



2021
North Wales
Regional Report

Putting our region's
cancer needs first



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Executive summary

Since 1948, North West Cancer Research has been independently funding research designed to support those living with and beyond cancer in the North West of England and North Wales.

Tackling the challenge of cancer requires a multifaceted, localised approach that understands the unique nature of each region’s villages, towns and cities. This is why we’ve invested over £40 million in the last two decades on a wide range of innovative projects, from laboratory studies to education and outreach, aimed at ultimately creating cancer-free communities for future generations.

There’s still a long way to go, as nationally one in two people will develop some form of cancer during their lifetime and an estimated 2.89 million people in the UK were living with cancer last year. Research suggests that this number is likely to increase to 4 million by 2030.

For a regional charity such as ours, it’s important to explore the similarities and differences between the national picture of cancer prevalence and what it looks like at a local level. This is especially pertinent for our work, as 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.

While often considered as a singular challenge, there are actually over 220 different forms of cancer each requiring different treatments and impacting people in different ways, depending on demographics and lifestyles - all of which will mean that tackling the causes, improving care and finding cures for each community will require different approaches.

Understanding the impact of cancer on our region therefore requires an in-depth knowledge of the places we live and work in. We believe this can only be done by assessing communities independently to inform our allocation of resources and energy, making sure that our work is as effective as possible and that it helps those that need it most.

This is illustrated by a recent study we undertook at Bangor University into the preference for alternative treatment types among different groups of patients in Gwynedd. This study explored the choices that patients made when it came to the colorectal cancer treatment they received, as the different risks and benefits could factor into their decision-making. The results will help to improve communication between patients and doctors when making difficult decisions and inform care for colorectal cancer, a disease which is one of the most prevalent forms of cancer in North Wales.

This ethos of providing vital insights at a very granular level informed the approach taken for this report. We have assessed the available data to explore the levels of cancer afflicting people in North Wales and further broken this down to a county level, covering Conwy, Gwynedd, Flintshire, Wrexham, Anglesey, and Denbighshire.

This targeted and strategic method enables us to achieve a better understanding of how communities are affected by cancer and shows which conditions are placing the most burden on our regions, the healthcare infrastructure and the people living with the disease.

This research will further our knowledge of key cancer trends across North Wales and help us know where there are specific needs. This includes identifying the counties with the highest incidences

of specific cancers and combining this with socio-economic information, providing a fully rounded picture of each area that takes into account multiple data points.

The impact of the 36 cancers across North Wales for which data is recorded by the NHS were assessed. Of these cancers, North Wales exhibits higher incidence rates for 22 of them when compared to the average, meaning that these cancer types are more common than we would expect from national data.

We also discovered significant differences when it came to health outcomes across the region, with particularly large variations for the types of cancer that have the most serious consequences. One of the alarming regional disparities we uncovered includes the fact that, as in the North West, North Wales suffers from extremely high levels of oesophageal cancer – with case numbers 37% higher than the rest of the country.

Due to this research we now also know that some cancers specific to women are found at notably higher levels in North Wales. This was especially evident with cervical cancer rates, which are 43% higher than the national average, and incidences of cancer of the uterus are 12% higher. In five out of the six counties in North Wales we found that ovarian and fallopian tube cancer is also present at higher rates than the rest of Wales.

The insights we’ve revealed outline the important health challenges that North Wales will need to overcome. By showcasing how localised cancer variations can be, we hope that businesses and community groups will add to our work and help grow our collective understanding of why places in North Wales are impacted by specific cancers at a

much more pronounced rate than the rest of the country. Advancing this vital work will ensure that each area has the knowledge, skills and support it requires.

This report marks the starting point of a journey towards cancer-free communities. To reach the destination, we all need to work together to understand the cancer related questions facing our regions and to collectively uncover the answers.

Alastair Richards
Alastair Richards,
North West Cancer Research CEO

Data Source Overview:

We assessed the 37 key cancers across Wales for which NHS data is available. Population, employment, household religion and ethnicity data was obtained from the UK Office for National Statistics via Nomis (www.nomisweb.co.uk). The latter two were taken from the 2011 Census returns. Welsh data for cancer rates (incidence/prevalence) was obtained from the Welsh Cancer Intelligence and Surveillance Unit for Wales (www.wcisu.nhs.uk/home).

NORTH WALES

Regional overview

North Wales has a number of specific health challenges and over-indexes on 22 cancers of the 36 cancers surveyed compared to the Welsh average. This means people living in North Wales face a higher risk of developing these cancers than those living in the rest of the country.

Prostate, breast, and lung cancer are the three most prevalent recorded cancers across the region. The population also records high incidence rates of colorectal, colon, and uterine cancer.

Demographic impact

Levels of income and deprivation often influence health outcomes, and compared to the national picture, people living in North Wales experience higher levels of deprivation than the rest of the country.

Our research shows that on average, people living in North Wales have levels of deprivation almost **10%** higher than their neighbours across the rest of Wales, with pockets of significant deprivation in communities living in areas including Flintshire and Gwynedd sitting alongside relatively high income areas like Denbighshire.

Around **29%** of the population in North Wales are employed in routine or manual roles, while **28%** have managerial, administrative, or professional occupations. Students make up **8%** of the

population, while **5%** of people living in the region are long term unemployed or have never worked.

North Wales' population breaks down fairly evenly between genders, in line with the national picture, with men making up **49%** and women making up **51%** of the population.

Age can also play a significant role in the type of cancers experienced by communities. People under 54 make up **63%** of the total population in North Wales, while those over 65 years old represent **24%** of the population. This is broadly in line with the rest of Wales, where **67%** of the population is under 54 years old and those over 65 years old account for **21%** of the total population.

With **38%** of the population across the region over 55 years old, and **11%** of these over 75 years old, the region has a large proportion of elderly people, which could suggest a causative link to higher rates of many of the cancers surveyed.

As frailty increases as people age, communities across North Wales with higher levels of elderly residents are likely to report increased rates of key cancers, such as Myeloma - which predominantly impacts older people.

Overall, North Wales has a **7%** higher incidence rate for all cancers surveyed than the rest of Wales. However, cancer rates across the region fluctuate widely, with Conwy, for example, recording **21%** higher cancer rates than the national average, while Denbighshire, the most affluent area in North Wales, records high incidence rates **14%** above the national average and double the rates recorded across the region.

Cancers impacting Women

Across North Wales, incidences of cancers which impact women tracked significantly higher than in the rest of the country. Cervical cancer rates are notably high across the region as a whole, with rates recorded **43%** above the national average. Denbighshire records rates of cervical cancers over double the national average, while Gwynedd, Wrexham, Flintshire, and Anglesey all record rates between **33%** and **41%** higher than the rest of Wales.

Women in North Wales also experience higher rates of cancer of the uterus, with rates **12%** above the national average. Three of the six counties surveyed experienced markedly high levels of cancer of the uterus, with Gwynedd experiencing rates around 60% higher than the rest of Wales. Flintshire and Anglesey also tracked above average rates for this cancer, at 13% and 39% respectively.



“Overall, North Wales has a 7% higher incidence rate for all cancers surveyed than the rest of Wales.”

Ovarian and fallopian tube cancer rates are also high, with rates **16%** above those recorded in the rest of Wales. Women in five of the six counties in North Wales experienced higher rates of ovarian and fallopian tube cancer than the rest of Wales. Flintshire's rates for this cancer tracked highest at **38%**, followed by Gwynedd at **33%**, Anglesey at **29%**, Conwy at **11%**, and Wrexham at **5%** above the national statistics.



Cancers impacting Men

Similarly to the high levels of cancers experienced exclusively by women, male specific cancers were also recorded in high levels in North Wales compared to the rest of the country.

Testicular cancer, in particular, has a notably high incidence rate in North Wales, with rates **22%** higher than the national average. Three of the six counties surveyed presented with high incidence rates of testicular cancer, with rates rocketing above the Welsh average. Anglesey recorded a rate **87%** above the national average, Flintshire recorded rates **69%** higher than the rest of Wales, and Wrexham recorded rates **66%** above the national rates.

Prostate is another key challenge for the region with high rates of this cancer being experienced by men across North Wales. Overall, the region over indexes by **15%** for prostate cancer compared to the rest of Wales – with five of the six counties surveyed experiencing high rates of the disease. At a county level, Gwynedd bears the highest burden of disease, with recorded incidence rates **34%** higher than the rest of Wales, men living in Anglesey also record rates **19%** higher than the national average. Conwy is close behind with rates **18%** higher than the rest of Wales, while Denbighshire and Flintshire record rates **10%** and **15%** higher than the national average respectively.

Although not male specific, men are more likely to be diagnosed with head and neck cancer than women. The fact that it is one of North Wales' top ten most prevalent cancers is therefore a concern for men's healthcare in the region.

Key challenges for North Wales:

In common with its neighbours in the North West, North Wales suffers from extremely high levels of **oesophageal cancer** – with case numbers **37%** higher than the rest of the country. At a county level, Conwy experiences double the rate of incidences of oesophageal cancer than the rest of the country, while Denbighshire records rates **67%** higher than the Welsh average. Rates across Flintshire track **16%** higher than the national average and Anglesey has rates **19%** above the rest of the country. Although much lower, Gwynedd and Wrexham also both experience rates higher than the national average at **12%** and **7%** respectively.

Breast cancer is another key challenge for the region. With rates well above the national average, three of the five counties surveyed reported high rates of this cancer. People in Denbighshire reported the highest rates of breast cancer, with incidence rates **33%** higher

Ten most common cancers in North Wales

1. Prostate
2. Breast
3. Lung
4. Colorectal
5. Colon
6. Uterus
7. Ovary and fallopian
8. Rectum
9. Melanoma
10. Head and Neck

than the national average. Conwy also experienced very high levels of breast cancer, with rates **32%** higher than the rest of Wales, while Wrexham recorded incidences of breast cancer **22%** higher than the Welsh average.

Stomach and pancreatic cancers also pose a key challenge for communities across North Wales, with regional rates between **13%** and **15%** higher than the national average. The impact of these cancers varied across counties with significant variations in incidence rates experienced by communities in different parts of the region. Anglesey recorded high levels of both stomach and pancreatic cancers at **51%** and **47%** over the national average respectively. Conwy, meanwhile, recorded the highest rates of stomach cancer at **61%** above the national average. Wrexham recorded the lowest rates for stomach cancer, with **28%** fewer incidences than the Welsh average.

Overall, a distinct regional picture emerges of cancer rates across North Wales, which highlights how North Wales is overly impacted by specific cancers at both a regional and county level, with key variances illustrating the specific healthcare burden facing the region's population.



North Wales suffers from extremely high levels of oesophageal cancer – with case numbers **37%** higher than the rest of the country.





Early diagnosis: Our work

We've partnered with Tenovus Cancer Care to jointly fund new research in North Wales that aims to improve early cancer diagnosis, with a particular focus on vulnerable groups.

The COVID-19 pandemic has severely impacted cancer diagnosis and treatment in a number of ways. One of the changes that we need to better understand is how the increased use of remote consulting using telephones and video calls among GPs and other primary care providers has affected the likelihood of vulnerable groups to seek medical help.

For some patients, remote consultation will be acceptable, and may even be preferable. However,

for others this approach may not be as suitable and it could mean that they delay seeking help, which could lead to a less positive outcome.

Vulnerable groups such as older people, people living in deprived areas or people from black, Asian and minority groups already face additional and different barriers when seeking support, and often only seek help when their cancer is at a more advanced stage.

The study will be carried out at the North Wales Centre for Primary Care Research at Bangor University and will seek to understand how the use of remote technology in the consultation process affects vulnerable groups to discover what concerns they may have and to identify ways to aid early diagnosis.

Improving care: Our work

A North West Cancer Research funded project at Bangor University is hoping to understand if differences such as geography, age and frailty have an effect on the decisions people make about their about treatment.

The project focuses on patients with colorectal cancer which has spread to their liver and looks at what type of treatment healthcare professionals would recommend for this group of people and what the patients choose.

Patients can be treated with surgery and/or systemic anticancer therapy such as chemotherapy, and there are different risks and benefits for the different treatments. Systemic anticancer therapy can increase the amount of time a person lives for, but because of undesirable side effects can reduce their quality of life. Patients who are treated with surgery live for longer after they are treated, but there are also risks to receiving surgery.

By developing a greater understanding of how different groups of patients view the benefits and risks of treatments, we can improve communication between patients and doctors when making difficult decisions and improve the care for people living with cancer.



“... we can improve communication between patients and doctors when making difficult decisions and improve the care for people living with cancer.”





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