



Our impact 2019-2020

<https://nichs.org.uk/>

Transforming prevention and care.

Research & Policy Services 2019-2020

Chest
Heart &
Stroke



our mission

Leading the fight against chest, heart and stroke illnesses in Northern Ireland.

our vision

A Northern Ireland free from chest, heart and stroke illnesses.

We are the only local charity dedicated to fighting chest, heart and stroke illnesses, and caring for people affected by them.

We believe in the power of research to transform lives, and deliver a healthier future.



£8 million

INVESTED IN LOCAL CHEST HEART & STROKE RESEARCH SINCE 1994

Each year, with your help, we fund local researchers to carry out high quality research that delivers real benefits to people living with chest, heart and stroke conditions.

Research is at the heart of what we do. For 60 years, you've helped us fund research in local universities and hospitals, taking the the fight to chest, heart, and stroke conditions. Since 2012, you have helped us fund 39 projects (**£3,115,459**), that have led to new or better prevention & care services, and improved how we care for people and their families who are affected by these conditions. **Thank you!**

We work hard to make sure that we use your donations wisely, and that applies to the research we fund too. We use a thorough process, that takes around five months, to help us choose the best local research.

- Each application is "peer reviewed" for quality by independent researchers from across the world. We also have a committee of clinicians, researchers, and members of the public who review all applications.
- We only fund research that shows how it benefit the people of Northern Ireland, and us as a charity.

- We only fund research of the highest scientific quality, and research that will use your donation wisely.
- All researchers we fund report to us regularly to show that they are making progress. We are also members of the Association of Medical Research Charities who regularly check our funding process.

This might sound like a long, complicated process – and it does involve many dedicated people – but it helps us make sure that we fund only the best quality research, and use your donations wisely.

Research you funded last year...

...could lead to new treatments for asthma

This study is the first to investigate whether blocking the histamine could help treat severe asthma, and it may lead to new treatments for people living with this condition.

Neutrophils are a type of white blood cell that help fight infections. In people with severe asthma, neutrophils attack the tissue in the airways. We don't know why this happens. Dr Karim Dib and Professor Liam Heaney think that it is due to histamine – usually released by cells during an allergic reaction – produced by bacteria in the airways, and we funded them to investigate this further. **Severe asthma has a serious effect on the person's quality of life, and can kill.** Showing the link between histamine and neutrophils, and then developing medications to treat this, would reduce deaths, improve people's quality of life, and help reduce the burden on carers and our healthcare services.

Our research has the promise to improve the medical condition of people with severe asthma. Their daily life will improve and there would be less pressure on carers.

Dr Karim Dib

...could help develop a high street test that detects heart disease

Normally, specialist staff and equipment, and sometimes surgery, are required to assess the health of your heart. With your help, Professor Moore and her team are exploring whether the eye, with its many blood vessels, might offer an alternative way of checking heart health.

The team have already built tech that uses a photograph of the eye's blood vessels. Now, they're testing how well the tech predicts the risk of developing heart disease in a large group of people from across N.Ireland. At the moment, there is no such tech. **This is a first of its kind study.** The ultimate aim is to have this technology in every High Street eye testing store. Predicting your chances of developing these diseases early, means that you can get treatment and support earlier, improving your chances of recovery, and reducing the terrible impact of untreated heart disease for all of us.



Prof. Tara Moore, Ulster University, "Eye as a Window"



Dr Qiaozhu Su, The Queen's University of Belfast

...asked if a simple herb is vital in the fight against heart disease?

Most people with Hyperlipidaemia (HL) - too many lipids (or fats) in the blood - won't have symptoms, but it increases their risk of developing heart disease.

Thanks to you, we were able to fund Dr Qiaozhu Su, at QUB, to test whether Fenugreek seed could be used to treat Hyperlipidemia and cardiovascular disease in place of current drugs, such as statins. Fenugreek seed has been used as a spice for thousands of years, so we know it is safe to include it in the diet or as a supplement. It would be cheaper than drugs like statins, and have fewer side effects. Successfully treating Hyperlipidemia will reduce the number of us living with CVD. This will improve the lives of many people, and help prevent deaths due to these conditions.

Research you funded last year... will help improve therapy for people who have had a stroke.

Problems with language, memory and thinking are common after a stroke. These can affect the person's relationships, their quality of life, and their mental health.

Suitable therapies for people who have had a stroke with cognitive problems are limited, and it is still not clear which work best. This means that stroke survivors may not be getting the right amount or type of support that they actually need.

Thanks to you, we have funded Dr Noleen McCorry at QUB, to test if Acceptance and Commitment Therapy (ACT) can be modified to better suit stroke survivors who have cognitive issues.

Developing a therapy that works for these people and their families and carers helps make sure that we are supporting them as we should be. This, in turn, would help improve their quality of life and psychological wellbeing, and lessens the burden on loved ones.

Research you funded...will help our children become more physically active.

Local children are the least active in the UK, with only about 4 in 10 children meeting current recommended levels for physical activity.

The increase in sedentary ("inactive") behaviour starts young, probably at 8-9 years old, and then continues into adulthood. A sedentary lifestyle is strongly linked to poor health, including cardiovascular disease. **With your help, we are tackling this head on.**

We funded Sarah Nally, a PhD student at the Ulster University, with the help of her supervisors - Professor Marie Murphy and Professor Alison Gallagher - to develop a low-cost, physical activity scheme that could be delivered to 7-11 year olds in schools across Northern Ireland.

The researchers are taking a model already proven to be effective in Australia, modifying it to suit our schools, and testing how effective it is using a small number of schools. If the team can successfully develop their programme, then we hope it could be offered across the whole country. Not only would this improve the health of our school children, encourage active lifestyles as they grow up, but it would improve their chances of being healthy as they become teens and adults. This in turn, would help reduce the risk and costs associated with chest, heart and stroke diseases. It would help prevent needless deaths.



Local children have the lowest physical activity in the UK

1/4 of local 2-10 year olds are overweight or obese

2020 Research

This year, with your help, we funded **five new research projects**, helping to transform care for people living with COPD, AF, and asthma. We also invested in research to help improve our PREP stroke rehab programme.



5 new
research
projects
this year

£393,173

You helped us fund...

Dr John Busby, QUB, (£70,485) to study if people are less likely to keep using their asthma inhalers when treated with powerful new biologic medicines. This research could improve treatment options for people with severe asthma.

Dr Katy Pedlow, Ulster University, (£103,575) to study the impact of adding arm exercises to our PREP programme. This will improve the support we are able to give stroke survivors in rebuilding their lives.

Dr Joe Kidney, Belfast Trust, (£79,160) to study the link between Epstein Barr Virus

and Chronic obstructive pulmonary disease (COPD). If the researchers show that a virus is driving this disease, it could transform how we treat and even prevent COPD.

Dr Chris Watson, QUB, (£60,418) to study if chemicals in the blood of people with AF can be used to predict risk of stroke & heart failure. This research could lead to could lead to the development of a blood test for stroke and heart failure.

Dr Laura Sherrard, QUB, (£79,535) to study what types of bacteria grow in ventilator tubes used when treating people in intensive care, and whether they can be treated with antibiotics. Improving what we know will help reduce the risk of infections, and improve recovery times.

It's time to talk about chest, heart & stroke

With your help, we are leading the fight against chest, heart and stroke conditions in Northern Ireland.

We always listen to views of people living with chest, heart, and stroke conditions, and to their loved ones. Your experiences help shape our campaigns for better care and prevention of these conditions, today and tomorrow.

We actively campaign for better care and prevention of these conditions, working with politicians of all parties and health bodies across Northern Ireland.

During the year, we campaigned for improvements to stroke services, ran a successful awareness campaign for Atrial Fibrillation, and campaigned for improvements in asthma care.

It's time to talk about asthma

The sad reality is that asthma can kill. We believe more needs to be done to improve awareness around asthma, and how it is tackled.

During the year, we set up a local Asthma Taskforce, working together with health experts and people living with asthma.

We worked hard to raise awareness of asthma, for improved asthma care, and for asthma to be higher on the health agenda. We also called for more action on air pollution and other environmental factors that contribute to asthma.

Just under 123,000 people live with asthma - about 6% of the population

There were 47 deaths due to asthma last year

Supporting people to live longer, happier lives

During the year, we ran a number of public policy initiatives, including...

Minimum Unit Pricing of alcohol Drinking too much alcohol can have a devastating effect on your cardiovascular health. We were one of the first charities to promote this policy and the Minister has agreed to carry out a consultation exercise in 2021.

Smoking and E cigs. We continued to press our local politicians for the introduction of measures to improve the control of tobacco and vaping.

Obesity. Being overweight and obese puts you at risk of high blood pressure, heart disease and type 2 diabetes, all of which increase your risk of stroke and heart disease. Obesity is a problem for Northern Ireland: six in ten adults, and around a quarter of children aged 2-15, are either overweight or obese. During the year, we continued to engage with local politicians and health bodies about the issues around obesity, especially in childhood, and the need to increase physical activity.



It is time to talk about AF

Atrial Fibrillation (AF) is a type of irregular heartbeat. It can cause dizziness, shortness of breath, and tiredness. But you can also have no obvious symptoms, so you may not even know you have AF.

YOUR RISK OF A STROKE CAN BE 5 TIMES HIGHER IF YOU HAVE AF

WE ARE THE ONLY LOCAL CHARITY TO OFFER AF TESTS

About 40,000 people across NI have been diagnosed with AF. But another 10,000 people may not know that they have it. AF increases your risk of having a stroke, and the stroke is more likely to be severe. **This is why testing is so important.**

During the year, we provided almost 4,000 AF checks. As a result, we identified 77 people who didn't know they had AF. We provided them with information and support where they needed it. Armed with this information, they can make informed healthy lifestyle changes, and lower their risk of stroke.



3,845

AF CHECKS CARRIED OUT LAST YEAR

Rosaleen didn't know she had AF, until she was admitted to hospital to receive treatment for a fractured back.

Q I didn't understand at the time. The nurse taking my pulse said the doctor wanted to chat with me about my heart. I didn't take this diagnosis serious at all. I was told to take 2 tablets a day, but I only took one of them a day. I don't remember very much about my stroke. I woke up in the Royal Victoria Hospital and was told I'd had clot retrieval surgery. I didn't know it was possible I could have a stroke because of AF but I remember the GP telling me that the second tablet would have helped prevent the stroke.

After her stroke, Rosaleen joined our Post Rehabilitation Exercise Programme (PREP): "talking to others on PREP with the same problems has really helped me. PREP boosted my confidence and motivated me to take more control of my life and decisions about my health. **DD**



WHEN I WAS DIAGNOSED WITH AF, I DIDN'T KNOW IT WAS POSSIBLE THAT I WOULD END UP HAVING A STROKE.

ROSALEEN FEARON, NEWRY

During the year, we launched a campaign to raise awareness about AF.

In 2018, we commissioned a survey and found that the general public's knowledge of AF was low. So, we launched a campaign, supported by MACE, to raise awareness of the condition. We used billboards, ads on bus shelters and radio, posters in GP surgeries, pharmacies and libraries to reach the public. We also set up an inquiry into how Northern Ireland can better identify and treat AF, and ultimately, reduce risk of stroke.

The campaign has been successful in increasing general awareness of AF, but we plan to do more work to reinforce the message about the associated risk of stroke. We will publish an inquiry report later this year. In that report, we will call for improvements in screening and diagnosing AF. We will also call for an AF strategy and AF Champion for Northern Ireland. We are currently working hard with local politicians and health bodies to bring about these changes.

IN OUR SURVEY ONLY 3 IN 10 KNEW WHAT AF WAS...

...ONLY 3% KNEW YOUR RISK OF A STROKE WAS 5 TIMES HIGHER

It is time to talk about stroke

Every day in Northern Ireland, around 11 people have a stroke and 3 people die as a result. Stroke has devastating consequences for individuals and families and we are the only local charity offering care and support services to stroke survivors and families. But we want to do more.

While there have been improvements in the diagnosis, care and treatment of stroke in recent years, we believe that stroke care, both in hospitals and the community, is not as good as it should be.

During the year, we continued to campaign for improvements to stroke services. We contributed to a Government consultation around reshaping these services.

To help shape our response to the government, we listened to the views of stroke survivors who use our services, and we also engaged with clinicians through our involvement in the Stroke Network.

We also took our campaign for better stroke care to the highest level, engaging with our local politicians and health bodies.

We are campaigning for:

- Better detection of conditions like AF and TIA, as well as improved public knowledge of these conditions, to prevent strokes in the first place.
- Greater availability of community rehab and support services.
- Improvements to Hyper Acute Stroke Units and the development of new services to save lives and reduce disability amongst people who survive strokes.

2%

38,234 PEOPLE ARE ON THE STROKE & TIA REGISTER - 2% OF THE POPULATION

1022

PEOPLE DIED FOLLOWING A STROKE, WHICH EQUATES TO ALMOST 3 PEOPLE EACH DAY.

We live in challenging times, and we know it is even more difficult for people living with chest, heart and stroke conditions, and their loved ones.

COVID-19 has hit us too, but it hasn't stopped us caring as we launched the country's first COVID recovery service. We redesigned our services, and launched our **'Still Caring through COVID'** campaign which aims to keep local people healthy.

 **21,000+ calls**

Since the programme started, we've helped more than 21,000 callers to keep well, feel less isolated, stay physically active and to manage their condition.

Still caring for you through COVID-19



Remember, **we are still here for you** during COVID. If you, or a loved one, live with a chest, heart or stroke condition or were recently diagnosed, you can still contact us: **028 9026 6743**.

Our vision is a Northern Ireland free from chest, heart and stroke illnesses.

Established in 1946, we work with people of all ages across the country, delivering vital care and prevention services and carrying out extensive research into how to prevent these conditions, alongside 'on the ground' support.

As a charity, we are committed to supporting thousands of local people living with chest, heart and stroke conditions to keep well through COVID-19.

With almost 90% of our services funded by you, we need your help to continue 'Still Caring through COVID'.

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The logo for Chest Heart & Stroke is a white, irregularly shaped circle containing the text "Chest Heart & Stroke" in a red, handwritten-style font. The text is arranged in three lines: "Chest" on the top line, "Heart &" on the middle line, and "Stroke" on the bottom line.

Chest
Heart &
Stroke