

"RESEARCH WILL PROVIDE OUR PATIENTS WITH THE BEST ACCESS IN AUSTRALIA TO NOVEL DIAGNOSTICS, INNOVATIVE THERAPEUTICS AND ADVANCED HEALTH SERVICES."

METRO NORTH HHS RESEARCH STRATEGY

VISION

Changing the face of healthcare through compassion, commitment, innovation and connection.

MISSION

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

ENABLERS

Our **enablers** – **patients, people, systems, infrastructure** and **partners** – will actively support our **themes** and **direction** to deliver excellence in discovery and translation.

THEMES

Our **themes** – **diagnostics, therapeutics** and **health services** – embrace the entire research continuum, from basic discovery through clinical translation to public health and health services research, in the context of our patients' journey through our health service.

DIRECTION

To **define** clinically relevant questions, **discover** and **translate** new knowledge into evidence for patient care and **implement** this knowledge into informed practice that will lead to research **impact**.

TOGETHER WE DELIVER WITH OUR



PATIENTS

Patients, healthcare consumers and the community

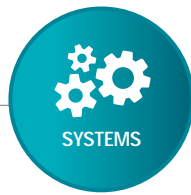
Lead excellence in patient centred research



PEOPLE

People engaged with research

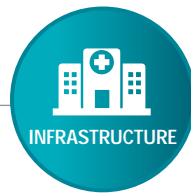
Engage our people with a research-active culture to develop attract and retain high calibre research expertise



SYSTEMS

Research information, management and communication systems

Establish integrated research information, management and communication systems



INFRASTRUCTURE

Research infrastructure and resources

Enhance sustainable research capacity through management of infrastructure and resources

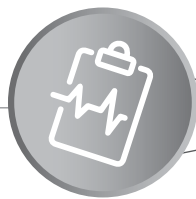


PARTNERS

Collaborations and partnerships

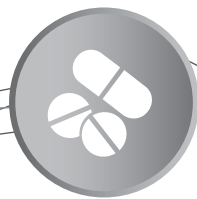
Support strategic collaborations and partnerships to drive globally recognised discovery and translation

EXCEPTIONAL HEALTH OUTCOMES BY EMBRACING



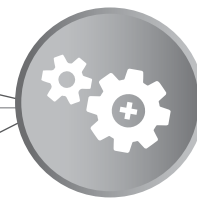
DIAGNOSTICS

From discovery research that advances fundamental understanding of disease-related mechanisms which influence diagnosis, to translational research, which successfully tests the application, efficacy and translatability of diagnostic tests, services and devices.



THERAPEUTICS

Through the integration of therapeutic research and clinical care, we will become leaders in the prevention and management of disease and the specific, highly complex health problems facing our patient population.



HEALTH SERVICES

Through health services research we will embrace the design of sustainable, integrated and safe models of healthcare with the capacity to improve health outcomes, reduce disparities for disadvantaged and vulnerable groups, increase efficiency and provide value-based healthcare.

THROUGH GLOBALLY RECOGNISED DISCOVERY AND TRANSLATION

DEFINE

Continuous data integration and knowledge synthesis

DISCOVER

Address fundamental knowledge gaps

TRANSLATE

Translate new knowledge and innovations

IMPLEMENT

Bring new knowledge into practice

IMPACT

Positively impact long-term health outcomes

THEMES

Our themes embrace the entire research continuum, from basic discovery through clinical translation to public health and health services research, in the context of our patients' journey through, and interaction with, our health service.

We will encourage connected research through collaboration with our patients, people and partners, and strategically position ourselves to pursue and excel across three key themes:

- diagnostics
- therapeutics
- health services

By focusing research in the context of these themes, we will enable discovery and translation in the development and evaluation of novel diagnostic and therapeutic innovations, determination of their effectiveness and clinical application, the systematic and clinically relevant implementation and evaluation of evidence informed clinical practice and the application of rigorous interdisciplinary health services research methodology.

As Metro North HHS strategically positions itself to generate new ideas, knowledge and world-leading discoveries through our themes, research will enable the discovery of new ways of preventing, identifying and treating ill-health, translating into tangible benefits for our patients, health service and our people. To encourage the creation of these new ideas, Metro North HHS has developed an Intellectual Property (IP) policy designed to enhance collaboration with our academic partners and provide direct benefit to our researchers and their teams.

"TO ENCOURAGE THE CREATION OF NEW IDEAS, METRO NORTH HHS HAS DEVELOPED AN INTELLECTUAL PROPERTY (IP) POLICY DESIGNED TO ENHANCE COLLABORATION WITH OUR ACADEMIC PARTNERS AND PROVIDE DIRECT BENEFIT TO OUR RESEARCHERS AND THEIR TEAMS."

The Medical Research Future Fund (MRFF, 2016) outlines a vision for a health system fully informed by quality health and medical research, which emphasises the importance of creating health and economic benefits, embedding research evidence in healthcare, and driving collaboration and innovation across research and healthcare. Through integrated research, Metro North HHS will strategically position itself as a leading health service for the future.



DIAGNOSTICS

From discovery research that advances our fundamental understanding of disease-related mechanisms which influence diagnosis, to translational research which successfully tests the application, efficacy and translatability of diagnostic tests, services and devices, diagnostics are both integral to our health service and form the cutting edge of health and medical research. Through the rapid discovery and translation of novel diagnostics alongside the systematic evaluation of existing diagnostic practices, our patients will benefit from exceptional care. Diagnosis presents a common entry point into our health service, and is imperative to establish effective treatments and preventative strategies.

At the advent of personalised medicine, we have the opportunity to evaluate the roles of new technologies for disease diagnosis, including early detection and into the future for primary prevention of at risk people. We will do

this by capitalising on the advanced skills, expertise and infrastructure of our collocated and local institutes and universities, alongside our extensive capacity for provision of clinical services. Metro North HHS works collaboratively with Pathology Queensland, the state-wide pathology service, to conduct analytical, clinical and forensic research using samples derived from our patients to support the evaluation and implementation of diagnostics into clinical practice.

Centres of Research Excellence including the Herston Imaging Research Facility (HIRF), development diagnostics laboratories at UQCCR and QUT, and the Queensland Genetics Alliance provide a great opportunity for access and evaluation of novel approaches for disease screening and diagnosis across all medical conditions. Through these centres and by our large patient population, we will continue to attract industry, academic and technology partners to bring new methods of diagnosis to be studied within Metro North.



THERAPEUTICS

Our patients will have access to evidence-based, safe and effective healthcare designed to improve health outcomes through our leadership in therapeutic research. Through the integration of therapeutic research and clinical care, we will become leaders in the prevention and management of disease and the specific, highly complex health problems facing our patient population. The rapid development of novel therapies for disease prevention and management through applied research will advance evidence based models of care, such as the delivery of world-class integrated specialist rehabilitation services for our patients. Preventive therapies form crucial part of the healthcare we deliver to our community, particularly for those utilising our healthcare services where secondary prevention disease complications will be increasingly important in a community which is ageing and where multiple morbidities are increasingly recognised.

We will leverage our state-of-the-art facilities, engage industry and academic partnerships, and bring together our advanced clinical expertise and capabilities across

Metro North HHS to undertake therapeutics research which leads to the development, comprehensive evaluation and commercial application of small molecules, biopharmaceuticals, cell therapies and biomarkers. Within Metro North HHS, we are enhancing approaches to studying the role of biofabrication technologies, developing new models of care to allow state-of-the-art specialist rehabilitation, and locally developed immunotherapies and stem cell treatments are being pioneered and evaluated in our clinics.

We will continue to support the productivity of translational health research from the laboratory into clinical trials to deliver novel and improved therapeutics and, more broadly, therapies. We will continue to develop efficient and skilled research support networks to ensure the ability to rapidly engage in early and also pivotal clinical trials. Importantly, we will also grow our research in the fields of comparative effectiveness allowing the study of existing treatments already being delivered to our patients.



Patients' interaction with our health service culminates in the delivery of responsive, integrated, and connected care, informed by our world-class research into the development and evaluation of novel diagnostics, therapeutics, and preventative strategies, which drive evidence-based health service delivery, innovation and improvement. Health services research embraces the design of sustainable and integrated models of healthcare with the capacity to improve health outcomes, reduce disparities for disadvantaged and vulnerable groups, increase efficiency and provide value-based healthcare.

Understanding the relationships between health research, policies and system safety and quality in the context of broader determinants of health, requires interdisciplinary, strategically focused health services and health systems research with the capacity to evaluate system and population impact. Metro North HHS is well

placed to leverage our collective diversity, strengths and infrastructure to improve access to and coordination of data management and better inform health service decision-making and systems improvement to ensure an appropriate balance in health investment between prevention, management and treatment.

We have strong links with epidemiological and health economics expertise through our local partners including QIMR Berghofer Medical Research Institute, UQ School of Public Health, and the Australian Centre For Health Services Innovation (AushSI). We will consolidate these external collaborations with strategic internal partnerships across Clinical Streams and Directorates to integrate health service clinical data sets and ensure health services research is integrated with our core practices. By embracing evidence into clinical care we will be well prepared for the hospitals (and health services) of the future.

DIRECTION

As a diverse health service, we have the potential to conduct and become world leaders in basic discovery through clinical translation to public health and health services research with global impact.

Pursuing excellence, innovation and impact across this potential breadth of research within one of Australia's largest Hospital and Health Services will require a robust culture of research excellence in knowledge synthesis, discovery and translation.

The direction is a series of principles, which will guide the development, conduct and communication of research across Metro North HHS and supports our people to *define* clinically-relevant questions, to *discover* and rapidly *translate* new knowledge into evidence for patient care and to *implement* this knowledge into informed practice that will lead to research *impact*.

DEFINE

We will *define* clinically -relevant and patient-centred research questions through continuous data integration and systematic approaches to knowledge synthesis

DISCOVER

We will address fundamental knowledge gaps using basic science *discovery* research into diagnostics, therapeutics and health services.

TRANSLATE

We will *translate* new knowledge and innovations into novel approaches for prevention, diagnosis and treatment of disease

IMPLEMENT

We will bring knowledge into practice and *implement* new evidence to design, deliver and evaluate exceptional and sustainable health services

IMPACT

We will measure the *impact* on long-term health outcomes of our community through better and safer treatments, promotion of wellbeing and the continuous improvement of a value-based healthcare system.

ENABLERS

The *enablers* will actively support our *themes* and *direction* to deliver excellence in discovery and translation.

To gain a competitive advantage in the national and international research landscape, we must leverage our collective diversity through the application of clear, consistent and coordinated research principles. Our enablers will allow Metro North HHS clinical streams, directorates and professional services to set a research agenda with consistency of research theme and direction in a research-active culture.

Through the integration of *themes*, *directions* and *enablers*, we hope to create a more effective research environment which will enable and embed research across our health service. We want to build a resilient research culture that is driven by patient-centred clinical priority setting, supported and developed by highly-skilled and engaged researchers who can function at a high level within the organisation to deliver research with meaningful impact. This requires a system that is easily navigated, allows us to set priorities, adapt and innovate, and which captures metrics to demonstrate change and impact of exceptional research. We need to leverage strategic partnerships, and coordinate the sustainable management of infrastructure and resources to embed research as core practice in Metro North HHS.



PATIENTS

Patients, healthcare consumers and the community

Lead excellence in patient centred research



PEOPLE

People engaged with research

Engage our people with a research-active culture to develop attract and retain high calibre research expertise



SYSTEMS

Research information, management and communication systems

Establish integrated research information, management and communication systems



INFRASTRUCTURE

Research infrastructure and resources

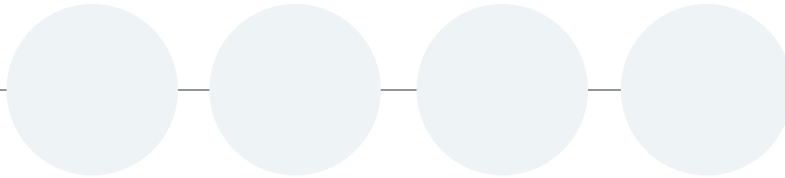
Enhance sustainable research capacity through management of infrastructure and resources



PARTNERS

Collaborations and partnerships

Support strategic collaborations and partnerships to drive globally recognised discovery and translation



PATIENTS, HEALTHCARE CONSUMERS AND COMMUNITY

Lead excellence in patient-centred research

The growing and ageing population in Queensland will result in a 20 per cent increase in the number of people Metro North HHS serves in the next decade. It is predicted that obesity and lifestyle diseases will have a greater burden on health service requirements based on their increasing rates of hospital admissions seen over the past decade. We will focus our research on chronic diseases especially the interactions between multiple health conditions. Linkages between all levels of our health system (including community and primary healthcare networks) and how we deliver care will be important to developing value-based and safe healthcare. We will deliver opportunities for our population to receive access to new and novel therapies by leading their study and implementation into the clinic.

In many areas of our clinical care, patients (healthcare consumers) have ready access to information about research participation, including how to access clinical trial information for their condition(s). We aim to ensure

all patients treated within Metro North HHS have the opportunity to participate in clinical research and this knowledge extends to the broader community. Multimedia approaches to ensure information is communicated to patients at the point-of-care will be a focus of this Strategy.

In Metro North HHS, the median age of death was 19 years younger (63 years) in indigenous people than non-indigenous peoples (82 years). Improving the health outcomes for our indigenous peoples is a high priority. We also wish to ensure that information about our research reaches our whole community including disadvantaged communities through culturally sensitive and diverse communication strategies.

As beneficiaries of advances in healthcare, consumers and community members have an interest in promoting the translation of research into improved policy and practice. It naturally follows that health and medical research should develop processes and systems to incorporate and support sustainable consumer and community involvement (NHMRC, 2016).



KEY PRIORITIES:

- Ensure our research promotes wellbeing and delivers exceptional health outcomes.
- Engage our patients to enable increasing participation in inclusive, responsive and integrated research.
- Advance health outcomes for Aboriginal and Torres Strait Islander populations through targeted research priorities.

We will achieve:

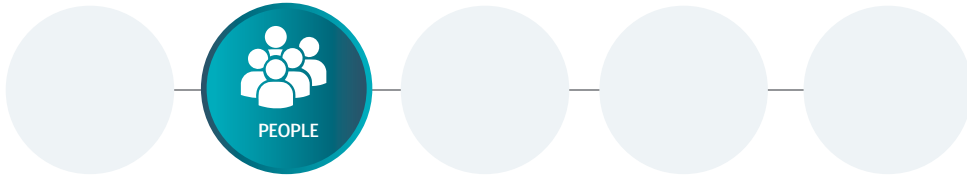
- A 10% annual increase in participation in Metro North HHS clinical trials and clinical research by our patients between 2017 and 2022.

We will establish:

- An integrated Metro North HHS Research Roadmap that is patient-centred and culturally appropriate.

We will measure the:

- Number and proportion of our patients participating in Metro North HHS research and clinical trials.
- Number of research studies demonstrating use of local health service data.
- Number of research studies demonstrating consumer/community engagement.
- Number of patient-centred research outputs published in Metro North HHS communications.
- Number of research studies involving Aboriginal and Torres Strait Islander people and vulnerable populations.



PEOPLE ENGAGED WITH RESEARCH

Engage our people with a research-active culture to develop attract and retain high calibre research expertise

Research conducted within a health service requires highly trained clinician researchers who have sufficient time and support to address the questions raised in the clinic and the ward. In many cases, the pressures of delivering clinical care limit the opportunity to ask the important clinical questions. Healthcare leaders who have the vision to appreciate the value of research will ensure research is integral to the roles of healthcare professionals. This leadership and adoption of a research-active culture within our clinical services and departments will in turn enable access to new diagnostics and therapies, attract and retain high calibre clinical staff and improve morale of the team who contribute to advancing clinical outcomes for our patients.

Mentoring of novice and emerging researchers is vital to maintaining enthusiasm, momentum and focus. We believe this is best achieved where the mentoring and support is based in close proximity to the clinician (e.g. within their department). As a new researcher, a key challenge is from whom to seek advice and how to get 'the research moving forward'. A department internal research champion, that is a Research Lead, should be available. A register of members of the department who have specific research skills is an important way of providing this necessary support.

Clinical practice can often be all consuming given a healthcare professional's key role is to deliver clinical care. We aim to ensure the very talented clinician scientists in our workforce are provided with opportunities for career development through all stages of their career. This can be supported through both Research and Clinical leads and through forward planning for workforce opportunities to maximise the return on (research) investment for the Health Service and for the clinician researcher.



KEY PRIORITIES:

- Develop leadership capacity that provides tangible support for research and our researchers.
- Foster an inclusive culture of research excellence through accessible research advocacy, mentorship and networks.
- Establish accessible and integrated career pathways for all who engage in research.

We will achieve:

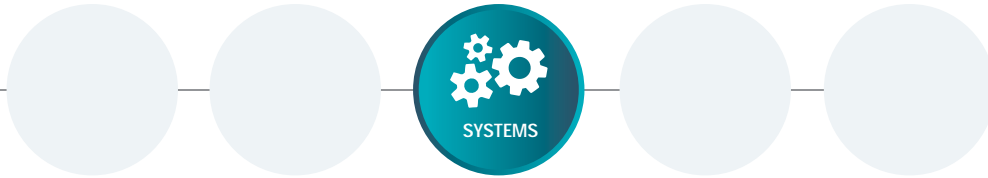
- An increase in senior clinical appointments with higher degrees. By 2022, this will reach 50% of new appointment per annum.

We will establish:

- Early-career post-doctoral research fellowships.
- A Metro North HHS research mentor network and communication platform.
- A research/clinical trial coordinator program.
- A research higher degree (RHD) support program.

We will measure the:

- Number of designated leadership positions with research key performance indicators (KPIs) included in annual performance and development reviews.
- Number of designated research leaders and registered research mentors.
- Number of our people with research higher degrees (PhD and Masters).
- Number of our people who are research higher degree students (% enrolled, % completed).
- Number and investigator representation (career stage, discipline, clinical service, institution) of investigator-led HREC and Governance approvals.



RESEARCH INFORMATION, MANAGEMENT AND COMMUNICATION SYSTEMS

Establish integrated research information, management and communication systems

The increasing complexity of research knowledge creation and design in the context of a vastly expanding local, national and international research landscape has created a need to expose both our researchers and our hospital and health service decisionmakers to diverse research information, education and training opportunities. The delivery of exceptional health outcomes through research requires a diverse, highly qualified and research-active workforce. Our current and emerging researchers must develop an appropriate set of research and professional skills that will allow them to adapt to the challenges, needs and directions of the research landscape.

It is our intention to reduce barriers and create an enabling environment that will support our world-class researchers in the pursuit of globally recognised discovery and translation. This strategy seeks to provide researchers the freedom and capacity to pursue innovative ideas, undertake clinically-relevant research within a national and international context whilst focusing their expertise on the health needs of our population. The strategy facilitates the integration and sustainable management of research systems to

support a culture of continuous improvement transparent and accountable systems, processes, information management and research governance. Strengthening the integrity and efficiency of Metro North HHS research systems will require an integrated approach that systematically embeds the consideration of research into priority setting, policies, clinical decision-making and broader organisational processes. We will demonstrate a return on investment through the advancement of our research activities from define to impact.

We have a significant opportunity to design advanced communication strategies that will rapidly promote research outcomes and convey the significance of newly generated knowledge to the community. By prioritising the dissemination of research findings to enhance understanding and knowledge, support best practice, stimulate further research and celebrate achievement we can drive the adoption of evidence informed practice and policy. By leveraging existing communication networks and structures, and building capacity through the development of a comprehensive research communication strategy including an enhanced media profile for Metro North HHS research, we can ensure relevant messages are effectively disseminated and externally promoted for maximum influence and, ultimately, increased health outcomes.



KEY PRIORITIES:

- Provide accessible and consistent research information through integrated training and education.
- Work collaboratively to develop integrated research management processes and systems.
- Implement innovative communication strategies to promote and advance research discovery and translation.

We will achieve:

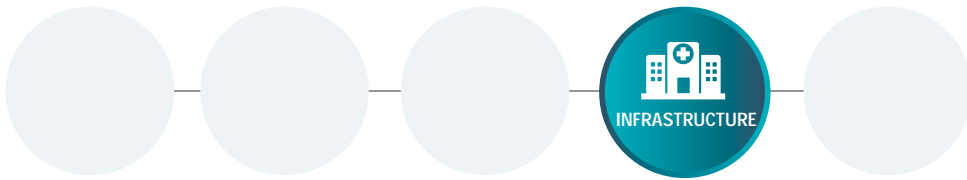
- The most rapid process for human research ethical approval in Australia by 2018.

We will establish:

- An integrated Metro North HHS research roadmap.
- A Metro North HHS Good Clinical Practice course.
- An innovative Metro North HHS research business management model.
- Metro North HHS research policies, procedures and agreements.

We will measure the:

- Number and representation of our people participating in Metro North HHS research education.
- Number and time to completion (median and range) of HREC and Governance approvals.
- Metro North HHS website access and utilisation metrics.



RESEARCH INFRASTRUCTURE AND RESOURCES

Enhance sustainable research capacity through management of infrastructure and resources

The capacity to achieve excellence in clinical research that translates into positive changes in clinical practice requires ready access to facilities and infrastructure that support our research programmes.

We are fortunate to have access to a remarkable suite of world-class facilities and infrastructure to enable integration of clinical practice with research. The availability of these cutting-edge technologies located within our campuses provides a rich and valuable ecosystem for research across our health service. For example UQCCR, QIMR Berghofer Medical Research Institute, QUT Institute for Health and Biomedical Innovation, Herston Imaging Research Facility (HIRF), Medical Engineering Research Facility (MERF), the Oral Health Alliance, Specialist Rehabilitation and Ambulatory Care Centre (SRACC) and the Herston Biofabrication Institute.

As well as state of the art physical resources, within our distributed health service we also possess systems that empower us to excel in health service innovation,

health economics research and implementation science allowing us to lead in the adoption of research evidence into care. Our focus on health system research enables us to respond to the evolving healthcare landscape and capture national and international clinical and scientific research opportunities.

With the emergence and increased application of technologies generating large datasets and the advent of personalised medicine, it is imperative that we establish quality systems for storage, management and synthesis of multiple types of clinical and biomedical data. Such database resources should be integrated with sustainable processes for biobanking of associated clinical specimens.

This research strategy seeks to establish streamlined procedures to ensure equitable access to our research infrastructure for all our clinical researchers, transparent allocation of available resources and to enhance the capacity of our experienced and emerging researchers to attract external funding for their research programmes. We aim to strategically align the management of our research infrastructure and resources to support emergent multidisciplinary research opportunities addressing complex and critical health issues of our community.



KEY PRIORITIES:

- Promote access to and support research infrastructure and facilities.
- Develop and support access to internal and external funding opportunities to enhance research.
- Support integrated data linkages to inform health services research.

We will achieve:

- Formalised clinical trial capacity for each facility by 2019.

We will establish:

- A transparent review process to ensure equitable access and utilisation of research infrastructure across Metro North HHS.
- Metro North HHS grant writing workshops and measure participation rates and investigator representation.
- A Metro North HHS research biobanking system management framework.

We will measure the:

- Number of research studies utilising advanced infrastructure (eg. HIRF, MERF, Biofabrication Institute), data and biomedical resources from our genetic, imaging, biofabrication and clinical trial infrastructure.
- Number of research projects support by the Metro North HHS biostatistics service.
- Number and monetary value of industry-led Metro North HHS research studies.
- Number and monetary value of competitive grants which involve our people.
- Number of our people awarded competitive fellowships which provide personal salary support.



PARTNERSHIPS AND COLLABORATIONS

Support strategic collaborations and partnerships to drive globally recognised discovery and translation

Research collaborations are vital for integration of our diverse approaches, skillsets and expertise with others from within our own organisation and from other organisations. Collaboration enables timely access to knowledge and skills essential at different stages of the clinical research spectrum.

This Strategy seeks to facilitate research collaborations that are mutually beneficial and productive. Multi-disciplinary participation in research activities will synergistically enhance our capacity to achieve positive research outcomes, leading to greater impact and broader relevance. We aim to foster not only interdisciplinary collaborations between departments and facilities within Metro North HHS, but also partnerships between other health services and inter-sector collaborations with academic, industry or non-government organisations. Nurturing such relationships and interactions will enhance our ability to discover and innovate, as well as to translate and implement newly generated clinical research knowledge.

Within Metro North HHS, research is directly supported by two hospital-based foundations: RBWH Foundation and TPCH Foundation. Our Foundations have the specific

purpose to raise funds to support the research agenda. They provide innovative opportunities to seed, leverage and partner to fund research within our health service.

We aim to streamline the administrative and legal processes that underpin collaboration and partnership agreements. The recognition of the benefits of research and innovation, and the awareness of the need for collaboration encourages our researchers to interact with internal and external stakeholders, and to accelerate our capacity for research translation to improve care for patients within Metro North HHS and more broadly for the Australian community. Metro North HHS has established an Intellectual Property (IP) policy where one of our academic partners will manage the IP and part of the distribution will come back to Metro North HHS, and in turn individual researchers and departments will benefit directly.

Addressing current health challenges from a health service perspective will require the involvement of our patients, people, partners, health service leaders, decision-makers, and all levels of government. We will engage decision-makers and researchers at local and regional levels to implement mechanisms to identify and use available knowledge to improve health service performance. Evidence informed policy-making presupposes the availability of high quality, relevant information. Decision-makers may need support to assess what is already known or to articulate specific demands for new evidence.



KEY PRIORITIES:

- Enable and support internal research collaborations.
- Establish new and enhance existing partnerships that encourage innovation and impact on clinical care.
- Leverage strategic collaborations to deliver globally recognised research that defines, discovers, translates, implements and impacts.

We will achieve:

- The integration of academic scientists within 50% of our clinical services by 2022.

We will establish:

- A Metro North HHS knowledge translation program.
- A Metro North HHS clinical collaboration initiative.
- Honorary research appointments for researchers employed by our academic partners.

- Clinical fellowships based within Community, Indigenous and Subacute Services (CISS).

We will measure the:

- Number of publications, and the number and monetary value of grants and funding which include internal, BDHP, national and international collaborations and partnerships.
- Number of HREC and Governance approvals that utilise BDHP Ethics and Governance umbrella agreements (BDHP Research Passport).