Introduction

North West Cancer Research is an independent charity, dedicated to putting our region’s cancer needs first by tackling the cause, improving the care and finding the cure for cancer.

Our focus is on improving cancer outcomes for people in our region. Through our awareness and health promotion work we want to help people make healthy lifestyle choices which, over time, reduce the incidence of cancer. We want to understand what causes the raised levels of cancer incidence we see in our region and work, through research, to improve the diagnosis of this condition. We will work towards improving the treatments of and the care for people with cancer. Our goal is that through our work, deaths through cancer are reduced in our region.

Since 2000, we have funded more than £45 million of world-class research, addressing cancer inequalities and championing our local research community to pave the way for a cancer-free future.

Our area of operation - the North West and North Wales - is varied and diverse, incorporating cities, towns, villages and the smallest rural hamlets. Within the area, we have a wealth of skills, talents and resources, but also areas of severe social deprivation and poverty. There are also significant health inequalities which affect the lives of our population differently. As we look to the future in this strategy, our mission remains unchanged; to achieve a cancer-free future for the people of our region.

We will continue to focus on funding life-saving research of the highest quality to make the biggest difference, but to this we will add two additional strands of activity.

First we will seek to further understand our region and what makes cancer, and some specific cancers, more common here. We will also then expand and develop our awareness, information and outreach services to ensure that our communities know the factors which cause cancer and its symptoms and are empowered to take control of their own health.

We look forward to the future with excitement and are confident that we can make a real and lasting difference to the health of our region.
Cancer is one of the greatest health challenges of our age and remains a complex problem. There are more than 220 different conditions grouped together under a single name and each person’s cancer experience is unique to them.

One in two people will develop some form of cancer during their lifetime and an estimated 2.5 million people in the UK are currently living with cancer.

Across the UK, the four most common types of cancer are breast cancer, lung cancer, prostate cancer and bowel cancer.

Although there are naturally a number of parallels between the national and regional picture of cancer prevalence, we recognise that there are also significant differences. Within our region, cancer is more prevalent than you would expect, with more cases per head of population than the all-England or all-Wales average figures.

There are also particular cancer types which are much more common in our area. Examples of this include:

- Across North Wales and North-West England head and neck cancer rates are 18% higher than the national average;
- There are high levels of lung, trachea and bronchus cancers across our region, but in particular, the North-West of England where rates are 26% above the national average;
- Stomach, bladder and bowel cancer rates are stubbornly high. In North Wales bladder cancer incidence is 18% higher than the all-Wales average, while in North-West England stomach cancer is 23% higher than the national average.

Regional hot-spots also exist for other cancers, including cervical cancer across the North-West, as well as prostate cancer.

Rates of certain cancers are alarming and highlight significant regional disparities. Treatment outcomes also vary which impacts upon quality of life and mortality.

Our goal is to understand why these difference occur and to take action to reduce these disparities over time.
Our work to date

North West Cancer Research was founded in 1948 and in more than 70-years we have funded hundreds of life-saving cancer research projects.

Much of our work has focussed on understanding the mechanisms which cause cancer; the microscopic changes which occur within cells which lead to tumours and allow the faulty cells to continue living after they should have naturally died and been recycled within the body. This early stage research is critical in creating the under-lying knowledge which will later be used by researchers around the globe to drive innovation.

In addition, we have invested in techniques which will improve the early detection of cancer. Our early research into bio-markers – tell-tale signs of cancer in the body - are now producing ground-breaking tests which could detect unknown cancers before they start to produce symptoms.

We have also funded translational research – making early discoveries that develop into patient treatments and then studies which advance treatments themselves and include creating kinder treatments for cancer.

Cancer Case Study
Head and Neck Cancer

Throughout our region head and neck cancers – cancers of the mouth, tongue, throat and neck - are more common than in the rest of the country. Studies have shown that on Merseyside rates of head and neck cancer are a staggering 30% greater than in the rest of England and in Liverpool are around three-times more common than the national average.

As with many cancer types, it is important to identify head and neck cancers early – before tumours have grown and spread. The treatments for head and neck cancer can be destructive and impact upon quality of life for patients and their families. Surgical removal of tumours can result in loss of speech and taste as well as damaging chewing and swallowing muscles.

North West Cancer Research has funded research projects to improve the detection of head and neck cancers, to understand its causes and to improve treatment techniques used including the use of novel drug and radiation treatments to reduce the resistance of tumours to radio-therapy. These are improving our medical knowledge of the conditions involved and are informing how doctors treat and operate on their patients.

The Charity has also carried out a well-publicised campaign helping to make key demographic groups aware of the symptoms of head and neck cancer and encouraging them to seek medical advice if appropriate.
In recent years, we have funded around £2-3m of new research work each year. This has been in the form of projects on specific types of cancer, along with funding to help grow the capacity for research in our region – creating the young researchers of tomorrow and putting in place the structures which will help to support and grow them.

At the start of 2022, we had 50 active projects under-way, each of which was moving forward our knowledge about cancer. The results of all of our research are published to enable researchers around the world to take advantage of them and we encourage all of the individuals we fund to fully engage with the scientific community as well as the general public.

We only fund the very best research. Because of this we know that our supporters’ money is being well spent and our work is progressing.

**Cancer Case Study**

**Pancreatic Cancer Biomarker**

Pancreatic cancer is hard to detect and the symptoms of it appear at a late stage – meaning that treatment for it is difficult. It is a cancer where progress through research has been slow and patient outcomes have not improved significantly in the last 70-years.

NWCR has funded research in order to identify biomarkers - tell-tale signs of pancreatic cancer in the body. This early research has resulted in new techniques for identifying the cancer being patented. Our work will lead directly to the development of simple, easy to use tests to tell patients that they have the cancer before they are aware of the signs themselves.
Our Strategy 2022-27

Our strategy for 2022-2027 will focus on three key areas:

• Understanding our region
• Undertaking research
• Education and awareness

Further information on each of these is provided below.

Running through each of them will be some consistent themes:

• Partnership – Working with others we can fund more and achieve more for the good of our region. Whenever possible, we will work closely with partners, including universities, health trusts, clinicians, public health teams, other charities and others to achieve our aims.

• People and patient focus - We will ensure that everything we do is focussed on delivering impact for the people of our region and patients within our region. Throughout our research we will seek clarity around the impact which is being achieved for local people and we will carefully target our education and awareness work to ensure that it is relevant and easy to access.

All of our work will be focused on the needs of our region and on addressing the regional disparities which exist.

We will measure our success and report back on this to our supporters and the public. We will produce annual impact reports to show what our work has achieved and use consistent measures to track the effectiveness of this.

It is likely that much of what we achieve will be in creating new knowledge around cancer in our region. Our greatest impacts may well be in discovering and understanding the patterns which make cancer in our region unique, along with generating awareness around these.
Our Strategy
– Understanding our Region

To underpin our strategy and our work, we will seek to understand cancer in our region
and in particular:
• why overall cancer rates are higher than the national average;
• why we have a greater prevalence of particular tumour groups;
• the cancer and health inequalities which exist in and between our communities;
• the barriers to information, treatment, care and support in our region.

We will ensure that this information is available to clinicians, Public Health teams,
commissioners and patient groups across the region to enable them to improve
their services.

Why is this important to us?

If we are to put our region’s cancer needs first, and to speak with an authoritative voice,
we need to understand the issues and priorities with clarity and based upon solid
research. This will then direct our research as to what is important to the people of our
region and the factors which make the greatest different locally.

The Regional Report, which we first issued in January 2020 highlighted a number
of local variations in cancer prevalence and was well received because it spoke to
variations which communities knew of and witnessed but which had not been covered
in writing. However, it was only a small part of the story and it did not touch upon the
many variations which exist in access to treatment, outcomes, life-expectancy and
other areas. It looked at issues at a county level but did not identify the issues which
impact differently upon identifiable local communities e.g. different ethnic groups.

Local knowledge can also contribute to the national and international fight against
cancer. Local differences help to identify the factors which cause cancer and contribute
to global knowledge and research.

What we will do and fund

North West Cancer Research will fund research to understand our local communities
using statistical research, health data, studies of cancer inequalities and other factors.
We will use these, and other data to target our resources and funds at the needs
of the region.

We will also publicise and make available this information to decision makers,
clinicians and academics.
Our Strategy – Discovery, development and application

We will fund pioneering research to tackle the cause, improve the care and find the cure for cancer.

Our research will not be limited to one part of the research pipeline, or to a single discipline but rather we will seek to make resources available to advance knowledge and the application of that knowledge from the earliest part of discovery through translational research to the development of treatments for cancer.

Why is this important to us?

North West Cancer Research is working to ensure a cancer-free future. We aim to first minimise the impact of the condition on the lives of individuals, to improve care and treatment, and seeking over time to prevent the disease from occurring. This will only be possible through a broad spectrum of research, from the earliest theoretical discoveries to applied and patient-based studies. In recent years, many charities and funders have turned away from basic scientific research, but without a continual pipeline from this, later and more applied research will eventually dry-up.

What we will do and fund

The Charity will fund a broad spectrum of research projects including the following:

- Research development funding to enable the production of data to support hypotheses;
- Project funding;
- PhD studentships in research areas relevant to cancer in our region
- Strategic research to enable the development of early careers along with fellowships when funding allows.

Within all of our funding we will ensure that projects are of benefit to the people of our region, looking at the cancer types or problems which are of most significance to our communities.

We will seek to recognise the importance of having a strong research community and knowledge base in our region and so, although we will always prioritise the best research with the highest scientific standards, we will award that funding within the North West and North Wales whenever possible.

We will also publicise and make available this information to decision makers, clinicians and academics.
Our Strategy
– Education and Awareness

North West Cancer Research will carry out activities which help to make the public within our region aware of the causes and symptoms of cancer and how to protect their own health.

Why is this important to us?

North West Cancer Research is striving for a cancer-free future. Many cancers are brought on or aggravated by lifestyle factors – preventable parts of our modern lives which we can influence. The World Health Organisation estimates that between 30-50% of cancers are preventable if we change our approaches on issues such as alcohol, tobacco, exercise, diet, pollution, radiation and workplace hazards. The Department of Health estimates that in the UK around a third of cancers are preventable. For us, it makes sense to work to prevent as many cancers as possible before they occur – rather than relying solely upon early detection and treatment.

In our region, the public receive health messages from a large variety of different sources which are sometimes contradictory and which struggle to gain traction in the consciousness of individuals. We will use our local knowledge and connections in order to make the information we provide appropriate and relevant to the community and targeted at their needs.

What we will do and fund

North West Cancer Research will use its knowledge, skills and credibility in order to provide simple and accurate health messaging which will assist the people of the region in making healthy lifestyle choices to reduce their risk of getting cancer during their life-time. Where possible, we will do this in tandem with partners in order to fit with the messages of Public Health teams and others. We will use as a model for this our cooperation with the Liverpool Awareness and Early Detection Initiative and the way that we have been able to work as a part of their annual messaging cycle.
Partnerships

We acknowledge that our aims are significant and we cannot achieve them on our own. We will need to work closely with partners in order to accomplish this strategy.

Partnership will run through all that we do and we will welcome partners with whom we can find common cause. Our success will be reliant upon finding and maintaining close relationships with the following:

- **Academic institutions** – much of our work will be carried out within universities and other academic institutions. We will support them to recruit and fund the best research talent and then will work with those researchers to fund their best work. We will also support the development of future researchers – from the very start of a research career to maturity;

- **Clinical institutions** – Our hospitals and care settings are important deliverers of care to the people of our region. They are the front-line in which patients receive treatment. They are also a place where information is given and they are fertile grounds for the creation of new ideas and research. We will work closely with hospitals and care providers and will work with the National Institute for Health Research to fund the very best work;

- **Public health** – We will work closely with public health teams across our region in order to understand their priorities, and to tackle the problems they identify. We will work alongside them in campaigning on the cancers which affect our region most and bring that information to the general public.

Thank You

Finally, we will continue to acknowledge with gratitude the help given by our supporters and the public of our region. Without them we would be unable to continue our work and fund research of the very highest quality. Without them we would be unable to tackle the cause, improve the care of and find the cure for cancer.