



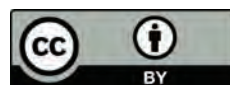
**Townsville
Hospital
and Health
Service**

Health Service Plan 2018 – 2028



Townsville Hospital and Health Service (Townsville HHS) Health Service Plan 2018 - 2028

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Health planning data presented within this document has been obtained and verified by the Queensland Department of Health, while population data was sourced from the Australian Bureau of Statistics. All data presented was accurate at the time of publication.



Acknowledgment to Traditional Owners

The Townsville Hospital and Health Service respectfully acknowledges the traditional custodians past, present and future of the land and sea which we service and declare the Townsville Hospital and Health Service commitment to reducing inequalities between Indigenous and non-Indigenous health outcomes in line with the Australian Government's *Closing the Gap* initiative.

This original artwork was produced for Queensland Health by Gilimbaa. Gilimbaa is an Indigenous creative agency.



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Message from the Board Chair

As Chair of the Townsville Hospital and Health Service, I am proud of the public health services we provide to our diverse northern Queensland communities across the continuum of care.

The *Townsville HHS Health Service Plan 2018 - 2028* is the blueprint for how these services will be delivered over the next decade: articulating a vision for how we will meet the needs of our growing and ageing population. This is a vision we share with the stakeholders which have contributed substantially to the development of this plan through an extensive consultation and engagement process.

A health service is enriched by stakeholder engagement; ultimately it is this engagement that helps create, develop and nurture the services that deliver the right care at the right time in the right place.

As a health service we are rich in diversity - diversity of population, demography, ethnicity and culture. This plan is reflective of the challenges we face and the

necessary strategies to meet the needs of patients and consumers that include Aboriginal and Torres Strait Islander peoples, children, the frail aged, and people living with mental illness and chronic disease.

Charting a 10-year course for any organisation is a monumental task. I thank the many staff who have taken the time to tell their stories and the stakeholders and partners who have shared their ideas about how we can work together to map a journey that will deliver better access, care and treatment for the communities we serve.

I am very pleased to endorse this plan and am excited and optimistic about its potential to deliver better health care services for the individuals, families, and communities of our region.

Mr Tony Mooney AM, B ED BA HONS, FAICD

Chair
Townsville Hospital and Health Service



Message from the Health Service Chief Executive

I am delighted to contribute this Foreword to the *Townsville HHS Health Service Plan 2018 - 2028* and honoured to champion it as a roadmap for building a stronger, more sustainable and more resilient health service into the future.

Consultation with staff and other stakeholders has been key to the creation of this plan. It reflects practical strategies and actions to meet the important challenges of the future including an ageing population, the growing burden of chronic disease and continuing challenges with Indigenous life expectancy and health status.

The *Townsville HHS Health Service Plan 2018 - 2028* also supports a future where our health service works co-operatively with the private health care sector and neighbouring HHSs to deliver more joined-up health care to people where they live. Importantly, the plan identifies barriers to equity of access and strategies

to improve this access for our patients and communities.

I sincerely thank and acknowledge the support of the Townsville Hospital and Health Service Board in the development of this plan. I would also like to thank the many staff - both clinical and non-clinical - who have provided invaluable insight and ideas.

I feel confident in our future and the steadfast determination of all our staff to work with stakeholders to create a health care system that is robust, inclusive, innovative and compassionate.

I am proud to dedicate this plan to the patients and communities of Townsville and northern Queensland.

Dr Peter Bristow FRACP, FCICM, FRACMA, GSM, GAICD

Health Service Chief Executive
Townsville Hospital and Health Service

2. Introduction and Overview

The purpose of the Townsville Hospital and Health Service (Townsville HHS) Health Service Plan (the Plan) is to clearly articulate a vision for how clinical services will be delivered in the future. The Plan identifies priority actions which will be used to drive changes needed to provide safe and sustainable service models that meet the needs of both the Townsville HHS population and that of the broader population of northern Queensland.

The Plan represents the outcome of a detailed and collaborative planning process undertaken over the course of 12 months underpinned by a comprehensive stakeholder consultation process. There has been significant input into the process by the health care professionals who provide services to the community and by those who use health services or have a community interest in them. The Plan has also been informed by comprehensive data analysis and scenario modelling that envisages significant change to service type and location, and the model of care for the delivery of services.

The Townsville HHS approach to planning for public sector health services is a flexible and staged process incorporating a number of levels. The Plan sits under the umbrella of the *Townsville HHS Strategic Plan 2014 - 2018* with a particular focus on the strategic pillar of providing safe, effective, efficient and sustainable health services.

The planning principles underpinning the development of this Plan are:

- Deliver services as close as possible to home wherever possible, including in people's own homes, in community settings and local hospitals
- Make meaningful improvements in

health outcomes for Aboriginal and Torres Strait Islander peoples

- Keep pace with (and ideally lead) technological change
- Build strong relationships between facilities within Townsville HHS, with other HHSs and with private, government and non-government service providers across the care continuum.

In line with these principles, this Plan articulates five key directions for the future development of services. These are:

- Managing demand for acute inpatient services through changing models of care
- Closing the gap in health outcomes for Aboriginal and Torres Strait Islander peoples
- Making better use of rural and remote services
- Strengthening the role of The Townsville Hospital (TTH) as the tertiary referral hospital for northern Queensland
- Working closely with the private hospital sector in Townsville

The implementation of the Plan will occur as phased process across a 10-year cycle from 2017 to 2027. The Plan will be used to inform a number of other planning processes including workforce, information and communication technology (ICT) and operational plans. However, one of the other key uses of the information will be to inform the next phase of site master planning in a number of locations.

Given the long time horizon needed for capital planning, high level infrastructure projections have been provided for a 20-year period to 2036 - 2037. These projections focus on the projected demand

for overnight inpatient beds as they have major cost and planning implications for Townsville HHS. However, it must be noted that there will be additional requirements for ambulatory services, both hospital-based and those based in the community. Further detailed planning and development of models of service delivery will need to be undertaken in order to quantify the future demand for these ambulatory services.

It is therefore critical to note that whilst implementation of the priority planning actions is ongoing, the infrastructure projections contained within the Plan will need to be reviewed annually.

The following sections of the Plan describe the key planning information, considerations and priority planning actions for each of the five key directions. Detailed actions for selected specialty areas are also described.





About our HHS

3. Townsville Hospital and Health Service

The Townsville Hospital and Health Service provides quality public health services to an area of approximately 148,000 square kilometres or 8.5 per cent of the total area of Queensland, and has a resident population of 5.1 per cent of the total Queensland population. The Townsville HHS also provides tertiary services to 670,000 people throughout northern Queensland from Mackay to the Torres Strait and out to the Northern Territory border.

The Townsville HHS is the region's largest local employer, employing more than 6000 staff. The Townsville Hospital, as northern Australia's principal tertiary healthcare facility, is a major teaching hospital for James Cook University, TAFE Queensland North and universities nationally. The Townsville HHS is also a leader in clinical research across a range of disciplines.

3.1 Geography

From a geographical perspective, the

Townsville HHS faces a variety of challenges in providing health care to our communities and for the greater northern Queensland region as a whole. Many of the communities within our region are designated as remote or very remote, and with this isolation brings specific challenges relating to equity of access to care.

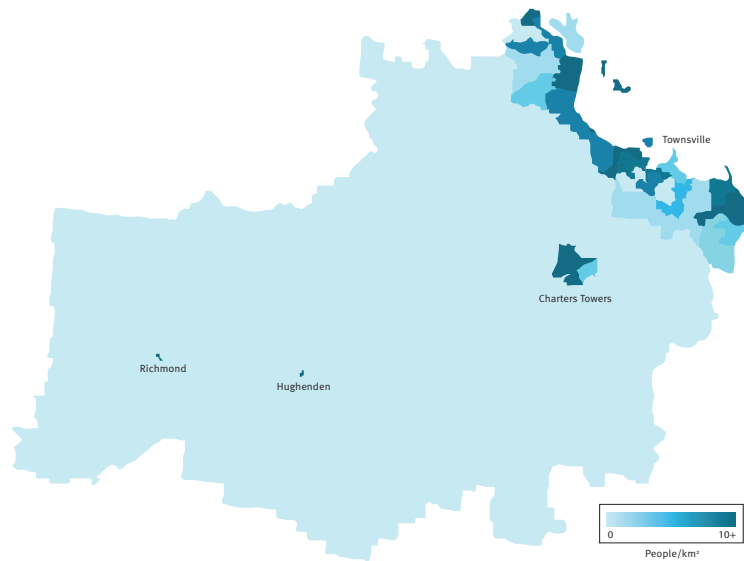
Townsville is tactically a well placed location for northern Queensland's tertiary level health services due to our central location within the northern half of the state, existing infrastructure and clinical service capability. This sees us playing a pivotal role for the region in the delivery of highly specialised and complex tertiary services for people and communities across northern Queensland extending as far as the Torres Strait Islands and Papua New Guinea.

For planning purposes, Townsville HHS is made up of seven local planning regions including Burdekin, Charters Towers, Hinchinbrook, Northern Highlands, Townsville City, Townsville North and Townsville South. Approximately three quarters (77 per cent) of the population reside within Townsville.

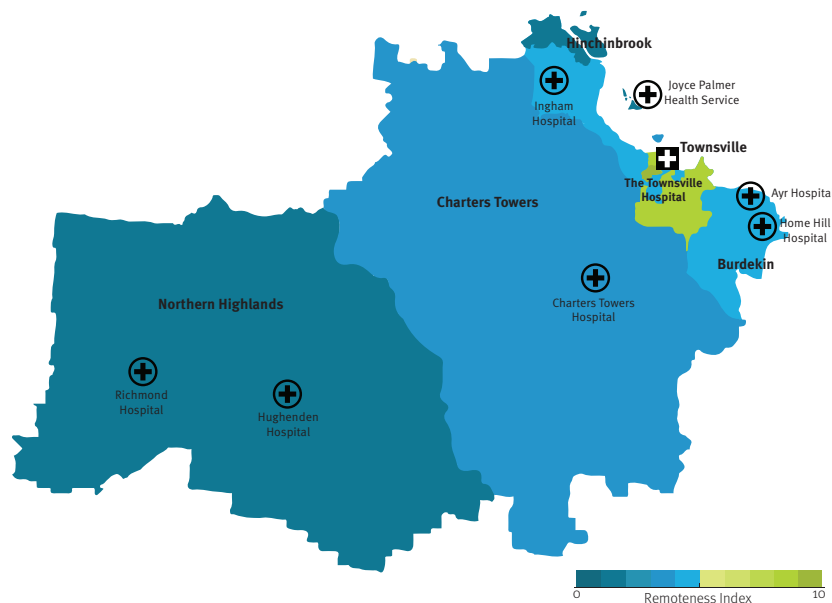
Planning regions and facilities



Population density



Remoteness Index



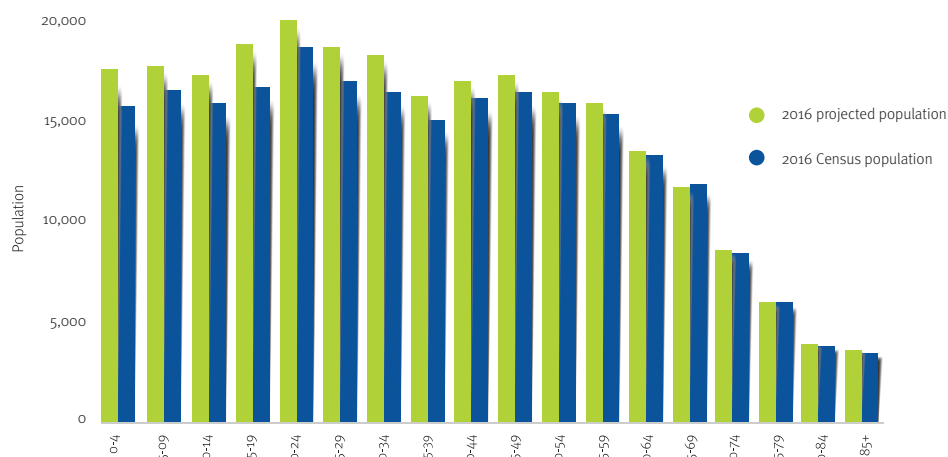
3.2 Population

According to the 2016 Census, the Townsville HHS population currently stands at approximately 258,000 residents. Our population growth in recent years has slowed as a direct result of economic and social factors which appear to have impacted most significantly on our younger generations (primarily young families). The

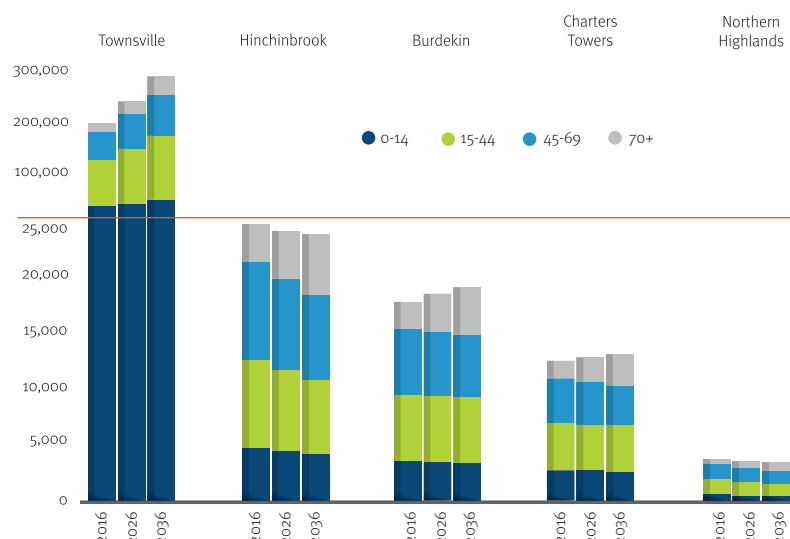
net effect of the reduced population growth of recent years is that our current population is approximately 15,000 people less than what was predicted in 2011, which is a significant consideration for planning purposes. When analysing the population data the following statistics were observed;

- The population had decreased between the 2011 Census and the 2016 Census in all regions of THHS except for Townsville
- When analysed by 5 year age group, the largest differences were in the younger age groups (persons aged 0 - 40 years). In contrast, actual population growth in the older age groups has been largely in line with that previously projected
- The current population projections predict an increase to 348,000 residents by 2036 - 2037
- Approximately 20 per cent of the population is aged between 0 and 14 years of age
- Approximately nine per cent of the population are aged 70 years and over. This cohort is predicted to increase at an annual growth rate of 4.1 per cent, compared to total population growth of 1.5 per cent
- Aboriginal and Torres Strait Islander peoples account for approximately eight per cent of the population
- The socio-economic status of THHS residents varies significantly between Townsville and rural areas. Large areas of THHS are classified as relatively disadvantaged, including some parts of Townsville

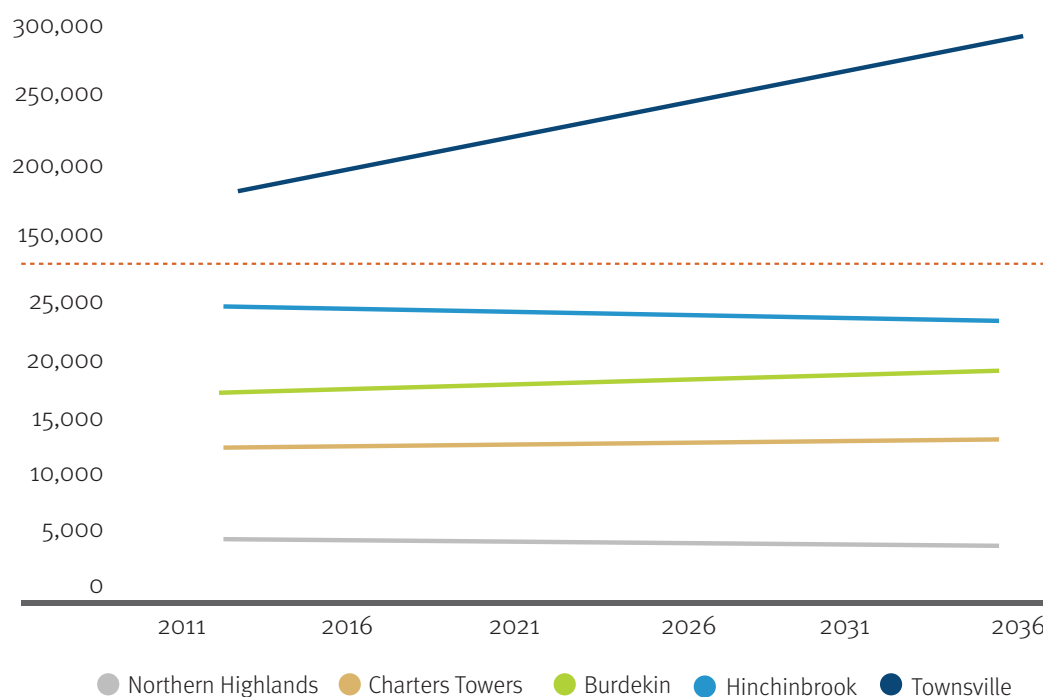
Census population comparison



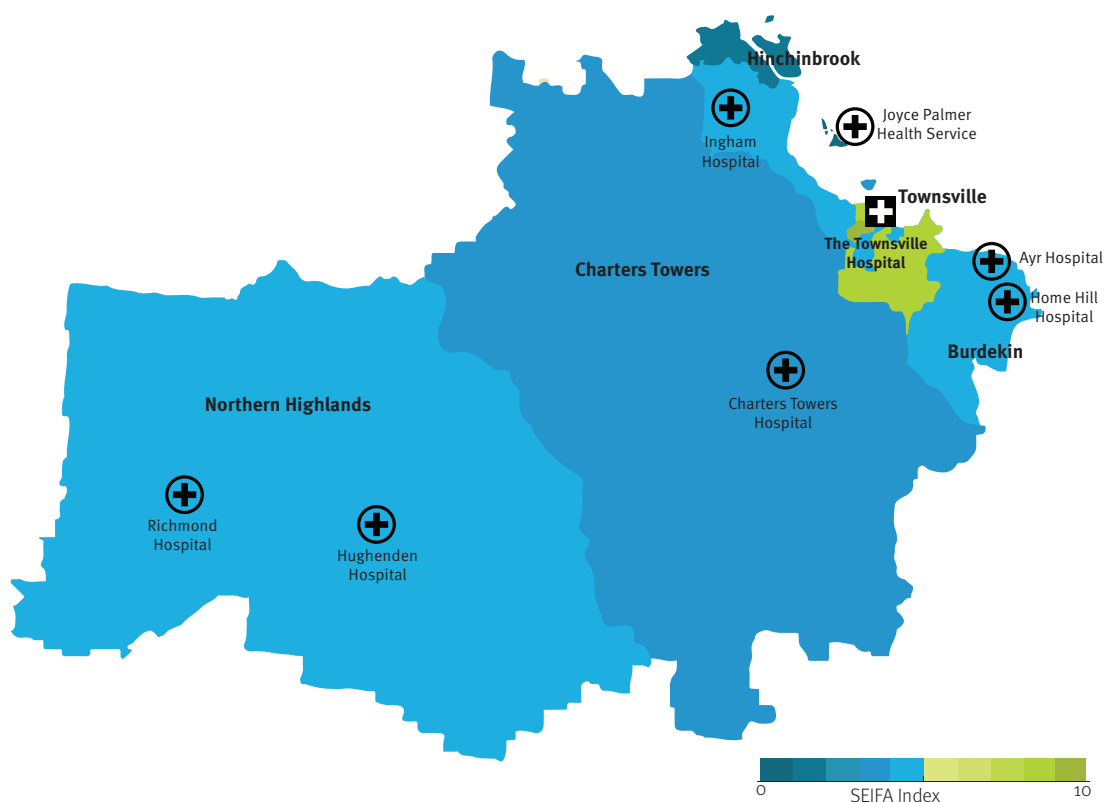
Population by age and region



Population projections by region



SEIFA Index





Medical Imaging
National Radiography Week
RADIOGRAPHER

Colin Leong
Radiographer

3.3 Services

Townsville HHS is responsible for the direct management of both hospital and community based facilities and services within the HHS's geographical boundaries. A wide range of quality public sector health services, education and research are delivered including; medical, surgical, emergency, obstetrics, paediatrics, specialist outpatient clinics, mental health, critical care, allied health and other clinical support services to the Townsville HHS population and to the wider catchment of northern Queensland.



The Townsville Hospital

Location: The Townsville Hospital is located in the suburb of Douglas in Townsville.

Size: 589 beds (inclusive of bed alternatives)

Capability: CSCF Level 6.

Services: The Townsville Hospital (TTH) is a tertiary referral hospital and treats patients from across northern Queensland. It is also the major teaching hospital for James Cook University's schools of medicine, nursing and allied health and for TAFE Queensland North. The Townsville Hospital provides a wide range of specialist services including cardiac, obstetric, gynaecological, paediatric, neurosurgical, orthopaedic, cancer, mental health, neonatal, allied health, anaesthetic, intensive care, inpatient and outpatient medical services and emergency services.



Ayr Health Service

Location: Ayr Health Service is a rural health service located 87 kilometres south of Townsville.

Size: Ayr Health Service has 28 inpatient beds, an operating and procedure room with first and second stage recovery, an Emergency Department that has acute and day only beds, and there is a helipad on site.

Capability: CSCF Level 3

Services: The Ayr Health Service provides a range of inpatient and outpatient services including: acute care, birthing, endoscopy, emergency, surgery, clinics, Aboriginal and Islander health, nursing discharge liaison, community mental health, child health, physiotherapy, medical imaging, speech therapy, occupational therapy, social work and pharmacy.



Home Hill Health Service

Location: Home Hill Health Service is a rural health service located 100 kilometres south of Townsville, and 12 kilometres south of the neighbouring town of Ayr.

Size: Home Hill Health Service has a 13 bed inpatient unit, one dedicated palliative care bed, outpatient clinics, a physiotherapy and occupational therapy room, one minor procedural room and a private medical practice. An eight chair renal unit that operates as an outreach service from The Townsville Hospital is also located here.

Capability: CSCF Level 2.

Services: Services provided include generalist nursing care for inpatients with a broad range of health care needs. The emergency service is a 24-hour nurse led emergency triage, with patient's requiring medial assessment transferred to Ayr.



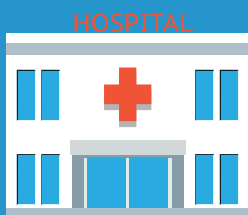
Charters Towers Health Service

Location: Charters Towers Health Service is a rural health service located 135 kilometres west of Townsville.

Size: Charters Towers Health Service has a two-bed Emergency Department space with 23 inpatient beds. When required the health service can provide for imminent birthing and procedural capacity.

Capability: CSCF Level 3

Services: A range of services are provided including emergency, acute inpatient, low-risk procedural, all-risk caseload group midwifery practice (ante- and post-natal), community health, child and family and school based youth health services. Outreach nursing clinics including diabetes, women's health and renal health services as well as visiting specialist medical clinics (cardiac, paediatric, gastroenterology and surgical) are provided from TTH.



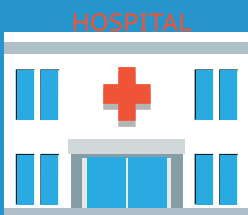
Hughenden Multi-Purpose Health Service

Location: Hughenden Multi-Purpose Health Service (MPHS) is 246 kilometres west of Charters Towers, 517 kilometres from Mount Isa and is 384 kilometres from Townsville.

Size: Hughenden MPHS has nine acute beds and six high-care aged care flexible beds.

Capability: CSCF Level 2.

Services: The MPHS provides an integrated acute and community health service, including Aboriginal and Torres Strait Islander community health. Emergency care is available 24 hours per day. Ambulatory clinics are conducted Monday – Friday. There is no outpatient clinic, all patients requiring access to a Doctor are referred to the private practice conducted by the Medical Superintendent (the exception being after hours or accident and emergency care). There is no birthing service or operating theatre, however pre-natal and post-natal care is available from the MPHS midwife in partnership with the General Practitioner and TTH.



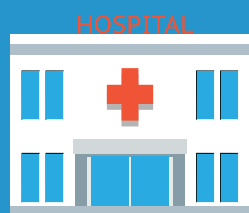
Richmond Health Service

Location: Richmond is the midpoint between Townsville and Mount Isa (approximately 500 kilometres from both centres).

Size: Richmond Health Service has 10 acute available beds, including four long stay nursing home type beds.

Capability: CSCF Level 2.

Services: Richmond Health Service provides a range of services including emergency care 24/7 to CSCF level 2, Queensland Ambulance services 24/7, general medical/surgical and paediatric services and Aboriginal and Torres Strait Islander community health. General x-ray services are limited but available via licensed operators.



Joyce Palmer Health Service

Location: The Joyce Palmer Health Service (JPHS) is located within the Aboriginal and Torres Strait Islander community of Palm Island, 70 kilometres north of Townsville - off the coast near Ingham.

Size: The JPHS consists of an emergency department and a 15 bed general ward. Outpatient clinics are provided. A four chair renal dialysis outreach unit from TTH is also located here.

Capability: CSCF Level 2

Services: During 2016, the JPHS provided health services to over 3,500 Palm Island people, including all non-critically ill patients who may be neonates, children, adults and aged care. Services include emergency services, general management of medical and aged patients, minor surgical procedures, outpatient clinics, basic radiography, pathology sample collection, antenatal and postnatal care, pharmacy, child health, men's and women's business, mental health, oral health, and wound clinic. A number of visiting specialists conduct regular clinics with the facility.



Ingham Health Service

Location: Ingham is located 110 kilometres north of Townsville.

Size: The Ingham facility has a 28 bed inpatient unit with a dedicated birth suite and two palliative care beds, an emergency unit with a two bay resuscitation area and two bed consult. There is an operating suite with two procedural rooms, preadmission and Post Anaesthetic Care Unit (PACU) areas, and medical imaging. The facility also has a community services wing which includes oral health services, allied health services with a rehabilitation gym and Activities of Daily Living (ADL) kitchen, mental health services, midwifery services and Aboriginal and Torres Strait Islander services.

Capability: CSCF Level 3

Services: Inpatient care is provided to patients with a broad range of health care needs ranging from cardiac monitoring, paediatrics, aged care, rehabilitation, general medicine, oncology, birthing, physiotherapy, occupational therapy, speech pathology, dietetics, social work, Aboriginal and Torres Strait Islander health and palliative care. The emergency area provides services 24 hours/day. The operating suites are used regularly for elective lists by visiting general surgeons and gastroenterologists. Pharmacy services provide both inpatient and outpatient services, and medical imaging provides x-ray services Monday to Friday, with on call capacity and weekly ultrasound clinics. There are also a range of outreach specialist clinics provided on a regular basis, including Aboriginal and Torres Strait Islander health services.

In addition to the hospital-based services and facilities, the THHS also provides a large number of community-based services from which a range of mental health, Aboriginal and Torres Strait Islander health, community health, child health and aged care services are delivered:



Community-based services

Cambridge Street Health Campus
Cardwell Community Clinic
Charters Towers Rehabilitation Unit
Eventide Residential Aged Care Facility
Garbutt Facility of Townsville Aboriginal and Islanders Health Services (TAIHS)
Josephine Sailor Adolescent Inpatient Unit and Day Service
Kirwan Health Campus
Townsville Community Care Unit and Acquired Brain Injury Unit
Magnetic Island Community Clinic
North Ward Health Campus
Palmerston Street Health Campus
Parklands Residential Aged Care Facility





Planning for the Future

4. Managing demand for hospital services by changing models of care

4.1 Planning Information

The Queensland Department of Health Acute Inpatient Modelling (AIM) methodology has an inbuilt assumption that decreases in overnight length of stay across almost all clinical specialties will continue. For Townsville HHS facilities, overnight average length of stay is projected to decrease over the next 20 years from 5.5 to 4.7 days for adults and from 2.9 to 2.3 days for children.

Despite this, the AIM tool projects large increases in the volume of overnight beddays from Townsville HHS facilities for medical, surgical/procedural and subacute services driven by population growth and ageing.

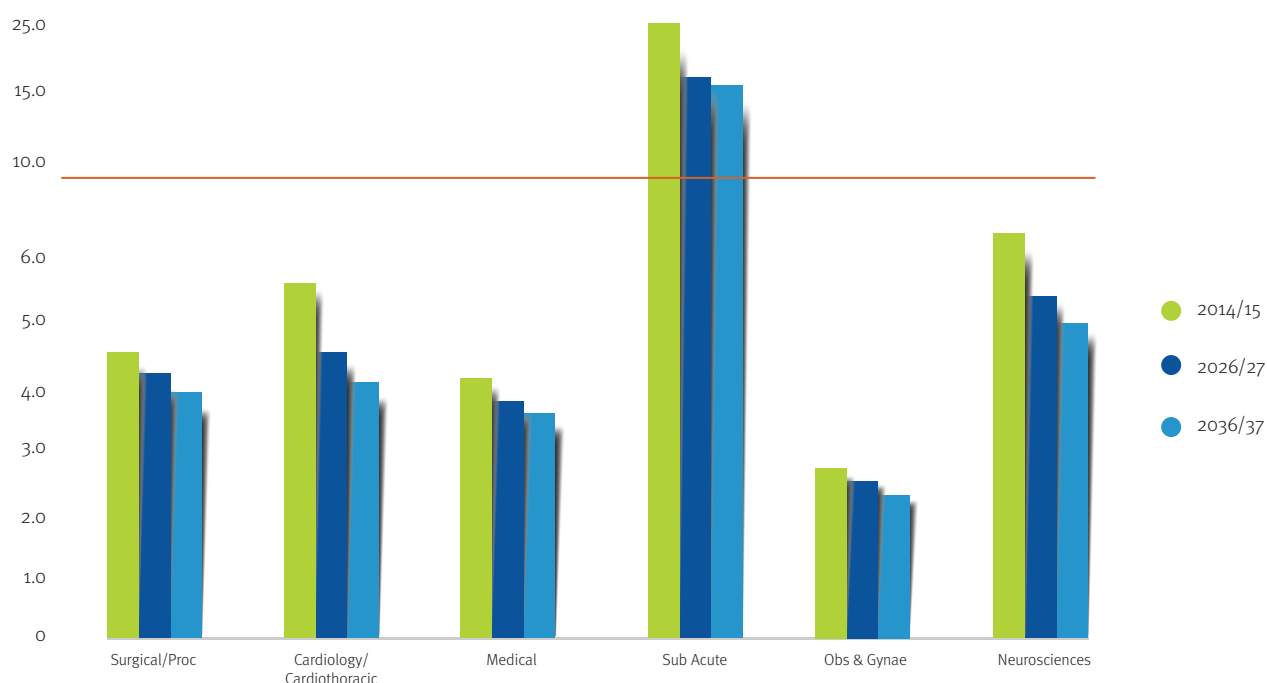
The Townsville HHS population aged 70 and over

is projected to grow by more than four per cent per annum over the next 20 years.

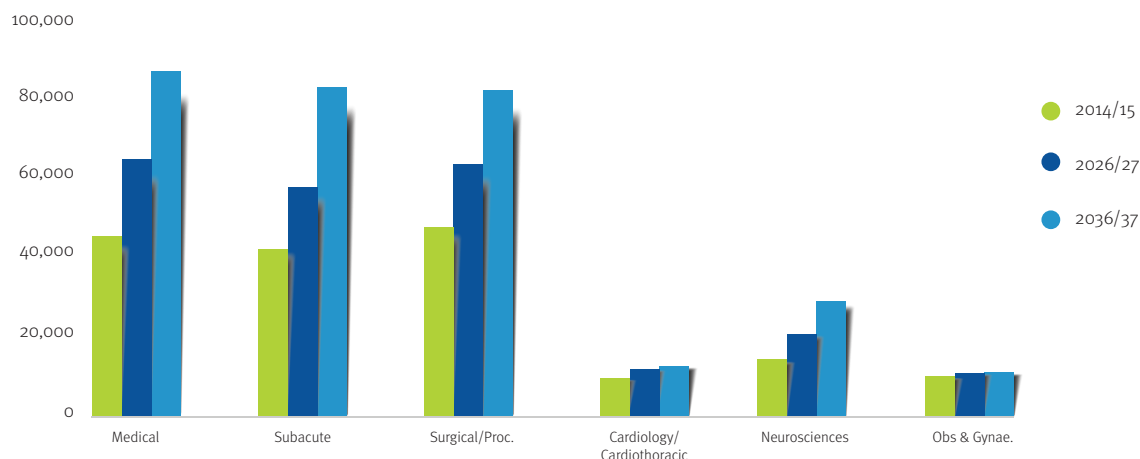
By 2036, people aged 70 and over, will make up more than 14 per cent of the total Townsville HHS population but will account for approximately 55 per cent of all overnight beddays for Townsville HHS residents in Townsville HHS hospitals.

The percentage of overnight separations for people aged 70 and over will increase across all specialty groups with cardiology/cardiothoracic and surgical/procedural services expected to have the largest percentage of overnight separations of older people.

Overnight ALOS by specialty: *Townsville HHS facilities, adults*

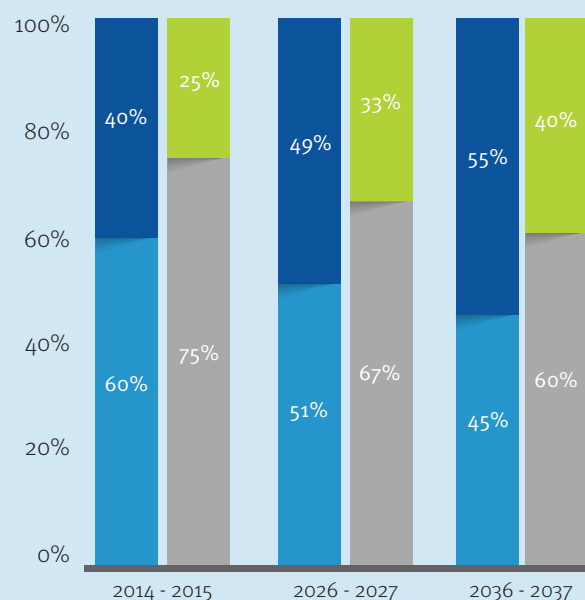


Overnight beddays by specialty: *Townsville HHS facilities, adults*

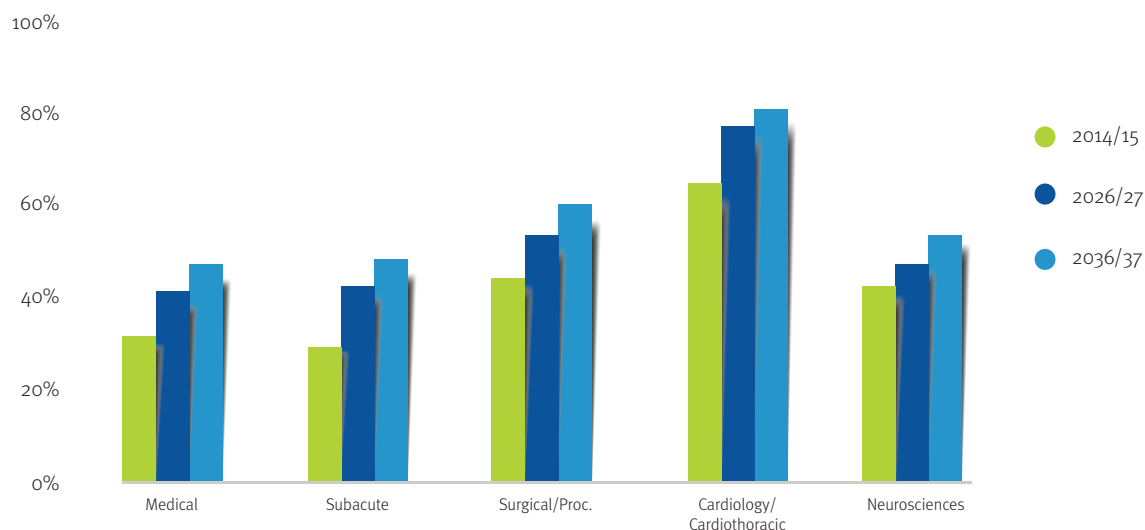


Use of Townsville HHS hospitals by age group: *Overnight separations and beddays*

- Aged 70+ ON Beddays
- Aged <70 ON Beddays
- Aged 70+ ON Seps
- Aged <70 ON Seps



Overnight separations aged 70+: *Townsville HHS hospitals, by specialty*





4.2 Planning Considerations

There are many different models of care known to reduce overall demand for hospital services or reduce the length of time spent in hospital that are both relevant and feasible to implement (or expand) in Townsville HHS.

These models focus on ways to avoid or substitute for acute hospital inpatient stays by providing services differently “outside the walls” of a hospital or on improving patient flow “within the walls” of the hospital. Changes to models of care particularly target services for the frail aged and people with chronic disease and will have the largest impact on TTH.

It is increasingly recognised that traditional hospital based models of care may not provide optimal health outcomes particularly for older people and those with multiple chronic disease. Robust evidence exists to support providing acute care outside the acute hospital setting. A 2012 meta-analysis found that hospital in the home (HITH) services resulted in reduced mortality, a reduction in hospital readmission and greater patient satisfaction as well as lower costs.¹

Data from the *Australasian Rehabilitation Outcomes Centre Annual Report 2015* shows that provision of rehabilitation in Australia grew in volume by 6.3 per cent in 2015 compared to the previous year with the majority of that growth coming from the “reconditioning impairment” group. Given that the highest priority for an older person is to maintain independence and mobility, the need for reconditioning services suggests that this is increasingly a challenge for busy acute hospitals in caring for the growing number of frail aged people with complex clinical, care and support needs. The challenge is therefore to implement models that deliver coordinated, person-centred care preferably outside of an acute inpatient ward wherever possible.

Changes To Models of Care “Outside the Walls”

Expansion of community based care - “Many front doors”

Improving access to community-based and home-based services via a model that creates “many front doors” is a key strategy. There are many opportunities for community health services to be the central entry point for patients requiring treatment for a wide range of health conditions, particularly for management of chronic illnesses and rehabilitation services.

A model that increases direct access to community-based services will require significantly more capacity for both nursing and allied health services in community settings, streamlined referral pathways and heightened consumer awareness of the services available.

At the same time, it is important to expand diversion programs from the Emergency Department (ED) for example by implementing initiatives such as a Geriatric Emergency Department Intervention (‘GEDI’) nurse model and increasing the role of allied health within the ED. A close working relationship with hospital discharge planners and strong support from private and non-government community health services and General Practitioners is also essential.

Expanding Hospital in the Home (HITH) / Hospital in the Nursing Home (HINH)

There is the potential to grow the adult HITH service and to establish a service for paediatrics in the future. The preferred model for HITH services would be a single point of entry for referral coordination and triage. There would be a focus on care within the person’s own home wherever possible with additional support from telehealth and remote

¹ Caplan, G. A., Sulaiman, N. S., Mangin, D. A., Aimonino Ricauda, N., Wilson, A. D., & Barclay, L. (2012). A meta-analysis of “hospital in the home”. *Med J Aust*, 197(9), 512-9.



monitoring technology. An alternative would be presentation to a community health campus if the patient's place of residence is unsafe or out of range. Service provision could be by Townsville HHS or by a contracted partner.

HITH separations currently account for just over 1 per cent of total separations from TTH. Increasing this progressively to 3 per cent by 2021 - 2022 would have the potential to reduce the need for additional overnight beds at TTH by at least 37 beds in 2036 - 2037.

Closing the Gap for Aboriginal and Torres Strait Islander Health - Integration with Primary Care

The vision for Aboriginal and Torres Strait Islander Health services is to support holistic / wrap-around primary care services in order to address chronic disease within the population as early as possible. The overarching goal is to take a proactive approach to avoid hospitalisation, for chronic disease conditions to be managed as much as possible in the community primary care space and to strengthen partnerships with Aboriginal Medical Services within the region. The priorities for change are detailed further in the next section of this Plan.

Palliative Care in the Community

The Grattan Institute Dying Well Report in 2014 highlighted that surveys consistently show between 60 and 70 per cent of Australians would prefer to die at home with hospitals and residential care being their least preferred places to die². Yet today only about 14 per cent of people die at home, 54 per cent die in hospitals and 32 per cent in residential care in Australia.² Stakeholders advise that these statistics are similar for Townsville and there is significant opportunity to better utilise home-based services to reduce admissions to hospital.

The vision is for TTH to take a lead role for the planning and coordination of palliative care services. Strategies include providing support to the ED in order to reduce potentially preventable admissions and develop a care plan for palliative patients. The role would also involve providing support for other non Townsville HHS services to increase home-based care. Providing assistance to nursing homes to plan and deliver palliative care would be a priority.

Investment in home-based palliative care services would have a direct impact on reducing the number of patients receiving

² Broad, et al. (2013) as cited in Swerissen, H and Duckett, S., 2014, Dying Well. Grattan Institute

such care in hospital. It is estimated that even reducing the percentage of hospital-based palliative care separations in TTH by only 30 per cent could result in 11 beds less than the projected requirements needing to be built by 2036 - 2037.

Improving Patient Flow “Within the Walls”

The Acute Medical Unit concept

Shortening overnight length of stay for adult medical patients by expanding the scope of the existing Acute Assessment Unit to an acute medical unit (AMU) model is a priority. AMUs are staffed by multidisciplinary medical, nursing and allied health teams. The model of care is that once initial assessment is completed, a plan is developed which may include a short period of time under observation/receiving treatment in the AMU, admission into the wider hospital under the care of another specialty team if necessary, or home to continue care in the community. A close working relationship with hospital discharge planners and strong support from private and non-government community health services and general practitioners is therefore essential.

Same-Day Geriatric Management Unit

Expanding the same-day geriatric management unit to include the establishment of a “day hospital” service for Geriatric Evaluation and Maintenance (GEM) patients would reduce both the number of admissions and length of stay for older patients. The new subacute care unit at TTH is a suitable location for GEM day rehabilitation. The current model for community-based rehabilitation is a brokered service to a community organisation or services provided through the Transition Care Program and has limited capacity. The model would be dependent on effective links with general practitioners for referring and sufficient access to community-based nursing and allied health to support discharge from the program.

Creation of an Orthogeriatric Unit

The large projected growth in the ageing population will place significant demand on orthopaedic services in the future. The consequences of falls in these patients is major as they will be increasingly frail and likely to have multiple co-morbidities. An orthogeriatric model of care is preferred with orthopaedic surgeons and geriatricians jointly



providing comprehensive medical assessment and treatment supported by specialist nursing and allied health staff.

Paediatric Short Stay Unit

The paediatric ED service is staffed by generalist medical and nursing staff and does not currently have a dedicated paediatric short stay unit. Shortening length of stay for children in an acute hospital environment is highly desirable both for the child and to reduce disruption for the family who are providing support. Implementation of a short stay unit model is known to further assist in reducing length of stay for children.

Dedicated Mental Health/ Alcohol, Tobacco and Other Drugs (ATODS) units for special needs groups.

- Creation of a dedicated acute older persons unit within the additional bed allocation for adult acute mental health
- Allocation of dedicated drug and alcohol detoxification beds within one of the medical units to address the current issue of these patients being distributed throughout the hospital
- Expansion of the eating disorders services to increase community alternatives to care and to support more children to transition to adult services once they are aged 18
- Creation of a Family Unit for treatment of mothers and babies and for children aged 0 - 11 years.

Coordination of access to Diagnostic (and other support) Services

The difficulty of coordinating access to diagnostic services for patients with complex conditions is often the cause of increased length of stay by admitting otherwise “well” patients for workup prior to surgery or other interventions. This is a particularly important issue for a hospital such as TTH where large numbers of patients come from outside the immediate area and also require

accommodation in Townsville for diagnostic testing and pre-operative workup. One option to address this issue is to more extensively use nurse navigator roles to coordinate services particularly for cancer and cardiothoracic patients. However, capacity and coordination of the diagnostic services is also a contributing factor to increased length of stay.

Alternative settings for the care of non-acute patients awaiting nursing home placement

In TTH, there are significant numbers of non-acute patients, many of whom are waiting transfer to residential care and no longer need the level of acute care provided in a hospital environment. Addressing this issue would be reliant on the availability of out-of-hospital services, potentially entering into partnerships with local aged care providers, or utilising other existing HHS facilities in new ways. An option may be to seek to increase the availability of the Australian Government-subsidised Transition Care Program for older people who have been in hospital. Transition care may be provided in their own home, in a ‘live-in’ setting such as part of an existing aged care home or a health facility such as the separate wing of a hospital.

Finding an alternative care setting for non-acute patients has the potential for up to 39 additional beds that would not need to be built by 2036 - 2037.

Streamlining outpatient services

Changing models of care will also impact on demand for outpatient services. The management of chronic complex care will be increasingly reliant on non-admitted care and co-ordination between primary, community acute and subacute services. Some current clinics may not need to be delivered in future or be delivered in a non-hospital setting. For many services, the trend will increasingly be to deliver multidisciplinary clinics in a more person-centred model. The use of digital technology will have a major impact on models of service delivery.



It is therefore important to review models of care and undertake pathway and process redesign to streamline outpatient processes prior to modelling future demand for outpatient services.

4.3 Priority Planning Actions

Initiatives specifically aimed at reducing length of stay and hospital admissions include:

- Expansion of community based care including nursing and allied health
 - Implementation of hospital avoidance / hospital diversion programs from the ED
 - Increasing HITH /HINH for adults
 - Introducing HITH for paediatric patients (commencing with services for children aged 12 years and over)
 - Further integration with primary care services for Aboriginal and Torres Strait Islander peoples
 - Expanding palliative care services and increase support for home-based care.
- Expansion of the concept of the Acute Medical Unit (AMU) model of care at TTH
 - Expansion of the Same Day Geriatric Management Unit at TTH
 - Creation of an Orthogeriatric Unit
 - Establishment of a dedicated acute older person's mental health unit within the additional bed allocation for adult acute mental health
 - Allocation of dedicated drug and alcohol detoxification beds
 - Creation of a Family Unit for mental health treatment of mothers and babies and for children aged 0 - 11 years
 - Establishment of a Paediatric Short Stay Unit
 - Increasing day of surgery admission rates by addressing access to diagnostic services
 - Identifying appropriate alternative settings for the care of non-acute maintenance-type patients who are waiting nursing home placement.

5. Closing the gap in health outcomes for Aboriginal and Torres Strait Islander peoples

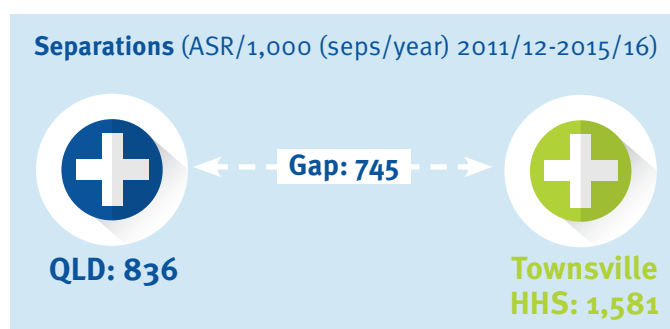
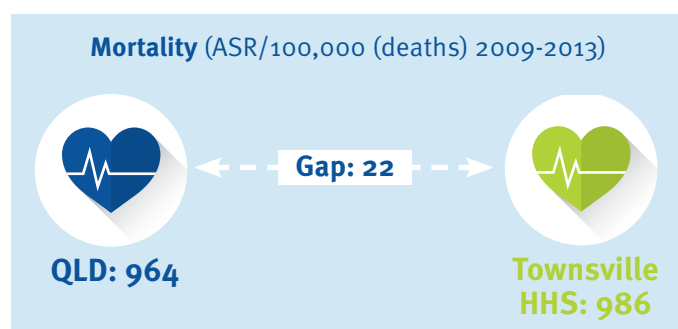
5.1 Planning Information

Hospitalisation rates for the Townsville HHS Indigenous population are high. The *Closing the Gap Performance Report 2016* shows that Townsville HHS had the highest Indigenous age standardised rate per 1,000 persons for all cause hospital separations in Queensland for the period 2011 - 2012 to 2015 - 2016.³

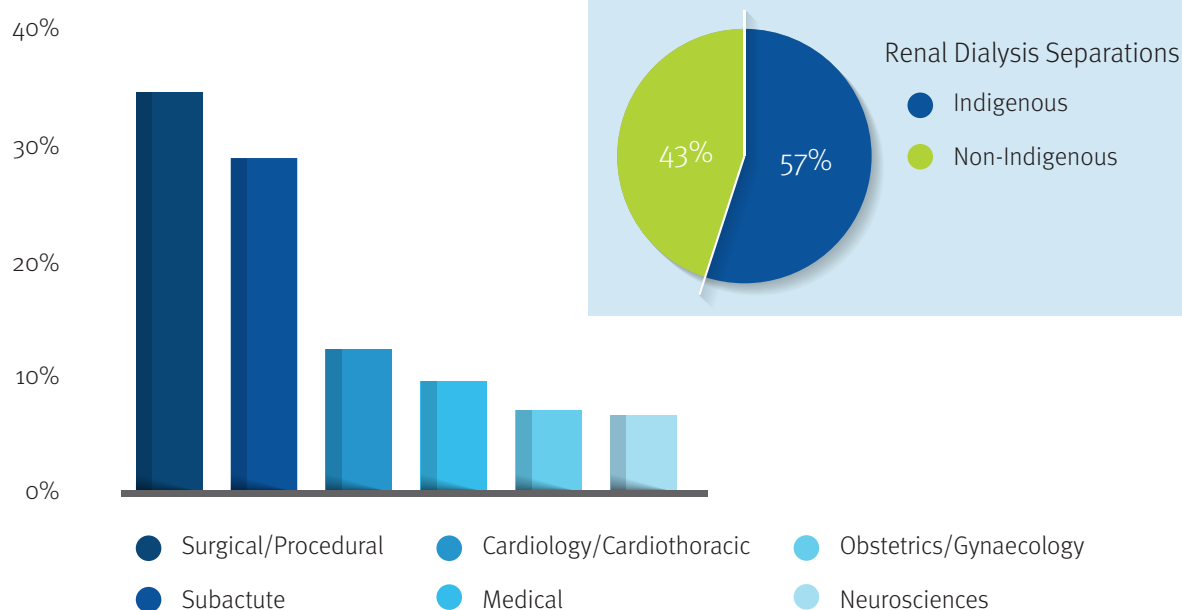
Excluding renal dialysis, around 15 per cent

of hospital separations from Townsville HHS facilities are for Indigenous people. For renal dialysis, Indigenous patients account for 57 per cent of separations.

Surgical/procedural services account for the largest volumes of overnight beddays for Indigenous persons in Townsville HHS facilities.



Indigenous beddays by specialty: THHS facilities, all ages

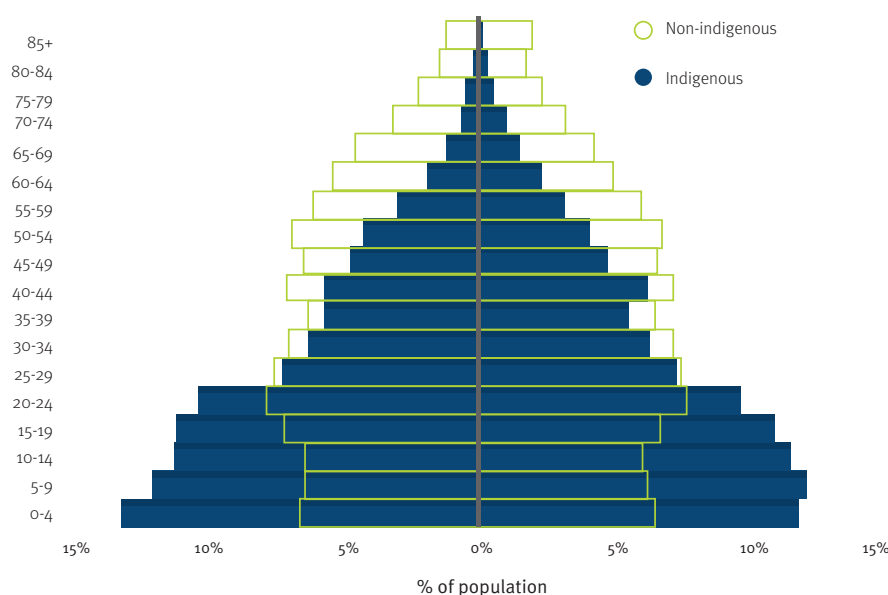


³ Queensland Health. (2017). Closing the Gap performance report 2016. Retrieved from <http://www.health.qld.gov.au>

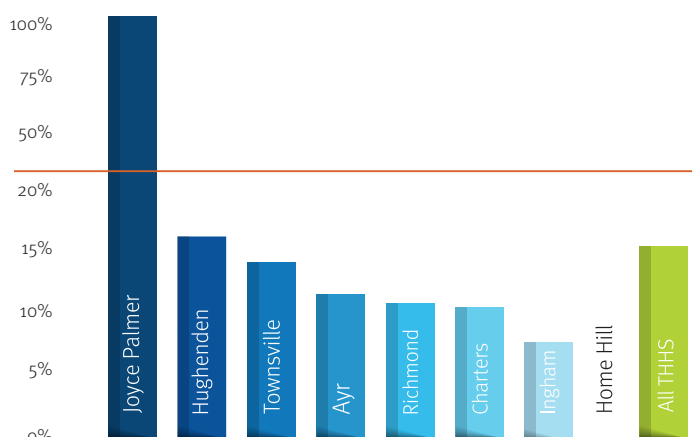
Shortened life expectancy is highlighted by only two per cent of Indigenous Townsville HHS residents being over 70 years of age compared to nine per cent for the non-Indigenous population. In contrast, people aged under 24 years of age make up over 55 per cent of the Townsville HHS Indigenous population compared to only 35 per cent of the non-Indigenous population.

Use of hospital services by age group is different for Indigenous and non-Indigenous Townsville HHS residents. The 0 - 14 year age group represented 16 per cent of inpatient separations for Indigenous persons compared to only eight per cent for the non-Indigenous persons. In contrast, only six per cent of total separations for Indigenous persons were for people aged 70 and over compared to 27 per cent for the non-Indigenous population.

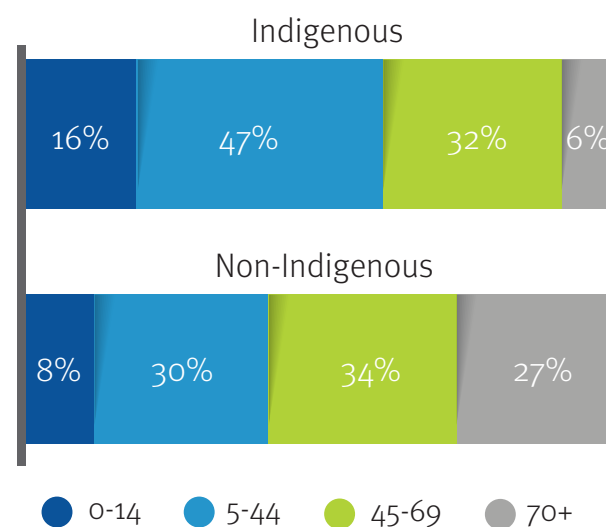
Townsville HHS population pyramid, 2015: *Indigenous and Non-Indigenous*



Indigenous separations by facility: *Townsville HHS facilities, all ages*



Indigenous separations by age group: *Townsville HHS facilities*



5.2 Planning Considerations

Consultation with key stakeholders in Townsville HHS identified the vision for Aboriginal and Torres Strait Islander Health is to support the provision of holistic, wrap-around primary care services in order to address chronic disease within the population as early as possible. The overarching goal is to work in partnership with other providers to take a proactive approach to avoid hospitalisation, and for chronic disease conditions to be managed as much as possible in the community primary care space and to strengthen partnerships with Aboriginal Medical Services within the Region.

The high rates of hospitalisation for the Aboriginal and Torres Strait Islander population that are the result of chronic diseases such as diabetes, cardiovascular, mental health and chronic kidney disease are consistently highlighted in every planning process. It is commonly known that the Aboriginal and Torres Strait Islander community are less likely to regularly use general practice or other primary healthcare services. For this reason, they are often sicker when they make first contact with the acute hospital sector, thereby increasing the likelihood of needing hospital admission. Many also use hospital emergency departments rather than general practices for ease of access and financial reasons but this further reduces the likelihood of accessing co-ordinated person-centred chronic disease management programs.

The recorded high rates of hospitalisation must also be considered in the context that identification of Aboriginal and Torres Strait Islander people in health datasets is unreliable and considered to be an underestimate. Staff are trained to always ask if the patient identifies as Aboriginal or Torres Strait Islander but in practice this does not consistently occur.

An issue consistently raised through

consultation is the need to travel to Townsville for specialist medical services and hospital admission which further compounds the social and economic difficulties for the community. Many patients who must come to Townsville regularly for treatments such as renal dialysis have to relocate but frequently do not have any suitable accommodation in Townsville.

It is well known that lifestyle-related diseases are potentially preventable by addressing underlying factors including intergenerational trauma and the social and economic determinants of health. This requires effective cross-sectoral responses many of which lie outside the direct scope of a health service. Strong partnership approaches are therefore required between Townsville HHS and:

- Townsville Aboriginal and Islanders Health Services (TAIHS) community controlled primary healthcare services (General Practice (GP) and multidisciplinary services) to increase the level of service integration with TTH. The vision is for a “service hub” where the two organisations work together seamlessly from the same physical location. Better integration also includes TAIHS health workers at TTH to support patient transition back into the community, better use of technology and overcoming barriers to information sharing. Responsibility for case management is an issue still to be resolved in terms of who takes the lead in managing the ongoing care of this patient cohort.
- Northern Queensland Primary Health Network to coordinate services for rural and remote areas. Fragmentation and duplication of services is an ongoing problem particularly in areas with significant volumes of visiting and outreach services. A key role of the local health worker is to link people with services, ensure that they are culturally appropriate and support access to programs such as health



MUM
DAD



checks. Strengthening the role of the local Indigenous health worker by working closely with nursing and allied health staff to develop and implement consistent management pathways will be important.

- Palm Island Aboriginal Shire Council to implement the *Palm Island Health Action Plan 2017-2027* and develop comprehensive primary health care for Palm Island residents. The major priority of the action plan is to build a community-controlled new primary healthcare service for Palm Island which will offer general practice and non-acute multidisciplinary primary health care services. The Joyce Palmer Health Service will continue to provide emergency care, inpatient care, renal dialysis, high needs aged care and pharmacy services.

Specific services identified as needing further development within Townsville HHS include:

Child and youth health services: The scope of child health interventions needs to be expanded to include proactive engagement of families with older children. There also needs to be improved access to specialist services for children for

hearing health, oral health, rheumatic heart disease and developmental issues.

Chronic illness prevention and management:

Early detection and intervention particularly for diabetes, chronic kidney disease and cardiovascular disease needs to be a priority. System-wide changes to the approach to care are required so that risk factors are identified early and chronic illness is then managed by a multidisciplinary team. This needs to include an emphasis on services for children and families to address pre-disposing factors that may be present from before birth and in early childhood.

Sexual Health: Increased rates of syphilis and a growth in Sexually Transmitted Infections (STI) is occurring across northern Queensland and is a critical issue for Aboriginal and Torres Strait Islander communities. Implementation of the community based actions contained in the *North Queensland Sexual Health Strategy 2016 – 2021* will be important during the planning period.

Care of older people and people with disabilities: Older people and people with disabilities who have high-care needs frequently have to be moved to Townsville and separated from family. This is particularly

an issue on Palm Island as it is repeating the cycle of forced removal and trauma which brought their families to Palm Island in the first place. The proposal to reorient the Joyce Palmer Health Service to a multipurpose facility would enable people with high-care needs to remain on Palm Island.

Birthing services: Birthing in community is consistently raised by communities and is particularly an issue for Palm Island. To reintroduce birthing on Palm Island would require significant action by individuals, families and the health service to address risk factors in pregnancy including smoking, substance misuse and gestational diabetes and reduce the large number of high risk pregnancies. Workforce and infrastructure issues would also need to be addressed to enable low-risk birthing to be re-established.

Across all services, cultural capability training for all staff is a vital contributing factor to improving service delivery.

5.3. Priority Planning Actions

- Develop a collocated service model between TTH and TAIHS community

controlled primary healthcare services

- Work in partnership with the Palm Island Aboriginal Shire Council to implement the *Palm Island Health Action Plan 2017 - 2027* and establish the new community controlled primary healthcare service
- Work closely with Northern Queensland Primary Health Network to improve service coordination in rural and remote areas
- Strengthen the Townsville HHS Indigenous health worker role by working in close collaboration with nursing and allied health staff particularly in the smaller rural and remote facilities to implement care pathways
- Expand local access to specialist outpatient clinics by increased outreach and telehealth
- Further develop culturally appropriate targeted programs particularly for child and youth health, sexual health and chronic disease management
- Ensure all staff have participated in the cultural capability training program.



6. Making better use of Townsville HHS rural and remote services

6.1 Planning Information

Rural and remote facilities in Townsville HHS are located at Ayr, Ingham, Charters Towers, Home Hill, Hughenden, Richmond and Palm Island (Joyce Palmer Health Service). Ayr, Ingham and Charters Towers have rural hub roles (CSCF level 3).

The percentage of people aged 70 and over residing in the rural areas of Townsville HHS is projected to increase significantly.

Between 50 per cent and 60 per cent of hospital separations for residents of Burdekin,

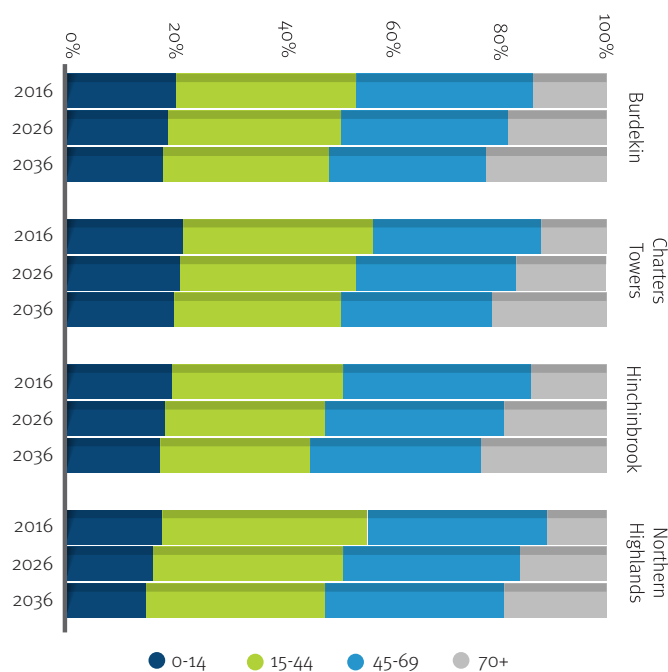
Charters Towers, Ingham and Northern Highlands residents are provided by their local hospitals. Local provision of medical services for areas surrounding the rural hubs ranges between 77 per cent and 79 per cent. Local provision of surgical services by the three rural hub facilities is considerably lower between 41 per cent and 49 per cent.

Seven of the top 10 specialties for which rural Townsville HHS residents flow to TTH are for surgical, procedural or obstetric services.

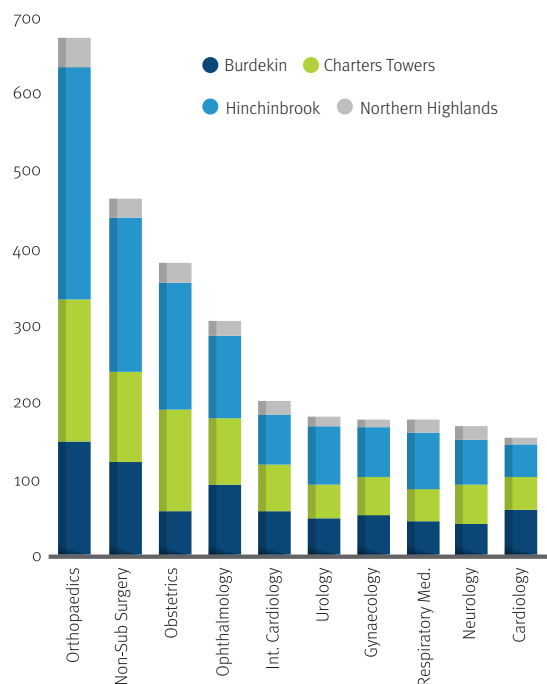
Planning regions and facilities



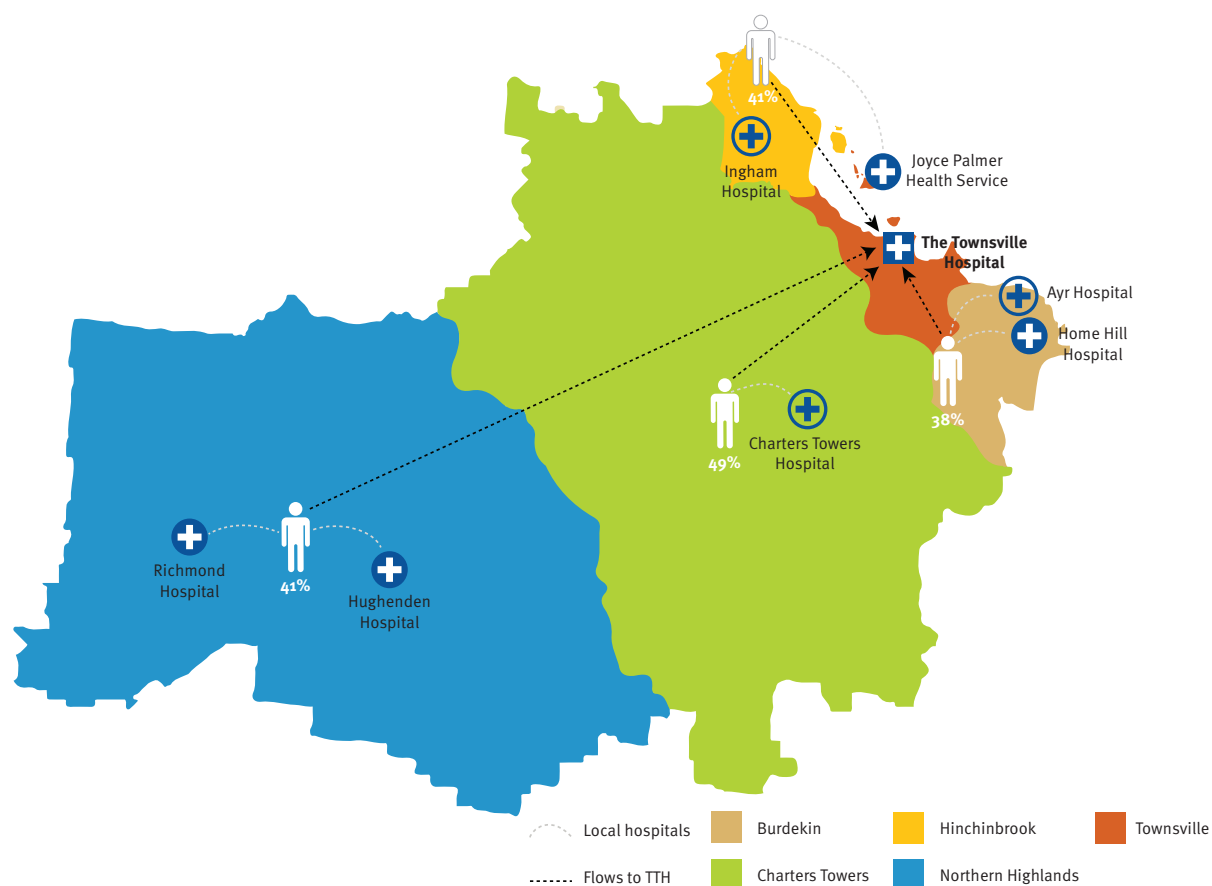
Rural population proportions



Top 10 SRGs to TTH



Rural flows to TTH



6.2 Planning Considerations

Rural and remote facilities are located at Ayr, Ingham, Charters Towers, Home Hill, Hughenden, Richmond and Palm Island (Joyce Palmer Health Service) and operate under a 'hub and spoke' model involving three hub hospitals:

- Charters Towers Hospital, a 23 bed facility with six bed alternatives located 140 kilometres south-west of TTH (approximately 90 minutes travel by road)
- Ingham Hospital, a 28 bed facility located 115 kilometres north of TTH (75 minutes travel by road)
- Ayr Hospital, a 28 bed facility located 90 kilometres south of TTH (60 minutes travel by road).

'Hub' sites are expected to provide core services, comprising surgical and procedural, maternity, emergency and general medical, at Level 3 Clinical Services Capability Framework (CSCF) v3.2.

Townsville HHS's rural hospitals are pivotal to the delivery of health care to people in rural and remote communities, and provide a range of general medicine, general surgery, obstetrics, emergency, outpatient, primary health and community services.

Rural-based community stakeholders consistently expressed a desire for the following:

- Services to be provided for the community, in the community
- Efficient service delivery models
- Person-centred models of care
- Increased use of ICT and other health technologies to support and improve local service provision
- To consider new models for supporting workforce attraction and retention.

From a service planning perspective, the 'hub and spoke model' aims to strike a balance between addressing community desires and expectations for local, safe and sustainable service delivery, and a need to maximise the capacity of available infrastructure within rural and remote facilities thereby reducing the need for additional infrastructure at TTH.

There is capacity to increase service capability and local self-sufficiency through further development of a hub and spoke model based on rural hubs (i.e. CSCF Level 3 facilities) at Ayr, Ingham and Charters Towers. Service areas to target include day surgery, endoscopy, emergency, inpatient, low-risk maternity, rehabilitation and palliative care.

A contemporary model of care at a rural hub requires:

- Restored focus on the core secondary health services (day surgery, endoscopy, emergency, inpatient, low-risk maternity, rehabilitation and palliative care)
- A fully-functional rural hub that is digital-hospital ready, and provides a range of Level 3 services closer to home
- Improved collaboration with primary and community-based healthcare providers, resulting in enhanced coordination of care for patients with chronic conditions and long-term needs
- Person-centred pathways that improve accessibility to services, enable more efficient staff and patient flows, are supported by clinically appropriate and respectful treatment environments and leverage the benefits of enhanced radiology and point of care technologies.

Ingham Hospital

Emergency ↑

Hospital Services

Emergency Department
Day Surgery / Theatre
Inpatients Ward
X-Ray Department

Community Health

Alcohol Tobacco & Other Drugs
Allied Health
Child Health
Community Health
Dental Health
Indigenous Health
Mental Health
Visiting Specialist Services

Townsville Health District

2-16 McIlwraith Street
Ingham QLD 4850
General Enquiries: 4720 3000



Queensland
Government





The Rural Generalist model has already been having an impact on the scope of services that can be provided at Townsville HHS rural and remote facilities. The generalist model for medical, nursing and allied health is critical for contemporary rural hospital practice, supported by outreach, videoconferencing and telehealth (inpatient and outpatient), and requires all staff working to full scope. A local workforce that is maintained and grown with support in terms of training and supervision from TTH is required.

Access to medical imaging services outside of Townsville is an issue, particularly in relation to after-hours services, and is a cause of referral of patients to Townsville.

There is opportunity to reconsider existing models of care for dialysis provision in the rural centres. An exploration of models of care that enable clients to return as close to home as possible is required. There is community demand for a service option

which allows clients to receive maintenance dialysis services as close to home as possible. These models include expanded satellite and / or self-care models.

6.3 Priority Planning Actions

- Further develop the role of Ayr, Ingham and Charters Towers Health Services as Townsville HHS rural hubs, with the aim of providing core services, comprising surgical and procedural, maternity, emergency and general medical, at CSCF Level 3 (v3.2)
- Further develop the hub and spoke model between Charters Towers with Hughenden and Richmond
- Ensure medical, nursing and allied health rural generalist staff are able to work to full scope by increasing outreach and telehealth support from TTH. Priorities include increasing endoscopy, minor surgery, mental health and paediatric services



- Maintain low-risk birthing services at Ayr and Ingham and consider the introduction of services at Charters Towers and Palm Island when feasible based on volumes and risk assessment
- Continue to expand the volume and breadth of telehealth service provision offered at rural sites for emergency and inpatient care as well as routine outpatient visits
- Develop a service model for medical imaging services in collaboration with local stakeholders that ensures 24-hour access to core radiology services
- Monitor the impact of further local population changes on the longer term requirements for additional physical infrastructure at each of the rural / remote hospitals.

7. Strengthening the tertiary referral role of Townsville Hospital

7.1 Planning Information

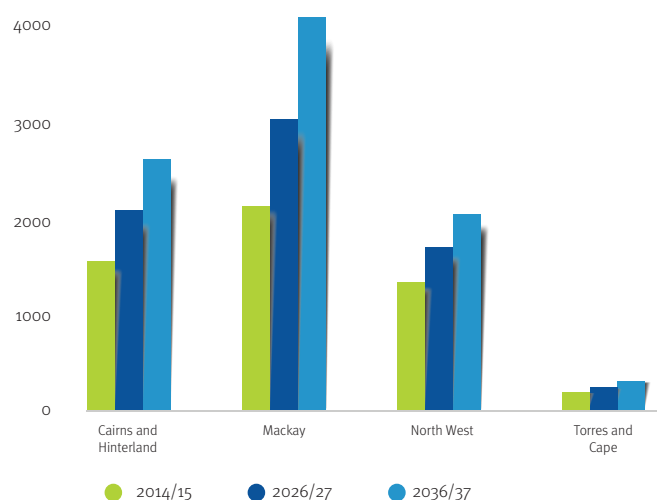
7.1.1 Northern Queensland residents using The Townsville Hospital

95 per cent of public hospital inpatient separations for Townsville HHS residents are provided by hospitals within Townsville HHS. TTH provides 85 per cent (approximately 38,000) of these separations.

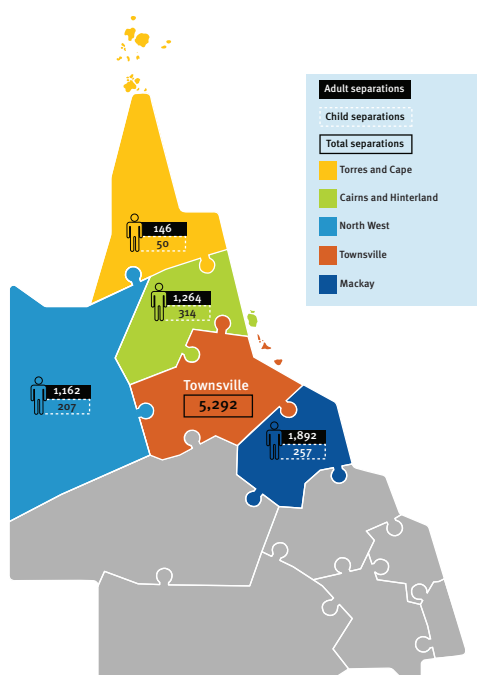
Just over 5,300 persons per annum flow to TTH from other northern Queensland HHSs. Of these, over 25 per cent are for same day separations. Children aged 0 - 14 account for around 16 per cent of the total inflows.

The largest volumes of inflows are from Mackay HHS (41 per cent) followed by Cairns and Hinterland HHS (30 per cent).

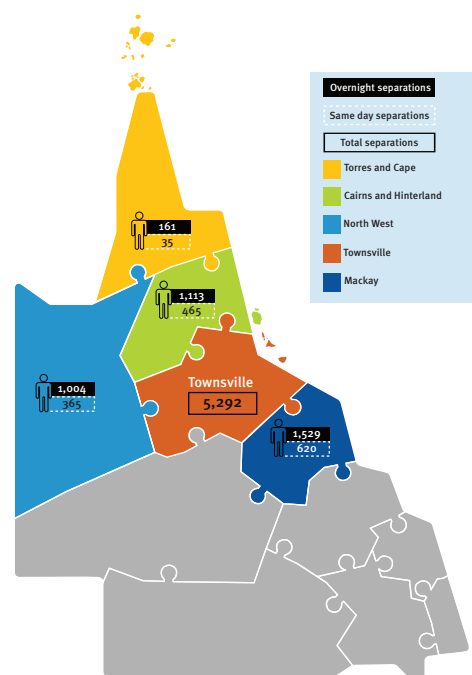
Northern Queensland Separations referred to TTH



Northern Queensland separations referred to TTH by age: adult and child



Northern Queensland separations referred to TTH by stay type: overnight and same day

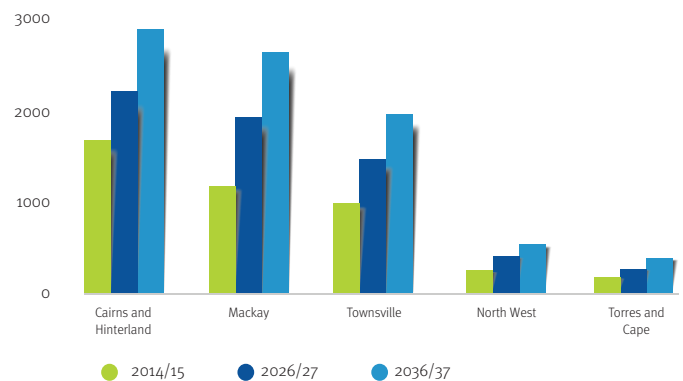


7.1.2 Northern Queensland residents using hospitals in Brisbane

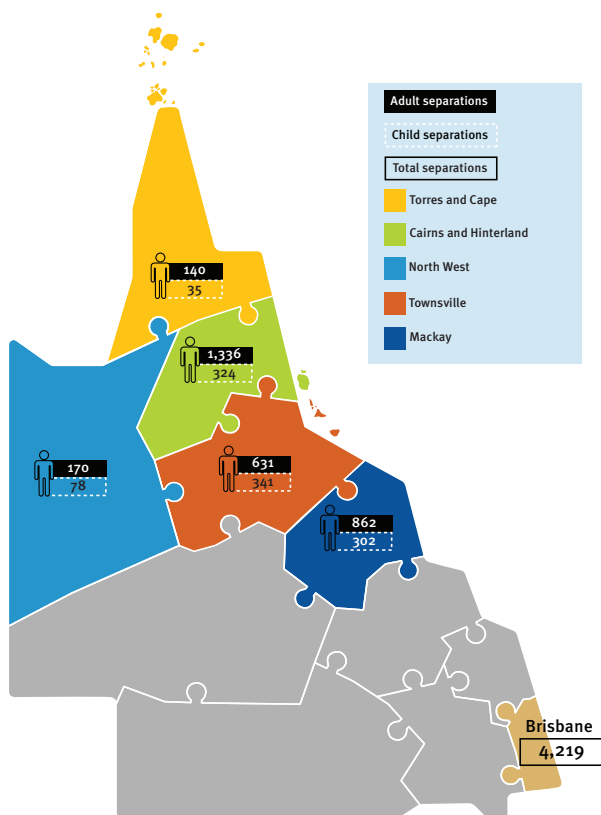
Residents from northern Queensland account for approximately 4,200 separations per annum from hospitals in Brisbane. Of these just under 1,000 are residents of Townsville HHS.

Of the total flows of northern Queensland residents to Brisbane public hospitals, just over 1,000 are children aged 0 - 14 years. Over one-third are for same day separations. The largest volumes of residents were from Cairns and Hinterland HHS.

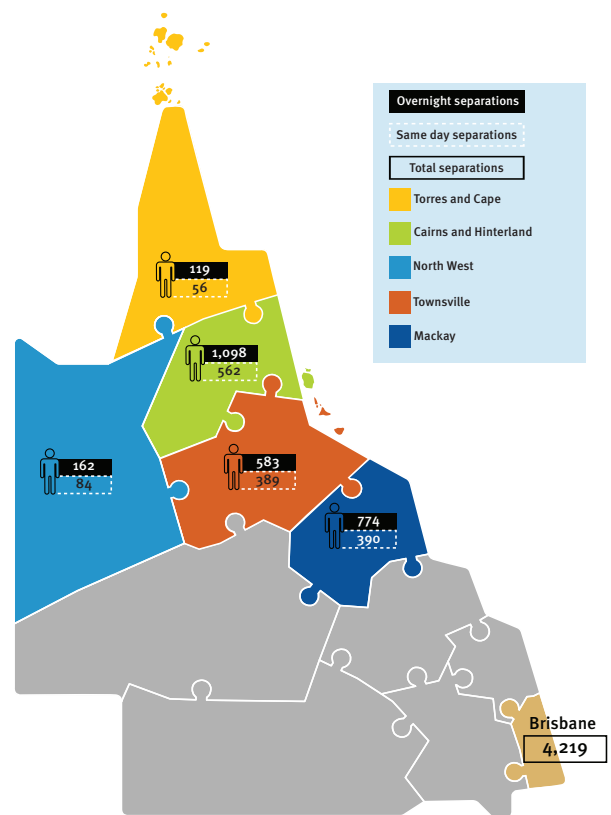
Northern Queensland Separations referred to Brisbane



Northern Queensland separations referred to Brisbane by age: adult and child



Northern Queensland separations referred to Brisbane by stay type: overnight and same day



7.2 Planning Considerations

One of the major strategic issues for TTH is the need to consolidate and strengthen recognition of its role as the major tertiary referral hospital for northern Queensland. For tertiary services, TTH is the major centre for trauma, cardiothoracic, cancer and neurosciences services as well as supporting the retrieval services for adult, paediatric and neonatal intensive care patients.

Overall, Townsville HHS is already highly self-sufficient for the provision of public hospital services with just over 95 per cent of all public hospital separations for Townsville HHS residents occurring from hospitals within Townsville HHS. There are, however, key outflows of Townsville HHS residents to major public hospitals in Brisbane as well as flows to Brisbane for people from the other northern Queensland HHSs. These flows are for outpatient, same day and overnight inpatient services for adults and children.

Tertiary-level services are high cost, low volume services which must be underpinned by a critical mass of population. They are also reliant on an ability to recruit and retain staff with highly specialised skills. For these reasons, it would be advantageous to redirect, wherever possible, tertiary patient flows from Brisbane to TTH for residents of North Queensland HHSs.

Consolidation and strengthening of tertiary services at TTH will require further development of some specific services, in particular, medical imaging which is currently defined under the Queensland Department of Health CSCF as a Level 5 service. To meet Level 6 requirements there must be capability and capacity to provide complex, on-site interventional and neuro-interventional procedures. Medical specialists with certification for performing Tier B procedures (including neuro-interventional procedures, such as neuro-angiography and/or carotid stenting and ablation therapy) as

well as allied health specialist radiographers with neuro-interventional competency are key requirements. Interventional radiology capability will increasingly become the cornerstone of tertiary service delivery to support the use of minimally invasive surgical techniques and advances in cancer treatments such as delivery of localised radioactive particles.

Nuclear Medicine services at TTH are also currently defined under the Queensland Department of Health CSCF as a Level 5 service. To be defined as a Level 6 service would require a radioisotope laboratory to be available on - site and staffed by radiochemists. A level 6 service would provide therapeutic administration of high dose radiopharmaceuticals including treatment for inpatients. If the service does not also include a Good Manufacturing Practice (GMP)-compliant laboratory, this may limit provision of some types of therapy and research.

Other key constraints on the further development of tertiary services currently include:

- issues with access to Magnetic Resonance Imaging (MRI) / Computed Tomography (CT),
- availability of a hybrid theatre and
- capacity of anaesthetics, allied health services, Intensive Care Unit (ICU) and Paediatric Intensive Care Unit (PICU) to manage the flow on impact of increased volumes of higher complexity services.

Based on current modelling, a 50 per cent reversal of outflows would only have a small additional impact on the future requirements for overnight beds at TTH (approximately seven beds for adults and three beds for children). Of greater impact on overnight bed requirements would be a redirection of flows of residents from other northern Queensland HHSs from Brisbane hospitals to TTH. A 50 per cent redirection of these flows could result in an additional requirement for 28 adult





overnight beds and just over seven paediatric overnight beds. The ability to redirect these tertiary-level flows to TTH would be dependent on an ongoing effective networking and referral relationship with the other northern Queensland HHSs.

TTH also plays a key regional role for northern Queensland in providing secondary-level hospital services for all specialties. The volume of secondary-service inflows of patients from other northern Queensland HHSs to TTH tends to fluctuate and is strongly linked to workforce capacity and capability in these other locations. In addition to providing inpatient and outpatient services at TTH, a significant level of support is provided through outreach and telehealth throughout northern Queensland and particularly to Mount Isa.

The aim is to reduce the need for patient referral to TTH as well as provide leadership and upskilling to clinicians in other locations. This secondary role is particularly highlighted in relation to surgical specialties including general surgery, Ear, Nose and Throat (ENT), urology, ophthalmology, plastic surgery and orthopaedics. Other services as having critical regional roles include radiology, cardiology, neurology, respiratory medicine, renal medicine, gastroenterology and trauma.

A major impact of consolidating and strengthening TTH's tertiary referral role is the resource implications of the increased volume of outpatient follow-up visits that would result from a redirection of patient flows from Brisbane in addition to providing outreach and telehealth services to support the other regional locations.

This is particularly an issue for paediatric services where the trend is to move increasingly to ambulatory and outpatient services. The vision for paediatrics is to develop a service model which maintains a strong general paediatric base while increasing development of selected subspecialty services in collaboration with Lady Cilento Children's Hospital (LCCH). The aim is to build the skills of rural generalists for paediatrics, as well as support staff of Cairns and Mackay in order to reduce the volume of transfers to TTH.

A generalist workforce model supported by targeted subspecialty development is also crucial to the sustainability of specialist services for adults. The vision to develop an academic health research and teaching campus in collaboration with James Cook University (JCU) is a key opportunity and would significantly contribute to consolidating the role of TTH as the tertiary regional referral centre.

7.3. Priority planning Actions

- Increase the capability of medical imaging services to CSCF Level 6 at TTH
- Increase nuclear medicine to CSCF Level 6 if feasible at TTH
- Expand operating theatre capacity including development of a hybrid theatre
- Progressively implement targeted redirection of northern Queensland residents from Brisbane public hospitals to TTH for selected secondary and tertiary paediatric, cancer, cardiothoracic and neurosciences outpatient and inpatient services
- Review the capability and capacity requirements of all associated clinical and clinical support services to manage the flow-on impact of selected patient flow reversal (including ICU, PICU, anaesthetics, pathology, radiology, allied health)
- Establish strong partnership relationships with LCCH, Princess Alexandra Hospital, Royal Brisbane and Women's Hospital and The Prince Charles Hospital to support any required workforce upskilling to support tertiary-flow reversal
- Further develop outreach services and telehealth/remote monitoring capability to support increasingly complex patient management in other northern Queensland regional and remote locations and reduce inpatient transfer to TTH
- Lead a collaborative planning process between Townsville HHS, Cairns and Hinterland HHS, Cape York and Torres Strait HHS, Mackay HHS and North West HHS to identify the preferred location, service and workforce models for subspecialty service provision in northern Queensland.
- Ensure our planning and investment processes position Townsville HHS as a leading adopter of emerging technological change for northern Queensland.



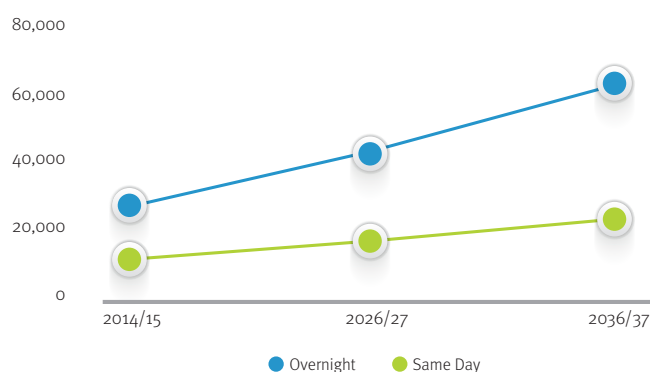
8. Working with the private hospital sector in Townsville

8.1 Planning Information

Private hospital providers

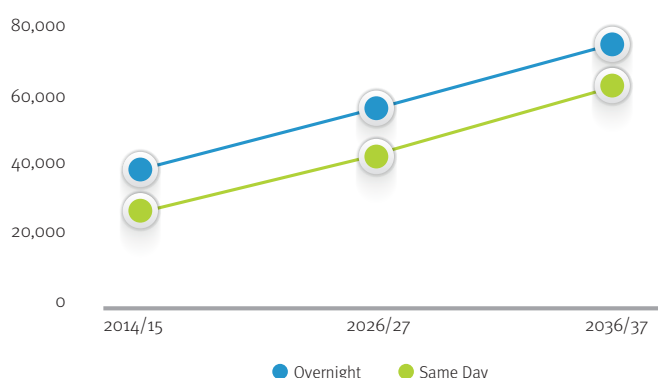
- Mater Health Services North Queensland provides a range of services including acute medical, surgical, obstetrics and paediatric services across two sites at Pimlico and Hyde Park
- Townsville Day Surgery at West End provides orthopaedic, maxillofacial and general surgery (covering aspects of sporting injuries, carpal tunnel, hernia, vasectomy, arthroscopy, and removal of lesions) as well as endoscopy, dental surgery, women's urological and gynecological care and In Vitro Fertilisation (IVF) services
- North Queensland Day Surgical Centre at Pimlico provides ophthalmology procedures including laser eye surgery, cataracts, glaucoma and retinal disorders
- ICON Cancer Care Townsville at Hyde Park is a specialised day hospital that provides a full range of treatments for people diagnosed with cancer or blood conditions.

Private hospital separations for Townsville HHS residents



Private hospital demand for Townsville HHS residents is projected to grow at an annual rate of 3.8 per cent per year.

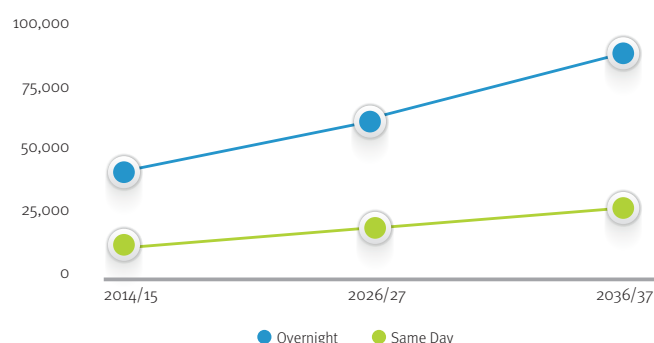
Private hospital beddays for Townsville HHS residents



In 2014 - 2015, there were an equivalent of 125 overnight beds of private admitted activity provided for Townsville HHS residents, regardless of where they accessed services (approximately 88 per cent of this was in northern Queensland private hospitals).

This is projected to increase by 114 beds to a total of 239 beds by 2036 - 2037.

Townsville HHS residents use of public hospitals as private patients



In 2014 - 2015 approximately 17.5 per cent (11,583 of 66,143 separations) of separations by Townsville HHS residents in public hospitals were chargeable. This is expected to increase.

8.2 Planning Considerations

In recent years, growth in the private sector in Australia has been related mainly to increasing numbers of small specialist hospitals and some major expansions by the major operators. The smaller facilities tend to focus on non-critical care often in a day only or short stay setting. Services provided in these facilities commonly include orthopaedics, gastroenterology and endoscopy, oral and maxillofacial surgery, plastic and reconstructive surgery. Private mental health and rehabilitation units have also been expanding.

In Townsville, there has been recent growth in selected services in the private sector including mental health, day cancer services and rehabilitation as well as the development of an Emergency Department at the Mater Townsville. There is also a proposed development for a short stay surgery facility at West End.

In addition, James Cook University remains keen to pursue the development of a private hospital adjacent to TTH site if a suitable operator can be found.

The predominant view among stakeholders was that, in the foreseeable future, there will be a decreasing private hospital sector

in Townsville as a consequence of a range of factors including a contracting economy, increases in the cost of private health insurance, reducing cover and increased excess payments. Consequently, the viability of any proposed new infrastructure developments would need careful consideration.

Within Townsville, there are currently several low-volume specialty areas in the private sector that represent areas of 'high-risk' for private sector non-viability.

The future policy directions of Government in relation to admitting chargeable private patients to public hospital beds is also unknown and will be a key factor in decisions relating to expansion of the private hospital sector in a relatively small market such as Townsville.

The overall projected growth in demand for overnight private hospital beds over the next 10 - 20 years is not of a sufficient volume to support an additional standalone large facility, however, it is large enough to represent a significant risk to the Townsville HHS if projected private demand is not met within the private sector.

8.3 Priority Planning Actions

- Opportunities for partnering with the private sector in Townsville should be pursued with the goal of increasing the viability of these services within the private sector. Partnering may include seeking joint appointments, integrated planning or developing new sustainable service models.
- Given the impact on future infrastructure requirements at TTH and uncertainty relating to private sector viability, projected growth in public sector chargeable patients within Queensland Department of Health modelling, and policies affecting this, should be monitored.





Planning Priorities

9. Priority planning actions for selected specialty services

A large number of potential planning actions were identified through the stakeholder engagement process which underpinned the development of this Plan. The priority actions for specific specialty areas are detailed in the following table. Priority has been given to those actions that will impact on future acute infrastructure requirements such as

decisions about future patient flow, models of care or site master planning. Actions relating to short-term operational issues, workforce planning, information systems and resourcing have not been included and will need to be considered in the future phases of the planning process.

Specialty Group	Service	Priority Planning Action (with impact on future infrastructure requirements)
Surgical / Procedural	General Surgery	<p>Work with Mackay HHS to redirect complex surgical patient flows of Mackay residents from Brisbane to TTH</p> <p>Expand outreach services to Ayr and Ingham</p> <p>Expand tertiary level capacity for hepato-pancreatico-biliary and additional colorectal and oesophago-gastric surgery</p>
	Maxillofacial surgery	<p>Implement free-flap surgical capability/capacity</p> <p>Assess the potential requirements for paediatric maxillofacial surgery as part of the planning process for flow reversal from LCCH</p> <p>Work with Cairns and Mackay to ensure a sustainable regional service from TTH</p>
	Vascular Surgery	<p>Provide access to an intra-operative Digital Subtraction Angiogram (DSA) in the theatre complex</p> <p>Expand outreach clinics</p> <p>Monitor the impact of increasing demand for vascular surgery including work related to renal access and the high needs of the Aboriginal and Torres Strait Islander community</p>
	Orthopaedic Surgery	<p>Progressively commence paediatric orthopaedic surgery</p> <p>Establish an Orthogeriatric Unit</p> <p>Address requirements for Royal Australian College of Surgeons Trauma Verification</p>
	Ear, Nose and Throat	<p>Progressively increase outreach clinic and theatre sessions to Mackay and work with Cairns to develop a sustainable service</p> <p>Increase capability to manage paediatric tertiary patients to reduce flows from northern Queensland to LCCH</p> <p>Monitor the impact of increasing demand for surgery for head and neck cancer</p>

Specialty Group	Service	Priority Planning Action (with impact on future infrastructure requirements)
Cardiothoracics	Cardiology, Cardiac Surgery and Thoracic Surgery	<p>Commence percutaneous aortic valve replacement (PAVR) and transcatheter aortic valve implantation (TAVI) to reduce outflows to Brisbane</p> <p>Monitor the impact of increasing interventional cardiology capability and capacity in both Cairns and Mackay in terms of required critical mass to preserve the TTH unit</p> <p>Improve outreach services to Cairns and Mackay</p> <p>Implement sustainable ultrasonography services</p>
Neurosciences	Neurology and Neurosurgery	<p>Develop a regional tertiary neurosciences centre for northern Queensland combining neurology and neurosurgical expertise with expanded capability for Interventional Neuroradiology</p> <p>Monitor the emergence of new chemical markers and other new treatments for tumour identification and their potential application</p> <p>Develop a recruitment strategy to ensure sustainability of service delivery for northern Queensland</p> <p>Further develop the acute stroke lysis service</p> <p>Work with Cairns and Mackay to manage the waiting lists for spinal surgery including local provision of physiotherapy screening clinics</p> <p>Advocate for improved access to medical imaging services in regional locations</p>
Medical	Cancer Services	<p>Identify the overnight bed requirements for Bone Marrow Transplant (BMT) separately from Haematology in terms of isolation and general treatment beds</p> <p>Increase capacity of radiotherapy and radiology services in line with growth in demand for Cancer Services</p> <p>Monitor the impact of further development of cancer services in Cairns and Mackay on flows to TTH</p> <p>Monitor the impact on chair requirements of new drug regimens with longer administration times</p> <p>Continue to expand telechemotherapy</p>
	Renal Services	<p>Identify the most appropriate location for future growth in satellite chairs in Townsville and the potential for establishing satellite services in Ingham and Charters Towers</p> <p>Expand capacity of the Palm Island dialysis service</p> <p>Support the return of North West HHS satellite patients to Mt Isa</p> <p>Promote self-care models in community/primary care settings for patients whose home environment is unsuitable</p> <p>Increase allied health and nurse practitioner services to the Chronic Kidney Disease (CKD) program</p> <p>Promote access to renal transplantation and other alternatives to dialysis including palliation</p>
	Respiratory and Sleep Services	<p>Monitor changing casemix trends including demand for sleep studies and the increasing incidence of diseases in northern Queensland such as Tuberculosis and the resulting impact on future inpatient and outpatient requirements</p> <p>Review demand for associated clinical support services including bronchoscopy and respiratory function testing</p> <p>Establish a specialist supported respiratory failure service</p> <p>Increase engagement with primary and community care services to prevent hospital admission for patients with chronic disease</p>

Specialty Group	Service	Priority Planning Action (with impact on future infrastructure requirements)
Medical cont.	Infectious Diseases	<p>Establish an infectious disease service to inpatients to provide consultative advice, care and strategic antimicrobial stewardship in collaboration with medicine and surgery</p> <p>Support the expanded provision of Hospital in the Home and Hospital in the Nursing Home</p>
	Internal Medicine	<p>Review the role of the Acute Assessment Unit with a view to further refining the model</p> <p>Invest in community based alternative models to meet increasing demand from chronic conditions</p> <p>Build relationships with primary care and general practice with a view to managing outpatient demand and improving hospital avoidance</p>
	Emergency Medicine	<p>Monitor the changing paediatric caseload and review demand projections including need for dedicated paediatric positions</p> <p>Define the future relationship between adult and paediatric services including requirements for shared versus separate physical locations and staff.</p> <p>Implement service models to meet increasing demand from the frail aged and patients with chronic disease and improve interaction with general practice e.g. GEDI nurse model</p> <p>Support the expansion of Hospital in the Home and Hospital in the Nursing Home</p> <p>Improve engagement with the Mental Health service</p> <p>Address access issues to ultrasound services</p>
	Gastroenterology and Endoscopy	<p>Review utilisation of endoscopy suite capacity in terms of identifying separately demand from gastroenterology, screening program colonoscopies, other endoscopy, hepatology and bronchoscopy</p> <p>Expand provision of screening colonoscopy at rural hubs</p> <p>Ensure Hepatitis C service delivery to the correctional centres</p>
	Endocrinology and Diabetes	<p>Address access issues to dietetics, podiatry and psychology services for the Diabetes and Endocrine Unit</p> <p>Build relationships with primary care and general practice</p> <p>Monitor trends in complications of diabetes and the impact on inpatient and outpatient infrastructure requirements</p> <p>Assess the feasibility of administering radioactive iodine at TTH to reduce patient transfers to Brisbane</p> <p>Review demand for outreach services noting workforce gaps in Mackay and Mt Isa</p>
Subacute	Gerontology	<p>Increase access to specialist geriatric services within a community setting and improve collaboration with general practice</p> <p>Expand the same day geriatric unit model</p> <p>Review the use of beds within the Subacute facility in terms of patient type and further define admission criteria</p> <p>Identify alternative settings for the care on maintenance type patients including patients waiting nursing home placement</p> <p>Develop telehealth services to support inpatients in rural and remote facilities</p> <p>Develop a medically led model in collaboration with GP's to provide outreach services to nursing homes</p>

Specialty Group	Service	Priority Planning Action (with impact on future infrastructure requirements)
Subacute cont.	Rehabilitation	<p>Review admission criteria and casemix for the Acute Rehabilitation Unit</p> <p>Investigate the feasibility of establishing an acute brain injury and spinal unit at TTH to service northern Queensland given the relatively small volumes of patients requiring inpatient specialised unit services</p> <p>Expand community based rehabilitation program</p> <p>Develop specialist rehabilitation nursing and allied health roles</p>
	Palliative Care	<p>Increase investment in to the provision/support for community based services</p> <p>Work collaboratively with the Hospital in the Home program</p> <p>Develop telehealth and a “virtual admissions” model for rural and remote services</p> <p>Work closely with services in Cairns, Mackay and Mount Isa</p> <p>Provide training to Aboriginal and Torres Strait Islander Health Workers and Indigenous Hospital Liaison Officers (IHLO) to support culturally appropriate practices for inpatient and home based care and for decisions relating to end of life</p>
Obstetrics and Gynaecology	Maternity Service	<p>Develop a sustainable workforce model for the Maternal Fetal Medicine service</p> <p>Continue low-risk birthing in Ayr and Ingham and consider birthing at Charters Towers and Palm Island when feasible, on the basis of safety and demand</p>
	Gynaecology	<p>Expand the capacity of the locally-provided North Queensland Cancer Service through development of a Townsville-based gynaecology-oncology service to reduce the need for northern Queenslanders to access these services in Brisbane</p>
Paediatrics	Paediatric Medicine	<p>Establish an ED Paediatric Short Stay Unit</p> <p>Develop a Paediatric Rehabilitation Unit to service northern Queensland</p> <p>Develop a medical day unit for paediatrics</p> <p>Increase the capability and capacity of the paediatric diabetes and endocrinology, gastroenterology, neurology, cardiology and respiratory (including cystic fibrosis) services</p> <p>Progressively increase paediatric oncology service at TTH to service northern Queensland in collaboration with LCCH</p> <p>Establish a paediatric hospital in the home service</p>
	Paediatric Surgery	<p>Expand paediatric neurosurgical, orthopaedic, ENT and general surgical services</p> <p>Increase anaesthetic support in line with increased demand for surgery and for investigations/procedures (general anaesthetic assisted MRI / CT / Peripherally inserted central catheter (PICC))</p> <p>Expand ambulatory care for paediatric burns patients to support early discharge</p> <p>Assess the potential future need for a dedicated paediatric surgical inpatient unit and/or an extended day surgery unit</p>
Mental Health	Mental Health	<p>Creation of a dedicated acute older persons unit within the additional bed allocation for adult acute mental health</p> <p>Allocation of dedicated drug and alcohol detoxification beds within one of the medical units</p> <p>Expansion of the eating disorders services to increase community alternatives to care and to support more children to transition to adult services once they are aged 18</p> <p>Creation of a Family Unit for treatment of mothers and babies and for children aged 0-11 years</p> <p>Building generalist capacity for rural and remote areas, including the use of telepsychiatry</p> <p>Increasing capacity of community based alternatives for adults and children</p>

Specialty Group	Service	Priority Planning Action (with impact on future infrastructure requirements)
Critical Care	Adult Intensive Care	<p>Monitor the impact of the increasing demand from trauma, oncology and complex surgery</p> <p>Address reasons for “bed block” barriers to discharge from the Intensive Care Unit</p> <p>Assess the longer term physical requirements in the context of the preferred future service model (including issues concerning ongoing collocation with PICU / location of care for “High Dependency Unit (HDU)” type patients)</p>
	Paediatric Intensive Care Unit (PICU)	<p>Host the paediatric retrieval system for northern Queensland as per the recommendations of the Queensland Department of Health review of statewide retrieval services</p> <p>Define the future relationship between adult and paediatric services including requirements for shared versus separate physical locations and staff</p> <p>Review the service model for “HDU” type patients and the impact of the mix of elective versus emergency caseload</p> <p>Monitor the impact of increasing the complexity of paediatric surgery as a result of flow reversal from LCCH</p>
	Neonatal Intensive Care Unit (NICU) / Special Care Nursery (SCN)	<p>Monitor impact of any change in service capability levels at Mackay and Cairns in terms of the need to maintain critical mass as a major referral unit at TTH</p> <p>Work with Cairns and Mackay to maintain a sustainable and coordinated approach to retrievals within the context of the statewide system</p> <p>Analyse the over-representation of Aboriginal and Torres Strait Islander children to identify strategies for service improvement</p> <p>Review admission criteria for the Special Care Nursery</p> <p>Monitor the need for the introduction of new technologies</p>
Clinical Support Services	Pharmacy	<p>Review current service model in relation to the efficiency of operating from two locations, requirements for pharmacy involvement at point of care and the future use of Pyxis or Imprest systems</p>
	Anaesthetics and Perioperative Services	<p>Analyse the flow on impact of increasing tertiary level subspecialty services at TTH including the impact of increasing use of minimally invasive techniques and the resulting changing role for anaesthetics</p> <p>Investigate issues relating to futile care particularly for frail aged and terminally ill patients</p> <p>Undertake an end-to-end review of the perioperative process</p> <p>Construct a hybrid theatre</p>
	Clinical Measurements	<p>Expand telehealth services in line with increasing regional demand for clinical diagnostics</p> <p>Create a single clinical measurements department combining respiratory, sleep, surgical investigations, neurology and cardiac investigations</p> <p>Evaluate emerging technologies and plan for the impact on IT infrastructure, policies and guidelines (e.g. Cloud technologies)</p>

Specialty Group	Service	Priority Planning Action (with impact on future infrastructure requirements)
Clinical Support Services cont.	Allied Health	<p>Review requirements for inpatient and ambulatory services for all specialised allied health disciplines as a result of increasing complexity and volumes of patients (including demand for additional aged, chronic disease, paediatric and rehabilitation services)</p> <p>Expand primary contact screening and conservative management programs to manage neurosurgical, orthopaedic, uro-gynaecology and rheumatology waiting lists</p> <p>Increase allied health services in the ED (including social work, psychology and first contact physiotherapy services)</p> <p>Expand capacity for outreach and telehealth services across all disciplines</p> <p>Ensure all allied health professionals are working to full scope in all locations</p> <p>Monitor the impact of implementation of the National Disability Insurance Scheme (NDIS) on all allied health disciplines</p> <p>Develop a service model for community-based allied health services targeting preventable hospital admissions and optimal support for acute hospital services</p>
Outpatient Clinics	Outpatient Clinics	<p>Design a model of care for future outpatient services that takes account of the following service trends:</p> <ul style="list-style-type: none"> • shifting low-risk minor procedures to outpatient settings • increased role of multidisciplinary clinics for the care of complex conditions • optimising new to review patient ratios with appropriate discharge to general practice and community based nursing and allied health services • maximising use of telehealth and telephone follow up for pre- and post-acute care • identifying clinics more appropriately delivered in non-hospital settings



10. Future requirements for capital infrastructure

Each year, the Queensland Department of Health provides annual projections of future health service activity to each hospital and health service. The projections quantify anticipated healthcare demand by service type and location taking account of population changes, historical trends in the volume of inpatient separations, current rates of utilisation of services and current referral patterns. The Acute Inpatient Modelling (AIM) tool is the main source of projected activity for inpatient services. The AIM methodology assumes that trends will change over time, for example, that advances in healthcare will mean that average length of stay (ALOS) across some specialties will continue to shorten, or that an admission rate for certain procedures will continue to fall. The projections are used to develop a 'Base Case' for the number of hospital beds that may be required over the next 10 to 20 years.

For the development of the Plan, the Base Case was used to provide a comparator to model a number of scenarios or 'what-if's' to address the key strategic questions for Townsville HHS. The scenarios considered what would be the potential impact of implementing a range of priority planning actions as outlined in this Plan in terms of:

- Managing demand for acute inpatient services through changing models of care
- Closing the Gap in health outcomes for Aboriginal and Torres Strait Islander peoples
- Making better use of rural and remote services
- Strengthening the role of TTH as the tertiary referral hospital for northern Queensland, and
- Working closely with the private hospital sector in Townsville.

The modelling resulted in the identification of a preferred option. Under the preferred option, the Townsville HHS would require approximately 390 additional overnight acute and subacute beds by 2036 - 2037 compared to 431 under the Base Case. The lower number would largely be dependent on a significant increase in home-based and community-based alternative care settings. According to the preferred scenario, The Townsville Hospital would require an additional 333 overnight beds by 2036 - 2037, Ayr Hospital an additional 24 beds, Charters Towers Hospital an additional 12 beds and Ingham Hospital an additional 17 beds. There will also need to be significant increases in ambulatory capacity including day only chairs and outpatient clinics to support the increased demand for services. Future capacity requirements for ambulatory services will be dependent on refinement of models of care and further analysis of demand.

It must be also noted that these projections are for overnight acute and subacute inpatient beds only and do not include designated mental health beds. The current modelling used by Queensland Department of Health also projects an additional requirement of up to 147 designated mental health beds for Townsville HHS by 2036 - 2037, some of which would ideally be able to be converted to community alternatives.

The comparison of the Base Case and preferred option projections for overnight beds is in Appendix A.



The feasibility of the projected expansion in overnight beds will need to be carefully assessed as the next step in the planning process. Key factors to be further considered, particularly in relation to the rural sites, will be the impact of any further decline in the size of local populations as well as the physical land and building constraints of existing sites. Any development would need to be undertaken as a staged process and the need for future capital investment closely monitored.

It must also be highlighted that these projections are based on the best information available at this time but predicting the future of healthcare services is highly complex. The projections must be reviewed annually. A key factor for Townsville HHS will be the impact of updated population projections when they become available.

Advances in healthcare delivery can have significant impact on projected requirements. Many stakeholders believe that this will be particularly evident over the next 10-20 years as a result of the impact of technology. Many industries are experiencing digital disruption and health services are already starting to experience these changes. Many are already available including the use of smart phones for remote monitoring. Clinically, the significant advances in minimally invasive surgical techniques and changes in cancer treatments such as delivery of localised radioactive particles, gene targeting and immunotherapy are also already having an impact on demand.



Appendix A: Overnight bed projections

Townsville HHS

Facility	2014 - 2015	2026 - 2027	2036 - 2037	Change 2014 - 2015 to 2036 - 2037
BASE CASE Projections - Acute and Subacute Overnight Beds				
Townsville Hospital	506	680	893	387
Ayr Hospital	23	33	43	20
Charters Towers Hospital	23	25	31	8
Ingham Hospital	28	33	40	12
Hughenden Hospital	4	4	5	1
Richmond Hospital	6	5	6	0
Home Hill Hospital	16	15	18	2
Joyce Palmer Hospital	7	8	8	1
Base Case - THHS Facilities - Subtotal Acute / Subacute	613	803	1,044	431
SCENARIO Projections - Acute and Subacute Overnight Beds				
Townsville Hospital	506	637	839	333
Ayr Hospital	23	37	47	24
Charters Towers Hospital	23	28	35	12
Ingham Hospital	28	37	45	17
Hughenden Hospital	4	4	5	1
Richmond Hospital	6	5	6	0
Home Hill Hospital	16	15	18	2
Joyce Palmer Hospital	7	8	8	1
Scenario - THHS Facilities - Subtotal Acute / Subacute	613	771	1,003	390
Mental Health Overnight Beds				
Townsville	61	86	102	41
Kirwan	42	64	73	31
Charters Towers	27	26	30	2
THHS Mental Health Subtotal	130	176	205	75
BASE CASE Projections All THHS Facilities - All Acute / Subacute and Mental Health Overnight Beds	743	979	1,249	506
SCENARIO Projections All THHS Facilities - All Acute / Subacute and Mental Health Overnight Beds	743	947	1,208	465

Acute / subacute beds include overnight adult and paediatric (incl. ICU/PICU/NICU/SCN) beds. The table excludes ED short stay beds.

It must be noted that **base year 2014 - 2015 numbers do NOT reflect current physical capacity**. They are calculated on the basis of activity with relevant benchmarks applied with the exception of mental health beds for which the figures were provided by THHS.

It must be noted that base year 2014 - 2015 numbers do NOT reflect current physical capacity. They are calculated on the basis of activity with relevant benchmarks applied with the exception of mental health beds for which the figures were provided by Townsville HHS.

The preferred option builds in the following assumptions from 2021 - 2022 onwards.

1. Length-of-stay reductions built in to the AiM tool for acute and subacute overnight services will be met by Townsville HHS.
2. Hospital in the Home services will increase from 1.2 per cent of total admissions to 3.0 per cent of total admissions at TTH.
3. The number of overnight inpatient maintenance patients projected at TTH will be reduced by 75 per cent.
4. An increase in home-based palliative care services, leading to a reduction in hospital-based palliative care overnight separations by 30 per cent at TTH.
5. An increase in self-sufficiency of CSCF Level 3 rural facilities at Ayr, Ingham and Charters Towers as follows:
 - a. An increase in the self-sufficiency of medical services to 85 per cent

- b. An increase in the self-sufficiency of surgical services to 65 per cent
- c. An increase in the self-sufficiency of endoscopy services to 90 per cent
- d. An increase in the self-sufficiency of vaginal deliveries to 80 per cent.

6. A 50 per cent reduction in the volume of overnight inpatient outflows to Brisbane by Townsville HHS residents.
7. A 50 per cent reduction in the volume of overnight inpatient flyovers to Brisbane by other northern Queensland HHS residents.
8. A reduction in all projected inflow from Mackay HHS for geriatric management by 100 per cent.
9. It will be assumed that the projected demand for private hospital services as projected in the AiM tool will be met in Townsville.

The impact of the scenario modelling was on overnight-bed requirements at TTH, Ayr, Charters Towers and Ingham. Projected requirements for all other facilities / services are as per the Base Case.



Appendix B: Glossary of Terms

Key Words	Explanation
Population Density	The number of people per square kilometre that make up the population of the area defined.
Remoteness Index	<p>The Accessibility/Remoteness Index of Australia (ARIA+) is an index of the accessibility of places to service centres, or conversely of remoteness of places. Geographical areas are given a score based on the road distance to service towns of different sizes.</p> <p>This index measures remoteness in terms of access along the road network from populated localities to five categories of service centres (localities with a population of more than 1000 persons). Remote areas are considered to have very restricted accessibility of goods, services and opportunities for social interaction. Very remote areas are considered to have very little accessibility of goods, services and opportunities for social interaction</p>
SEIFA Index	Socio-Economic Indexes for Areas (SEIFA) is a suite of four indexes that have been developed by the Australian Bureau of Statistics (ABS) from social and economic Census information. Each index ranks geographic areas across Australia in terms of their relative socio-economic advantage and disadvantage. The four indexes each summarise a slightly different aspect of the socio-economic conditions in an area. The indexes can be used for a number of different purposes, including targeting areas for business and services, strategic planning and social and economic research. For each index, every geographic area in Australia is given a SEIFA score which measures how relatively 'advantaged' or 'disadvantaged' that area is compared with other areas in Australia
AIM Base Case	<p>The Acute Inpatient Modelling (AIM) tool is the endorsed source of projected activity for a number of admitted health services (in particular medical, surgical and maternity services).</p> <p>The AIM tool projects future admitted patient activity based on historical trends of separation rates and lengths of stay, place of residence variations in utilisation of services and patient flow patterns. The tool generates a base case (or status quo) model of projected activity which assumes that current patient flow patterns will continue and that place of residence variations in utilisation will reduce over time.</p>

Key Words	Explanation
Clinical services Capability Framework (CSCF)	<p>The CSCF for Public and Licensed Private Health Facilities provides a standard set of minimum capability criteria for service planning and delivery. The current version (v3.2), published in December 2014, has been designed to guide a coordinated and integrated approach to health service planning and delivery in Queensland. It applies to both public and licensed private health facilities and will enhance the provision of safe, quality services by providing health service planners and service providers with a standard set of minimum capability criteria. The CSCF's purpose is to:</p> <ul style="list-style-type: none"> • describe a set of capability criteria that identifies minimum requirements by service level • provide a consistent language for healthcare providers and planners to use when describing and planning health services • assist health services to identify and manage risk • guide health service planning • provide a component of the clinical governance system, credentialing and scope of practice of health services • instil confidence in clinicians and consumers services meet minimum requirements for patient safety and guide health service planning.
Beddays	A bedday is a day during which a person is confined to a bed and in which the patient stays overnight in a hospital.
Average Length of stay (ALOS)	The ALOS is often used as an indicator of efficiency. All other things being equal, a shorter stay will reduce the cost per discharge and shift care from inpatient to less expensive post-acute settings. The ALOS refers to the average number of days that patients spend in hospital.
Self-Sufficiency	Self-sufficiency is an indicator of the local accessibility of health services. The self-sufficiency index or capture rate is used to describe the degree to which the population in a catchment area depends on a local facility. It is one way of estimating how well the facility meets the designated catchment's health service needs.

