

Metro North Hospital and Health Service *Putting people first*

RESEARCH STRATEGY 2017–2022

Together we deliver exceptional health outcomes
through globally recognised discovery and translation



MESSAGE FROM THE METRO NORTH CHIEF EXECUTIVE AND BOARD CHAIR

Advances in healthcare take more than a good idea. They require time, funding, innovation and commitment. Importantly, they also need an underlying system of support.

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Metro North Hospital and Health Service provides vital urgent and ongoing care for hundreds of thousands of people living in Brisbane and across Queensland. This care is continually evolving, thanks to research happening within Metro North and around the world.

Across our Hospital and Health Service, we are proud to employ, train and partner with some of our country's – and the world's – brightest, most passionate, and innovative health researchers. From evidence-based practice at the bedside, to drug and device trials, through to end to end clinical research and knowledge translation, improving healthcare is part of Metro North's DNA.

Our researchers have made significant inroads to changing the way premature infants are cared for in their first days, improving survival of transplant recipients, reducing the burden of kidney disease and the stigma of mental illness, and decreasing the severity of infection. Our patients have access to novel treatments through cancer care, cardiac device trials, burns and intensive care medicine, and allied health professionals. We have investigated new ways to detect disease with world leading research into medical imaging technology and developing new diagnostic techniques.

Metro North has aligned our strengths with those of our partners in universities, health services and research institutes to ensure the next wave of cutting edge healthcare is within the grasp of today's patients. Currently, Metro North hosts five nationally funded Centres for Research Excellence and is a partner in another two. In the next decade, medicine will surge

THE RESEARCH STRATEGY OUTLINES THREE MAIN THEMES TO FOCUS OUR EFFORTS ACROSS THE RESEARCH CONTINUUM. THESE ARE ACHIEVING EXCELLENCE IN DIAGNOSTICS, THERAPEUTICS, AND HEALTH SERVICES RESEARCH. THESE THEMES GIVE US THE OPPORTUNITY TO HIGHLIGHT OUR EXISTING AREAS OF EXCELLENCE, TO STRIVE FOR BETTER PATIENT OUTCOMES IN OTHERS, TO PROMOTE OCCASIONS FOR COLLABORATION, AND TO DRIVE OUR PUSH FOR SUSTAINABLE RESEARCH FUNDING AND KNOWLEDGE TRANSLATION.

forward thanks to the efforts of researchers working in our future particle treatment centre and biofabrication institute, and undoubtedly other centres to come.

Over the last few years Metro North has made a strong commitment to research. In 2016, we have established the Metro North Office of Research to provide overall vision and guidance, in collaboration with our hundreds of researchers across our health service. Soon after we launched the Metro North Research Excellence Awards to recognise the valuable contribution research plays in advancing healthcare. And now we have developed the Metro North Research Strategy.

The Research Strategy outlines three main themes to focus our efforts across the research continuum. These are achieving excellence in diagnostics, therapeutics, and health services research. These themes give us the opportunity to highlight our existing areas of excellence, to strive for better patient outcomes in others, to promote occasions for collaboration, and to drive our push for sustainable research funding and knowledge translation to directly improve our patient outcomes.

Turning research outcomes into daily practice is a challenge faced by researchers and clinicians across the world. The Research Strategy identifies the need to better understand the link between research, policies and systems to ensure that patients do not experience pain or illness that we could otherwise treat or prevent thanks to researchers.

The other significant challenge faced by all researchers is sustainable funding models. Through the Office of Research, Metro North is working to develop new funding models and to seek out new investment partners to ensure that the next big health breakthrough isn't lost for lack of funding.

With this strategy, we acknowledge the valuable contribution researchers play in improving the health of our local and global community, and the work we as an organisation must now undertake to support it.

Dr Robert Stable AM

Chair, Metro North Board

Ken Whelan

Chief Executive, Metro North Hospital and Health Service

TERMINOLOGY

The Metro North Hospital and Health Service *Putting people first strategy* (2015) outlines patients, people and partners in its organisational frame.

For simplicity and consistency in this document, we have used *patients*, *people* and *partners* to refer to everyone who engages with Metro North HHS Research. We encourage flexibility in the use of terminology, as appropriate to support individual preferences and facilitate strong, healthy connections.

PATIENTS

Refers to our diverse range of consumers in Metro North HHS. A consumer includes patients and potential patients, carers, and people who use healthcare services (NHMRC, 2016). By using *patients* as common terminology, we hope to be inclusive of all who interact with our health service. We encourage the interchangeable use of common language, including patient, client, healthcare consumer or participant, to accommodate and enable meaningful engagement with our strategy.

PEOPLE

Refers to all employees of Metro North HHS and those conducting research within our facilities and services. By using *people* as our common terminology, we hope to be inclusive of all who engage with, contribute to, conduct and benefit from research. We recognise the importance of acknowledging and supporting those employees who actively engage with research and seek to develop research careers by ensuring that our key priorities address the unique needs and interests of career researchers.

PARTNERS

Refers to those external stakeholders with whom we establish both formal and informal relationships, partnerships and collaborations to develop and support research in our mutual best interests. *Partners* can be individuals, groups of people or organisations or communities, and may be connected through either virtual or physical infrastructure.

ACKNOWLEDGEMENTS

This strategy has been developed through extensive consultation and collaboration with people, partners and patients across Metro North HHS. The following Metro North HHS staff members were key contributors:

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WELCOME

Metro North Hospital and Health Service is committed to setting a forward-looking research agenda which embraces novel approaches to diagnostics and therapeutics, and carefully and systematically evaluates our clinical practice and the implementation of new knowledge to deliver world class healthcare.

Research will provide our patients with the best access in Australia to novel diagnostics, innovative therapeutics and advanced health services.

With this, our first Metro North Hospital and Health Service Research Strategy, we seek to enhance the focus on research as core to all we undertake. We are committed to setting a visionary research agenda based on strong leadership, which embraces research in the search for new evidence to advance clinical practice and deliver world class healthcare.

We aim to build our capacity to undertake high quality research across each of our facilities, which in turn will translate to enhanced health outcomes for our patients, healthcare consumers and the community that Metro North HHS serves. Health and medical research advances our fundamental understanding of the complex factors that influence health outcomes and facilitates the discovery and application of innovative solutions. Active research programs are essential to the provision of high quality healthcare through four key perspectives:

Patients – Through direct integration and rapid translation of applied research with clinical practice, we can immediately improve health outcomes by enabling the evidence based adoption of new and proven diagnostics, therapies and approaches to care.

Health Service – Through our demonstrated reputation for research excellence, we can attract and leverage research funding, strategic research partners and industry linkages to enable delivery of state-of-the-art healthcare and facilitate evidence informed health service decision-making.

Clinical teams – Through research embedded within our healthcare practice, the application of contemporary knowledge and evidence will provide opportunities to develop new approaches and models of care. By solving problems and improving practice through research as a clinical team we will enhance cohesion and teamwork.

Researchers – Through research excellence, we can nurture and attract a world-class multidisciplinary team of healthcare providers, recognised for delivering exceptional health outcomes informed by cutting-edge research. Our people will have richly developed skills in critical appraisal, the scientific method, and how to define the clinically relevant and important questions that face our healthcare system.

We will build on our strong engagement with academic, industry and philanthropic partners and grow our participation in both discovery and translational research as a magnet for industry partners who desire to trial new and innovative approaches to healthcare in Metro North HHS. We are living in an era of information explosion. Whilst there are many challenges in linking clinical, health service and research data, this will be a vital aspect of the success of our strategy as we focus on the enormous potential of data linkage, including experimental data, biological material (biobanks) and genomic data.

Within Metro North HHS, we have access to impressive research infrastructure and our facilities host talented researchers across all disciplines, streams and services. As well as celebrating the success of our established and globally recognised researchers, this Strategy seeks to support and nurture the career development of new and emerging researchers who will become our future research leaders.

We have both a responsibility and an opportunity to build on our collective strengths and drive significant advancement in our research excellence that enriches the experience and health outcomes of our patients, our people, and community. In the coming five years, we envisage a health service with increasing numbers of clinician scientists who are globally recognised and the emergence of research groups and programmes that are developing national and international reputations. This will position Metro North HHS as a dynamic leader of world class healthcare into the future.

We have been humbled and inspired by the depth of passion and commitment to research in Metro North HHS, and have witnessed many examples of research innovation, initiative and excellence surfacing across Metro North in the development of this Strategy. We look forward to sharing with you a Strategy that will continue to collectively advance Metro North HHS research excellence in the best interests of our patients, our people and our organisation.

Professor Scott Bell

Executive Director, Research
Metro North Hospital and Health Service



METRO NORTH RESEARCH

Fields of research strength within Metro North HHS can be highlighted in many ways. Traditional metrics of research excellence include high profile internationally and nationally funded grants, fellowships and publications.

Metro North HHS staff are lead investigators on international grants from the Gates Foundation (infectious diseases) and the Wellcome Trust (haematology). At a national level Metro North HHS currently hosts five National Health and Medical Research Council (NHMRC) funded Centres for Research Excellence (CRE) and is actively involved in a further two, which together provide five-year funding (amounting to over \$15 million). These aim to provide support for teams of researchers to pursue collaborative research and build capacity in clinical, population health and health services research. The CREs which include clinicians based in Metro North HHS are in the fields of advanced cardiopulmonary support in the Intensive Care Unit (ICU), cardiovascular outcomes, sustainable healthcare, end of life delivery of care, antimicrobial therapies in the ICU and after transplantation, nursing practice, and chronic kidney disease.

Metro North HHS clinician researchers in haematology and infectious diseases hold large NHMRC program grants valued at over \$25 million. The NHMRC also funds researchers based in Metro North including two Development grants (reproductive science and cystic fibrosis), two Partnership grants (allergy and cardiology) and many project grants including several large clinical trials in the fields of intensive care, maternal and newborn health, gastroenterology, psychiatry, obstetric medicine, allied health (physiotherapy and dietetics), nursing, lung transplantation, lung cancer and cystic fibrosis. In addition to NHMRC funding, there are a number of ARC infrastructure, discovery and linkage grants which include our Metro North HHS researchers.

People support, in the form of research fellowships to clinician researchers, includes NHMRC-funded research fellowships to researchers in the fields of haematology (four), pharmacy, psychiatry, infectious diseases (two), dietetics, nursing and thoracic medicine (two).

From 2009, 20 clinicians have also received Queensland Health Fellowships in the fields of haematology, thoracic medicine, infectious diseases, intensive care medicine, psychiatry, general and geriatric medicine, neurology, allied health, surgery and medical oncology. Each of these fellowships has enabled clinicians to combine clinical practice with an active research program.

Each year Metro North HHS researchers publish approximately 1300 papers in scientific literature. Over the past two years, Metro North HHS has celebrated several landmark publications, many of which have the potential to influence clinical practice globally. Notably, publications in stellar journals such as *Nature* (haematology and lung cancer) *New England Journal of Medicine [NEJM]* (haematology, cardiology and clinical genetics), *Lancet* (gastroenterology, urology and haematology), *Journal of the American Medical Association [JAMA]* (ICU/trauma), *Cell* (haematology) and *Science* (cystic fibrosis) have raised the profile of researchers, their teams and our health service.

Our Strategy aims to continue to support highly experienced and successful researchers. Whilst the above outcomes represent many of the internationally recognised researchers and their programmes of research, it is important to highlight that much of the research undertaken within Metro North HHS also has impacts on the career development of our researchers and patient care locally. It is recognised that there are many other areas of research activity in which Metro North HHS researchers engage and excel. This Strategy aims to encourage early career researchers who are undertaking their initial research endeavours, as well as those already balancing the delivery of clinical care with the demands of pursuing research.



STRATEGIC CONTEXT



Research is deeply embedded in the Metro North HHS Strategic Plan, the vision of which is to change the face of healthcare through compassion, commitment, innovation and connection. The commitment of Metro North HHS to research is articulated as a clear objective to deliver value-based health services through a culture of research, education, learning and innovation.

Metro North HHS delivers responsive, integrated, and connected care to our local communities through highly specialised tertiary/quaternary referral facilities, major community hospitals, regional hospital, and health service wide mental health, oral health, Indigenous health, subacute, community and ambulatory services. Metro North HHS is connected with internationally regarded research institutions and facilities with advanced capacity in health and medical research discovery and translation. We have a unique opportunity to leverage this diversity to deliver globally recognised research that truly advances healthcare and health outcomes for our patients and community.

Metro North HHS is strongly aligned with Brisbane Diamantina Health Partners (BDHP), an alliance of four health services (Metro North HHS, Metro South HHS, Children's Health Queensland HHS and Mater Misericordiae Ltd), four academic partners (University of Queensland, Queensland University of Technology, QIMR Berghofer Medical Research Institute, Translational Research Institute), Brisbane South Primary Health Network and Queensland Health. BDHP has a vision to be recognised as a premier academic health sciences partnership that is a global example of outstanding health services delivery. As well as a BDHP Board member, Metro North HHS are active contributors to several steering groups to harmonise research processes across the partners including ethics and governance (including legal contracting), data management and the establishment of comprehensive biobanks.

The Queensland Government has a specific focus on innovation and partnering with industry to bring expertise to the state and provide employment growth. Advance Queensland (2016) offers a comprehensive suite of programs designed to create the knowledge-based jobs of the future, drive innovation, build on natural advantages, and help raise Queensland's profile as an attractive investment destination. The National Innovation Science Agenda (2015) offers additional enticement to establish inter-sector partnerships to extend our capacity for translating innovations, including opportunities within health.

In parallel, Queensland Health is building a research and innovation strategy for the future and has recently established a new office, the Health Innovation, Investment and Research Office (HIIRO) within the Office of the Director-General, which aims to improve

"WE AIM TO BE PATIENT-CENTRED IN OUR RESEARCH, COMPETITIVE IN NATIONAL AND INTERNATIONAL RESEARCH FUNDING, AND TO NURTURE THE NEXT GENERATION OF OUR RESEARCHERS."

the health and wellbeing of Queenslanders through a coordinated and collaborative approach to health innovation, investment and research across Queensland Health. Metro North HHS is an active participant in the development of the Queensland Health strategy ensuring its relevance to our researchers.

There are significant opportunities likely to arise from the Commonwealth Government's Medical Research Future Fund (MRFF). The MRFF was established in 2015 with the vision for a health system fully informed by quality health and medical research. The first five-year *Australian Medical Research and Innovation Strategy 2016-2021* prepared by the Australian Medical Research Advisory Board identifies a series of strategic platforms for investment in health and medical research.

Importantly, there is a risk that if we fail to adopt a focus on research in our practice, then our healthcare outcomes will be less successful and we will lose opportunities to maintain a highly skilled workforce which have access to the latest medical advances in patient care. We aim to be patient centred in our research, competitive in national and international research funding, and to nurture the next generation of our researchers.

There are many challenges in delivering excellence in healthcare to our community, including the ageing population and the increasing burden of chronic diseases (and people with complex multiple morbidities). However, rapidly advancing health technologies now provide new opportunities to improve health outcomes. Being both proactive in evaluating the implementation of such technologies and insightful in health service research will be vitally important in the next decade.



APPROACH

WHAT ARE WE WORKING TO ACHIEVE?

Our inaugural Metro North HHS Research Strategy promotes the integration of research with clinical care across the research continuum, and focuses on creating an enabling environment where research is embedded as core health service practice. The Strategy will provide a clear pathway to collectively advance research in the best

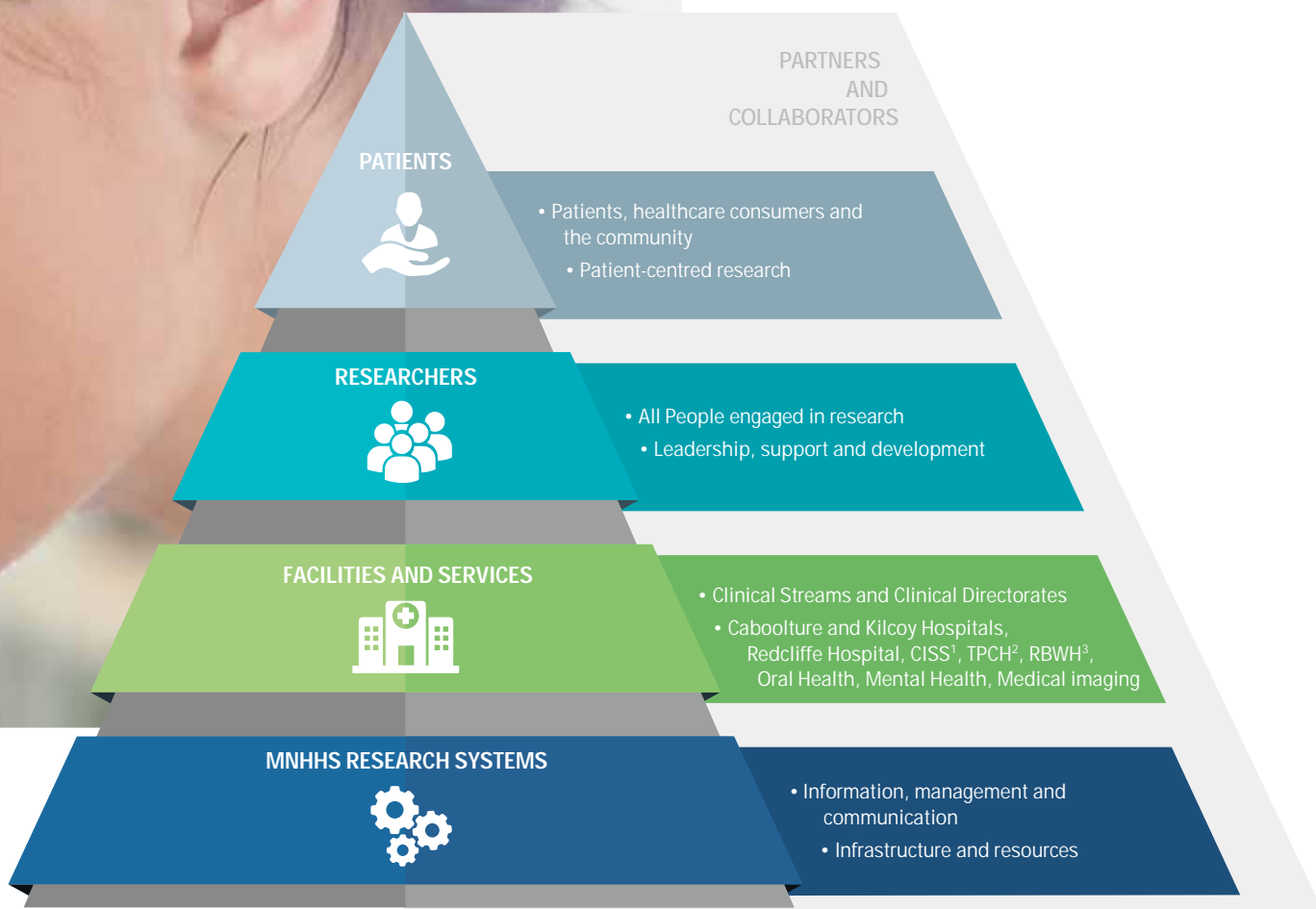
interest of our patients, people, and health service. It will enable us to leverage our collective diversity and connect across streams, disciplines, professions, services and departments, with our patients and our partners to affect positive and productive change in Metro North HHS research capacity by influencing upwards, outwards and beyond.



HOW DID WE DEVELOP THE STRATEGY?

This Strategy has been informed by extensive engagement with a broad range of research, clinical, leadership, partner and consumer representatives throughout Metro North HHS. Targeted discussions with people in key research positions and a series of consultation and feedback forums composed of research leaders and representatives were underpinned by a comprehensive review of research capacity and activity

across Metro North HHS, and a synthesis of local, national and international strategic research context. There was a high level of commonality in the insights provided during consultation from acknowledgement of the many exceptional research program, to the challenges and opportunities that impact capacity to undertake research within a clinical setting.



WHO IS THIS STRATEGY FOR?

This Strategy is for our patients, people and partners to engage with research. It will enable patients, healthcare consumers and the community to engage with the development, conduct and communication of research in Metro North HHS. For our people, this Strategy reinforces the understanding that every individual in Metro North HHS has the potential to contribute to, benefit from and engage with high quality research. It prioritises our researchers, their diverse career pathways, education, training and support needs, and embraces their potential and realised excellence. For our Clinical Streams, Clinical Directorates (Caboolture and Kilcoy Hospitals, Redcliffe Hospital, Community, Indigenous and Subacute Services, The Prince Charles Hospital, Royal Brisbane and Women's Hospital, Oral Health, Medical Imaging and Mental Health) and Metro North HHS Facilities, this Strategy provides a framework through which research can be focused to leverage our collective diversity. For Metro North HHS, this Strategy positions our research systems, infrastructure and resources as core practice within our health service. Finally, through strategic collaborations and partnerships, each facility, clinical directorate and stream will be able to work with internal and external stakeholders across disciplines, professions and sectors to deliver research that delivers exceptional health outcomes through globally recognised discovery and translation.

"THIS STRATEGY REINFORCES THE UNDERSTANDING THAT EVERY INDIVIDUAL IN METRO NORTH HHS HAS THE POTENTIAL TO CONTRIBUTE TO, BENEFIT FROM AND ENGAGE WITH HIGH QUALITY RESEARCH."

¹ Community, Indigenous and Subacute Services

² The Prince Charles Hospital

³ Royal Brisbane and Women's Hospital.