

NORTHERN NSW LOCAL HEALTH DISTRICT RESEARCH STRATEGIC PLAN

2019-2024



CONTENTS

FOREWORD	3
PROFILE OF NORTHERN NSW LHD	4
<i>Overview</i>	4
<i>Current population and projected growth</i>	5
<i>Socioeconomic diversity</i>	6
<i>Health of the region</i>	6
PURPOSE	10
SCOPE	12
RESEARCH STRATEGIC PLAN TABLE OF GOALS	13

FOREWORD

This is the first Research Strategic Plan of the Northern NSW Local Health District (LHD), which has been developed under the guidance of the Research Strategic Advisory Committee and the Northern NSW LHD Board, involving extensive consultation with Executive and senior staff throughout the organisation.

Northern NSW LHD is committed to embedding research into practice in collaboration with patients and our partner organisations. We recognise that research enhances our ability to improve outcomes for patients by providing safer, more effective and efficient services. Research also enriches the workforce by creating opportunities for career development, as well as increasing clinician engagement and critical thinking.

As a large and geographically dispersed regional LHD, our research activity is starting from a position of limited capacity and infrastructure. Accordingly, this research strategy focuses on developing the building blocks for research capacity by creating a culture of research awareness, building collaborations and partnerships, and planning for future growth.

The LHD has invested in a Director of Research who, with the support of the Strategic Research Advisory Committee and Executive, is driving the research strategy. The early focus of the strategy will be on creating a dynamic environment to support research; establishing research priorities; building staff skills and capability to undertake research; and creating relationships with key organisations including universities, health providers and patients to ensure that the research has relevance to and is translated into practice.

The plan will support Northern NSW LHD in its goal of being a research active organisation, where staff are engaged in research that solves local problems while aligning with state and national priorities.



Professor Susan Nancarrow
Chair, Research Strategic Advisory Committee

PROFILE OF NORTHERN NSW LHD

Overview

Northern NSW LHD covers a wide geographical area, spanning from Tweed Region in the North, to Urbenville in the West, and Grafton Region in the South (Figure 1). The LHD provides high quality health services across the entire region through numerous facilities including hospitals, community health centres, and Multipurpose Services. Within its boundaries, Northern NSW LHD fully includes 7 Local Government Areas (LGAs), and also partially includes one other (Tenterfield). Table 1 displays the LGAs within the Northern NSW LHD footprint, and their Estimated Residential Populations (ERP) as on 30 June 2015.

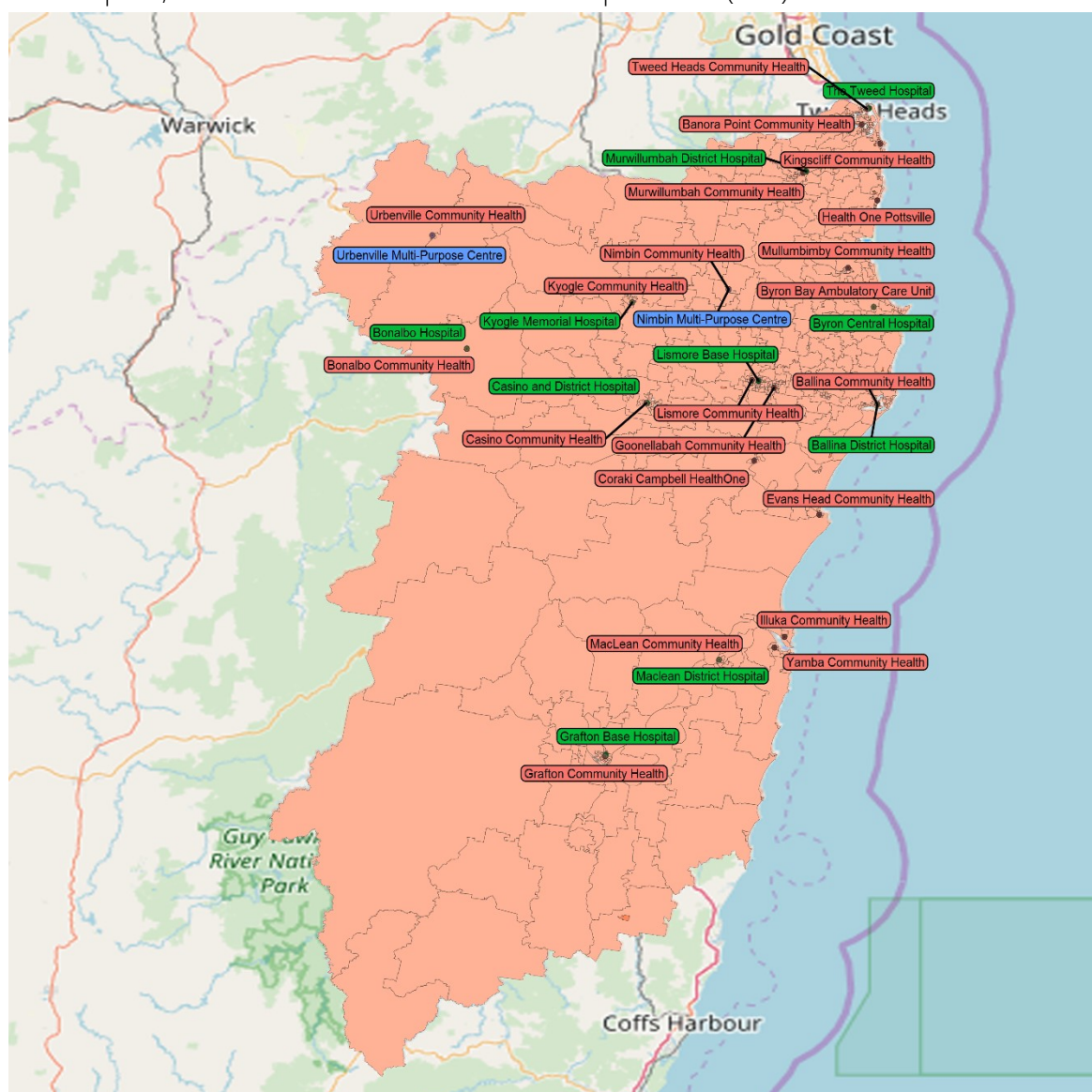


Figure 1: Map of Northern NSW LHD region with health facilities overlaid. Shaded areas represent Statistical Areas Level 1 (SA1) that fall either entirely or partially within the boundaries of the LHD. SA1 is part of the Australian Bureau of Statistics Australian Statistical Geography Standard, and aggregate to form SA2, which represent areas that interact socially and economically.¹

Table 1: Estimated Residential Populations (ERP) at 30 June 2015 for Northern NSW Local Government Areas (LGAs).

LGA	ERP
Ballina	41,847
Byron	32,718
Clarence Valley	50,832
Kyogle	9,526
Lismore	44,740
Richmond Valley	23,179
Tenterfield*	6,986
Tweed	92,460

* Concordance mapping indicates that 7% of the population of Tenterfield LGA falls within the boundaries of Northern NSW LHD

Current population and projected growth

The total ERP for Northern NSW LHD as on 30 June 2015 was 295,780. This included a sizeable proportion aged 65 years and above, at 21.3%, which are major contributors to emergency department presentations and hospitalisations each year.² By 2036, the population for the region is projected to be 344,060 (absolute increase of 48,279; relative increase of 16.3%), with the proportion of residents aged 65 years and above anticipated to increase to 29.8% (absolute increase of 39,527; relative increase of 62.7%), outpacing the projected growth of all younger age brackets (Figure 2). This suggests that over 80% of the projected population growth in the region will be accounted for by people aged 65 years and above.

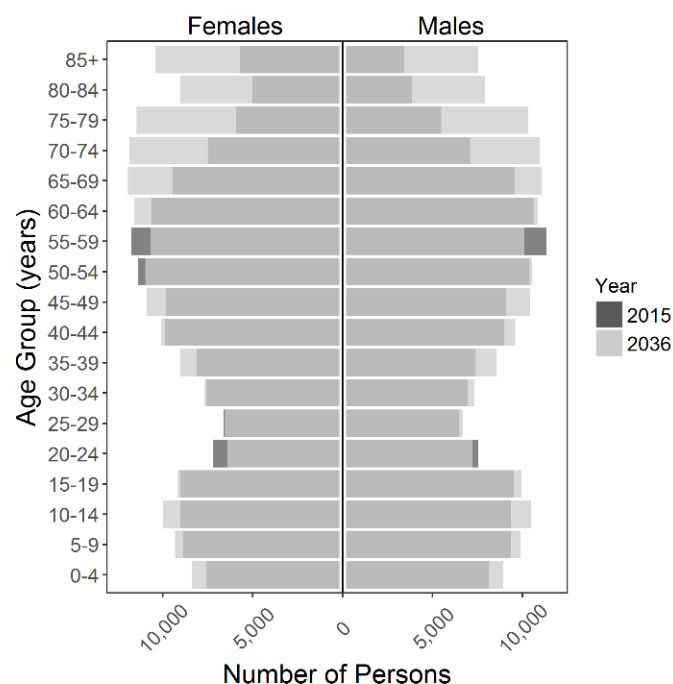


Figure 2: Population pyramid for Northern NSW LHD. ERPs as on 30 June 2015 (dark shade) and 2036 projected populations (light shade) by age group for females and males.

Socioeconomic diversity

Northern NSW LHD, in addition to being geographically diverse, is socioeconomically diverse. Area-level measures of socioeconomic status, based on the Australian Bureau of Statistics (ABS) Socio-Economic Indexes for Areas (SEIFA) assigned at SA1, indicate that residents reside in a spectrum of socioeconomic areas, including areas of generally high socioeconomic status, such as Lennox Head and Bangalow, and others of middle to low socioeconomic status such as Casino region and Grafton region (Figure 3).

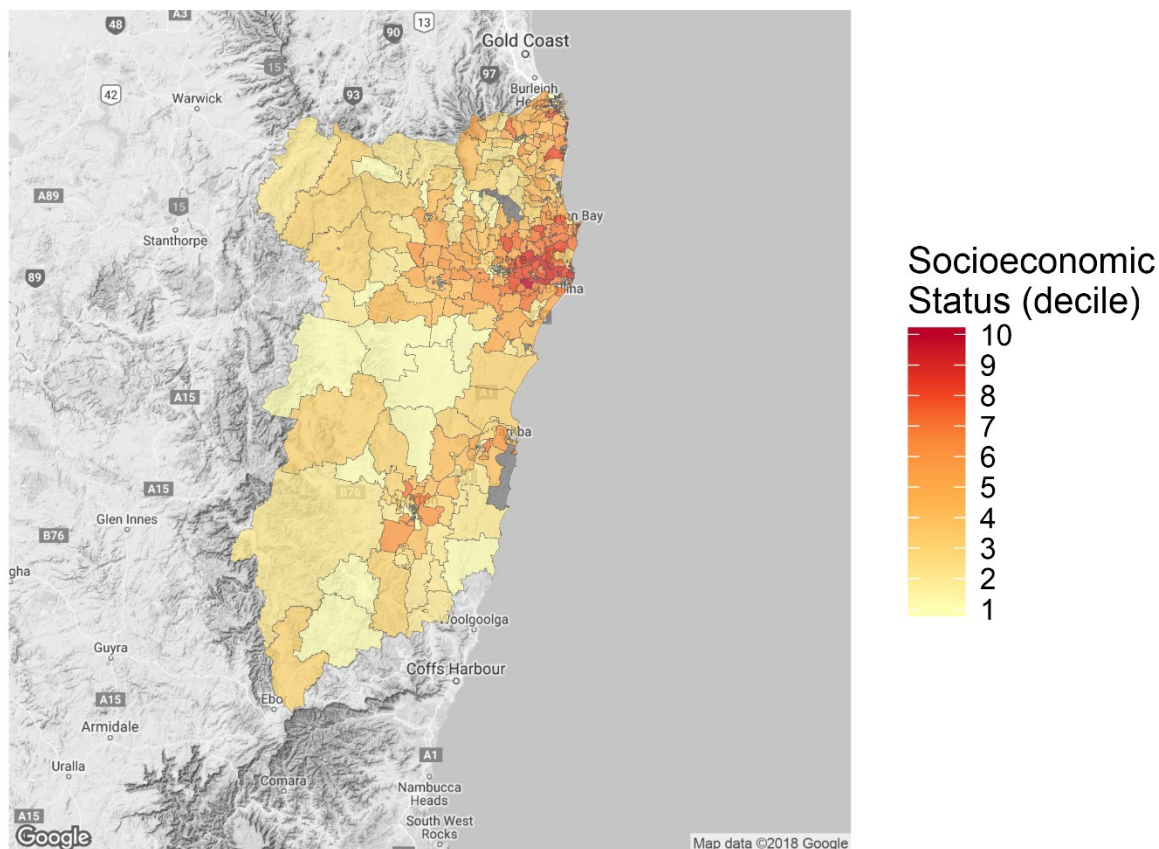


Figure 3: SA1-level socioeconomic status for Northern NSW LHD. Socioeconomic status (SES) decile, based on the ABS Index of Relative Socioeconomic Disadvantage (IRSD), are displayed by SA1 geography for Northern NSW LHD. Dark red indicates low IRSD (high SES) and light yellow indicates high IRSD (low SES).

Health of the region

Australia, in general, enjoys good health and is among the leading nations for life expectancy at birth and healthy life expectancy.^{3,4} However, there still exists considerable social inequalities in health, where people living in areas of higher socioeconomic disadvantage have lower life expectancy. The bulk of the differences in life expectancy are accounted for by increased risk of death from common causes.⁵ In Northern NSW LHD, residents also display social inequalities in health, as demonstrated by the following figures of hospitalisation by major physiological/body systems (Figure 4), Emergency Department presentations (Figure 5), and maternal and child health indicators (Figure 6).

Hospitalisations

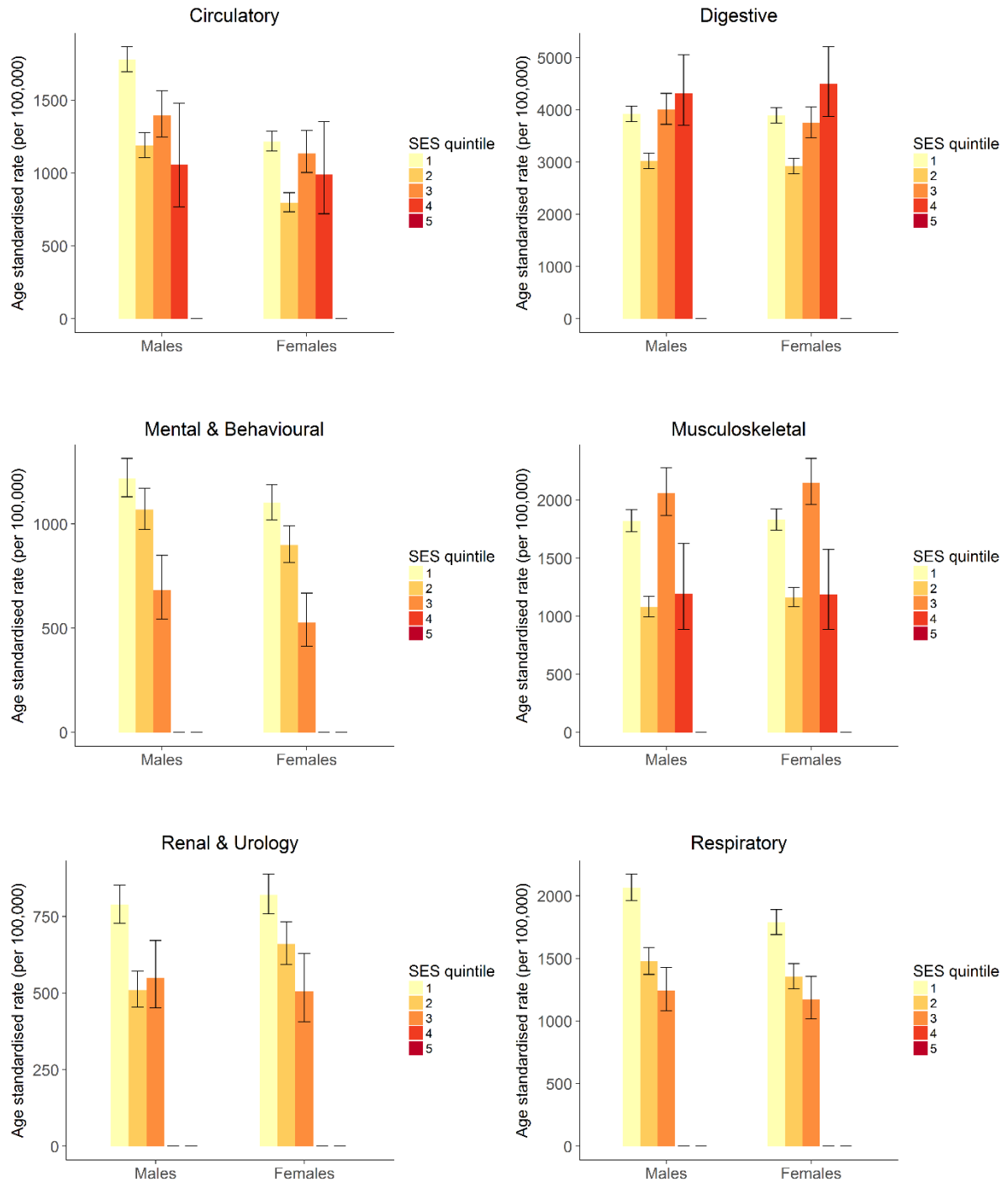


Figure 4: Age standardised hospitalisation rates (per 100,000). Rates are displayed for Circulatory (ICD-10-AM I00-I83 & I85-I99), Digestive (K00-K93), Mental & Behavioural (F00-F99), Musculoskeletal (M00-M99), Renal & Urology (N00-N39) and Respiratory (J00-J99) conditions by gender and SA2-level SES quintile.

Emergency department presentations

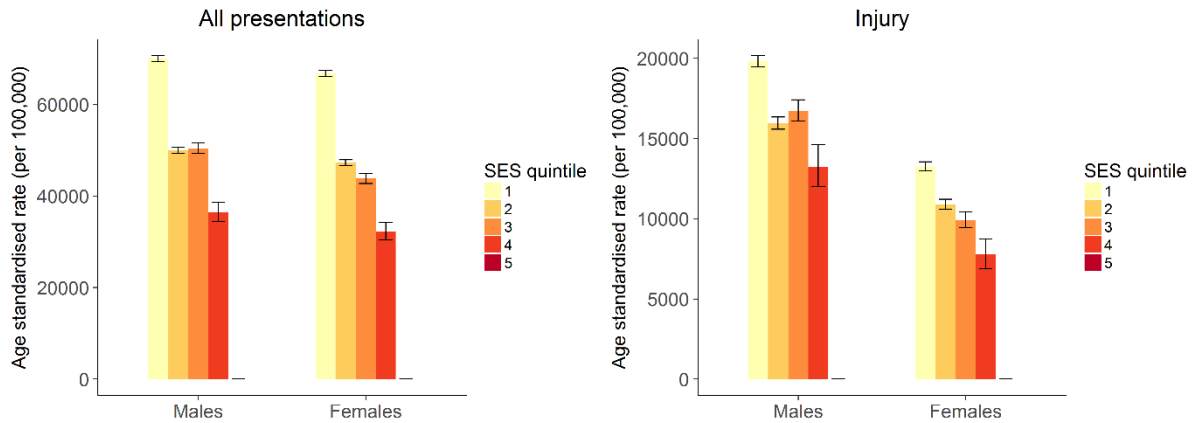


Figure 5: Age standardised rates of emergency department presentations (per 100,000). Rates are displayed for all-cause and injury presentations by gender and SA2-level SES quintile.

Perinatal data indicators[#]

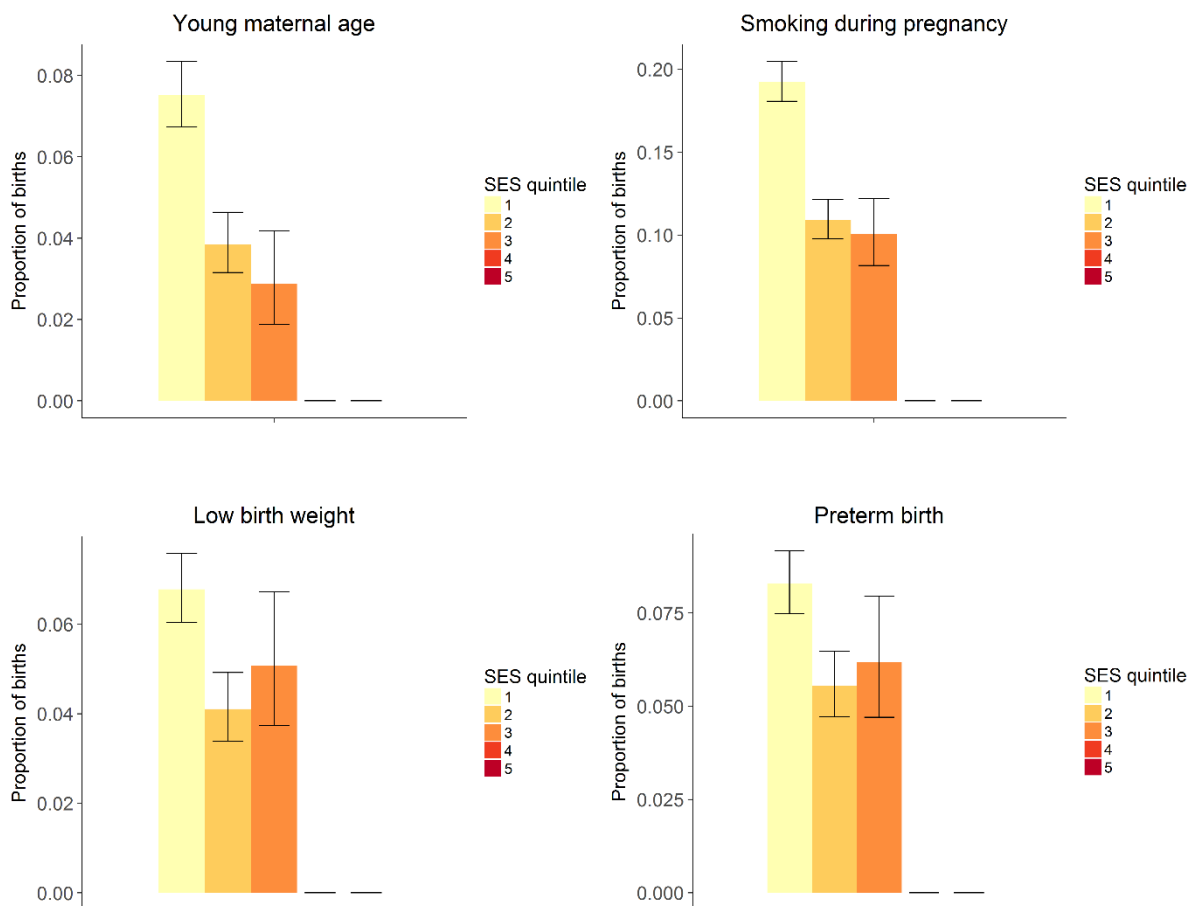


Figure 6: Risk factors of poor birth and infant health outcomes. Proportion of births from young mothers (age < 20 years), from mothers that smoked during pregnancy, with low birth weight (weight < 2500g) and that were preterm (< 37 weeks' gestation) by SA2-level SES quintile. [#]Estimates are based on 3 years of aggregated data (2013-2015).

Summary of figures

- Residents living in areas of higher socioeconomic disadvantage display higher rates of hospitalisation, including for circulatory, mental & behavioural, renal & urology, and respiratory conditions
- Standardised rates of emergency department presentations for all causes, and injuries, increase markedly with increasing socioeconomic disadvantage
- Mothers living in areas of higher socioeconomic disadvantage tend to be younger and have higher rates of smoking during pregnancy
- Babies born to mothers living in areas of higher socioeconomic disadvantage have higher likelihood of being delivered preterm and with low birth weight

PURPOSE

The strategic vision for research in Northern NSW LHD is to create an environment that fosters, promotes and empowers engagement in high quality research activities that is tailored and responsive to the needs of the community we service and the patients that use our health service. The power of research and the scientific method of enquiry will be harnessed for discovering ways to address some of the greatest health needs of the region, based both on burden (i.e. the absolute major contributors to poor health and mortality/early death) and inequalities (e.g. how can we best contribute to reductions in the health-status gaps between low and high socioeconomic groups). A key overarching aim of the plan is to embed high quality research into the LHD to improve the health care we deliver to the population we service, leading to better outcomes for our patients.

It is widely recognised that embedding high quality research in health services has many benefits.⁶⁻¹⁰ These include:

- Advancing knowledge of health and disease
- Identifying novel treatments and models of care
- Improving patient health outcomes and reducing mortality
- Building a culture of quality and excellence
- Reducing low-value care (waste) and adverse events
- Promoting more rapid uptake of new evidence and therapies
- Driving a culture of evidence-informed practice
- Providing a sense of contribution to improved care for other/future patients by clinicians and patients

In Australia, there is a clear directive to promote and embed high quality research in health services as evidenced by the recommendations of the “Strategic Review of Health and Medical Research in Australia – Better Health”, and the recognition of numerous “Centres” of advanced academic and health research capacity and translation standing (Advanced Health Research & Translation Centres and Centres for Innovation in Regional Health). It is hoped that the co-location of research closer to practice will increase the likelihood of translation, producing tangible outcomes from research investment.

The Northern NSW LHD Board and Executive Team recognise the importance and benefits of research, and the role the LHD has in contributing to and progressing the agenda to embed high quality research in health services. As an acknowledged priority area for the LHD, this document details the strategic vision for research in Northern NSW LHD, recognising the foundational level of the LHD in regards to research capacity and activity. Accordingly, the initial strategic vision has a strong focus on developing capacity, research

culture, LHD investigator-led research, partnerships and ongoing opportunities to build a research engaged and active organisation.

SCOPE

The plan focuses on developing capacity and strength in a number of key areas. These include:

1. Promoting a culture of research
2. Developing and growing research
3. Providing support and resources for research
4. Building skills in the entire workforce to use research effectively
5. Celebrating and recognising research achievements

This will be achieved via a number of strategies within broad objectives as outlined in the table below. Together with timeframes and performance indicators, these strategies inform the research strategic plan, and detail the tasks and timelines for achieving the vision of embedding high quality research in Northern NSW LHD.

RESEARCH STRATEGIC PLAN

Goal 1 – Promote a culture of research				
Establish a culture that values the role of research and actively promotes staff engagement in research				
Objectives	Strategies	Responsibility	Timeframe	Performance Indicators
Culture and integration	Establish a culture that encourages and permits the sharing of knowledge, expertise and skill among researchers and across departments	Director of Research, Heads of Departments, Clinical Directors, Senior Managers, Clinical Leaders	Medium	<ul style="list-style-type: none"> • Increase the number of LHD-led research projects • Develop research education material • Generate research report • Publish Research Strategic Plan
	Promote and communicate the importance and value of research	Director of Research, Heads of Departments, Clinical Directors, Senior Managers, Clinical Leaders	Short	
	Integrate research within clinical and health services	Heads of Departments, Clinical Directors, Senior Managers, Clinical Leaders	Medium	
Set a strategic vision	Establish formalised structures and key media (e.g. strategic research plan, research website) to communicate the vision and strategic approach to research in Northern NSW LHD	Director of Research, Research Steering Committee	Short	<ul style="list-style-type: none"> • Publish Research Strategic Plan • Develop research website • Establish and maintain research committees • Identify research priorities that align with organisational needs (e.g. the strategic risk register)
	Encourage and support research that align with Northern NSW LHD organisational priorities and strategic objectives	Director of Research, Heads of Departments, Clinical Directors, Senior Managers, LHD Executive	Medium	
	Develop strategies to implement research at an operational level (e.g. establishment of domain-specific research committees)	Director of Research, Heads of Departments, Clinical Directors, Senior Managers, LHD Executive	Medium	

Goal 2 – Develop and grow research				
Establish mechanisms and support structures to grow and develop research				
Objectives	Strategies	Responsibility	Timeframe	Performance Indicators
Embed and integrate research in health services	Actively discuss proposed research, encourage new research ideas and participation in clinical trials, and identify ways of translating research outcomes at departmental meetings	Heads of Departments, Clinical Directors, Senior Managers, Clinical Leaders	Medium	<ul style="list-style-type: none"> • Increase the number of LHD-led research projects • Increase the number of publications and presentations of LHD-led research projects
	Include research outcomes in departmental key performance indicators	Heads of Departments, Clinical Directors, Senior Managers, Clinical Leaders	Medium	
	Incorporate research as a core component of role descriptions and the recruitment process, as appropriate for the position	Health Service Managers, LHD Executive	Medium	
	Encourage and support the publication of findings in peer-reviewed journals and presentation of findings at scientific conferences	Director of Research, Heads of Departments, Clinical Directors, Senior Managers, Clinical Leaders	Short	
Promote and establish collaborations with key research partners	Collaborate with University and key research partners to develop locally led investigator research	Director of Research, LHD Executive, Senior Managers	Medium	<ul style="list-style-type: none"> • Establish and maintain ongoing relationships with University and research partners • Engage in the next consortium bid for recognition as a Centre for Innovation in Regional Health • Establish and appoint conjoint positions
	Engage and collaborate with Advanced Health Research and Translation Centres (AHRTCs) and Centres for Innovation and Regional Health (CIRH) on relevant projects	Director of Research, LHD Executive, Senior Managers	Medium	
	Establish conjoint appointments with University partners	Director of Research, LHD Executive, Senior Managers	Medium	

Engage in existing and emerging research schemes, and recognise contribution of research to evidence based, best practice	Promote and maximise use of existing and new research-related initiatives such as the Rural Research Capacity Building Program and the Translational Research Grant Scheme	Director of Research, LHD Executive, Senior Managers	Ongoing	<ul style="list-style-type: none"> • Promote and establish relevant research funding opportunities • Promote the use of research and research evidence for education and to inform current practice
	Establish a research foundation to support fundraising for research	Director of Research, LHD Executive, Research Steering Committee	Long term	
	Recognise the value of research activities as being a key contributor to the delivery of high quality, evidence-informed, best practice	Director of Research, LHD Executive, Senior Managers	Short	

Goal 3 – Provide support and resources for research				
Develop and establish ongoing resources to support research				
Objectives	Strategies	Responsibility	Timeframe	Performance Indicators
Provide support and resources for staff to engage in high-quality research	Develop an informative guideline for navigating research ethics and governance processes, including quality assurance and improvement activities	Director of Research, Research Ethics and Governance Coordinator	Medium	<ul style="list-style-type: none"> • Informative guideline for navigating research ethics and governance developed • Role descriptions drafted • Funding opportunities promoted • Website developed and content available for viewing • Access to research software provided
	Develop a range of generic role descriptions for research positions (e.g. Biostatistician, Research Officer, Data Manager) and appoint as required to meet needs	Director of Research	Medium	
	Develop a research website as a portal to access information on research resources and support	Director of Research	Short	
Develop funding opportunities and access to research software	Explore options for establishing funding to support staff conducting research, including research education scholarships, and to help back-fill positions	Director of Research, LHD Executive, Senior managers	Medium	
	Provide access to key research software (e.g. referencing, database management, surveys, statistical analysis)	Director of Research	Short	

Goal 4 – Build skills in the entire workforce to use research effectively				
Establish research education resources and promote attendance to research seminars and events				
Objectives	Strategies	Responsibility	Timeframe	Performance Indicators
Upskill our staff via research education and training	Establish a research education seminar series to provide basic training in research design and methods to promote research of high methodological standards and quality	Director of Research	Short	<ul style="list-style-type: none"> • Establish a research education seminar series • Develop collaborative research partnership model • Links to education pathways made available in website • Attendance to research seminars, events and conferences promoted
	Develop and establish a collaborative research scheme in partnership with key research partners to build research capacity	Director of Research, LHD Executive, Senior managers, research partners	Medium	
Promote continued learning and development, and engagement with research events	Partner with education providers to map higher degree research pathways and communicate to staff	Director of Research, Education partners	Short	
	Promote attendance to research seminars, events and conferences	Director of Research, LHD Executive, Senior managers, research partners	Short	

Goal 5 – Celebrate and recognise research achievements

Establish ongoing media to communicate and celebrate research

Objectives	Strategies	Responsibility	Timeframe	Performance Indicators
Share and celebrate research achievements within the District and key partner organisations	Develop a register of research that can be shared throughout the District and with University and research partners	Director of Research	Short	<ul style="list-style-type: none"> • Dynamic register established • Communicate research activity and achievements via website, research report, articles in Northern Exposure and District-wide emails
	Organise a Research Day and other seminars/events aimed at encouraging Northern NSW LHD and partner organisation researchers to showcase their work	Director of Research, LHD Executive, Senior managers, research partners	Medium	
Communicate research activity and achievements	Develop a communication strategy for research activity and achievements	Director of Research	Short	
	Produce an annual research report	Director of Research	Medium	

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