North West Regional Report

north west cancer research

2023

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CONTENTS:

EXECUTIVE SUMMARY

Since our founding over eight decades ago, North West Cancer Research has been independently funding research, strategies and community-level engagement designed to understand the causes of cancer and support those living with and beyond cancer in the North West of England and North Wales.

Over this time, we have developed a finely nuanced understanding of the prevailing cancer issues within our area. This level of awareness is vital, as cancer cannot be effectively tackled without a highly localised approach that understands the multi-faceted, complex and evolving nature of the challenges at hand.

We cannot take a one size fits all approach to cancer around the country, as no two villages, towns, cities or even regions are exactly alike. To enable local care systems to employ tailored measures that reflect the lived realities of their communities, we've invested over £45 million since 2000 in life-saving research projects as well as preventative awareness campaigns that address cancer inequalities.

Levels of engagement

A central aspect of our work has been to engage three overlapping but distinct levels within society and the medical landscape which governs the North West's collective ability to prevent and treat cancer.

Public engagement

As we will discuss in this report, many of the cancer types which most disproportionately affect the North West are lifestyle related. This fact underscores the critical need for targeted education and outreach programmes that empower people young and old with the information they need to live healthy lives that minimise their risk of being diagnosed with cancer.

Achieving this has seen us undertake a wide range of activities. This has included school engagements to provide our communities' next generation with healthy lifestyle skills and knowledge. We've also rolled out region-wide awareness campaigns to spread important messages into the media as well as boots-on-the-ground work at key North West locations to disseminate information first-hand.

System engagement

As I mentioned in a recent roundtable on tackling health inequalities in Liverpool, "cancer is the point at which the pressures of society meet medicine". This is highlighted by the expansive network of local government, central government, NHS, and third sector organisations that have a role to play in tackling the North West's high cancer rates.

Talking to stakeholders in our communities such as politicians, health directors, NHS clinicians, mayors, councillors, academics, and more is essential to aligning our region's approach to tackling cancer and ensuring that the issues are understood, and the priorities addressed. See the case study on page 19 on our 2022 Liverpool roundtable for an example of our approach.

Research engagement

North West Cancer Research maintains a research pipeline from the earliest discovery science, understanding the genetic causes of cancer to studies which seek to improve patient care through our hospitals today. We add to this studies which aim to improve available treatments using current techniques to those which focus entirely on the new and ground-breaking – creating new ways to treat cancers. Our focus is on the unique needs of our region and so an increasing amount of our research is on the inequalities which exist across the area. These may be connected to disparities in wealth or the many other diverse factors at play as we live and age but they are what makes our region unique. We need to understand our inequalities if we are to address them and this is what our research aims to do.

Into the mix of research types is added the different cancer types which are covered in this report. As a Charity we believe that our mission is to tackle the cancer needs of the region. Because of this our research portfolio includes cancers which are common, such as breast and prostate cancer, through those which over-index in our region and even including studies on rare and childhood cancers. The largest weight of our funding however is concentrated on those cancers which have the greatest impact in our region – head and neck cancers, cancers of the digestive system, the lungs and liver. Our funding is spent through academic and health institutions but its aim and focus is to improve the health of the region.

The underlying thread that connects all this work and each tier of engagement is uncovering and addressing why cancer is a more common disease in the North West compared to the rest of the country.

Purpose and approach

The disparity between the national and regional cancer rates has been a core driver of our work as well as our regional report. Now in its fourth year, this annual report plays an important part in our engagement activities, as it paints a multi-layered picture of the cancer landscape across the North West. The data we analyse consistently illustrates long-term trends that highlight both the scale of the challenge as well as the critical necessity of community-level interventions.

In preparing this, we assess the available data on cancer in the North West of England and explore it at a county level, covering Greater Manchester, Cheshire, Merseyside, Cumbria, and Lancashire. This provides us with granular insights into how this disease affects our communities and which specific conditions are putting the greatest strain on the North West's people and healthcare infrastructure.

Central to this analysis is the overlaying of multiple data points, including socio-economic information with incidence (total and age standardised), prevalence and total cancer death rates, to identify connections that may not be immediately obvious. This creates a rounded picture of cancer trends and shows where specific needs lie.

From this, we sadly see more continuity than change over the course of our annual reports, with the prevalence, incidence, and overall number of deaths from cancer staying above the national average. In fact, residents in the North West of England and North Wales are 25% more likely to be diagnosed with cancer than in the rest of the UK.

For the 19 cancer groups for which prevalence and incidence data is recorded by the NHS, the North West exhibits higher rates for 15 of them when compared to the English average, while age standardised total cancer deaths were 8% higher in both 2021 and 2022.

Entrenched inequalities

The static nature of the region's cancer rates mirrors the sluggish pace of improvement in its deprivation levels. This entrenching of inequalities is important, as a clear correlation between deprivation and increased cancer rates is evident in our research.

We can see this in Liverpool in particular, which experiences a 25.8% higher deprivation level than the rest of the country and which in 2021 experienced 15% more cancer deaths than the English average. In comparison Cheshire, one of the most affluent parts of the North West, was the only county that saw fewer cancer deaths than the national average and which is simultaneously the only region with a lower level of deprivation than the rest of England.

The role that socio-economic factors play in an area's health expectations is further underlined by data that indicates it is 'lifestyle related' cancers – lung, liver, kidney, stomach, and skin – that show the most alarming regional disparities. Currently, incidence rates of lung, trachea and bronchus cancer are 27% higher in the North West compared to the rest of England.

Connecting communities

With cancer rates flat-lining rather than decreasing in the North West, it is clear we are facing a long-term issue that is going to require significant levels of investment targeted at understanding the problems – and the solutions - at a local level. Education and awareness of preventative measures should be high up on the agenda for this investment, as increasing levels of understanding across our communities will significantly help bring the North West's cancer rate into alignment with the national average.

This is why we work hard to implement outreach projects and to spread information at a grassroots level. Our presence in the region's communities and our research tells us that creating a cancer-free future is going to take all the region's stakeholders – its people, politicians, clinicians, academics, and more – all working in collaboration to realise each area's specific concerns and how its people can be empowered to take control of their own health.

Alastair Richards,
North West Cancer Research CEO

North West Regional Overview

NORTH WEST
Regional Overview

Compared to the rest of England, the North West experiences cancer at much higher rates according to a number of metrics. Overall cancer incidence rates in the region are significantly above the national benchmark and some areas are seeing 10-15% more deaths from this disease.

The North West over-indexes on 15 of the 19 key cancers surveyed compared to the average in England. This increased level of incidence means people living in the North West's counties and cities face a higher risk of being diagnosed with these cancers each year than if they lived elsewhere in the country.

In addition to being more likely to contract this disease, the data on total age standardised cancer deaths shows that people are more likely to die of cancer if they are situated in the North West. This issue is particularly stark in Liverpool, where total death rates are 15% higher than average, and Manchester, which saw 10% more deaths from cancer than the national norm.

The total cancer death rates for some of the most prevalent and problematic regional diseases highlight key challenges for the North West's health infrastructure. Compared to the national average, trachea, bronchus and lung cancer deaths were 25% higher while liver and stomach cancer deaths are 24% and 15% higher respectively.

The gravity of this finding is underlined by the fact that trachea, bronchus and lung cancers are diagnosed at a 27% higher rate in the North West, with this disease ranking as the fourth highest cancer for overall incidence in the North West and first for the most overall deaths.

In 2021, 61.92 people per 100,000 died of this disease, which is significantly higher than every other type of cancer. In comparison, 26.46 deaths per 100,000 people was recorded for colon, sigmoid, rectum and anus cancers, which is second in the list of most overall deaths.

Localised factors such as population demographics, the environment and deprivation levels have a notable impact on the pervasiveness, mortality levels and types of cancer that specific communities experience.

This is important, as our research shows that communities in the North West exhibit significantly higher rates of deprivation than the national average. The data indicates that people living in Greater Manchester experience the highest overall levels of deprivation in the North West, with Merseyside, which was in first place in last year's report, coming a close second. In contrast, Cheshire is the most affluent county in the region and the only one to register lower poverty levels than the English average.

> **"We have to look at how we improve people's lives and how we build a community that does that."**
>
> Dan Carden, MP for Walton, at North West Cancer Research's 2022 roundtable on health inequalities in Merseyside

Within individual counties the picture can be very mixed. Cumbria experiences deprivation levels only slightly above the English average and is 14% less deprived than the rest of the North West. However, Barrow and Copeland record higher levels of poverty compared to areas of Cumbria such as Eden and South Lakeland, which are more affluent than the national average.

Lancashire represents the region's most economically diverse county, with areas of substantial wealth as well as areas of extreme poverty. Greater Manchester's economic landscape also incorporates areas of significantly contrasting wealth levels. Richer post codes such as Trafford and Tameside sit next to Manchester's inner-city, one of the most deprived areas in England. The difference between population demographics also shows how factors such as age play an important role in each county's health outcomes. In general, areas with older populations experience significantly higher incidence rates for a wide range of cancers.

Greater Manchester has the youngest population in the North West, with 72% per cent of people living in the area aged 54 or under, and it also has the lowest rates of both cancer incidence and prevalence in the region. The county records cancer incidence rates that are 3% below the national average and 10% below the North West average.

It's important to note that age is a key influence on the disease profile of Greater Manchester's population. When looking at an age-standardised data sample, the region has a higher incidence rate than the national average – and in fact ranks second in the North West. This further highlights how deprivation can lead to worse outcomes for cancer patients, as when the young nature of the city residents is taken out of consideration, its total cancer death rate is still markedly above the English norm.

In contrast to Manchester, Cumbria sees the highest rates of cancer across the region with incidence tracking 23% higher than the national average and 16% higher than the regional average. This shows that the disparity between Cumbria and the rest of the country is growing, as in our previous report Cumbria had an 18% higher incidence rate. When this is lined up with demographic data, we can see that the county has one of the oldest populations in the North West. 40% of Cumbria's population is aged over 55 years old, which compares to the national average of 33%.

Cancer impacting women

Certain cancers that impact women were found to be much more common in the North West's population than in the rest of England. The incidence rate for cervical cancer remains notably high across the whole region at 19% above the national average. Lancashire recorded the starkest rates of cervical cancers, at 32% above the national average, which is up from 21% in our previous report. Every other county aside from Cheshire also recorded a higher than average burden of this disease, with cervical cancer rates 17% higher than the national average in Cumbria and 16% higher in Merseyside.

Prevalence rates of ovarian cancer and cancer of the uterus are also above average across the North West. Ovarian cancer rates in the region have jumped in recent years from being 12% higher than the English average to being 17% higher. Cumbria recorded the highest incidence rates of ovarian cancer, increasing to 41% above the national benchmark. Merseyside is also tracking at 26% above average, with Cheshire ranked third with a 19% difference. Cancer of the uterus remains at a 6% higher incidence rate compared to the rest of the country. As in our last report, Cumbria has the highest incidence rate for uterine cancer, with the difference increasing from 26% to 39%. Lancashire's burden of this disease has also grown, with incidence rates moving from 12% above the national average to 18%.

Female breast cancer is the most diagnosed and prevalent cancer across the North West, with approximately 139 annual diagnoses per 100,000 people (according to incidence data) and a prevalence rate of more than 2,000 cases per 100,000 people. Cheshire in particular has experienced a large increase in its incidence rate for this disease, jumping from 13% above average in our previous report to 24%. This is also a markedly higher difference to the national figure compared to other regions, with Liverpool having the second highest rate at 8% above the average for England.

Cancer impacting men

A number of male specific cancers were recorded in high levels throughout the North West. After female breast cancer, prostate cancer is the second most prevalent cancer in the region, with 1,524 cases per 100,000 people. The North West is approximately in line with the national rates recorded for this disease asides from some notable exceptions. Cumbria for example has an incidence rate for prostate cancer that is 17% higher than the rest of England. The Cheshire & Merseyside Health & Care Partnership recorded age standardised total cancer deaths for prostate cancer at 5% above the national average.

The North West's total death rate for trachea, bronchus and lung cancers is 25% higher than the national average.

Key Challenges

Almost all indices used to benchmark cancer incidence, prevalence and total deaths remain largely static across the three years of data gathering. In our first report in 2021, the incidence rate of cancer for the North West was 6% and this year's data shows that it sits at 7%. From 2020 to 2021 the rate of total cancer deaths remained virtually the same, decreasing from 277.25 per 100,000 people to only 273.8. This proves the entrenched nature of the problem and highlights the urgent need for immediate evidence-led interventions in the North West's communities.

Specific cancers have more of an impact on North Western communities than others. Oesophageal cancer is a particular challenge as all five of the region's counties recorded higher than average rates, with an overall 24% higher incidence rate compared to the rest of England. The Liverpool city region experiences the highest incidence rate for oesophageal cancer at 34% above the national average, closely followed by Lancashire at 33%, Cumbria at 25%, Cheshire at 22% and Greater Manchester at 7%. This amounts to 16% more total deaths in the region compared to the English average.

Regional lung cancer rates are very high, with incidence 27% above the norm. This is especially the case in heavily urbanised locations such as Liverpool, which has rates 44% higher than the national benchmark. Greater Manchester's communities are also being heavily affected, experiencing rates 17% higher than the English average. Cumbria has jumped to second in the rankings for this disease in the North West, with an incidence rate that's 33% above the English average.

Head and Neck cancers remain problematic across the North West. Merseyside has the highest prevalence rate of this cancer out of the five counties and is 32% above the national average – which shows no movement when compared to our previous reports. Cumbria, Lancashire, and Greater Manchester are all also managing significantly higher rates than should be expected at 29%, 18% and 13% higher rates than the national average respectively.

Melanoma continues to be a common challenge, possibly due to lifestyles or outdoor occupations which put populations at an increased risk. Across the region, prevalence of this disease is 13% higher than the national average, with Cumbria recording the highest levels of this disease with a prevalence rate 32% above average. Cheshire's communities also experience high rates of melanoma, with the county continuing to experience the second highest regional burden of the disease at 29% more cases by prevalence than the national average.

"Engagement needs to be constant – we need to be consistently promoting the idea of prevention and making sure that the information doesn't stop."

Rahima Farah, Network Engagement Lead at the Central Liverpool Primary Care Network, at North West Cancer Research's 2022 roundtable on health inequalities in Merseyside

North West: Top Ten Cancers by incidence

North West – Top 10 cancers by total deaths *

1. Trachea, bronchus & lung
2. Colon, sigmoid, rectum & anus
3. Lymphoid, haematopoietic & related tissue
4. Prostate
5. Breast
6. Pancreas
7. Oesophagus
8. Liver
9. Bladder
10. Brain

* List is based on age standardised total cancer deaths for which data was available.

MERSEYSIDE
County Overview

MERSEYSIDE
County Overview

The cancer incidence rate in Merseyside is higher than the North West average by 8%, and it is 15% above the national average. This disparity has increased since our previous report, which recorded Merseyside as being only 7% above the English norm. When looking at the death rate, Merseyside stands out as the most starkly above the English average out of all the five North Western counties, at 15% above the national benchmark.

The high levels of deprivation may account for this increased incidence and mortality rate, as Merseyside is one of the most deprived counties in the North West, with significantly high levels of poverty compared to both the regional and national picture.

More than a quarter (28%) of the population in the Liverpool City Region are employed in routine or manual roles, while slightly less (26%) have managerial, administrative, or professional occupations. Students make up 10% of the city's population, while 8% are long term unemployed or have never worked.

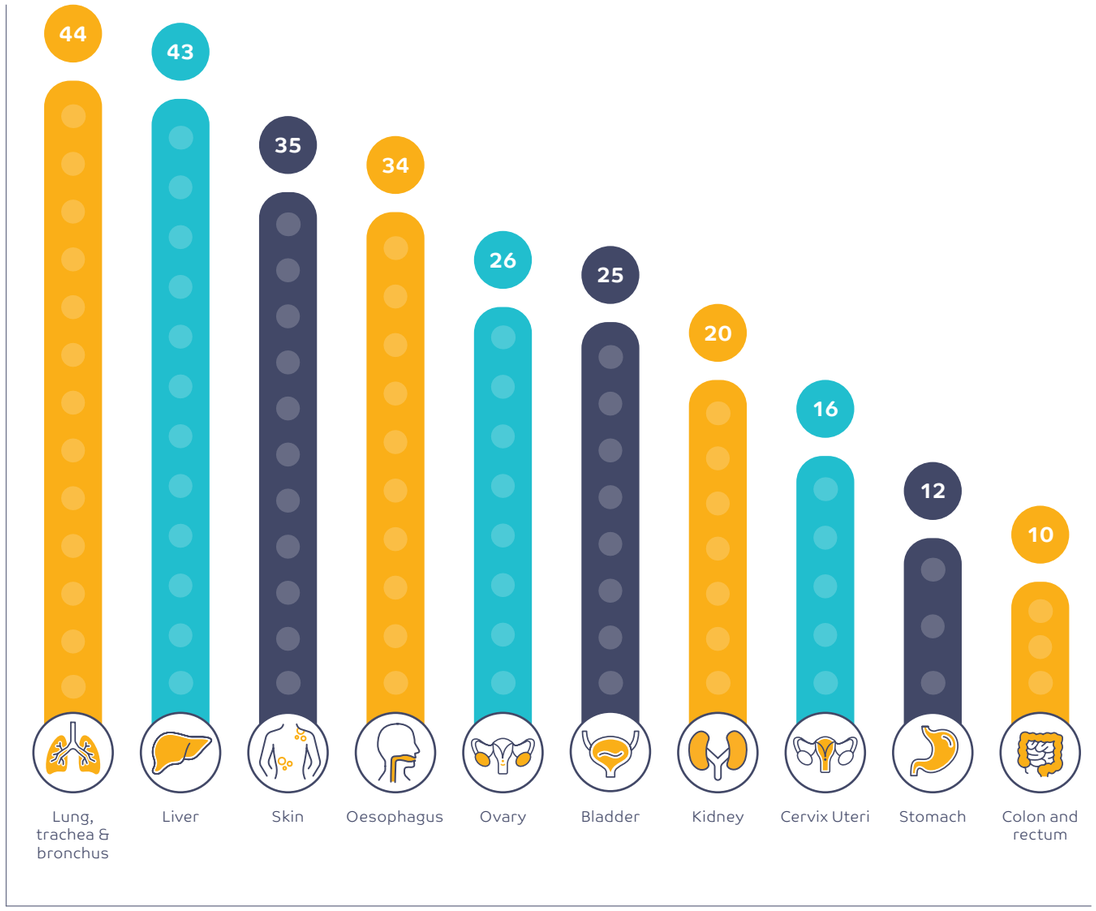
Oesophageal, stomach and bladder cancers remain a significant challenge for the county, with rates for all of these diseases staying distinctly higher in Liverpool than across the rest of the country. As in our previous report, which found lung, trachea & bronchus cancers to be the most prevalent type of cancer disease in Merseyside, this is still a significant issue. The latest data found that incidence rates for lung, trachea & bronchus cancers are 44% higher than the national average and total deaths are more than 40% higher.

By prevalence, Liverpool records the highest level of head & neck cancer in the region, with rates 32% above average. This is the same rate for this disease as in our last report and is 12% above the current regional average.

COUNTY-SPECIFIC BREAKDOWN:
Merseyside

Top Five Areas of Need

- Headline statistic: Lung, trachea, and bronchus cancer rates are very high, with 44% more cases by incidence and 43% more deaths than the national average.
- Liver cancer in Merseyside remains high, with a 43% higher incidence rate compared to the rest of England.
- Merseyside's communities struggle with oesophageal cancer. Incidence rates are 34% higher than the rest of the country and 12% higher than the North West average.
- As with many lifestyle related cancers, bladder cancer is present in Merseyside at a significantly high rate – with annual diagnosis rates 25% above the English average.
- The Liverpool area recorded a substantial jump in disparity between the regional and national incidence rate for skin cancer, increasing from 10% in our previous report to 35% this year.

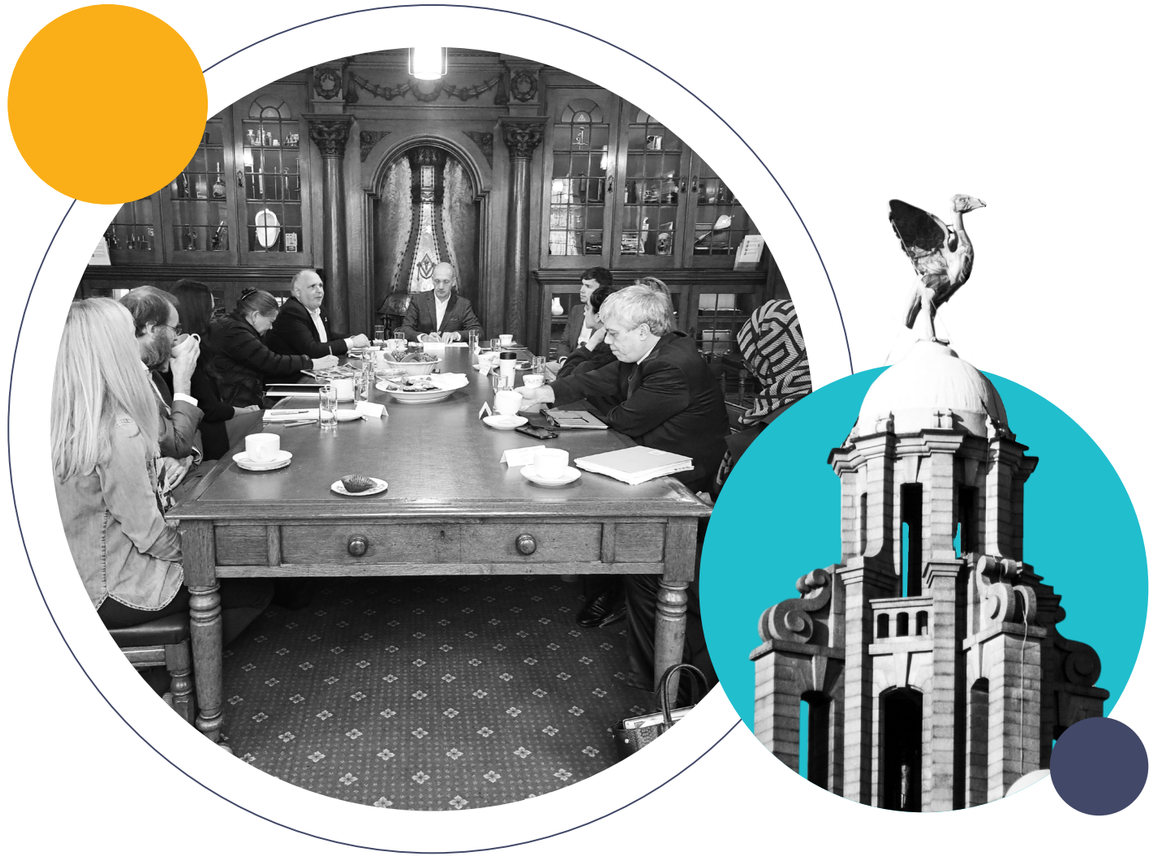


Liverpool: Top Ten Cancers by incidence

Liverpool – Top 10 cancers by total deaths *

1. Trachea, bronchus & lung
2. Colon, sigmoid, rectum & anus
3. Lymphoid, haematopoietic & related tissue
4. Prostate
5. Breast
6. Pancreas
7. Oesophagus
8. Liver
9. Bladder
10. Brain

* List is based on age standardised total cancer deaths for which data was available.



SYSTEM ENGAGEMENT: Our work

In 2022, we hosted a roundtable which saw politicians, clinicians, academics, and charities from across Liverpool meet to discuss in depth how to address health inequalities in the Merseyside area. The conversation at the Liverpool Medical Institute provided a great opportunity for community leaders and healthcare professionals with a stake in the city's health landscape – but who often don't get the chance to discuss issues face-to-face – to share their experiences and reflect on how to improve Liverpool's health outcomes. To spread the lessons from this discussion and advance the conversation on health inequalities, we created a white paper based on the roundtable which is available on the North West Cancer Research website.

Being 'in the room' with community leaders and regional decision makers means we can provide valuable insights where needed and enables us to connect the dots between different entities, ensuring that all those engaged in tackling cancer in our region are aligned, informed, and moving forward together.

CUMBRIA
County Overview

CUMBRIA
County Overview

When compared to the English average, the cancer incidence rate in Cumbria is higher than any other North West county at 23% above the national average. Not only was Cumbria the furthest outlier in our previous report, but the latest data shows a 5% increase in this disparity.

The area's demographic backdrop may explain this high prevalence rate, as Cumbria has one of the oldest population profiles in the North West. 40% of the county's population is over 55 years old and 11% are aged over 75. This compares to the national totals, which are 33% and 9% respectively.

As a whole, Cumbria is less affected by deprivation than the North West average. However, while it is 20% less deprived than the region as a whole and 30% less deprived than Greater Manchester, the area does host several pockets of entrenched deprivation. Barrow for example is 26% more deprived than the English average and Copeland records 19% higher deprivation levels, which compares with locations such as Eden and South Lakeland which are much less deprived than the national average.

Around a third (31%) of Cumbria's population are employed in routine or manual roles, while 28% have managerial, administrative, or professional occupations. Students make up 5% of the population, while 4% of people living in the area are long term unemployed or have never worked.

In addition to recording the highest incidence rate in the North West for all recorded cancer types, Cumbria is markedly higher on several specific cancer diseases. This includes a kidney cancer incidence rate 42% above the rest of England - which is 30% higher than the English average, 23% higher than our previous report and 15% above the next highest county, Cheshire. Cumbria also scores highest for ovary (41%), colon & rectum (39%), stomach (23%), and non-Hodgkin lymphoma (21%), among others.

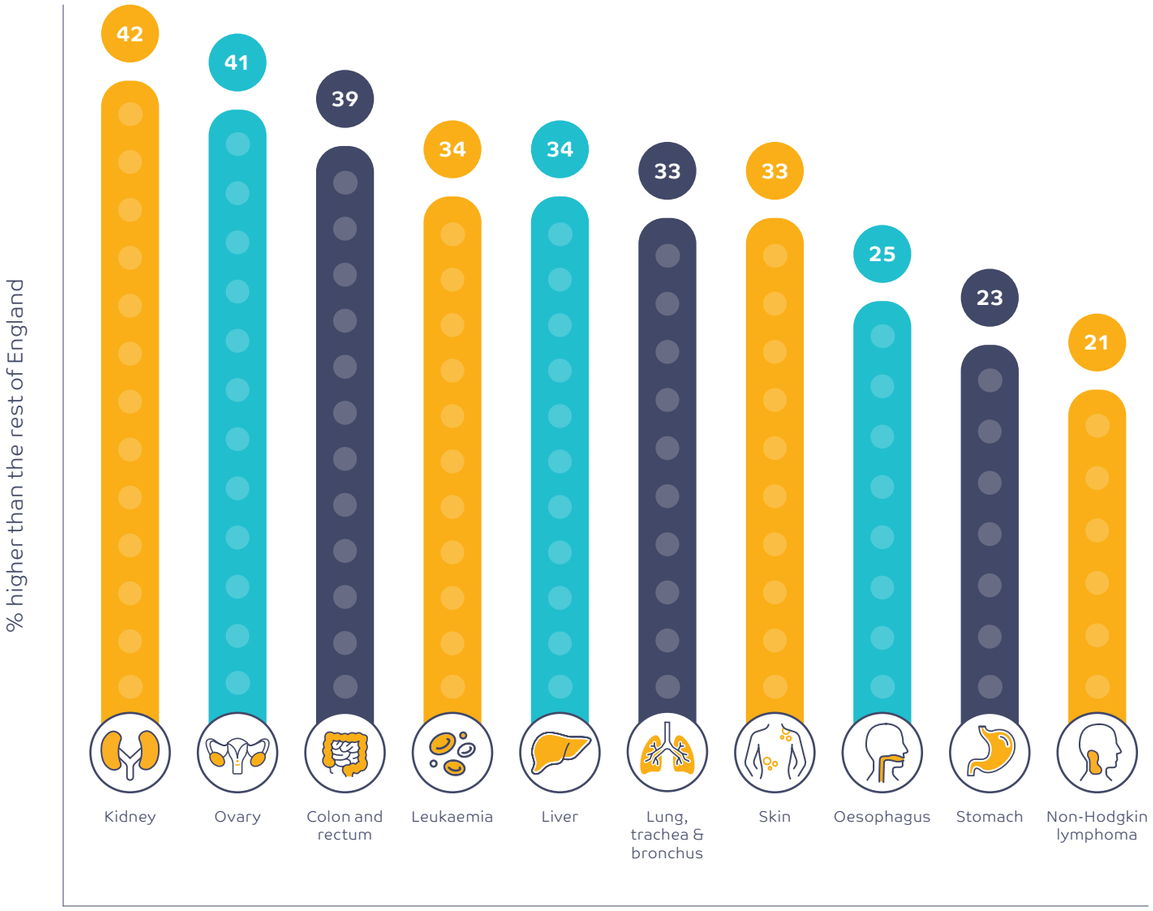
The incidence rate disparity between England and Cumbria for skin cancer has also increased notably in recent years, going from 27% to 33% higher than average. Similarly, the prevalence rate of head & neck cancers has risen from 25% above average in our previous report to 29%, which is the second highest rate in the North West.

The county is also managing a number of other cancer disease types at very high rates, such as an oesophageal cancer incidence rate 25% above the national average and a liver cancer incidence rate 34% higher. When looking at total deaths, Cumbria records a 39% higher rate for liver cancer than the rest of the country.

COUNTY-SPECIFIC BREAKDOWN:
Cumbria

Top Five Areas of Need

- The county as a whole is the furthest region in the North West away from aligning with the national average cancer incidence rate
- Cumbria's healthcare infrastructure is facing a kidney cancer incidence rate that is 42% above the rest of the country.
- Incidence rates of ovarian cancer are more than 40% higher than the rest of England and 24% above the average for the North West.
- Over the course of our reports, the incidence rate for skin cancer has increased from 27% to 33% above the national average.
- Liver cancer accounts for 39% more deaths on average in Cumbria than it does nation-wide.



Cumbria: Top Ten Cancers by incidence

Cumbria – Top 10 cancers by total deaths *

1. Trachea, bronchus & lung
2. Colon, sigmoid, rectum & anus
3. Lymphoid, haematopoietic & related tissue
4. Prostate
5. Breast
6. Pancreas
7. Oesophagus
8. Liver
9. Bladder
10. Brain

* List is based on age standardised total cancer deaths for which data was available.

INNOVATIVE TREATMENT:
Our work

The North West has the highest regional incidence and mortality rate of pleural mesothelioma, a cancer that affects the lining of the lung. The reason for this stems from the fact that mesothelioma is directly linked to asbestos exposure - a material that was widely used as part of the North West's historic shipbuilding industry.

Chemotherapy drugs and drugs that target the immune system can help some patients with this disease, but it has been found that others do not respond at all and in most cases the cancer eventually becomes resistant to treatment.

A new study will use a targeted drug combination to understand why some patients might benefit from treatment more than others. An innovative process has been devised for the project, in which a tiny mesothelioma sample from a diagnostic biopsy is placed into a hen's egg. Cancerous cells will then form a tumour nodule in the egg and grow, allowing for new and existing drugs to be tested against the mesothelioma cells.

This study identified that a biomarker gene called BAP1 influences how patients respond to two existing drugs used to treat mesothelioma. Thanks to this insight, the hen's egg model can be used to understand the likely response of mesothelioma in individual patients in order to design better clinical trials.

LANCASHIRE
County Overview

LANCASHIRE
County Overview

Cancer prevalence rates in Lancashire are higher than the national average but the county is broadly in line with average rates across the North West for both incidence and total deaths.

The county is the most economically diverse in the region. This is illustrated by the fact that it encompasses Blackpool, which has some of the most deprived communities in England, and the Ribble Valley, one of the nation's wealthiest areas. The county's under-55s make up around 66% of the population, with those aged over 75 making up 9% of the population.

Approximately a quarter (27%) of Lancashire's population is employed in routine or manual roles and the same proportion have managerial, administrative, or professional occupations. Students make up 9% of the county's residents, while 6% are long term unemployed or have never worked.

Incidences of oesophageal cancer are close to the highest levels in the North West, being 33% above the national average, which is only lower than Liverpool at 34%. This represents an increase of 18% for this type of cancer compared to our previous report. Cervical and bladder cancer incidence rates also remain high in the county, at 32% and 14% respectively above the average for England. For Cervical cancer, this is a significant increase from the 21% rate recorded in our 2022 regional report.

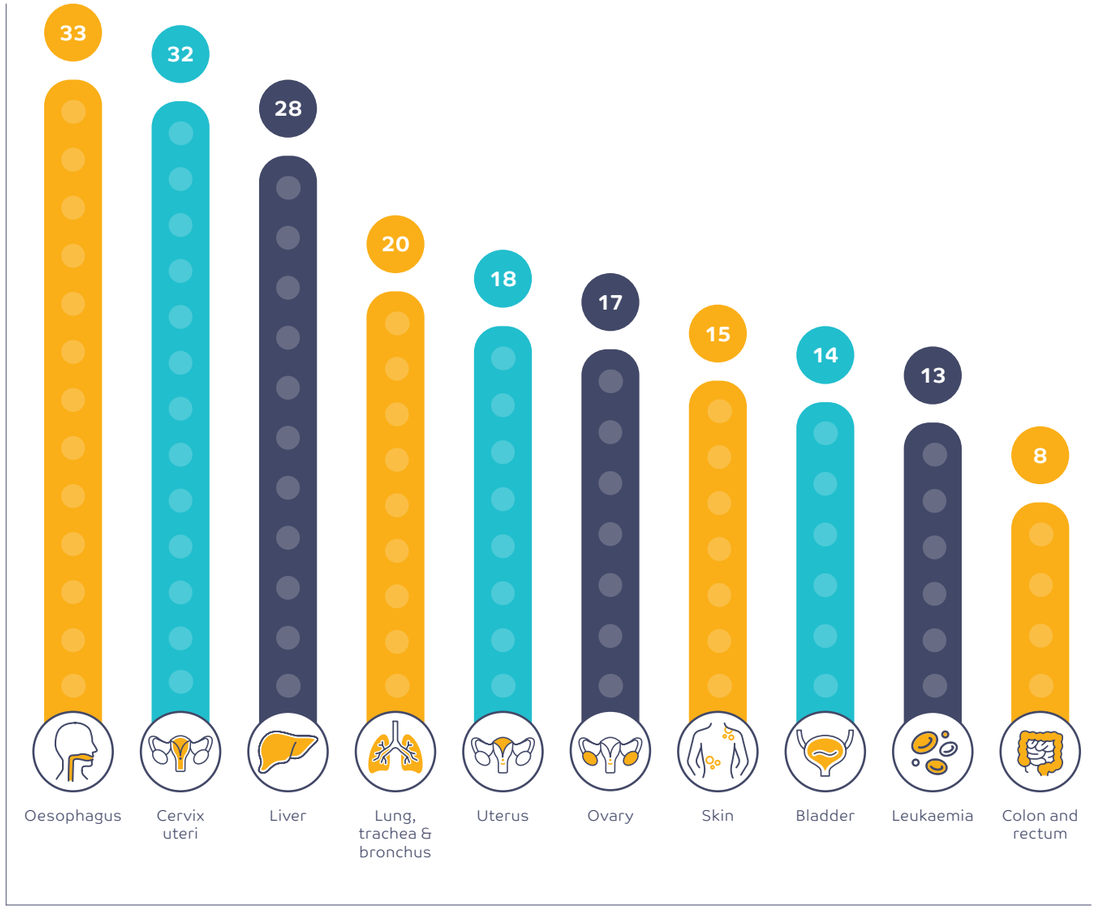
Trachea, bronchus and lung cancer incidence rates have risen from 9% to 20% above average. Liver cancer, which was not previously in the top ten of Lancashire's most diagnosed cancers, now records a 28% higher than average incidence rate, which is the third highest in the North West. Lancashire's communities also face the challenge of high prevalence rates for head and neck cancers, which track at 18% above the national average – down only 1% from last year's report.

COUNTY-SPECIFIC BREAKDOWN:
Cumbria

Top Five Areas of Need

- Lancashire's incidence rate for oesophageal cancer has increased from 15% above the English average to 33%.
- Lancashire's cervical cancer incidence rate is the highest in the North West at 32% above the national average.
- The incidence rate of Liver cancer in Lancashire is now 28% higher than the national benchmark
- Incidence rates of trachea, bronchus and lung cancer have increased to 20% above the national average.
- The prevalence rate for head and neck cancers is 18% higher in Lancashire's communities than in the rest of the nation.

The disparity between the national incidence rates for oesophageal and cervical cancer and those in Lancashire has increased significantly.



Lancashire: Top Ten cancers by incidence

Lancashire – Top 10 cancers by total deaths *

1. Trachea, bronchus & lung
2. Colon, sigmoid, rectum & anus
3. Lymphoid, haematopoietic & related tissue
4. Prostate
5. Breast
6. Pancreas
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10. Brain

* List is based on age standardised total cancer deaths for which data was available.

HEAD & NECK CANCER AWARENESS:
Our work

In our last report, we found that rates of head and neck cancer in the North West are 20% higher than England as a whole; with over twice as many men living with the disease than women. Affecting more than 30 different parts of the head and neck, including the throat, tongue and mouth, the condition is more common in men, especially those aged 50 and above.

To raise awareness of this disease and encourage men to get checked as soon as symptoms appear, we initiated the 'Don't Be Silent. Speak Out' campaign. This series of media and digital activities put key information regarding head and neck cancer prevention into the eyelines of those most at risk. The campaign was centred around the facts about the regional disparity in head and neck cancer rates and the personal stories of six men from across the region, who are currently or have recently lived with this disease, about the symptoms they noticed, how they felt, and why it is important that men speak out if they notice something.

Eye-catching and informative creative was used to spread this message to the target demographic across online channels including Facebook, Instagram and YouTube, which directed people to a dedicated 'Speak Out' landing page. The campaign also included media outreach, in which BBC Radio Presenter Mark Radcliffe shared his own story of head and neck cancer diagnosis and treatment. Mark's compelling story, passionate advocacy for getting other men to look for symptoms and seek medical advice, and the stark regional statistics saw this story picked up by numerous media outlets, including several ITV and BBC shows as well as regional online titles across the North West.

GREATER MANCHESTER
County Overview

GREATER MANCHESTER
County Overview

Greater Manchester represents an interesting combination of issues. While a number of key cancers are present at strikingly high rates it has the lowest overall cancer incidence rate in the North West, which is 3% below the national average. The young make-up of the region, with 72% of Greater Manchester's residents being aged under 54, arguably influences the low prevalence rate of this disease.

It's important to note that when looking at age standardised data, Greater Manchester is much more similar to the wider North West picture. This data set shows that Greater Manchester has a higher incidence rate than the national average and when compared to other North West regions is only behind the Liverpool city region. Statistics on age standardised total cancer deaths also show that Greater Manchester has a 10% higher rate than the national average.

The area's deprivation levels also illustrate the complexities of the region's demographics. While overall Greater Manchester has very high inequality levels, being 38% more deprived than the national average, it also has many pockets of wealth. Very affluent areas such as Trafford and Tameside are situated close to inner-city communities that experience a lot of deprivation. Manchester City itself is one of the country's poorest areas, with deprivation levels 54% higher than the English norm.

More than a quarter (28%) of Greater Manchester's population are employed in routine or manual roles, while 27% have managerial, administrative, or professional occupations.

Students make up a tenth of the population, while 7% of people living in the area are long term unemployed or have never worked.

As mentioned, Greater Manchester has the lowest overall incidence rate for cancer and certain diseases are diagnosed at markedly low levels, such as prostate, pancreas, and non-Hodgkin lymphoma. It is also the only region to under-index on incidences of skin, ovarian and oesphogaial cancer - asides from when the data is age standardised, when ovarian and oesophageal cancer records a higher than average incidence rate.

The county still records overall incidence rates of lung, trachea and bronchus cancer that are 21% higher than the national average. For age standardised data, Greater Manchester has the highest incidence rate for this disease in the North West, with 94.3 out of 100,000 people being diagnosed, which compares to the national rate of 68.7. The Greater Manchester Healthcare Partnership has found that lung, trachea and bronchus cancers have a 37% higher death rate in the city compared to the English average.

Liver cancer remains a concern for Greater Manchester communities, with an incidence rate 13% above average. The prevalence rates of head & neck as well as ovarian cancer index at 13% and 10% higher than the national average respectively. In addition, the incidence rate of certain cancers has increased compared to our last report, with cervical cancer rates increasing from a 7% to 11% disparity and oesophageal cancer likewise moving from 8% to 10% above average.

Greater Manchester: Top Ten Cancers by incidence (age standardised)

Greater Manchester – Top 10 cancers by total deaths *

1. Trachea, bronchus & lung
2. Colon, sigmoid, rectum & anus
3. Lymphoid, haematopoietic & related tissue
4. Prostate
5. Breast
6. Pancreas
7. Oesophagus
8. Liver
9. Bladder
10. Brain

* List is based on age standardised total cancer deaths for which data was available.

COUNTY-SPECIFIC BREAKDOWN:
Greater Manchester

Top Five Areas of Need

- Diagnosed cases and deaths of lifestyle related cancers remain high in Greater Manchester. This includes lung, trachea and bronchus cancers, which are present at a 21% higher incidence rate than the national average and for which the total death rate is 37% higher.
- Incidences of cervical cancer have increased to reach an 11% higher rate than the national average
- Greater Manchester's communities are impacted by a 13% above average incidence rate for liver cancer
- Head and neck cancer rates in Greater Manchester remain high, with prevalence rates 13% higher than the rest of England.
- Incidences of ovarian cancer are 10% higher in Greater Manchester than the national average.

EDUCATIONAL OUTREACH:
Our work

Lab Coat Learning is an educational programme designed to provide young people across the North West with the knowledge, tools and insights required to make educated and informed choices about their health.

Empowering children with this information not only improves health outcomes on an individual level, but it also helps tackle health inequalities in socially deprived areas by giving participants the confidence to become 'health champions' for their families and communities.

Lab Coat Learning delivers a programme of cross-curricular lessons and resources that includes fun and engaging hands-on experiments and investigations which complement classroom-based learning. The programme mixes vital health messages with the promotion of STEM subjects, covering topics such as the components of a cell, DNA, cell growth and division, apoptosis, UVA and UVB rays, cancer knowledge, terminology, and research methods.

Each child is given a take-home pack with information that can be shared with families and friends to help influence healthier lifestyles outside of the classroom. Follow-up sessions ensure that the new behaviours are maintained and that the children remain motivated to make good health-based decisions.

The innovative programme is suitable for children aged 3-18 and it prioritises schools and harder to reach communities in areas of deprivation who do not traditionally engage with health messages.

"Empowering children with information improves health outcomes on an individual level and also helps tackle health inequalities in areas of social deprivation."

CHESHIRE
County Overview

CHESHIRE
County Overview

Cheshire is the most affluent region in the North West by some margin, indexing at 18% less deprived than the national average.

More than one third (36%) of the population in Cheshire are employed in managerial, administrative, or professional roles, while a quarter (25%) have routine or manual occupations. Students make up 7% of the population, while 4% of people living in the area are long term unemployed or have never worked. The county has a relatively high percentage of older residents with approximately 34% of the population aged over 55, and 9% of the country are over 75 years old.

Overall, Cheshire has a cancer incidence rate 15% above the English average. For most recorded cancers the region is in line with the North West as having higher than average incidence rates, asides from only cervical cancer which is lower and prostate cancer which is the same.

It is rarely the furthest region from the national norm – with the notable exception being breast cancer, which is 24% higher than the national average and 16% higher than the next region, Liverpool.

Over the course of our reports, incidence rates of skin cancer have increased in Cheshire. Currently, the data shows a 32% higher than average burden of this disease, compared to 22% in our 2022 report. Incidence rates of leukaemia and kidney cancer have also spiked recently to 34% and 27% above the national norm respectively.

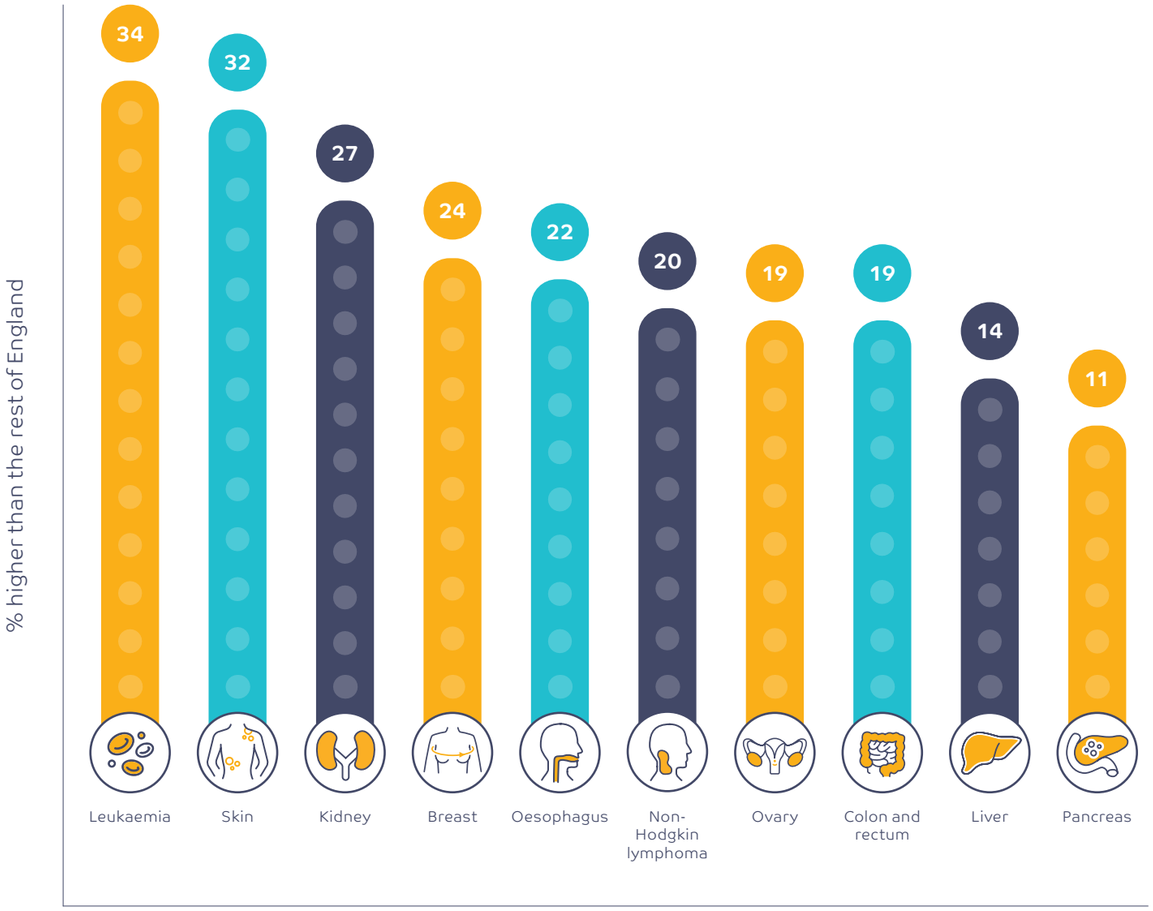
Similar to other areas in the North West, Cheshire has very high rates of oesophageal cancer. This disease is present at a 22% higher incidence rate than the national average. Melanoma also afflicts Cheshire's communities at a significant level, with prevalence rates 29% higher than the rest of the country, which is up from 22%.

COUNTY-SPECIFIC BREAKDOWN:
CHESHIRE

Top Five Areas of Need

- Breast cancer is 24% more prevalent in Cheshire than the national average, a markedly significant difference compared to other North West regions
- The incidence rate of skin cancer has increased from 22% to 32% higher than the English average.
- Cheshire's communities face a 34% higher incidence rate of leukaemia than the rest of the country.
- Kidney cancer is diagnosed in Cheshire at a 27% higher rate than the national benchmark.
- The oesophageal cancer incidence rate in Cheshire remains high, at 22% above the average for England.

"Cheshire's healthcare infrastructure is having to manage the North West's highest incidence rate for breast cancer."



Cheshire: Top Ten Cancers by incidence

Cheshire – Top 10 cancers by total deaths*

1. Trachea, bronchus & lung
2. Colon, sigmoid, rectum & anus
3. Lymphoid, haematopoietic & related tissue
4. Prostate
5. Breast
6. Pancreas
7. Oesophagus
8. Liver
9. Bladder
10. Brain

* List is based on age standardised total cancer deaths for which data was available.

DIAGNOSIS AND TREATMENT AMONG PEOPLE FROM MINORITY ETHNIC BACKGROUNDS: OUR WORK

It is vitally important to catch cancer at the earliest possible stage, as the sooner the diagnosis, treatment, and care can occur then the better the patient's outcomes typically are. However, people from ethnic minority backgrounds can face specific barriers in cancer care, such as unmet cultural needs and language barriers. This can mean that they present to healthcare services after their cancer has progressed to a later stage, which can have an impact on cancer outcomes and the treatment options available.

Despite knowing that overarching diagnosis rates are often poor among people from ethnic minority backgrounds, no research has focused on how we can better support those individuals who have cancer and another long-term health condition that affects how they communicate and/or think.

A project taking place in Liverpool aims to address this gap and optimise the care provided for people from ethnic minority backgrounds, in order to help local services understand and meet their needs. By carrying out interviews with patients from ethnic minority backgrounds who have cancer and another long-term condition, as well as their relatives and staff members who have cared for them during or after their cancer diagnosis, we aim to understand the patients' experiences, the things that make accessing healthcare easy or difficult and how local cancer services can better support them.

DATA

The statistics behind the report

We assessed the 19 key cancers across the North West for which NHS data is available. The data used in this report is the most up-to-date information available and was sourced for Wales and England from official sources. These sources were principally the National Cancer Registration and Analysis Service's (NCRAS) Cancer Data for England (www.cancerdata.nhs.uk) and Public Health Wales (https://phw.nhs.wales) for Wales.

The latest cancer incidence and prevalence data, the main metrics used in this report, are for 2020. Data on age standardised total cancer deaths came from the Office of National Statistics Leading Causes of Mortality 2020 report. Population, employment, household religion and ethnicity data was obtained from the UK Office for National Statistics via Nomis (www. nomisweb. co.uk) and from 2021 Census data.

Where data has not been directly reported for Local Authority areas, tables of data were aggregated according to their type (counts versus rates), allowing for other features such as cancer type, gender and age.

With the implementation of Integrated Care Boards (ICBs) and sub-ICBs, cancer incidence data for England has seen a change in reporting by geographic area. Mapping of new sub-ICBs to Local Authorities was carried out to identify and correctly process data during aggregation up to Local Authorities and Regions. Accounting for these changes was an absolute requirement as rate measures are affected by population.

The two areas where allowances were made were the former Tameside & Glossop and Morecambe Bay CCGs. The former is now part of a larger ICB that is mostly outside of the boundary of Greater Manchester. NHS Tameside & Glossop CCG is now split across the sub-ICBs of Manchester ICB - 01Y and Derby and Derbyshire ICB - 15M. For Morecambe Bay CCG, and due to local authority boundary changes, data for NHS Lancashire and South Cumbria ICB - 01K appears under both Cumbria and Lancashire Areas, but is not duplicated in the aggregate roll-up to the North West. Overall, the re-organisation of CCG areas, together with Local Authority boundary changes, have been allowed for in this report. This has provided an accurate reflection of the data for an area and taking the rate values as indicators it provides the best possible comparison with prior years.

It is important to note that due to these changes, the data comparisons between this year's

report and previous reports are not completely one-for-one. We recognise that it is vital to understand whether the North West as a region is getting better, worse or not changing at all when compared to the national picture and so have undertaken this in-depth, proprietary research to create the best benchmarking model possible. The boundary changes and lack of comparative data in general is an example of the issues obfuscating the regional cancer landscape and is further motivation for us to clarify the realities of the situation.

The latest full set of incidence and prevalence data used in this report covers calendar year 2020, the first year of the COVID-19 pandemic. There is significant research to suggest that the pandemic affected cancer diagnoses and treatment rates. For example, The Lancet article 'COVID-19 and cancer: 1 year on' published in April 2021 cited a study which estimated that "45% of those with potential cancer symptoms did not contact their doctor during the UK's first wave of the pandemic (March–August, 2020)". This is worth highlighting as it means that the true state of cancer diagnosis and prevalence in the North West may be higher than that factored into this report. However, as the main metric used is the difference between the national and regional diagnosis and prevalence, rather than overall totals, this is still the best indication for the disparity between the likelihood of contracting and living with cancer in the North West compared to elsewhere.

north west
cancer research

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