities

- Inclusion of Commissioners in all future Quality Surveillance Programme service reviews.

15. Cancer Patient Experience Survey

The National Cancer Patient Experience Survey (CPES) aims to monitor progress on cancer care with a focus on patient experience in order to provide information to shape quality improvements in local cancer care delivery[119]. The latest published 2017 survey is the seventh iteration of the annual survey. Adult patients with a confirmed primary diagnosis of cancer were selected to take part if they had been admitted to hospital as an inpatient or a day case for cancer related treatment in England during April-June 2017.

Locally, 322 eligible Warrington patients attending Warrington and Halton Hospitals NHS Foundation Trust for cancer treatment were asked to participate, of which 194 completed the survey; representing a 63% response rate[119]. The sample included 97 men and 97 women, aged 25 years and above, experiencing a wide range of tumour types. The survey questions are grouped into 12 areas that follow the patient journey:

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 an inpatient
9. Hospital care as a day patient/outpatient
10. Home care and support
11. Care from general practice
12. Your overall NHS care

Positively, the 2017 results for Warrington highlight that overall, patients rated their experience of cancer care on a scale of 1 (very poor care) to 10 (very good care) as **8.7**; denoting a high level of satisfaction. Key areas of good local cancer care performance, which significantly exceeded that experienced at national level include:

- Q18. **94%** of respondents found it easy to contact their Clinical Nurse Specialist (national average was 86%).
- Q38. **95%** were given clear written information about what they should do and not do post-discharge (national average was 86%).

For most questions, the Warrington patient experience was rated within the expected range, comparable with England. However, for a few areas this was not the case, and whilst large numbers of respondents were satisfied with their care, this was significantly fewer than England:

- Q2. **78%** of respondents thought they were seen by their GP as soon as necessary, compared to 84% nationally.

- Q6. **82%** felt the length of time waiting for the diagnostic test to be done was about right, compared with 88% nationally.
- Q7. **73%** of respondents thought they were given complete explanation of test results in an understandable way (national average was 79%).
- Q11. **66%** of respondents said they were given easy to understand written information about their cancer diagnosis (national average was 73%).
- Q56. **85%** felt that the overall administration of care was good or very good (national average was 90%).
- Q58. Only **19%** of respondents said taking part in cancer research was discussed with them (national average was 31%).

Survey responses were also analysed by tumour type but for many the numbers were too small to highlight any significant differences. However, patients with haematological cancers generally reported a poorer experience of their treatment and care than those with the more common types of cancer; namely breast, colorectal and prostate.

Patient Experience Priorities

Warrington and Halton Hospitals NHS Foundation Trust has developed an action plan[120] to help address the issues raised by patients:

- Consult the Haematology Team and review the pre-assessment clinic to examine potential issues contributing to the lower reported level of patient experiences.
- Undertake focus groups with patients to develop accessible information regarding their test results and cancer diagnosis, supported by communication training of primary and secondary care health professionals. This will assist patients, their families and carers to make informed and personalised choices about their condition, potential treatment and supportive care.
- Disseminate information resources (leaflets, posters and webpage) and undertake active discussion during patient consultations to increase awareness of relevant clinical research trials when considering treatment options.
- Undertake active patient engagement and feedback on their experiences of cancer treatment and care to ensure service delivery reflects local need.

16. Recommendations

16.1 Recommendations for Commissioning

The findings from the epidemiological data and the patient experience survey identify the following priority areas of need and recommendations for cancer care in Warrington:

Cancer Prevention

Increasing rates of cancer incidence reveal the importance of primary prevention of cancer in Warrington. Nearly four out of ten cancers are potentially preventable by changes in behaviour[32] and there continues to be a significant burden of avoidable local deaths from cancers associated with smoking, obesity, poor diet and unsafe alcohol consumption.

Higher levels of cancer risk, incidence and mortality in local men and in areas of socio-economic disadvantage emphasise the need to target lifestyle behaviour change programmes and environmental modifications to communities living in the central six wards of Warrington on a proportional universalism basis, as well as male-orientated settings, such as workplaces, in order to address significant cancer inequalities across the borough.

This should include: enhanced provision of specialist stop smoking support; achievement of the NHSE alcohol, smoking and HFSS food restriction CQUIN indicators[44] by Warrington Hospital, supported by the creation of a completely smokefree environment[43]; and embedding 'Making Every Contact Count' (MECC) across the cancer pathway to support systematic delivery of brief lifestyle advice and referral to support services to patients, including those not receiving a cancer diagnosis, and their carers, facilitated by MECC training for staff and volunteers.

Environments also need to be supportive of healthy lifestyle choices across the life-course, through the availability of affordable, healthier food, opportunities to be physically active and restricted access to tobacco and alcohol. This could be achieved through maximising the health-promoting potential of the Warrington Local Plan and Transport Plan and subsequent development of urban design and transport infrastructure. Similarly, all sectors could advocate for national legislation to restrict marketing of unhealthy food to children and young people, introduce alcohol minimum pricing or strengthen licensing of commercial sunbed businesses.

Cancer Screening and Immunisation

Significant progress has been made in increasing breast and bowel screening coverage in Warrington over recent years, and efforts should continue to sustain local participation in these programmes. There is a particular need to focus on cervical cancer coverage which has demonstrated a steady decline in rates locally over the last few years. Large variation also exists in screening coverage between GP Practices across the borough for all three programmes, with uptake significantly lower in more deprived communities.

This demonstrates a need for multi-faceted, partnership approaches to engage lower socioeconomic groups in cancer screening programmes by adopting effective awareness-raising strategies and minimising barriers to accessing screening. Screening messages should

be appropriate for all audiences using easy-read, translated and gender-appropriate resources. The current development of a local, primary care cancer screening dashboard will ensure GP Practices receive regular updates regarding their coverage, supported by a toolkit and training advising strategies to improve screening uptake, and inclusion of screening coverage key performance indicators as part of the QOF Quality Improvement module of the GP and Primary Care Network contracts from 2020/21. Local messaging, pathways and infrastructure will also need to be aligned with the roll-out of the new bowel screening Faecal Immunochemical Test (FIT) in 2019/20, and full implementation of sigmoidoscopy for the 55-59-year age group on Warrington practice lists.

HPV vaccination coverage among 13-14-year-old girls in Warrington has fluctuated over recent years and remains below the 90% national target. Local activity to increase the number of girls accepting vaccination and also support the recent extension of the programme to boys within the 2019/20 school year is also a priority.

Cancer Incidence

Cancer incidence is increasing in Warrington, in line with national trends. However, there is cross borough variation, with higher rates of cancer incidence experienced in areas with greater deprivation. Warrington has a significantly higher rate of new lung cancers compared with England, illustrative of historical patterns of smoking prevalence. Bowel cancer incidence rates are also slightly higher than the national average. There is a need to reduce new cases in subsequent generations of local people through reductions in rates of smoking, obesity and unhealthy diets. The higher rate of cancer incidence in men, compared with women, also illustrates the need to target gender-appropriate lifestyle interventions to male settings to address gender inequalities in risk behaviour.

Cancer Prevalence

The annual increases in cancer prevalence for Warrington indicate an expanding need for the development of stratified follow-up cancer pathways[2] and appropriate survivorship programmes that provide practical support to assist those living with cancer to live healthier lifestyles and self-manage, be aware of potential symptoms of cancer recurrence and access support.

Cancer Diagnosis

Early diagnosis and treatment of cancer is pivotal to improving patient outcomes and survival. Warrington has a greater rate of Two Week Wait (2WW) urgent referrals for suspected cancer than England but a lower rate of conversion to cancer diagnosis. There is considerable variation in the rates of 2WW referrals between Warrington GP Practices. This is reflective of patient age, with higher 2WW referral rates in practices supporting with greater numbers of older patients aged 65 years and above.

Although 2WW referrals for the most common types of cancer continue to rise, those for lung cancer have consistently remained lower than breast and lower-GI cancers. Furthermore, a greater proportion of lung and colorectal cancer diagnoses are made following emergency presentation at a hospital and at a more advanced stage of disease

(stage 3 or 4). This indicates a need for improved early identification of lung and colorectal cancer symptoms and more prompt referral for diagnosis.

Continued delivery of the 'Be Clear on Cancer' campaigns would assist in raising public awareness of the signs and symptoms of cancer, particularly lung and colorectal cancers, and encourage timely presentation to primary care. Educational support for GP Practices in the use of NICE guidance[11] may be beneficial in ensuring awareness of cancer signs and symptoms and clinical pathways to improve timely referrals and prognostic outcomes. This could be supported through the inclusion early cancer diagnosis quality improvement key performance indicators in the future GP contract and review of the Learning Event Analysis (LEA) for cancer cases diagnosed through emergency routes[2].

The national introduction of the new 28-Day Faster Diagnosis Standard in 2020, currently being piloted in Warrington, also requires a local review of current diagnostic capacity and extended implementation of timed diagnostic pathways and straight to test pathways for more cancer types to facilitate achievement of the national target for 95% of patients receiving their result within this timeframe[2,107]. This will be further supported by national plans to roll-out Rapid Diagnostic and Assessment Centres across Cheshire and Merseyside[2].

Cancer Treatment

Timely treatment for cancer is an important contributor to one-year survival. Positively, once diagnosed, the majority of Warrington patients start their cancer treatment within two months (62 days) of their referral. A greater number also receive their subsequent radiotherapy or surgery within one month (31 days) from the agreement to treat than achieved nationally. However, the patient experience survey indicates that Warrington patients would value the opportunity to participate in clinical research trials for emerging cancer treatments, and this needs to be actively promoted to patients during consultation discussions, through online information and printed resources.

Cancer Mortality and Survival

The cancer mortality rate in Warrington has decreased in recent years, however the reduction is not as large as that achieved with cardiovascular disease. The cancer mortality burden is also greater for local men and unequally distributed across the borough, with higher cancer death rates overall and for under 75's in more deprived areas. Whilst the breast cancer mortality gap between Warrington and England has been successfully reduced in recent years, deaths from lung cancer remain higher in Warrington than experienced nationally, in line with greater local levels of incidence and late diagnosis.

This demonstrates a local need to continue lifestyle behaviour change programmes and supportive environments to reduce cancer risk, as well as improving survival rates through early detection and treatment, with a focus on deprived communities and men.

Overall, survival for all cancers is improving locally in line with regional and national trends, with three-quarters of Warrington patients alive one year after diagnosis. This will increase the number of people living with and beyond cancer that require on-going support and the

expansion of the Cancer Survivorship programme to meet their physical, psychological and practical needs and enhance quality of life.

An increasing number of Warrington patients with terminal cancer are being supported to die in their usual place of residence, with over four out of ten deaths occurring at home or in a residential home. Further exploration of service options to extend the offer of community-based end of life care would enable a greater proportion of patients to die in a place of their choice[6, 115].

Patient Experience

The national cancer patient experience survey has highlighted a higher level of local concern regarding the communication and explanation of diagnostic tests and cancer diagnosis than experienced nationally. Insight work with Warrington patients receiving a cancer diagnosis would assist better understanding of the information needs of our local population and the development of accessible information to facilitate informed choice. This could be achieved through undertaking focus groups with patients receiving a cancer diagnosis and implementing a local patient survey to attain regular, real time feedback on their experiences of cancer services.

16.2 Recommendations for Needs Assessment

Data analysis has illustrated the following areas for further exploration:

- Completion of a cervical screening audit would identify factors contributing to the variation in coverage rates across Warrington GP Practices and inform implementation of solutions.

- Further audit of the pancreatic cancer pathway would increase understanding of the reasons for differences between the local and national new registrations.

- The rate of prostate cancer incidence in Warrington has fluctuated over time. It is recommended that further investigation of the pathway and data recording systems is conducted to understand factors contributing to the variation.

- Similarly, current documentation systems supporting the prostate cancer pathway should be reviewed in order to improve levels of recording for the route to disease diagnosis.

- Analysis demonstrates a recent decline in Warrington's cancer detection rate through the 2WW route following historically greater rates than England, as well as a positive correlation with deprivation. Further exploration of the cancer detection data would facilitate understanding of the factors contributing to these trends.

- Further analysis of palliative and end of life care data should be undertaken through the development of a JSNA chapter for Warrington.

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Appendix A: Cancer JSNA Group Membership

Representative	Organisation
Jo McCullagh	Public Health, Warrington Borough Council
Joanne Bayliss	Public Health, Warrington Borough Council
Susan Burke	Warrington Clinical Commissioning Group
Tilly Dobbin	Warrington Clinical Commissioning Group
Kerry Gerrard	Warrington Clinical Commissioning Group
Karen Mason	Warrington and Halton Hospitals NHS Foundation Trust
Claire Screeton	Healthwatch Warrington
Tomas Edge	Cancer Research UK
Nancy Whittaker	Macmillan Cancer Support
Jo Smith	Macmillan Cancer Support
Steve Cullen	Citizens Advice Warrington