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Northern Health

**NORTHERN CENTRE  
FOR HEALTH  
EDUCATION & RESEARCH**



Northern Health

2015-2020

Education and  
Research Plan



Northern Health

## Our Vision

Outstanding healthcare for our community.

## Our Mission

To provide people in Melbourne's North with outstanding health care by:

- expanding from a great community-based health service to a major university teaching health service
- developing the services, and pathways to services, that our community needs
- embedding the best teaching and research practice in everything we do
- cultivating a community of staff, patients and families who work together.

## Our Commitment

At all times we aspire to be:

*Passionate* – we care.

*Dedicated* – we are focused.

*Progressive* – we look to improve.

*Collaborative* – we are a team.

## Our Priorities

1. Provide a balanced mix of quality services.
2. Fully utilise resources and develop infrastructure.
3. Strengthen organisational capability.
4. Attract and develop a high performing workforce.

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# Executive Summary

Northern Health is modifying existing models for patient centred care, research, education, governance, ethics and interdisciplinary cooperation to deliver optimum results for our staff, patients and community.

We are transforming to provide health care in a different way, and our aim is to be a leading health service that is effective and innovative. Models of patient care will be based on research and executed by a skilled and knowledgeable workforce.

Northern Health aims to provide education and research programs that are nationally recognised where integrated education and research will be underpinned by robust business models. The statement, “nothing about us without us,” reflects our commitment to quality education and research across the northern region of Victoria, and the involvement of our community is central to this approach.

The development of an education and research plan for Northern Health is a central pillar in of our new approach to providing outstanding health care to our community. Together, education and research will help us to provide better patient centred care by building and supporting a capable workforce.

The following areas of need, illustrated from Northern Health’s population health data will be the focus of our organisational wide education and research agenda:

- Aged care
- Chronic disease
- Social determinants of health care
- Women’s and children’s health

Our aim will be achieved when the following education and research outcomes are observed:

- Delivery of a workforce fit for the future; to do so we will provide the infrastructure to facilitate the development of a flexible and adaptive workforce responsive to research and innovation.
- Research which enables transformation into best health service practice; to do so we will move on from innovation being viewed only as a scientific discovery to embrace behaviour, organisational and cultural dimensions of our organisation.
- Evidence based best practice leads our staff behaviours to provide quality care for our patients; to do so we will develop and promote an innovative organisation, innovative teams, innovative leaders and innovative workers, working in partnership to meet the future community needs.

The Northern Health education and research approach is central to building a capable and high performing workforce. This will deliver improved patient care that is aligned to the northern region of Victoria’s population health needs, and the patient journey.

Northern Health will create an education and research plan which is more efficient, more sustainable, more equitable and more responsive to the needs of the northern community. Health education and research programs are key drivers of change and the principles driving this education and research strategy are based upon the following:

- That education and research are central for patient centred care and improved health outcomes.
- That population health data underpins the future of the northern region of Victoria.
- That resources will be better matched to demand, achieved by rethinking the traditional operating models of research and education.

Please see a diagrammatical representation of Northern Health’s Education and Research Plan on the following pages.



## northern health strategy

The Northern Health 2013-2017 Strategic Plan outlines a vision for the future of our Health Service, to deliver outstanding health care for our community.

Community demands will require innovative and creative approaches to patient centred care to future proof our health service.

Northern Health has embarked on a transformational journey to provide health care in a different way, to ensure we can deliver a workforce and services that are outstanding for our growing, diverse and complex community.

## northern health vision/mission for education and research

**Vision:** Through partnerships, Northern Health aspires to translate research, education and innovation into measurable health gains for our community.

**Mission:** Through innovative models and partnerships, we will build systems that will built a highly skilled workforce and integrate research and education to meet Northern Health's strategic intent and community needs.

Attract students/workforce to do things differently at Northern Health.

We will achieve our vision through...

1. Integrated research and education
2. Innovative learning
3. Translational research
4. Sustainable business models

## principles driving education and research

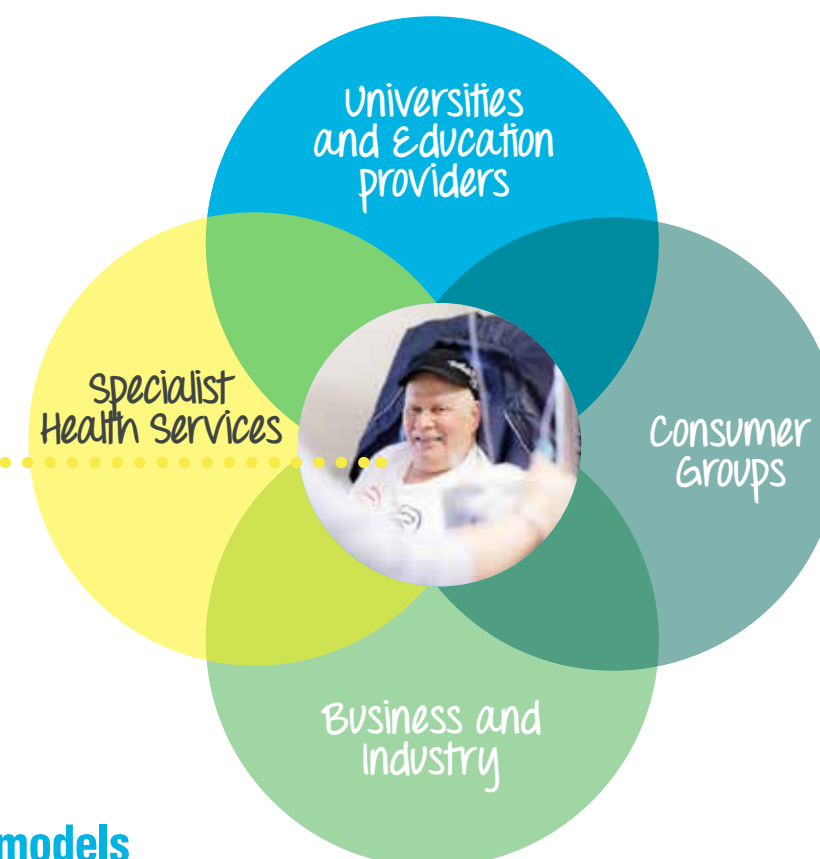
The future of education and research at Northern Health requires a framework that is built around patient centred care, with a systematic approach to keeping the community healthy, and improving access to quality health and social care.

The implementation of an education and research plan comes at a time when we are building a strong partnership with the University of Melbourne and La Trobe University with the mission to lead innovative education and research into best practice.

The principles of this partnership are based upon:

- i Value and support education and research as a central driver of patient centred care and pivotal to health service delivery
- ii Better match resources to demands, by rethinking the traditional operating models of research and education
- iii Ensure current and future staff have access to a wide range of quality education, simulation and research opportunities

Better health outcomes for our Northern community.



Real change comes from changing systems, not from changing within systems

Donald Berwick, Institute for Health Care Innovation

## our community

Northern Health's population is on average younger, more socially disadvantaged with higher rates of unemployment. This places high demands on the health system, but with the population predicted to increase by more than 50% over the next 20 years, collective action is needed to reduce the demand and develop more effective and efficient ways of working. An innovative approach to research and education is critical.

## patients

Patients will be put at the centre of their care, through a culture that values the patient experience.

## students

Students will be given opportunities to develop skills which are conducive to individual and community health, and social care.

## partners

Partners across a wide range of sectors will engage together to create sustainable healthy communities.

The best healthcare research is of limited value unless you are actually able to put it into practice for the benefit of patients.

## CURRENT &gt;&gt;&gt;

*Historical discipline based approach exists to deliver education and research*

Nursing  
Education

Allied Health  
Education

Medical  
Education

Research

Clinical  
Trials

*Education & research is primarily discipline focussed which perpetuates a fragmented approach to patient care*

## current state

- No sustainable interprofessional education and research agenda or framework
- Research and education viewed as competitive rather than collaborative
- No organisational shared research agenda leading to academic partners driving NH agenda
- Health research projects are not meeting the needs of our projected population demographic
- Absence of a governance structure to support organisational research needs and educational requirements
- Potential reputational and legal risk in ethics process and policies for clinical trials
- The current research agenda is not aligned to the strategic clinical services and business plan

Northern Health offers education opportunities from mandatory training, through to continued professional development activities and bespoke learning tailored to specific professional groups or specially areas. Education is framed separately by professional groups and site specific based on identified risk, organisational change or an annual training needs analysis.

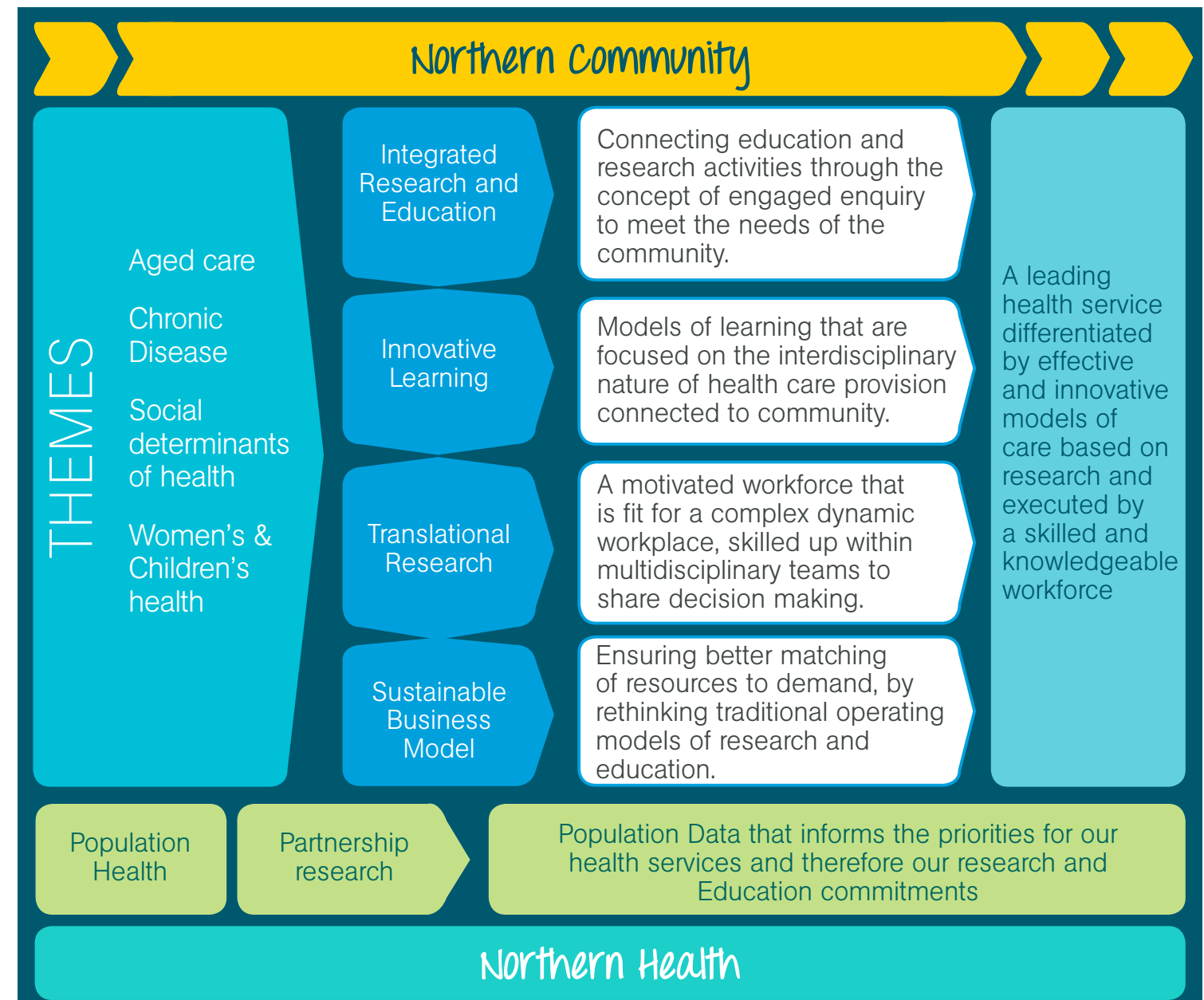
*We will drive innovation in service delivery because it will result in better patient outcomes.*

## FUTURE &gt;&gt;&gt;

A future state will incorporate a health workforce which supports excellent patient centred care, whilst in pursuit of excellence in health care education and research to improve the health of our population.

Together with the community, and other partners, we will find common themes of education and research. Teams will design, implement and have control of their own education and research programs.

Research processes will be streamlined and aligned very closely with our partners through this thematic approach to deliver measurable and sustainable benefits in health care experiences and outcomes throughout northern region of Victoria.





## northern health education and research plan

Through partnerships, Northern Health aspires to translate research, education and innovation into measureable health gains for patients and the population in our community, across Victoria and nationally. Population Health data from our Northern Community has informed the selection of our focus areas. These also reflect our current strengths, and have also been chosen because we believe our partnerships are amongst the best placed nationally to drive better understanding and improved treatments in these fields.

Based on the analysis of the population within our community, the following themes dominate.

- AGED CARE
- CHRONIC DISEASE
- SOCIAL DETERMINANTS OF HEALTH CARE
- WOMEN'S AND CHILDREN'S HEALTH

## Strategic Themes

### 1. Integrated research and education

a multidisciplinary approach to research and education integrated into the needs of the community and Northern Health.

### 2. Innovative learning

creating an environment to prepare and share skills, knowledge and values for practice within the health industry. Utilising evidence based and world's best practice knowledge.

### 3. Translational research

engineering research that aims to make findings from basic science useful for practical applications that enhance human health and well-being.

### 4. Sustainable business models

the set up and implementation of programs which has minimal negative impact on local community, environment, society and maintains a robust business and economic position.

### Step 1 – Sharing and promoting ideas and best practice across our partners to affect a cultural shift towards innovation in education.

*Patient George has chronic obstructive pulmonary disease (COPD), which affects his ability to work and function 'normally' in his community in ways that many take for granted. Like a number of other people with COPD, George also has heart failure. George benefits from attending health promotion seminars run at his local library, harnessing the enthusiasm of a group of professionals with a common interest in innovation and improvement. Through these seminars George has a greater understanding of a shared model of care and he is better informed of the models of services available, and when to make best use of each one.*

### Step 2 – Clinical staff work alongside academic researchers much more closely which means that patients will receive a high quality service.

*Jack, the Practice Nurse that George sees, has been accredited in a joint venture established through Northern Health. Through collaboration and partnerships Jack is exposed to the latest innovations in health care, and is better informed to diagnose George's chest pain and refers him to Northern Health. Through local seminars, Jack is part of a local network of health care professionals who spread innovative ideas more quickly to help develop best practice across our region for positive change.*

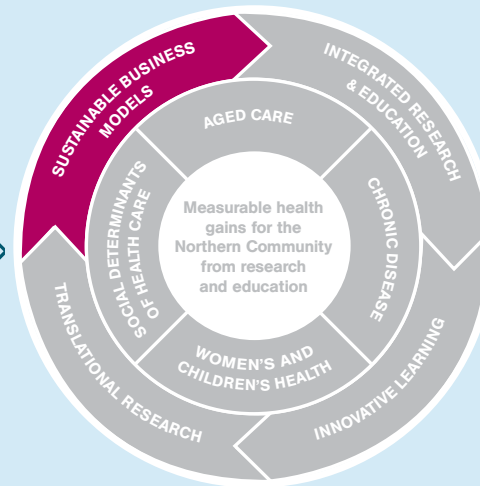
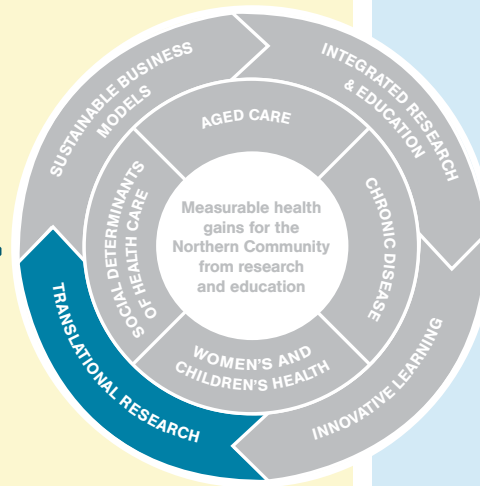
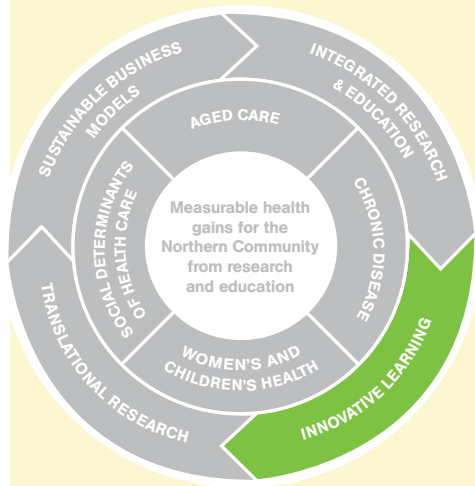
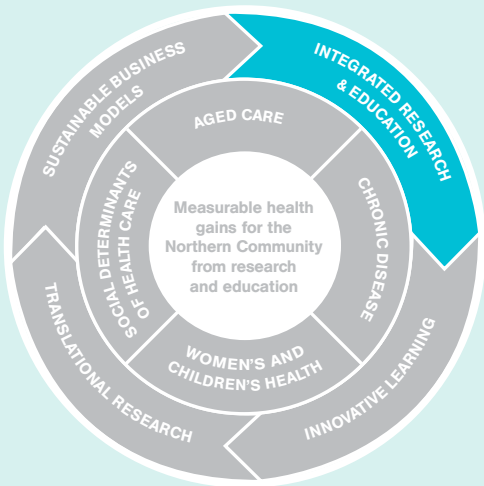
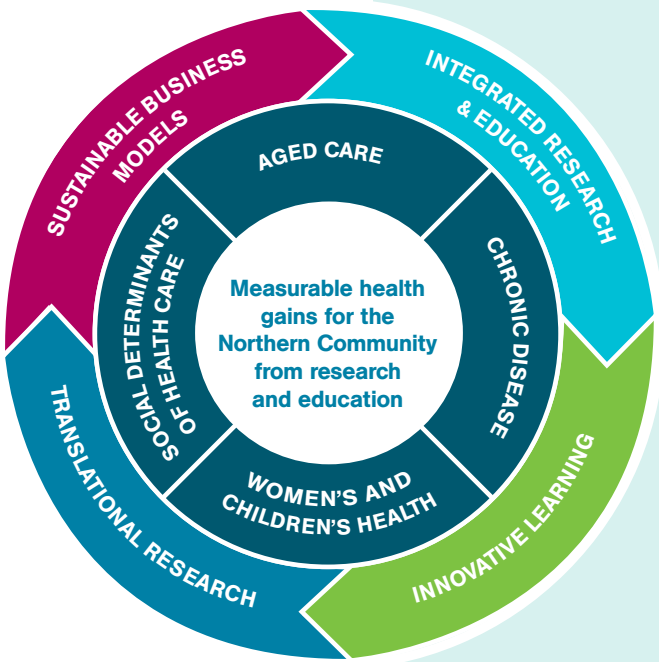
### Step 3 – Bringing together experts from a variety of fields offer patients the very best care and treatment, based upon reliable research evidence that works.

*George presents to the Emergency Department at The Northern Hospital. He is seen by a multidisciplinary team who work together to ensure George's diagnosis leads to the most appropriate and timely treatment. This team works within a novel chronic disease model which has been developed with university partners to examine where we can develop positive change in process and programs to save time and money and improve the delivery of healthcare for the region. By having respiratory and cardiac specialists working together with nursing and allied health staff, ways to improve patient outcomes are being trialled.*

### Step 4 – Learning from research is quickly, consistently and systematically used to improve clinical services.

*After discharge George benefits from a regular call from a health care professional who is able to monitor his vital signs via an app on George's smart phone. Through Northern Health, George is participating in research that is testing technology which uploads his vitals daily, from the comfort of his own home. Northern Health partnerships is the mechanism by which good ideas that promote the welfare of patients like George, make their way into the working practice as soon as possible. By promoting ideas that have proven their worth, we can improve care for as many people like George as possible, right across our community.*





STRATEGIC THEMES

Integrated Education and Research

Organisational wide communication strategy to profile and promote all health research and education

Develop staff (clinical and non-clinical) to work together effectively in multi-professional teams

Innovative Learning

Expand community involvement in Northern Health education

Translational Research

Strengthen a culture of research-led clinical practice

Sustainable Business Models

Ensure education and research priorities are linked to annual business plans

Align education and research to National Standards together with best practice

Work with Northern Health board and the Department of Health to ensure that we continue to receive sufficient education and research funding

Provide effective governance, reporting channels and efficient use of resources

Develop and promote the simulation centre, as a leading centre for multi-purpose training

Foundation

Improve education and research through enhanced partnerships with tertiary institutions and industry

Collaborate across Northern Health and with other health services to expand access to specialised education and research activities

Provision of learning opportunities for rural partners

Work with universities to link curricula to capability requirements

Evaluate outcomes of formal education programs

Enhance the teaching skills of educators

Promote and support Northern Health lead research projects

Expand patient involvement in research and innovation

Expand community involvement in Northern Health research

Develop a culture that promotes the importance of translational research to the Northern community

Prioritise clinical education that improves the quality and safety of service delivery

Develop the simulation centre, as a leading centre for patient safety training

Phase I

Work with partners to progress the development of collaborative education and research at Northern Centre for Health Education & Research

Maximise on the job development by educating staff on practice based learning

Collaborate with other health services to expand access to specialised education activity

Northern Centre for Health Education and Research leading health service research for the northern region of Victoria

Work in collaboration with our partners to maximise opportunities for education and research

Phase 2



# Introduction

Northern Health aims to deliver outstanding health care by developing the services and pathways our community needs. We will become a major university teaching health service, embedding the best education and research practices and cultivating a community of staff, patients and families who work together. The development of a Northern Health Education and Research Plan is central to realising this strategic vision and mission.

Northern Health provides care to a growing, diverse and complex community through acute, subacute and ambulatory specialist services. Melbourne's north is one of the nation's fastest growing regions, which will see a forecast growth of 76 per cent to over 590,000 people by 2023. Our population aligns closely with the Department of Health's Outer North West planning area which covers Hume, Whittlesea and Mitchell. Population health data for these areas show on average a younger, more socially disadvantaged population with higher unemployment than any other community in Victoria. It is extremely diverse, representing over 126 countries by birth, and is characterised by a range of unique features that create significant challenges for health service provision:

- Higher than average numbers of births, younger people and older people.
- The highest number of Aboriginal and Torres Strait Islander people in a metropolitan region.
- Over 118 languages spoken, with a high proportion of residents with low English proficiency.
- High concentration of socio-economic disadvantage.

As the major provider of health services in this diverse and complex growth corridor, Northern Health is committed to meeting the future needs of our community. To deliver on this commitment, Northern Health has embarked on a transformational journey to develop new and innovative patient care models whilst building and supporting a skilled and capable workforce. A key element of this transformation has been the developing partnerships with The University of Melbourne and La Trobe University to commission the Northern Centre for Health Education & Research.

The Northern Centre for Health Education & Research will be central in promoting collaboration across education and research whilst improving outcomes for patients by promoting new translational research and safe service delivery.

This partnership between Northern Health, The University of Melbourne and La Trobe University is based on the following principles:

- Value and support education and research as a central driver of patient centred care and pivotal to health service delivery.
- Better match resources to demand, by rethinking the traditional operating models of research and education.
- Ensure current and future staff have access to a wide range of quality education, simulation and research opportunities.

Northern Health's transformational journey together with the commissioning of the Northern Centre for Health Education & Research provides the catalyst for Northern Health to develop a new approach to education and research. The focus of this plan will be to translate cutting edge research, education and innovation into measureable health gains responsive to the population needs now and into the future.





# Current State

Northern Health has a long established engagement with education and research, both for our 4,000 strong workforce and through a connection to education providers as a teaching hospital. Northern Health's current education and research approach does not, however, provide enough opportunities for clinical staff to engage in research and specialist training which impacts on our ability to attract and retain staff.

In addition, our historical discipline based programs offer limited interprofessional learning opportunities. Also lacking is translational research, as there is a current focus on individual clinician, and university led areas of interest. These factors mean that we are not optimising the delivery and quality of patient care outcomes.

Current research topics do not translate into measurable outcomes for our community (see Appendix 2, 3 and 4). These include a large variety of research projects funded primarily by the Northern Health Foundation. Also, Small Grants Programs are not aligned with the current population health data (see Appendix 1).

The following areas are identified as key factors contributing to the current state:

## Education

- Education is siloed by professional groups which perpetuates a fragmented approach to patient care.
- There is a lack of consistency in education systems, standards and organisational practices which support organisational wide clinical education.
- A framework for interprofessional education has been developed where students of more than one professional group are collaboratively engaged in the development of attitudes, knowledge and skills in a clinical setting. Education systems suffer from the absence of a well integrated, purpose designed management to coordinate and further embed these.
- Annually Northern Health places 150 medical students and approximately 25,000 nursing, midwifery and allied health placement days. Each nursing and midwifery student is placed for between 5 and 40 days which would see at any one time:
  - o 70-100 students at The Northern Hospital
  - o 1 - 3 students at Craigieburn Health Service
  - o 15-18 students at Bundoora Extended Care Centre
  - o 15-18 students at Broadmeadows Health Service
- A reliance on partnerships with other providers across Melbourne to meet specialist training needs reduces our attractiveness for advanced trainee and junior consultant level staff. Education Providers include (with current year to date student numbers):

o La Trobe University (495)	o Charles Sturt University (7)
o RMIT University (300)	o Holmesglen (4)
o Victoria University (159)	o Care Training Australia Pty Ltd (3)
o Australian Catholic University (137)	o Navitas Health Skills Australia (3)
o Deakin University (59)	o Australian Nursing and Midwifery Federation (2)
o Goulburn Ovens Institute of TAFE (52)	o Mayfield Education Inc (2)
o Charles Darwin University (37)	o Federation University Australia (1)
o University of Melbourne (32)	o University of South Australia (1)

## Research

- We lack an organisational shared research agenda. This is needed to unite academic partners with a common research strategy which is relevant to Northern Health. All staff need to understand the importance of research to inform safe health practices and care delivery.
- A lack of sub-specialty training programs and quality clinical training results in a high number of junior doctors and multiple visiting medical officers. This reduces continuity of medical staff at Northern Health needed to lead research projects. The need in the community for generalist training should be looked on as a positive for Northern Health which could develop a particular expertise in 'generalism.'
- The research strategic plan needs to remain flexible and be aligned with the health needs of the community.
- Northern Health has not fully utilised statisticians and other university partner support disciplines, to better understand the population we serve. This means we have limited understanding of the population health data needed to improve the quality and equity of health care.
- There is a need to provide greater governance oversight and develop applicable Northern Health research structures and processes including:
  - o The Ethics Committee needs to be supported in terms of membership and members required to undertake specific ethics training. Best practice suggests that this committee does not fulfil minimum standards around training, membership and attendance.
  - o Processes need to be 'best practice' with an emphasis on collaboration with other health care organisations.
  - o Membership on the Human Research Ethics Committee is low and has limited clinician expertise. This draws out the process required to gain ethics approval. There is also a lack of scientific expertise from this committee.
  - o There is a lack of interaction with other research offices to allow for mutual ethics approval/agreements. This affects our ability to engage efficiently in multicentre studies.

## Governance and Structures

- There is an absence of robust governance structures to support organisational wide education and research approaches.
- There is a misalignment of resources and demands, with no coordinated financial, staffing and resource management.
- The Research Governance Office needs to have clear accountabilities, systems and practices that are considered best practice.
- There are inadequate processes to engage with education providers, especially with regards to clinical placement. This leads to low efficiency and challenging relationships with potential partners.
- A variety of Special Purpose Funds exist across the education and research areas. There is, however, little oversight of these funds. This results in a challenging audit trail which heightens the risk of lost revenue and inefficiencies.

# Future State

The northern region of Melbourne will be a vastly different environment in 2020. There will be a significantly larger population living in new suburbs and working in new business centres. There will be older residents, more young families, a greater diversity of backgrounds, and many more people suffering from chronic and complex diseases.

Nationally the Australian health system is in the midst of a range of reforms which will significantly change how health care is delivered. Our strategic plan commits to these reforms. We are working towards the long term national goals of timely access to services, a highly efficient and productive system, improved preventative and primary care, and ultimately better health outcomes.

Research and education are major focuses across all campuses of Northern Health. The ongoing development of our workforce and the education of students and young professionals are crucial factors required to ensure Northern Health provides the latest evidence based care for our patients. We are committed to developing enthusiastic, educated, and committed staff for the future.

Northern Health is transforming patient care delivery models. Our education and research programs will need to adapt to support this shift. Evidence based and sustainable patient centred care programs need to be aimed at keeping our community healthy, and improving access to quality care.

The growth of speciality services and the development of Northern Health education and research activities are key strategies to ensure an appropriately skilled workforce is in place to meet the future needs of the community(Northern Health Strategic Plan 2013).

Substantial reform is required to address the lack of adequate governance, structure and sustainable business models to support an integrated model of education and research. The unaffordable escalation in health expenditure and the need to develop sustainable health services will requires more transparency and accountability across Northern Health. Effort is required to enhance workforce retention, particularly by offering our health workforce the opportunity to engage in lifelong learning, and to partake in research that supports local community health outcomes.

In seeking to create a plan which is more efficient, more sustainable, more equitable and more responsive to needs of the northern community, we will apply the following principles to drive education and research:

- Value and support of education and research as a central driver of patient centred care.
- Rethink the traditional operating models of education and research to better match resources to the demand for those resources.
- Ensure current and future staff have access to a wide range of quality education, simulation and research opportunities.
- Ensuring staff have access to a wide range of quality education, simulation and research opportunities.
- That advancing public education around best practice (and research to support evidence based approach) will improve the northern population health.

Northern Health is committed to responding to population health data. This data will inform our policies and programs to maintain, promote and protect the health of the people of the northern region of Victoria. This plan provides a framework, key themes, priorities and actions for the development of an organisation wide education and research plan.

Our aim is to transform data into high quality information and knowledge that translate directly into research projects and patient care best practice. We are committed to high quality and continuous improvement in all aspects of our health service.

Based on the analysis of the population within our community, the following themes will dominate the education and research agendas:

- Aged care
- Chronic disease
- Social determinants of health care
- Women's and children's health.

Increased capacity is needed to support the clinical training requirements as more undergraduate health students enter the system. Given the extensive clinical placements required as part of a health professional's training, expanded use of simulated learning environments is likely to be necessary. (HWA, 2014)

Success will be realised when our partners and Northern Health are working together through the Northern Health Centre for Research and Education to improve health programs for our community. To ensure this vision is achieved we have identified four strategic priorities which will be the focus of our work over the next five years.

## Strategic Priorities

### 1 Integrated research and education

Northern Health will develop an integrated approach to education and research for all health disciplines. This will drive patient centred care and is pivotal to health service delivery meeting the needs of the community. Our focus will be to ensure that staff have access to a wide range of quality education, simulation and research opportunities. Our integrated research and education teams will improve the translation of new findings into learning opportunities for the workforce. Interprofessional learning will enable less fragmented care through better working relationships modelled in the learning environment.

### 2 Innovative learning

Northern Health will create an environment to prepare and share skills, knowledge and values for practice within the health industry by utilising evidence based and world's best practice knowledge. Education for our workforce will focus on promoting, restoring and maintaining patient health through the transfer of the learner's behaviour, knowledge, understanding, values or skills. Students will have opportunities for learning designed to develop skills which are conducive to health care delivery across the whole patient journey (prevention to palliation). Multidisciplinary teams of clinicians will be working together in innovative learning environments focused on the whole patient journey.

### 3 Translational research

We will work with our partners to provide evidence based practice and best models of care across the patient journey to achieve optimal patient clinical outcomes.

Northern Health will also advance scientifically based research that secures the future health needs of the northern region of Victoria. Supported by population health data, this will translate into practical applications that improve health outcomes and wellbeing. Research will shift from a focus on hospitals and acute episodes of care to disease prevention. It will also bring care closer to the patient's home. More patients will participate in research, in particular clinical trials. Engagement in research will ensure that our staff are aware of its benefits.

### 4 Sustainable business models

Northern Health will develop sustainable business models to deliver improved health care and lower costs by organising education and research into commercially sound strategic units, matched to resource requirements of our learners and the community. By spending time understanding the customer value proposition, we will rethink traditional operating models and offer business models to help overcome hurdles to reach a solution and ensure it is delivered sustainably. Partnership networks will also be maintained to connect stakeholders and ensure that information can be shared so that sustainable, long term outcomes are supported.



# Vision

Through partnerships, Northern Health aspires to translate research, education and innovation into measurable health gains for our community.

# Mission

To develop an integrated education and research approach that will deliver innovative models and partnerships. This will attract students and build a highly skilled workforce capable of innovating and improving the way health services are delivered. We will do this by focusing on the following Strategic priorities.

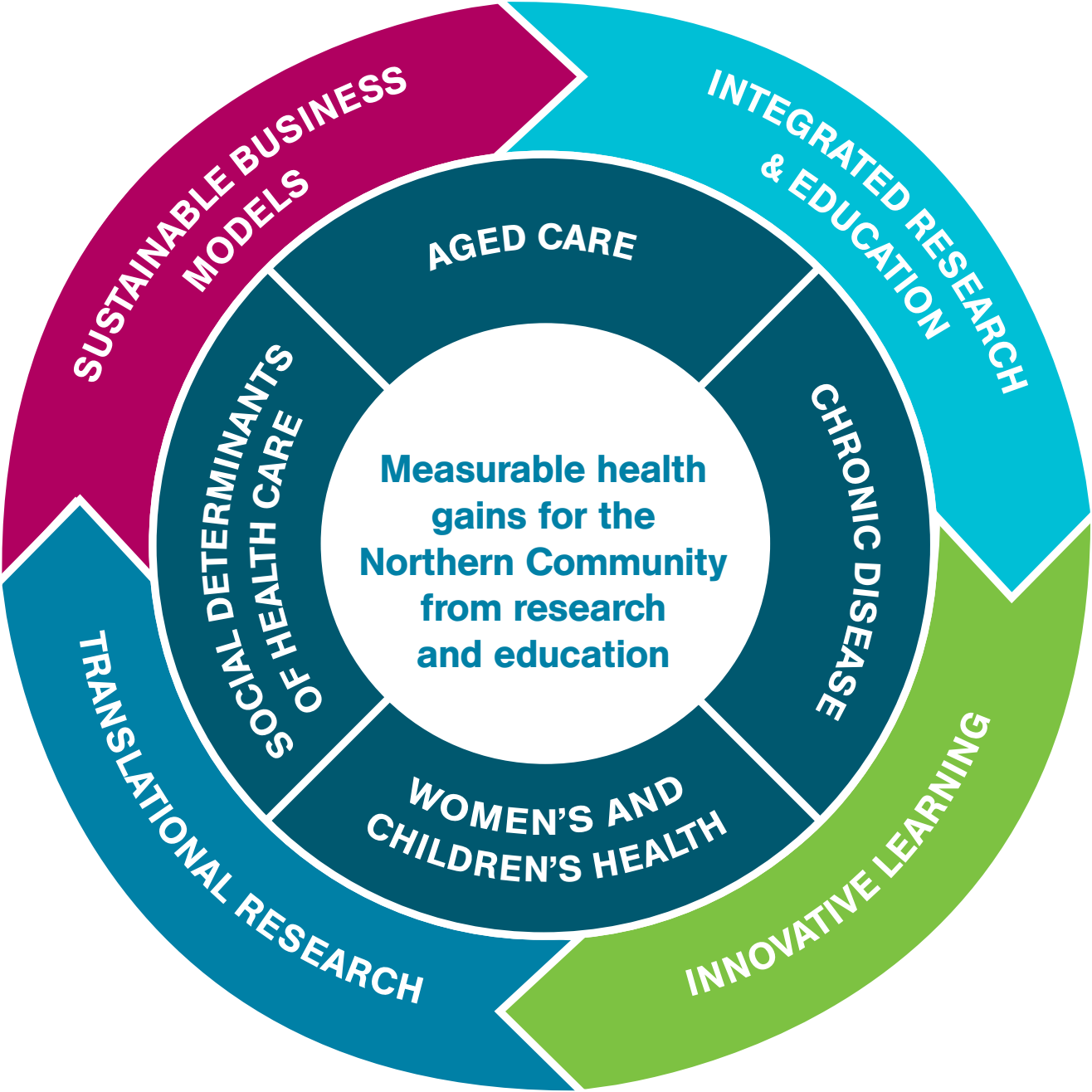




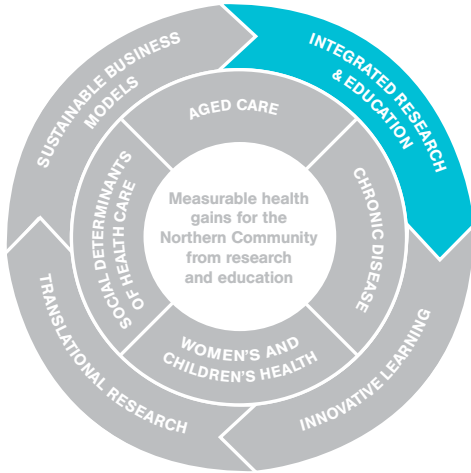
# Plan

## Strategic Priorities

The following plan outlines the specific actions we will undertake to achieve our objectives and deliver on our vision.



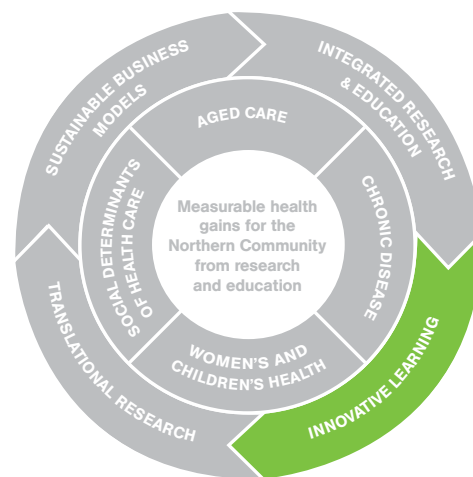
## Strategic Priority 1 - Integrate Education and Research



OBJECTIVE	KEY ACTION	OUTCOME
1.1 Organisational wide communication strategy to profile and promote all health research and education	<ul style="list-style-type: none"><li>Focus on evidence based education and research</li><li>Establish themes and teams to work within education and research</li></ul>	<ul style="list-style-type: none"><li>Greater communication around patient needs</li><li>Multidisciplinary forums are presented annually</li><li>Publication and promotion of work at Northern Health Research Week</li></ul>
1.2 Develop staff (clinical and non-clinical) to work together effectively in multi-professional teams	<ul style="list-style-type: none"><li>Implementation of interprofessional leadership frameworks within programs</li><li>Work with program directors on the development of local portfolios for multi-professional education and research opportunities</li><li>Provision of multi-professional training focussed on patient safety</li></ul>	<ul style="list-style-type: none"><li>Multi-professional leadership framework in use within the program</li><li>Accessible portfolio of training opportunities published for program directors</li><li>Accessible portfolio safety training</li><li>Service improvement training integrated into corporate training programs</li></ul>
1.3 Improve education and research through enhanced partnerships with tertiary institutions and industry	<ul style="list-style-type: none"><li>Expand multidisciplinary and interdisciplinary learning forums</li><li>Further develop structures for celebrating and communicating research activities, success/benefits</li></ul>	<ul style="list-style-type: none"><li>At least five interprofessional education programs are established</li><li>Take a more collaborative approach to education and research</li></ul>
1.4 Collaborate across Northern Health and with other health services to expand access to specialised education and research activities	<ul style="list-style-type: none"><li>Locate crossover points in education and research across education providers, multicentre studies, funding</li><li>Provide education to ensure staff have the skills to deliver high quality patient care/service</li></ul>	<ul style="list-style-type: none"><li>Outline a potential model for delivering integrated collaboration between various programs</li><li>Work with programs to develop education and research plans to meet service needs</li></ul>
1.5 Work with partners to progress the development of collaborative education and research at Northern Centre for Health Education & Research	<ul style="list-style-type: none"><li>Embed an interprofessional approach to education planning</li><li>Work with education and research partners to improve data management and linkages</li></ul>	<ul style="list-style-type: none"><li>Organisational wide education programs are delivered in partnership with tertiary institutions</li><li>Find opportunities to across each discipline to educate together at least once per semester</li></ul>

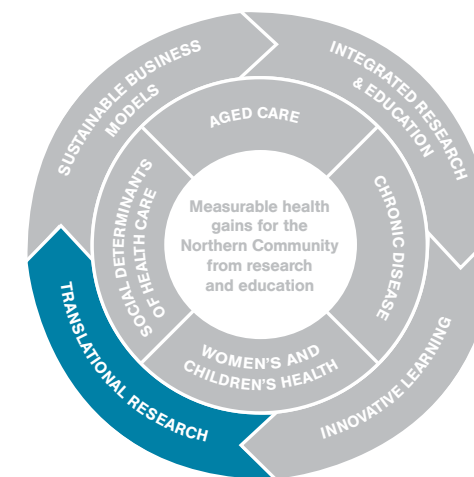


## Strategic Priority 2 - Innovative Learning



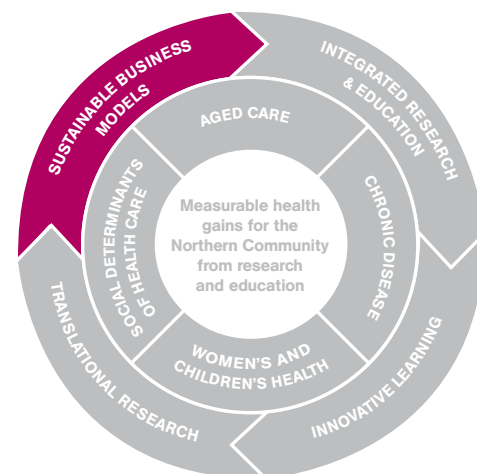
OBJECTIVE	KEY ACTION	OUTCOME
2.1 Expand community involvement in Northern Health education	<ul style="list-style-type: none"> <li>Involve patients and carers as educators</li> <li>Develop a strategy to increase participation by people from culturally diverse backgrounds</li> </ul>	<ul style="list-style-type: none"> <li>Community representative on education committees</li> <li>Patients are represented on Education and Research committees</li> </ul>
2.2 Provision of learning opportunities for rural partners	<ul style="list-style-type: none"> <li>Ensure the systems are in place to meet mandatory training requirements</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with The National Safety and Quality Health Service Standards</li> </ul>
2.3 Work with universities to link curricula to capability requirements	<ul style="list-style-type: none"> <li>Undertake a training needs analysis (annually)</li> <li>Establish learning theme networks for coordination and collaboration in teaching practice (reading groups, online seminars, workshops)</li> </ul>	<ul style="list-style-type: none"> <li>Participate in networks that support undergraduate curriculum development</li> <li>Develop high quality in-house education programs, supported by university partners</li> </ul>
2.4 Evaluate outcomes of formal education programs	<ul style="list-style-type: none"> <li>Develop health and cultural competencies around innovative education</li> <li>Respond to changes in staff availability and the shift to delivering care in the community</li> <li>Establish a clear process to embed learning from complaints and incidents in training programs</li> </ul>	<ul style="list-style-type: none"> <li>Baseline data has been collected to determine the number of innovative education mediums</li> <li>Number of programs that incorporate innovative education mediums increase by 10 per cent annually</li> <li>Training plans demonstrate inclusion of learning from complaints and incidents</li> </ul>
2.5 Enhance the teaching skills of educators	<ul style="list-style-type: none"> <li>Establish Health Education and Research Week to celebrate teaching and education excellence</li> </ul>	<ul style="list-style-type: none"> <li>Engage clinical champions aimed at integration of the education and research people and processes</li> </ul>
2.6 Maximise on the job development by educating staff on practice based learning	<ul style="list-style-type: none"> <li>Focus on evidence-based education</li> <li>Link staff learning and education to individual development and work plans</li> </ul>	<ul style="list-style-type: none"> <li>Annual practice-based learning forums are established</li> <li>A teaching skills program has been established</li> <li>Shared goal of supporting the health of our community</li> </ul>
2.7 Collaborate with other health services to expand access to specialised education activities	<ul style="list-style-type: none"> <li>Integrate simulated training mediums into learning activities</li> <li>Provide capability frameworks to enable the shift of care into community settings</li> </ul>	<ul style="list-style-type: none"> <li>Business cases for all new education programs demonstrate the evidence base</li> <li>Formal organisational wide education programs that are evaluated and altered to incorporate findings</li> </ul>

## Strategic Priority 3 - Translational Research



OBJECTIVE	KEY ACTION	OUTCOME
3.1 Strengthen a culture of research-led clinical practice	<ul style="list-style-type: none"> <li>Translate health care research into practice</li> </ul>	<ul style="list-style-type: none"> <li>Research design training program established</li> </ul>
3.2 Promote and support Northern Health lead research projects	<ul style="list-style-type: none"> <li>Establish multi-centre clinical research trials, led by Northern Health</li> </ul>	<ul style="list-style-type: none"> <li>In house commercialisation advisory group established</li> </ul>
3.3 Northern Centre for Health Education & Research leading health service research for the northern region of Victoria	<ul style="list-style-type: none"> <li>Create opportunities for research funding, targeted at our themes</li> <li>Set up the Northern Health Office for Research to facilitate research training programs</li> </ul>	<ul style="list-style-type: none"> <li>Increase in clinical trials by 10 per cent</li> <li>Increase joint publications</li> <li>Increase external presentations</li> <li>Staff participation in a research mentor program</li> </ul>
3.4 Expand patient involvement in research and innovation		
3.5 Expand community involvement in Northern Health research	<ul style="list-style-type: none"> <li>Review the role and management of research commercialisation</li> <li>Share and develop good practice in research across Northern Health</li> </ul>	<ul style="list-style-type: none"> <li>Community representative on education committees</li> <li>Changes of practice or policy implemented based on research evidence</li> </ul>
3.6 Work in collaboration with our partners to maximise opportunities for education and research		
3.7 Develop a culture that promotes the importance of translational research to the northern community	<ul style="list-style-type: none"> <li>Develop staff to ensure they have the appropriate qualifications and skills to provide support and research of the highest standards</li> <li>Recognise staff achievements within teams and through award ceremonies and celebration events</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate numbers of supervisors and mentors achieving designated research projects as evidenced through data base metrics</li> <li>Metrics for attendance at training for supervisors and mentors</li> <li>Accessible examples of good research practice and evidence of sharing through forums, meetings and events</li> </ul>

## Strategic Priority 4 - Sustainable Business models



OBJECTIVE	KEY ACTION	OUTCOME
4.1 Ensure education and research priorities are linked to annual business plans	<ul style="list-style-type: none"> <li>Develop central education and research teams to support education and research delivery</li> </ul>	<ul style="list-style-type: none"> <li>Clear structure for education and research</li> </ul>
4.2 Prioritise clinical education that improves the quality and safety of service delivery	<ul style="list-style-type: none"> <li>Link Education and research priorities to actual business plans</li> <li>Consolidation of programs to maximise expenditure on direct programs</li> </ul>	<ul style="list-style-type: none"> <li>Formal quality and safety initiatives outlined and education/research plans developed to support implementation</li> <li>Make best use of education funding and source best quality, contemporary education and research provision</li> </ul>
4.3 Provide effective governance, reporting channels and efficient use of resources	<ul style="list-style-type: none"> <li>Set up Ethics and Clinical Trials business case</li> <li>Set up Simulation business case</li> </ul>	<ul style="list-style-type: none"> <li>Develop organisational structure to enable and embed good education and research governance</li> </ul>
4.4 Align education and research to National Standards together with best practice	<ul style="list-style-type: none"> <li>Develop departmental based education and research KPI into business plans</li> </ul>	<ul style="list-style-type: none"> <li>A link to the business plan is identified in all education and research program business cases</li> </ul>
4.5 Develop and promote the simulation centre, as a leading centre for multi-purpose training	<ul style="list-style-type: none"> <li>Increase the number and range of interprofessional simulation training events within the simulation centre and within clinical settings where appropriate</li> </ul>	<ul style="list-style-type: none"> <li>Metrics on staff participation in training events in the simulation centre and in the clinical setting</li> </ul>
4.6 Develop the simulation centre, as a leading centre for patient safety training	<ul style="list-style-type: none"> <li>Achieve a credible academic profile for the simulation centre</li> <li>Publish training opportunities as part of comprehensive patient safety training plan</li> </ul>	<ul style="list-style-type: none"> <li>Achievement of national accreditation</li> <li>Availability and update of training published in training plan</li> <li>Metrics on availability of training events and attendance</li> </ul>
4.7 Work with the Northern Health Board and the Department of Health to ensure that we continue to receive sufficient education and research funding	<ul style="list-style-type: none"> <li>Influence Department of Health in its education and research decision making and allocation of resources for education and research</li> <li>Take the lead of education and research best practice</li> </ul>	<ul style="list-style-type: none"> <li>Regular reports to the board and Department of Health</li> <li>Evidence of effective process for raising issues of concern and feedback for decisions</li> <li>Evidence of output from identified collaborative projects</li> </ul>

## Appendix

Appendix 1 – Population Health Data, current as at November 2014

ITEM	DATA YEAR	HUME	WHITTLESEA	VICTORIA
<b>GENERAL</b>				
Life expectancy: Male / Female	2008	79.5 / 83	80.2 / 84.6	80.3 / 84.4
Estimated current smokers (>18 years) 2011-13 (ASR per 100)	2011-13	20.6	19.1	18.3
Percentage of self-reported asthma	2008	12.8	7.8	10.7
Percentage of self-reported type 2 diabetes	2008	8.5	7.1	4.8
ACSC admission rate per 1,000 population	2011-12	32	35.2	31.9
Bowel cancer screening	2011-12	31.8	32.5	37.1
Estimated population with COPD (ASR per 100)	2011-13	1.9	1.7	1.9
Estimated population with Hypertension (ASR per 100)	2011-13	10.5	10.4	10
Avoidable deaths due to Respiratory Diseases (per 100,000 0-74 years)	2003-2007	9.5	7.4	8.4
Avoidable deaths due to Cardiovascular Disease (per 100,000 0-74 years)	2003-2007	42.8	36.8	39.8
Avoidable deaths due to cancer (per 100,000 0-74 years)	2003-2007	64	60.2	61.4
<b>WOMEN'S HEALTH</b>				
Birth rate (per 1,000)	2011	2.05	1.89	1.79
Teenage Birth rate (per 1,000)	2011	10.3	10.1	7.3 (Melbourne average)
Percentage of sexually active adolescent females who don't use contraception	2011	23.1	10.9	21.1
Pap screening participation rate percentage	2011-12	53.6	55.3	60
Breast cancer screening	2010-11	52.8	51	54.7



# Appendix

Appendix 1 – Population Health Data, current as at November 2014

ITEM	DATA YEAR	HUME	WHITTLESEA	VICTORIA
CHILDREN'S HEALTH				
Percentage of developmentally vulnerable children (on two or more domains)	2009	16.4	10.8	10
Physical health and well-being developmentally at risk	2009	14.2	10.6	11.7
Child Mortality (1-4 years) (Annual rate per 100,000 2008-2012)	2008-2012	25.3	28.8	16.8

SOCIAL DETERMINANTS OF HEALTH				
SEIFA score (based on Australian score of 1000)	2011	952	989	1010
Education Participation percentage (at age 16)	2011	77.3	80.7	81.8
Participation in Vocational Education and Training (ASR per 100)	2012	15.4	11.0	11.1
Percentage of single parent families with children aged < 15 years	2011	20.1	18.1	19.6
Percentage of jobless families with children aged < 15 years	2011	19.9	13.8	12.3
Unemployment rates	2013	7.0	8.0	5.6
Age pensioners (percentage of all people >65 years)	2013	80.7	81.6	70.9
Disability support pensioners (percentage of people aged 16-64 years)	2013	6.8	5.9	5.3
Percentage of people aged 16-64 years receiving unemployment benefits	2013	7.2	5	4.9
Percentage of health care cardholders	2013	11.6	9.1	8.6
Percentage of mortgage stress	2011	18.6	15.4	11.4
Percentage of rental stress	2011	33.4	29.8	25.1
Percentage of households receiving rent assistance	2011	19.5	17.5	15.7
Private health insurance rates (ASR per 100)	2007-08	37.7	39.1	47.9

\*Add note re: SEIFA

**ASR = Age Standardised Rate:** The rates presented are indirectly standardised. Indirectly standardised rates compare the actual number of events in an area (eg the LGA of Bankstown) with the expected number of events based on rates of a reference population (eg Australia), generally based on the five-year age group data in this reference population. The standardised ratios are the ratio of the observed (actual) to expected number of events. The observed figures comes from the local area, and the expected from applying the rate in the reference population to the local population.

**SEIFA Index of Relative Socio-economic Disadvantage:** Socio-Economic Indexes for Areas (commonly known by its acronym, SEIFA) is a product that enables the assessment of the welfare of Australian communities. The Index of Relative Socio-economic Disadvantage (IRSD) is a general socio-economic index that summarises a range of information about the economic and social conditions of people and households within an area. Unlike the other indexes, this index includes only measures of relative disadvantage. A low score indicates relatively greater disadvantage in general. For example, an area could have a low score if there are, among other things, many households with low income, many people with no qualifications, or many people in low skill occupations.

A high score indicates a relative lack of disadvantage in general. For example, an area may have a high score if there are, among other things, few households with low incomes, few people with no qualifications, and few people in low skilled occupations.

Green data sourced from:  
Victorian Department of Health Community Profiles (2012)

Yellow data sourced from:  
Social Health Atlas 2014, collated by the Public Health Information Development Unit, The University of Adelaide.

Pink data sourced from:  
Women's Health In the North 'Going South in the North: A snapshot of the sexual and reproductive health status of women living in Melbourne's northern metropolitan region.' report (2014).



# Appendix

Appendix 2 – 2014 Audit Applications received from Low Risk Ethics

Multidisciplinary Involvement in a Hospital Medication Management Plan.
Identification of adverse events of patients undergoing Primary Percutaneous Coronary Interventions where pre-procedural fasting has been omitted: A retrospective multi-site medical record audit
Enhancing Quality Care: Implementation of a 2-Tier Patient Escalation System and a Track and Trigger Observation Chart into an Acute Healthcare Setting. Impact on Care and Lessons Learned
The effect of implementing a new guideline and operative pro forma on the detection and management of third and fourth degree perineal tears.
NaURSE scoring system to predict in-hospital mortality in oldest-old patients at The Northern Hospital
Caesarean Sections - Improving Patient Service, Booking and Theatre Utilisation
Induction of Labour in the Compromised Fetus - Catheter versus Prostaglandin on Caesarean Section & Neonatal Outcomes
a) Management of proximal humeral fractures in the elderly (≥65 years of age) b) Functional outcomes of complex humeral fractures in the elderly
Evaluation of the readmission after early discharge of healthy term and near- term neonates at The Northern Hospital (TNH).
Retrospective Audit of causes of early return to theatre post fracture fixation.
Audit of nutrition practices in ICU, Surgical and Oncology Patients
Management of small bowel obstruction: Comparison of early and delayed surgical intervention
Falls Prevention for Medical Inpatient's Using Lean Techniques
Audit of Audit of dietetic practices across Northern Health (NH) inpatient services in comparison to the Northern Health 2012 Clinical Practice Guidelines for the Nutritional Management of Pressure Injuries.
Assessment of the rate of ward based referrals to dietetics for patients with pressure injuries.
An Effective and Safe Alternative To Colonic Lavage in Colorectal Surgery
Obstetric outcomes in Super Obese Women
Prescribing Evidence-based Medicine in Chronic Heart Failure: A Physician- Targeted Intervention
Posterior Circulation Stroke & Syncope
Type of wound closure after total knee arthroplasty. A Retrospective Study
Outcomes of CPAP in a level 2 SCN

# Appendix

Appendix 3 – 2014 Low Risk Ethics applications

Predicting Survival Post Cardiac Arrest
The impact of kinesiophobia (i.e. fear of movement) and catastrophising (i.e. a negative response to pain) on foot pain and foot function in people with plantar heel pain
Incident delirium in acute general medical settings
ICANDO New Service, New Team Approach to a Home Dialysis Challenge
Implementation of an evidence based simulated learning Resources with occupation therapy students: A pilot study
The development of an evidence based discharge identification tool to improve hospital discharge practices for people with dementia and their family
Evaluating the Guardian CPVTM Supraglottic Airway Device in a Clinical Setting
Retrospective Data Review and Pilot of Telemedicine in Gestational Diabetes Mellitus
Ideal Positioning of elevated-rim acetabula liners in primary total hip replacements
The development of a standardised speech pathology in-servicing schedule for nursing staff
Management of Post Cardiac Arrest Patients
Investigating Practices for the management of Malnutrition in Cancer Patients
Sustaining quality improvement s to uphold best practice in neonatal care after accreditation
Pneumocystis jirovecii pneumonia in solid organ cancer patients
Development of a Falls pathway to improve the access of service for those experience falls and balance issues
The standard patient, can we identify them early to reduce length of stay?
Preliminary evaluation of grade 1 speech therapy skills sets
Early active mobilisation following two strand flexor tendon repairs of the hand- A retrospective review.
Recurrent CBD Stones as a late complication of endoscopic sphincterotomy
Quality Project: Barriers to meal consumption and plate wastage at TNH.
The Development and evaluation of group exercise and education program for management of knee osteoarthritis
Evaluating the role of the Geriatric Evaluation and Management Unit in the care of elderly patients with cancer
Part 1 Patient Rounding and Falls Prevention – Part 1 Audit
Surgical Audit Ethics Application
HWA Embedding Simulation Training into Physiotherapy Training
Northern Health Malnutrition Project Malnutrition Literacy and Identification Practices
Expiratory Muscle Strength Training (EMST) for dysphagia rehabilitation in Parkinson's disease in the community setting.



# Appendix

## Appendix 4 – 2014 Small Grants Applications

Telemedicine in Insulin Treated Gestational Diabetes Mellitus
Post Resuscitation Management of Cardiac Arrest Patients in the Critical Care Environment: A Retrospective Audit of Compliance with Evidence Based Guidelines.
Recurrent CBD Stones as a Late Complication of Endoscopic Sphincterotomy (ES)
Does Integration of simulation into traditional podiatry clinical placements improve student skills and confidence in conservative sharps debridement compared to a traditional placement only : a pilot randomised control trial
Cellular and Microbiological Characterisation of Implant Biofilms
Using Expiratory Muscle Strength Training (EMST) for dysphagia rehabilitation in Parkinson's disease in the community setting'
Characteristics of family presence for deteriorating adult patients within the Emergency Department
Do Patients presenting to the Emergency Department with acute low back pain have different short term outcomes if seen by Advanced Musculoskeletal Physiotherapists?
Northern Health Malnutrition Project: Malnutrition Literacy and Identification Practices
Managing diabetes during Ramadan: perceptions of women with previous gestational diabetes during Ramadan
Hand Based Splinting for Finger Flexor Tendon Injuries (Zones 1 and 2)
Melatonin and Light Therapy for circadian rhythm disturbance in patients with dementia in a sub acute environment
A Strategy for the safe adoption of advances in patient care: a translation study. Does remote ischaemic conditioning improve outcomes of patients presenting with STEACS or ischaemic stroke admitted via the Emergency Department: a randomised trial
Investigating the effectiveness of 360 degrees (multi-source) feedback to facilitate Senior Medical Staff performance review
What is the health literacy of patient attending Northern Health renal dialysis and is there an correlation between current education and service delivery methods and improvements in health literacy over time.
Translation and evaluation of OT orthopaedic pre admission DVD education package for Non-English Speaking Background (NESB) patients
Does a hospital out-patient modified group cognitive behavioural therapy (CBT) program for adults with clinically significant symptoms of anxiety and depression improve symptoms and quality of life? A pilot study.
Knee kinematics in patellofemoral dislocation patients
Ankle vs Toe Pressures: in a patient with a foot ulcer, when is arterial supply maximised following revascularisation procedures?
Exercise and diet to reduce risk factors for people with metabolic syndrome

