10. Providing services locally – our rural services

PLANNING INFORMATION

Darling Downs Health 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 facilities in Darling Downs Health are located at Warwick, Stanthorpe, Oakey, Millmerran, Texas, Goondiwindi, Inglewood, Dalby, Jandowae, Chinchilla, Tara, Miles, Taroom, Wandoan, Nanango, Kingaroy, Wondai, Murgon and Cherbourg. Warwick, Kingaroy and Dalby Hospitals have a rural hub or 'district' hospital function to provide support to smaller facilities in their region.

From a population perspective challenges for the planning of future rural health services include:

The percentage of people aged 70 and over residing in the rural areas of Darling Downs Health is projected to increase significantly (see graph below).

The level of disadvantage in some of our rural communities. Within the Western Downs and South Burnett regions are populations with the lowest possible SEIFA rank (1) indicating these areas have people living with the greatest social and economic disadvantage possible relative to other regions in Australia.

Figure 42: Planning regions and facilities by Clinical Service Capability (CSCF)

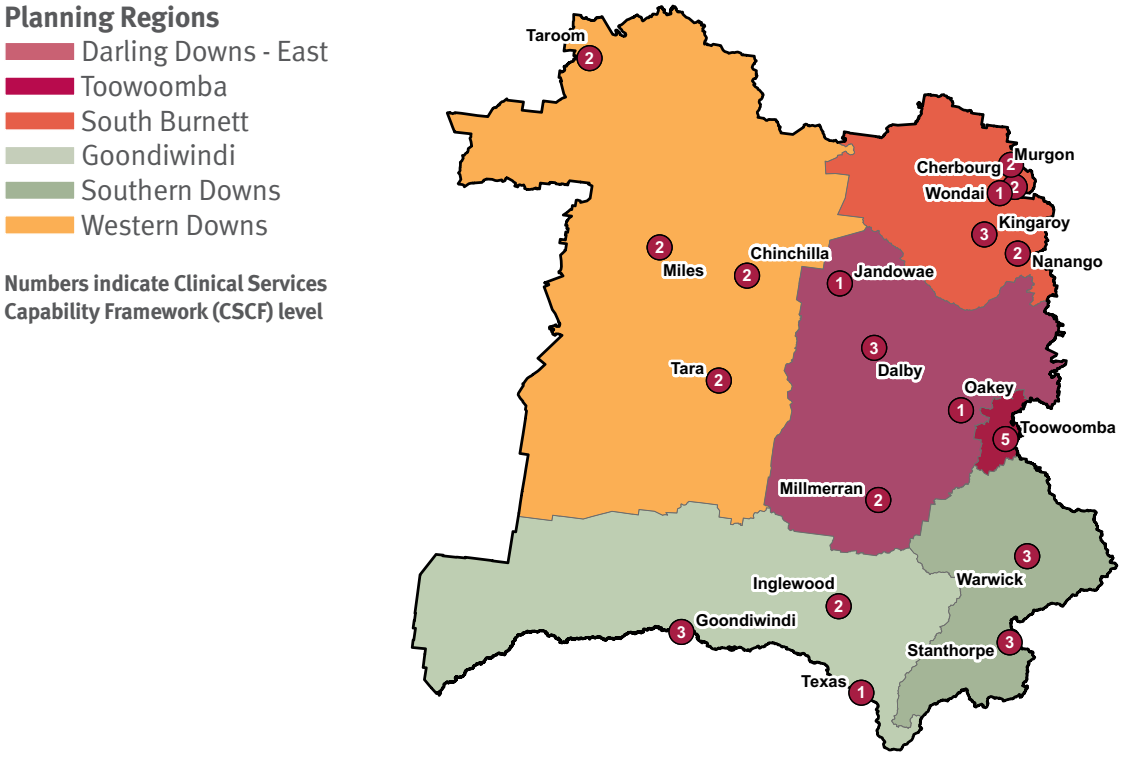


Figure 43: Rural population proportions

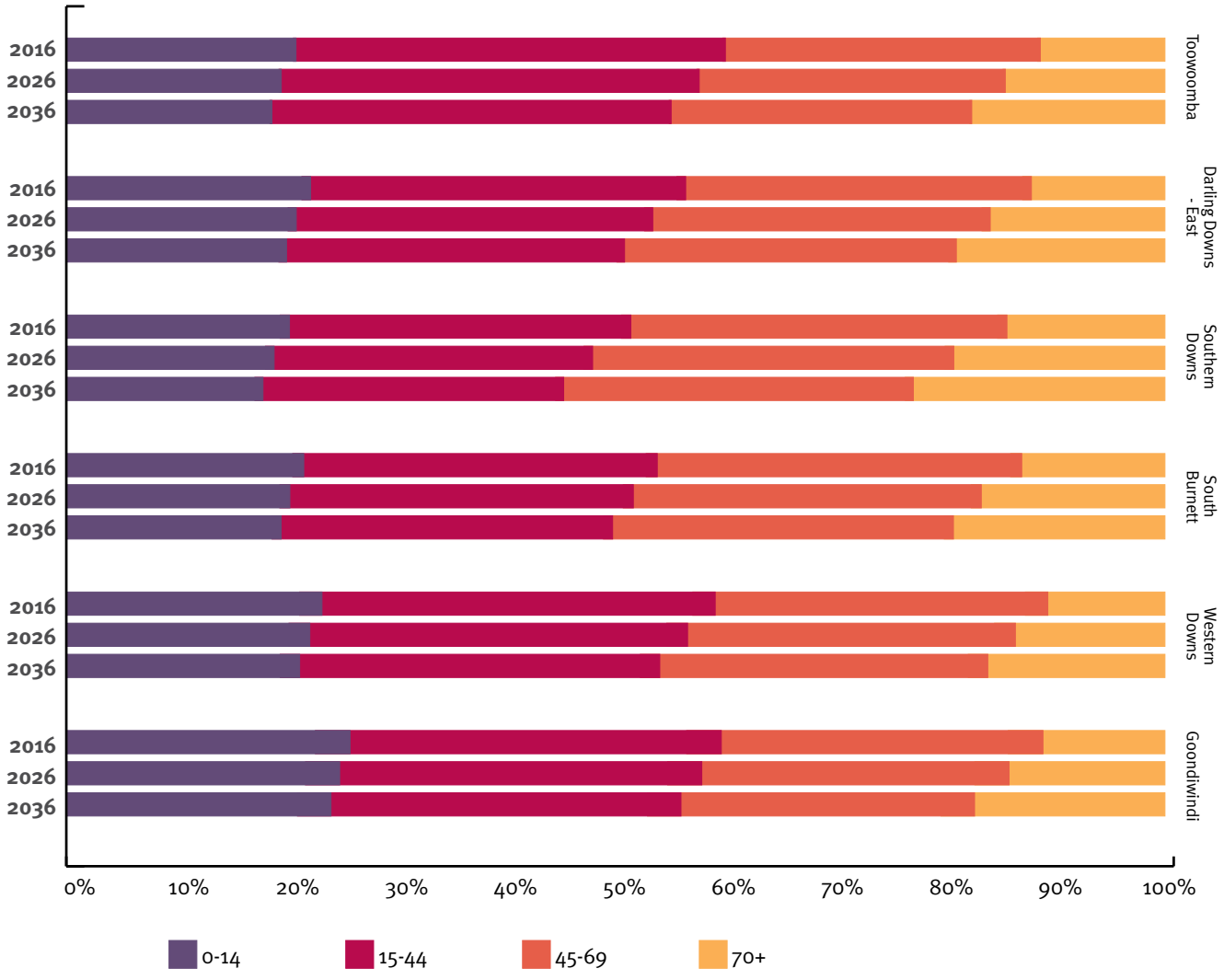
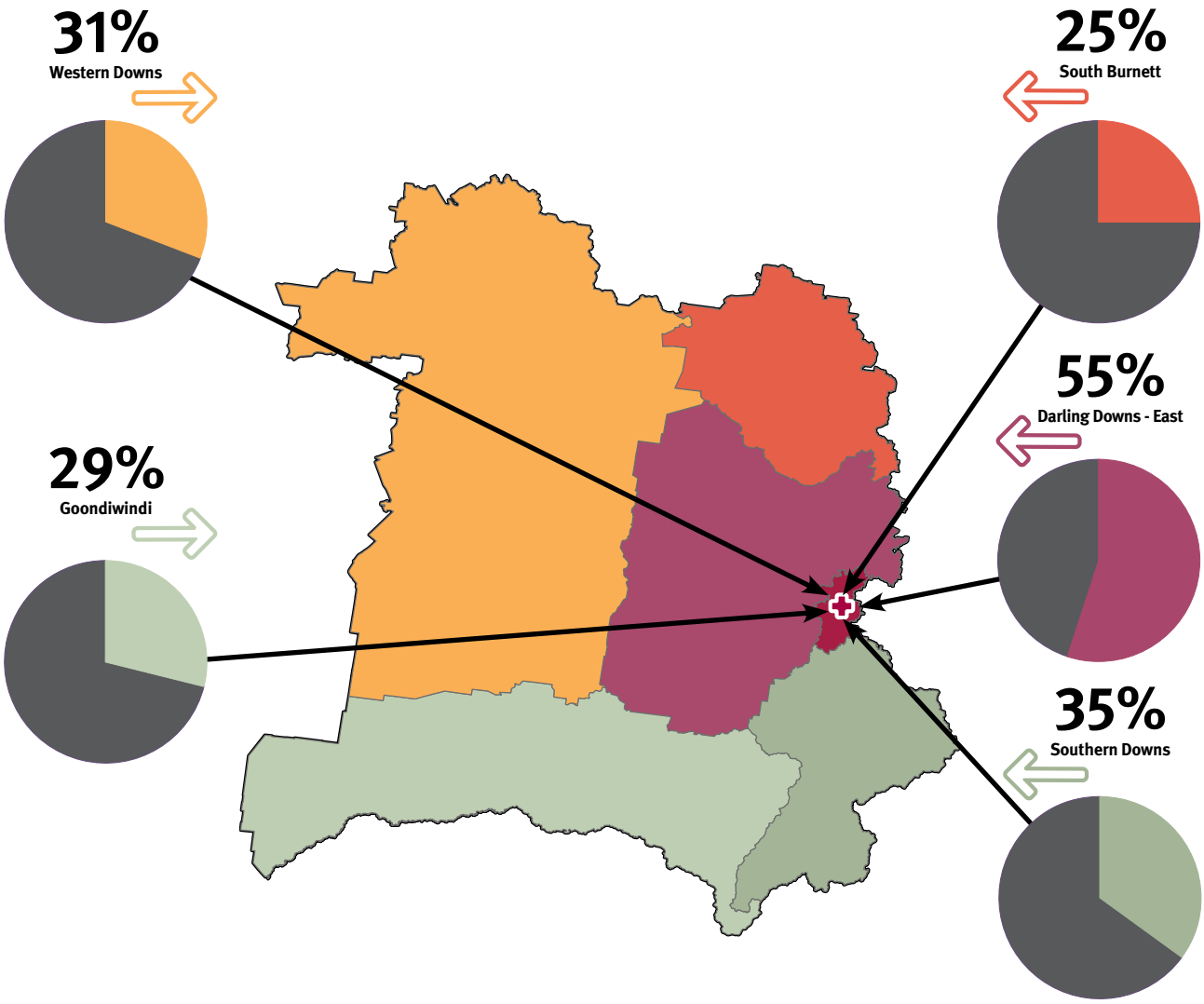


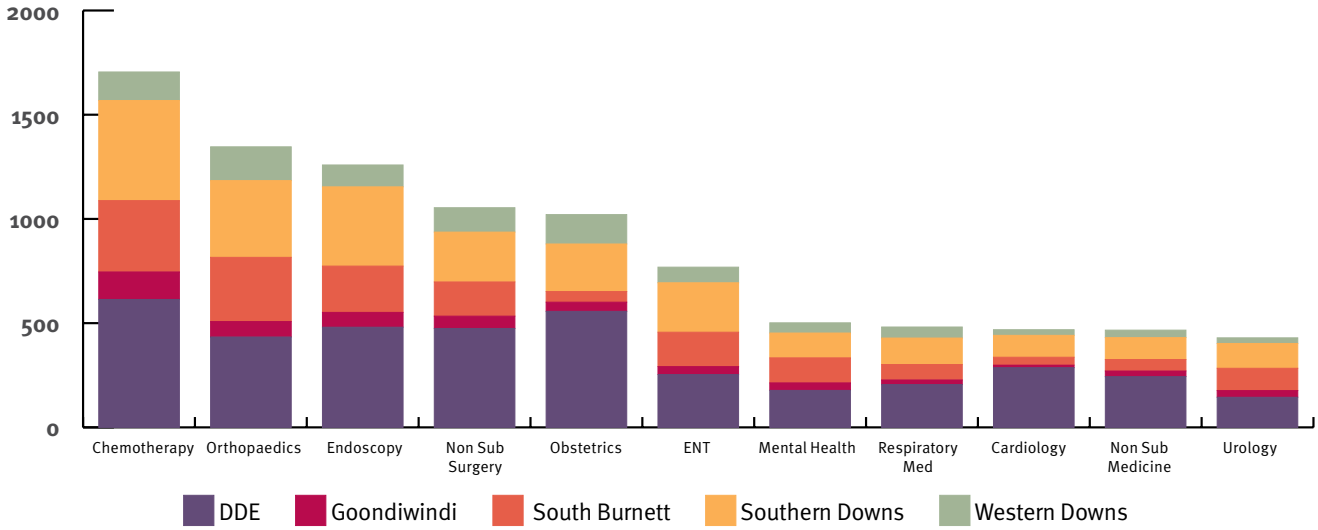
Figure 44: Rural flows to Toowoomba Hospital - per cent of total hospital admissions for each of the planning regions treated at TH 2016/17



Rates of rural hospital self-sufficiency vary depending upon location and specific SRGs. Note self-sufficiency is in the context of Darling Downs residents being treated in Darling Downs Health facilities and the following rates do not include Darling Downs residents being treated at metropolitan facilities. Southern Downs achieves high rates of self-sufficiency for overnight admissions for the SRGs Respiratory Medicine and Cardiology with rates of 89 and 87 per cent respectively in 2016/17. In South Burnett a high level of self-sufficiency was achieved for the SRG Diagnostic GI Endoscopy with a rate of 74 per cent in 2016/17. Lower rates of self-sufficiency were achieved for the SRGs Orthopaedics, Mental Health and ENT in rural regions. The SRG Chemotherapy had the lowest self-sufficiency with almost 100 per cent of rural patients being treated at Toowoomba Hospital. Residents of Chinchilla, Miles and Tara requiring overnight care are more likely to be transferred to Toowoomba Hospital rather than Dalby Hospital.

The top 5 specialties for which rural Darling Downs Health residents flow to TH are for chemotherapy, orthopaedics, endoscopy, general surgery and obstetric services.

Figure 45: Rural resident flow for top 11 SRGs at Toowoomba Hospital 2016/17



PLANNING CONSIDERATIONS

Rural facilities in Darling Downs Health operate under a 'hub and spoke' model involving three hub hospitals:

- Kingaroy Hospital, has 41 overnight beds, 2 bed alternatives and six renal chairs located 155 kilometres north of TH (approximately 2 hours travel by road).
- Dalby Hospital, has 31 overnight beds, 10 bed alternatives and two renal chairs located 82 kilometres west of TH (1-hour travel by road).
- Warwick Hospital, has 55 overnight beds, 14 bed alternatives and no renal chairs located 84 kilometres south of TH (1-hour 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. 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 TH.

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 Kingaroy, Warwick and Dalby. 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:

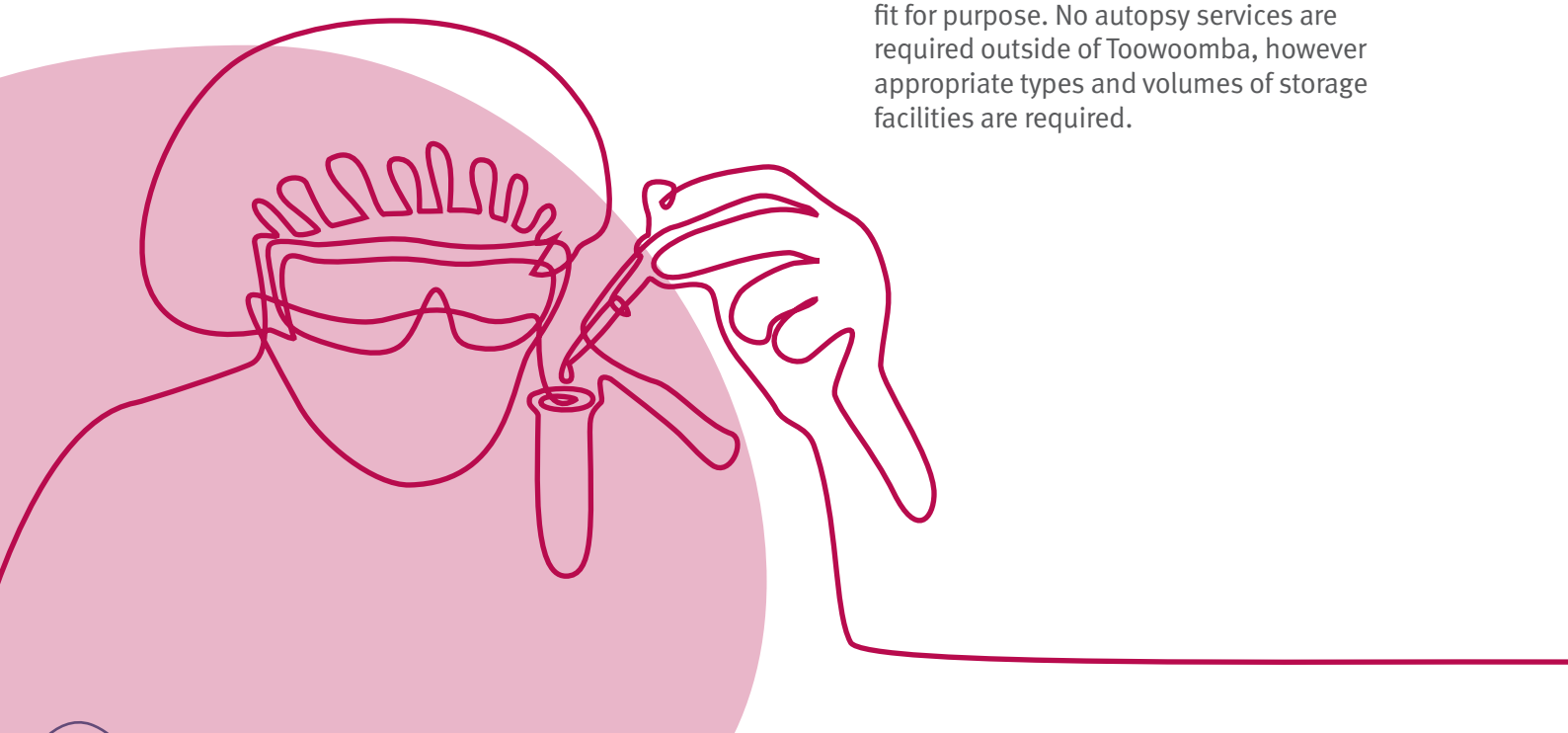
- Restored focus on the core secondary health services (day surgery, endoscopy, emergency presentations, low-risk maternity, rehabilitation and palliative care).
- A fully-functional rural hub that is digital-hospital ready, and provides a range of Level 3 services closer to home.
- Improved collaboration 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.

The provision of services to rural areas differs from the provision of services in urban or regional areas due to various factors including workforce availability, issues associated with accessibility and sustainability of services, and different patterns of health need. The planning, design and delivery of quality, contemporary health care in these communities needs careful planning, recognising these differences[20].

Rural health services are characteristically provided by a combination of rural medical generalists, a range of nurses and midwives, allied health staff and often, visiting specialist health professionals. These professionals may make periodic visits of varying frequency, or be accessible as required, for example, through telehealth. In the smaller rural facilities (CSCF Level 2 and 1), doctors and nurses may operate as lone practitioners. Arrangements where these health professionals are supported by a local colleague or by telehealth, and provided adequate leave coverage are necessary to sustain the service. Community information about the service capability needs to be available to the public.

Key considerations for the delivery of safe health services in the rural and remote context are:

- local staff are supported (as individuals and/or teams) to maintain existing, and develop new capabilities, allowing them to provide services in line with their full scope of practice
- services are embedded within a network of services with planned and dependable access to higher level emergency services supported by 'real time' access to specialist advice via communication technologies and pre-determined protocols
- visiting specialist services are predictable and coordinated, and recognise the role of local staff in ongoing management of the patient
- safe practice is supported by the physical environment in which staff provide services and the technologies supporting reliable diagnosis and accurate treatment
- clinical support services, for example, pathology, medications and radiography, are locally available or can be accessed in a timely way to support diagnosis and high-quality treatment
- collaborative service delivery with providers from the private sector (for example, the community pharmacist) and not-for-profits is the norm rather than an exception and safety discussions need to encompass consideration of the capabilities and clinical governance that applies to these other providers
- Review rural mortuary facilities to ensure fit for purpose. No autopsy services are required outside of Toowoomba, however appropriate types and volumes of storage facilities are required.



CHALLENGES

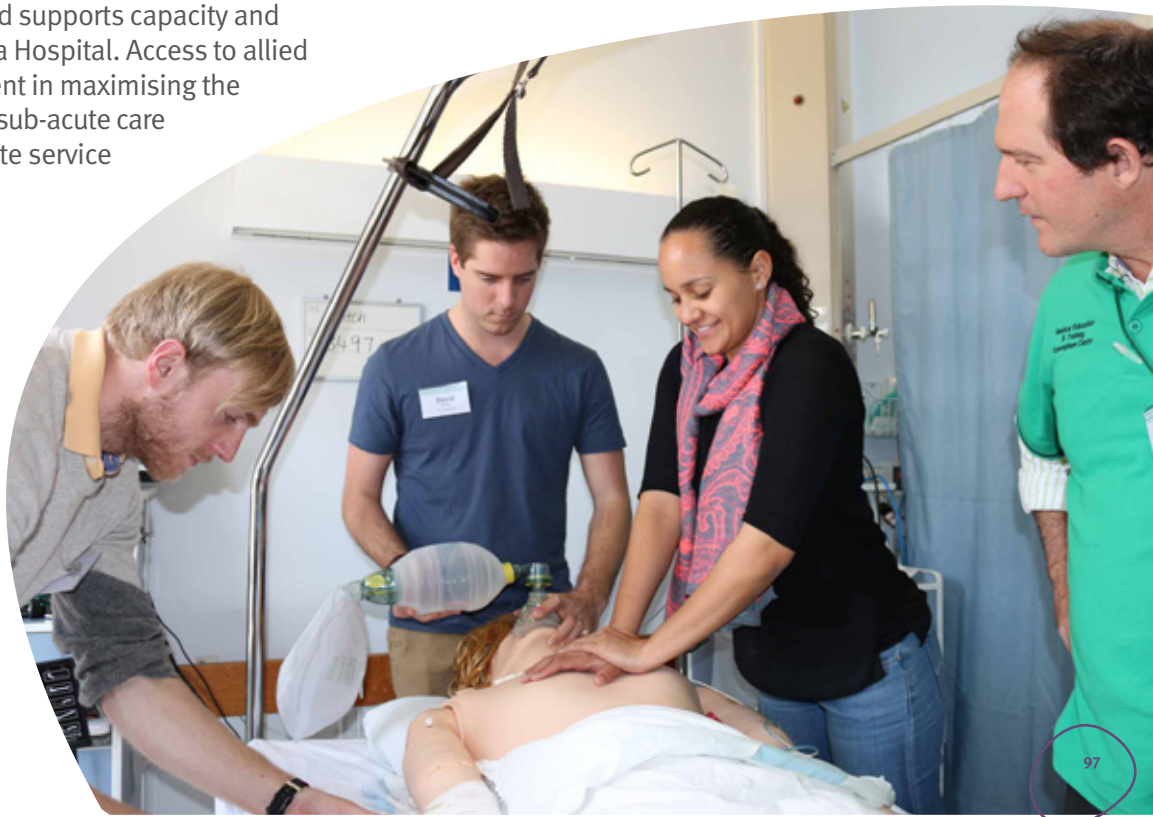
WORKFORCE

The Queensland Rural Generalist Pathway is recognised as an effective and sustainable training pathway that is providing a solution to the rural medical workforce challenges in Darling Downs Health. It provides a supported career pathway for junior doctors to train in rural and remote areas and has been recognised as a medical specialty since May 2008. The pathway is supported by Queensland Health and has demonstrated achievements in medical work retention and high-quality training.

Support for rural generalists working in rural locations requires access to senior clinician advice from Toowoomba Hospital (consultant level) and continued collaboration to maintain rotation positions and development of in-service opportunities at Toowoomba Hospital. Workforce diversification is required to ensure advanced skill development in mental health and paediatrics wherever possible and to develop a team that has emergency, obstetrics and anaesthetics skills.

Queensland Health supports the training of allied health rural generalists. A model that includes allied health generalists supported by allied health assistants will be better able to care for the sub-acute care casemix of many small rural hospitals and multipurpose health centres. Transfer of patients to smaller facilities in the sub-acute period minimises displacement from home communities for clients and family and supports capacity and efficiency at Toowoomba Hospital. Access to allied health is a key component in maximising the quality and efficiency of sub-acute care and is critical to sub-acute service capability in rural and remote facilities.[21]

There is currently no generalist model for nursing and rural facilities. Providing birthing services requires employment of midwives or staff with double degrees in nursing and midwifery. At a National and State-wide level there is no immediate solution to the midwife shortage and this will impact Darling Downs Health's ability to continue to provide birthing services. Recruiting to rural hospitals with small birthing numbers is particularly difficult as midwives may be expected to have a more expanded or 'generalist' role. 'Currently, the work of the rural or remote midwife is as a rural generalist, which means they have a smaller proportion of 'midwife work' in their day to day role'. Low birthing numbers make it more difficult to maintain staff skill levels and role conflicts can lead to decreased job satisfaction, which has a negative impact on staff retention[78]. Darling Downs Health will need to continue to provide high level support to rural midwifery services to ensure all midwives work in accordance with their professional scope of practice and work in partnership with universities to ensure the supply pipeline for future staff will meet current and future needs.



RENAL SERVICES

There is an opportunity to expand existing dialysis services at Kingaroy and Dalby Hospitals noting that these are services for low complexity patients, who can be dialysed without the assistance of a medical practitioner (level 2 CSCF). Medical review and support is provided to this cohort of patients from Toowoomba Hospital. The new facility at Kingaroy will provide increased capacity for up to 10 renal patients however the projected growth in renal services for the South Burnett indicates only 7 chairs are required by 2021/22 and 8 chairs by 2026/27. The remaining capacity will serve as future proofing beyond this period. Taking into consideration that 100 per cent of South West renal patients flow to the Darling Downs Health for treatment, the estimated future demand data supports an increase in capacity at Dalby Hospital from 2 chairs to 4 chairs by 2021/22. Additionally, activity projections support provision of 2 chairs at Warwick Hospital from 2021/22. Providing this increase in capacity will ensure clients requiring low complexity maintenance dialysis services are treated as close to home as possible, including patients who may travel from the South West communities.

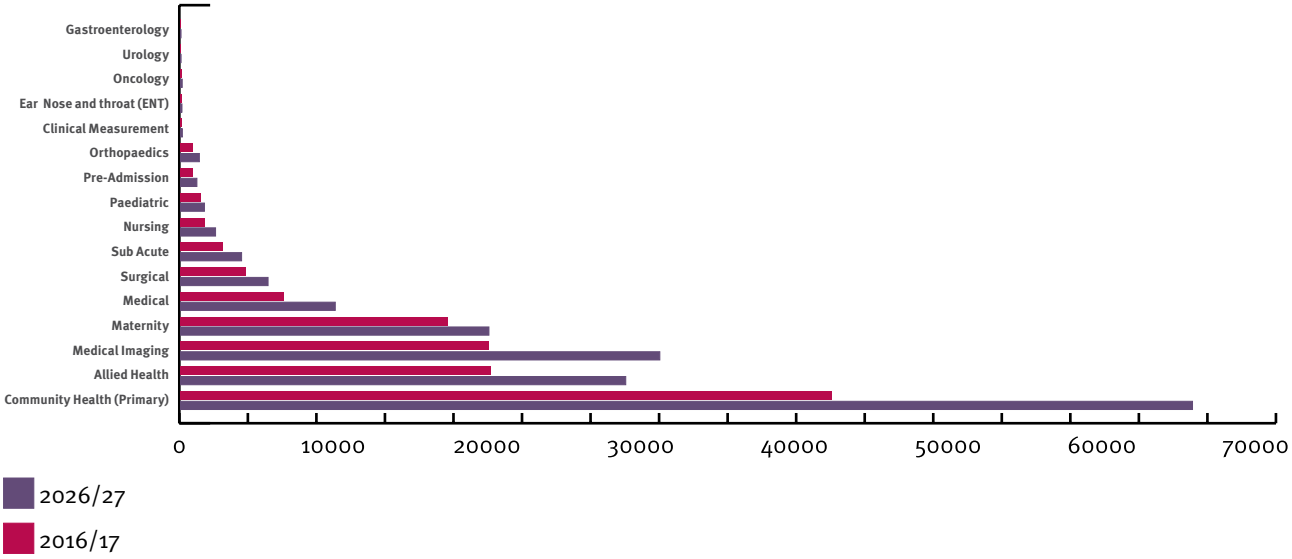
OBESITY INPATIENT MODEL OF CARE

Develop and strengthen the person-centred care pathways to increase early accessibility and to expedite step down processes for people with complex care needs. This requires review and rollout of a planned infrastructure and equipment program to enable rural facilities to manage care of morbidly obese patients. Transferring patients to rural hospitals for the less acute phase of their treatment will provide more care locally and reduce pressure on beds at Toowoomba Hospital.

OUTPATIENT OCCASIONS OF SERVICE GROWTH IN DEMAND (EXCLUDES PSYCHIATRY)

The annual average growth rate for outpatient services in all rural facilities is 3.5 per cent per annum. Community Health provides the greatest volume of outpatient services with almost 43,000 occasions of service in 2016/17, followed by allied health with just over 20,000 occasions of service. In total the number of outpatient occasions of service is projected to increase from 119,617 (2016/17) to 173,386 by 2026/27.

Figure 46: 10 year growth in outpatient service events



Source: Department of Health Outpatient Projections 2017, excludes psychiatry (Notes: Community Mental Health Data to be added and Community Health is denoted as Darling Downs HHS in HSRAM data base and therefore may include OOS in Toowoomba)

CHALLENGES

Access to afterhours bulk billing general practitioners is rare leading to increased ED presentations that may otherwise be seen in the primary care setting.

Access to medical imaging services outside of Toowoomba is an issue, particularly in relation to afterhours services, and is a cause of referral of patients to Toowoomba.

Recruitment and Retention of qualified clinical staff.

Ageing infrastructure that does not provide an efficient and safe asset for providing contemporary health service delivery.

PLANNING PRIORITIES

OBJECTIVES

Improve transport services
Provide services locally wherever safely possible
Increase security for staff after hours
Increase specialist outreach and telehealth consultations (building on success of telenephrology Cherbourg model).
Standardise criteria for allied health and community health referrals across Darling Downs Health and review capacity for self-referrals and GP referrals especially where alternative community providers available.
Ensure rural medical and nursing staff can work to full scope by increasing outreach and telehealth support from TH in the priority areas of endoscopy, minor surgery, mental health and paediatric services.
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.
Community Health to provide high quality primary and preventative care working in partnership with hospital and general practitioners to reduce incidence of potentially preventable hospital admissions.
Improve self-sufficiency and efficiency in the care of bariatric, orthopaedic and rehabilitation patients and afterhours medical imaging services.
Increase use of ICT and other health technologies to support and improve local service provision including increased access to consulting rooms with telehealth capacity in rural facilities

SERVICE ACTIONS: SHORT TERM (1-3 YEARS)

1. Publish detailed service profiles for each facility clearly articulating site capacity to care for bariatric, orthopaedic and rehabilitation admissions, 24-hour emergency services, mental health services and support services including medical imaging, pathology pharmacy and allied health. Ensure update of profiles every 12 months.

2. Plan for investment required to rollout rollout central sterilising department (CSD) infrastructure to meet sterilising requirements of AS/NZS 4187. This will require substantial investment to ensure that the theatres and procedure rooms of Warwick, Dalby, Stanthorpe and Goondiwindi and oral health facilities and vans meet the standard and will be a priority for 2019/20 and possibly 2020/21 to meet the deadline of 31 December 2021. Meeting of the standard is required for accreditation.

SERVICE ACTIONS: MEDIUM TERM (4-7 YEARS)

3. Invest in allied health resources, infrastructure and equipment to support bariatric, orthopaedic and rehabilitation admissions and transfers to improve self-sufficiency and support step down capacity. Step down service model to include agreed referral pathway from Toowoomba Hospital to rural hospitals identifying core clinical presentations and protocols for treatment.[21]

4. Investigate variation in Relative Stay Index and PPH, to reduce length of stay and avoidable hospital admissions to achieve benchmark targets and include community health staff in strategies.

5. Expand scope of Toowoomba Hospital palliative care services to include telehealth, outreach and in-service support to rural facilities.

6. Develop a service model for medical imaging services in collaboration with local stakeholders that ensures 24- hour access to core medical imaging services to decrease rural transfers to TH for diagnostic services. This should include a discussion on in house services being developed and enhanced.

CLUSTER SPECIFIC ITEMS TO GROW RURAL SERVICES IN THE FUTURE INCLUDE:

SOUTHERN DOWNS

SERVICE ACTIONS: SHORT TERM (1-3 YEARS)

1. Continue to strengthen the role of Warwick Hospital as rural hub providing core surgical and procedural, maternity, emergency and general medical services at CSCF Level 3 (v3.2) and providing outreach and in-service support to Stanthorpe and Goondiwindi Hospitals to ensure that the CSCF Level 3 services they provide are maintained safely.

2. Maintain low-risk CSCF Level 3 birthing services at Stanthorpe and Goondiwindi and provide regular in-service opportunities for midwives at these facilities at Toowoomba Hospital.

SERVICE ACTIONS: MEDIUM TERM (4-7 YEARS)

3. Monitor the demand for renal dialysis services in the Southern Downs and within the next five years evaluate the requirement to establish a 2 chair in centre satellite service at CSCF Level 2.

4. Investigate stakeholder request for increased psychology services in the Southern Downs and physiotherapy services at Texas.

5. Invest in infrastructure improvements in staff accommodation and theatres Warwick Hospital (dedicated endoscopy suite) to grow capacity by improving staffing recruitment opportunities and capacity for surgical and procedural services.

6. Explore feasibility of establishing bonded scholarships to develop registered nurse workforce where there are shortages (midwifery) and feasibility and effectiveness of nursing exchange program (based on Clinical Excellence Division model).

SOUTH BURNETT

SERVICE ACTIONS: SHORT TERM (1–3 YEARS)

1. Increase capacity of Kingaroy Hospital upon completion of new facility focusing on core services for a Level 3 facility. The greatest growth in inpatient care will be in non-acute geriatric management, medical SRGs, palliative care, orthopaedics and non-acute rehabilitation. The new facility will provide an opportunity for Kingaroy Hospital to lead and support Level 2 and Level 1 facilities in the region. Monitor low activity rates at Nanango and Wondai Hospitals for acute inpatient beds and increase focus at these sites on community based and sub-acute inpatient services.

SERVICE ACTION: MEDIUM TERM (4–7 YEARS)

2. Future planning for Kingaroy Hospital to include general physician, obstetrician and oncology specialty support.

DARLING DOWNS EAST AND WESTERN DOWNS

SERVICE ACTIONS: SHORT TERM (1–3 YEARS)

1. Implement strategies to increase self-sufficiency of Dalby maternity service to maximise the capability of this CSCF Level 3 District hospital facility and continue support for the Level 2 CSCF maternity service at Chinchilla including use of telehealth, in-service opportunities and outreach services from Toowoomba Hospital.

2. Increase paediatric services (early childhood development) to Tara.

3. Confirm higher than expected rates for antenatal same day admissions Dalby Hospital are due to statistical recording methods rather than clinical practice or high-risk population requirements.

SERVICE ACTION: MEDIUM TERM (4–7 YEARS)

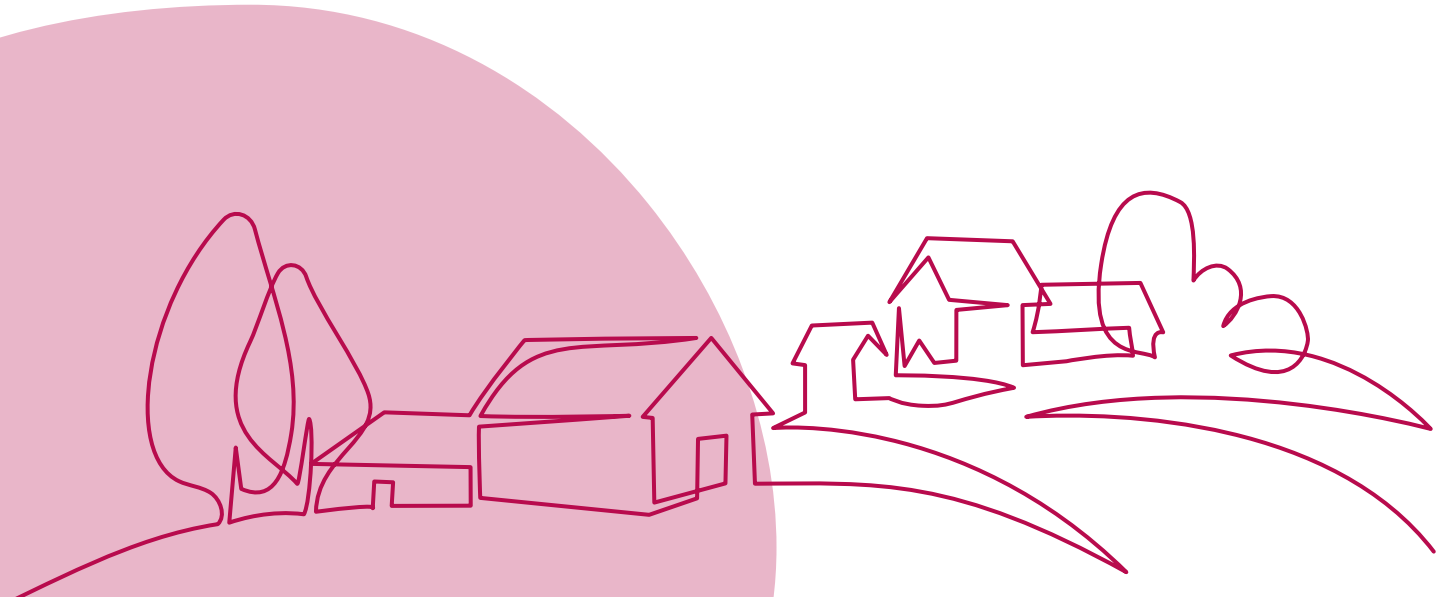
4. Dalby Hospital requires significant infrastructure investment in staff accommodation to improve recruitment and theatre facilities to grow capacity in surgical and procedural services.

5. After hours CT and ultrasound service Dalby Hospital.

INCREASING L3 CSCF CAPABILITY – STRENGTHENING THE RURAL HOSPITAL CAPACITY

Review of activity at the sites below by Department of Health has resulted in the followed recommendations for increasing clinical service capability (CSCF):

Clinical Services Capability Framework changes to meet DoH 10-year assessment			
Facility	**Clinical Service**	**Current CSCF**	**Required changes**
Kingaroy	Palliative Care	Level 2	Level 3. New hospital will assist with designated physical requirements. Registered medical practitioner or visiting registered medical specialist with credentials in palliative medicine required.
Dalby	Medical Imaging	Level 2	Level 3 to support Medical CSCF level 3. Currently only an in -hours CT and ultrasound service provided through private provider. Need to install CT at Dalby Hospital or negotiate with private provider for afterhours agreement. Afterhours access to a radiologist who can interpret and report on CT images also required
	Palliative Care	Level 2	Level 3. Requires registered medical practitioner or visiting registered medical specialist with credentials in palliative medicine.
Goondiwindi	Medication	Level 2	Level 3 to support Medical CSCF level 3. Requires additional pharmacy resourcing.
Warwick	Palliative Care	Level 2	Level 3. Requires registered medical practitioner or visiting registered medical specialist with credentials in palliative medicine.
	Renal medicine	-	Level 2 low complexity maintenance dialysis services, new service
	Perioperative – Children's Post-Anaesthetic Care	-	Level 3 to support Surgical – Children's CSCF level 3.



11. Strengthening the role of Toowoomba Hospital

Toowoomba Hospital is a large regional facility providing a range of specialist services to the communities of both the Darling Downs and South West regions. This section explores to what extent the range and level of services currently being provided should be extended to increase self-sufficiency and thereby reduce the need for our residents to seek treatment at metropolitan facilities.

PLANNING INFORMATION

SELF SUFFICIENCY

85 per cent of public hospital inpatient separations for Darling Downs Health residents are provided by hospitals within Darling Downs Health. Toowoomba Hospital provided for 63 per cent of all separations treated in Darling Downs Health (excludes non Darling Downs Health residents treated by Darling Downs Health).

FLOWS INTO DARLING DOWNS HEALTH: SOUTH WEST QUEENSLAND AND WEST MORETON RESIDENTS USING THE TOOWOOMBA HOSPITAL 2016/17

Just over 1,200 persons per annum flow to TH from South West HHS. Of these 42 per cent are for same day separations. Children aged 0-14 account for around 11 per cent of the total inflows from South West HHS.

The largest volume of inflows is from West Moreton HHS with just over 3,000 persons per annum flowing to TH. Residents from Gatton account for approximately 74 per cent of total inflows from West Moreton HHS.

Figure 47: South West and West Moreton separations 2016/17

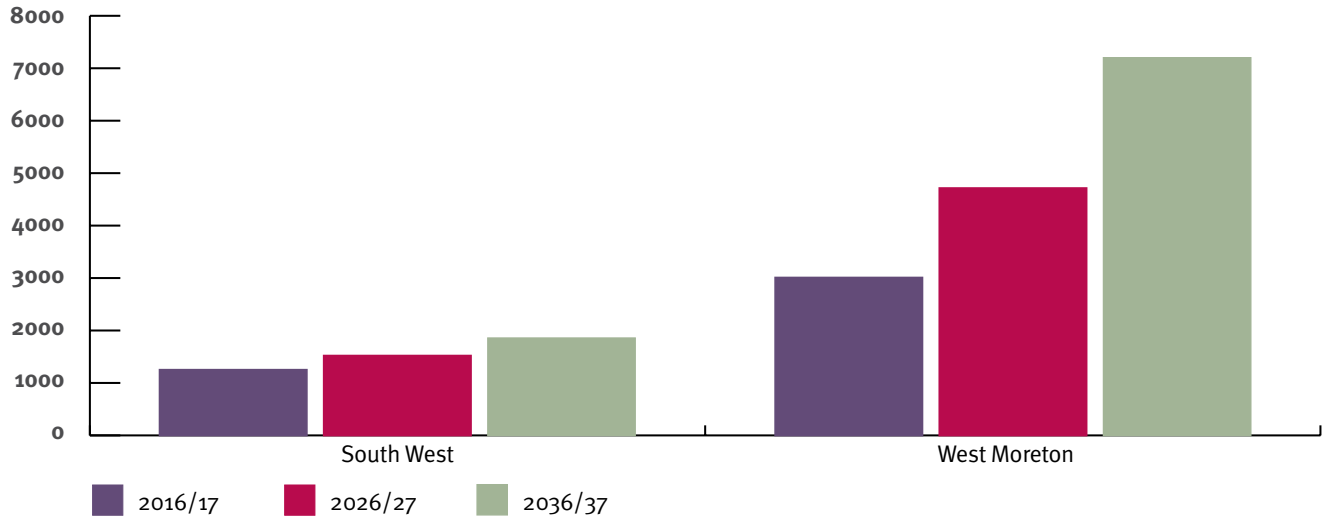
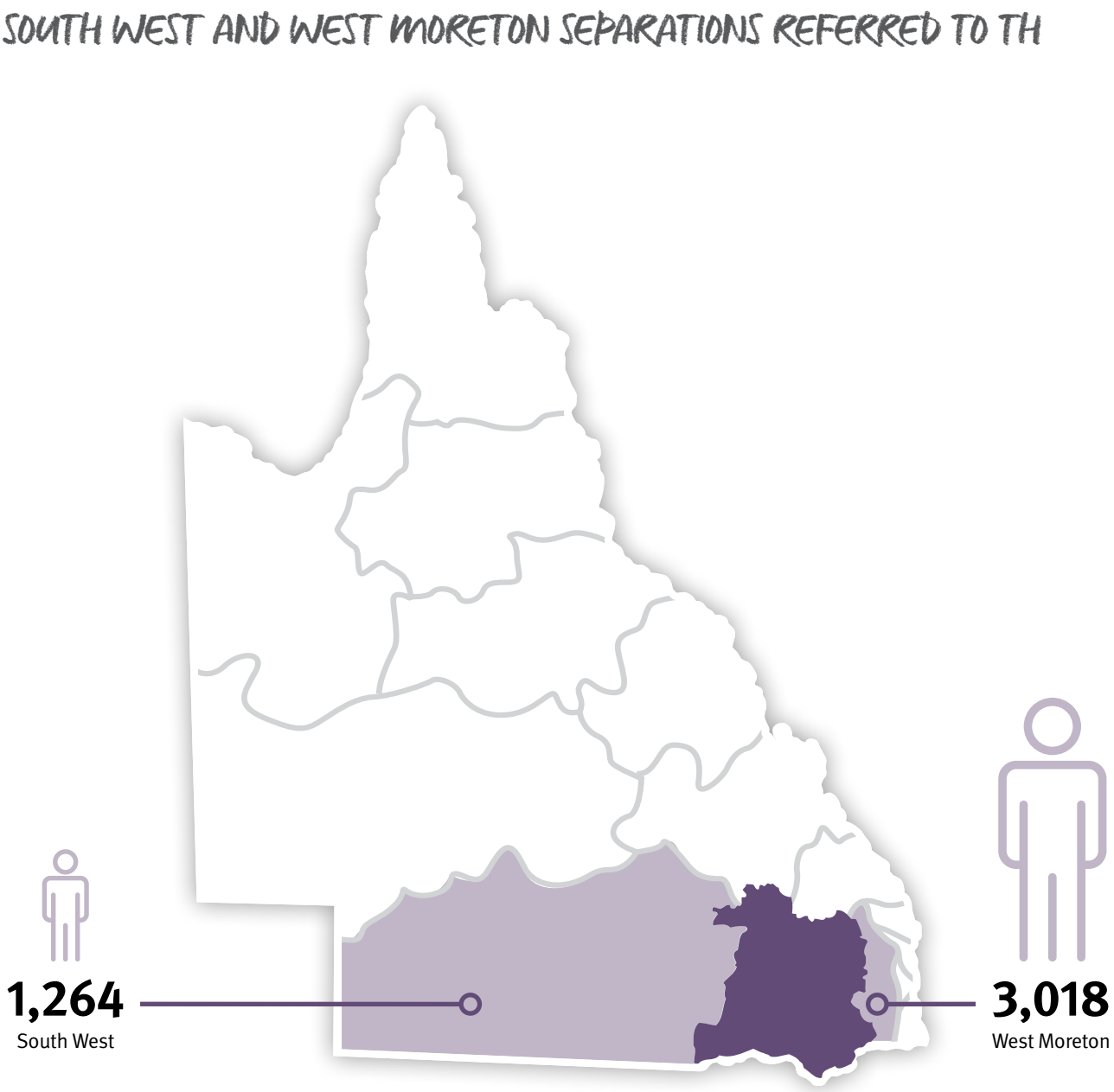


Figure 48: South West and West Moreton separations map 2016/17



DARLING DOWNS RESIDENTS USING HOSPITALS IN BRISBANE

Residents of Darling Downs account for just over 7,500 separations from metropolitan hospitals. Almost 1,400 of these separations are children aged 0-14 years. 47 per cent are for same day separations. The three largest volumes by separations were for SRGs ophthalmology (763), chemotherapy (608) and interventional cardiology (506). The three largest volumes by bed days were for SRGs non-acute rehabilitation (2,743), qualified neonate (2,345) and cardiac surgery (2,034).

SOUTH WEST RESIDENTS USING HOSPITALS IN BRISBANE

Residents from South West HHS account for 893 separations per annum from metropolitan hospitals in Brisbane. SRGs with the greatest volumes (between 40 and 100 separations per SRG) included chemotherapy, orthopaedics, interventional cardiology and non-subspecialty surgery.

PLANNING CONSIDERATIONS

Overall Darling Downs Health operates at a reasonably high level of self-sufficiency with 85 per cent of all public separations for Darling Downs Health residents occurring from hospitals within Darling Downs Health. There are however key outflows of Darling Downs Health residents to major public hospitals in Brisbane as well as flows to Brisbane for people from South West HHS that potentially could flow to Toowoomba Hospital with an increase in services (both range and level) provided.

A portion of residents from the Gatton region in West Moreton traditionally flow to Toowoomba Hospital for treatment and this is unlikely to change in the next 10 years as stage one of the Ipswich Hospital redevelopment will not significantly extend acute inpatient capacity and stage 2 is some time away until completion (currently gate zero).

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. One of the major strategic issues for TH is to what extent should its role as a referral hospital for residents of Darling Downs and South West Queensland be strengthened in terms of the range and level of services provided.

Additionally, when should this increase occur? Should changes be delayed until the new hospital redevelopment is completed given the current infrastructure limitations of Toowoomba Hospital and the diminished return on investment on capital infrastructure expenditure at the current site?

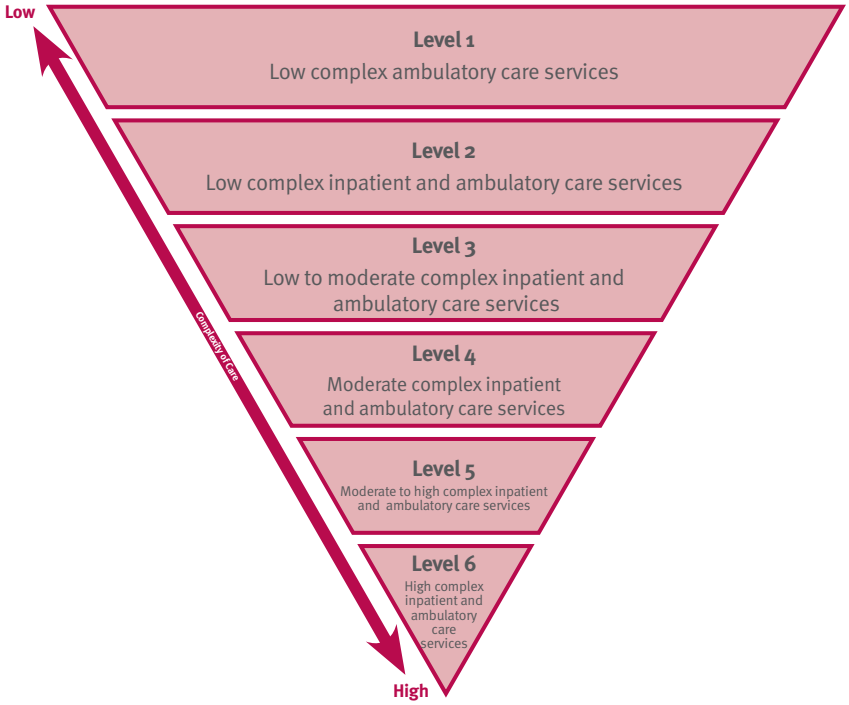
Currently the majority of available services (25 out of 40) at Toowoomba Hospital are provided at CSCF Level 5. Developing the role of TH from a secondary referral hospital to a tertiary level would require both a significant increase in the CSCF level for most of the existing services as well as the introduction of new services. Although the current infrastructure limitations at Toowoomba Hospital restrict opportunities to develop services, planning for future services and capacity is essential as part of the new hospital redevelopment design process. Planning is also needed to identify priority services that will outgrow the current site constraints prior to redevelopment as well as contemporary practice infrastructure affecting specialist recruitment (for example catheter laboratory). Both of these demands will require investment at the current site representing limited return on investment.

IDENTIFIED SERVICE PROVISION GAPS

INCREASING L5 CSCF CAPABILITY – STRENGTHENING THE ROLE OF TH AS A REFERRAL HOSPITAL

This section of the plan delineates future priorities to increase the range and complexity of services provided by Toowoomba Hospital to increase self-sufficiency and provide services locally. Some of the service changes should be implemented prior to the proposed new hospital redevelopment, other service developments will be delayed until the new hospital is built.

Figure 49: Difference between service capability levels



To meet the health needs identified, in some instances changes to the Clinical Services Capability Framework may be required to ensure the provision of safe and quality patient care. The CSCF prescribes the specific minimum service-level capability criteria for a clinical service.

Table 3: Clinical Services Capability recommended changes

Summary of Clinical Services Capability Framework changes to meet identified service gaps		
Clinical Service		**Desired CSCF level**
Alcohol and Other Drugs	Update the CSCF Self-assessment summary for Inpatient	Level 4 CSCF
	Update the CSCF Self-assessment summary for Emergency	Level 4 CSCF
Palliative Care Service	Increase level of service	Level 5 CSCF
Emergency Children's	Create Paediatric Short Stay Unit	Level 5 CSCF
Cardiac Medicine	Increase capacity and include cardiac diagnostic and interventional services. 24-hour access to transthoracic echocardiography	Level 5 CSCF
Geriatric	Increase capacity Cognitive Impairment and Ortho-geriatric. Update Ambulatory.	Level 5 CSCF
Neonatal	TH redevelopment	Level 5 CSCF
Maternity	TH Redevelopment to support neonatal CSCF change	Level 5 CSCF
Cancer Services	TH redevelopment - Radiation Oncology	New service
Plastic Surgery	TH redevelopment	New service
Neurosurgery	TH redevelopment	New service

MANAGING DEMAND IN THE NEXT 10 YEARS – SERVICE ACTIONS REQUIRING INVESTMENT AT CURRENT SITE

Activity projections indicate current TH infrastructure does not have sufficient space to meet demand. Targeted expenditure will be required to both support demand management strategies and expand clinical treatment spaces.

SERVICE ACTIONS (IN THE NEXT 1–3 YEARS)

1 INCREASE ED CAPACITY

There are currently 28 treatment bays and 10 ultra-short stay beds at TH ED. This capacity is significantly less than the number of treatment spaces specified by Department of Health planning methodology for current activity. Based on activity for the base year 2016/17, 37 treatment bays and 11 short stay beds are required representing a current shortfall of 9 treatment bays.

ED presentations at TH are increasing at an average rate of 4.2 per cent per annum. Projections indicate that 49 treatment bays and 14 short stay beds are required by 2021/22 and 60 treatment bays and 18 short stay beds by 2026/27. This equates to a shortfall of 21 treatment bays and 4 short stay beds by 2021/22 and 32 treatment bays and 8 short stay beds by 2026/27.

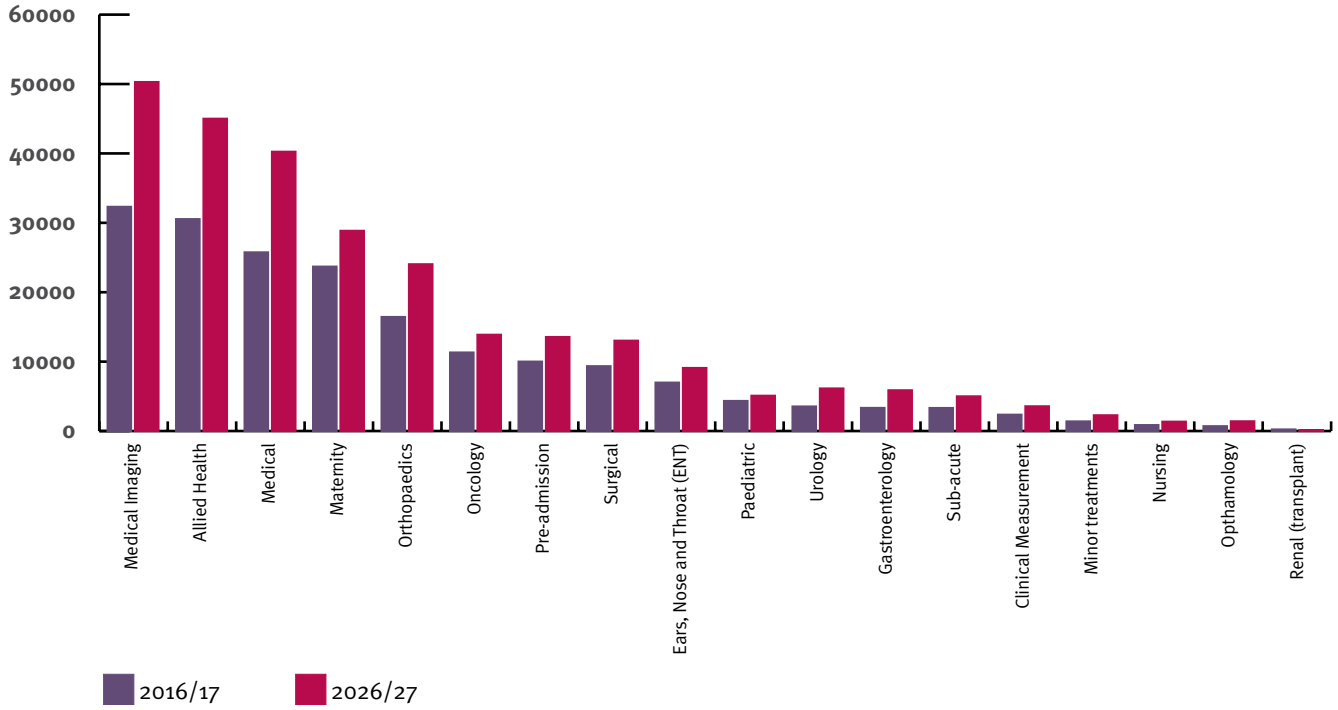
A 2016 master planning study for TH ED outlines a staged expansion of the existing site to provide 55 treatment bays and 18 short stay beds by 2026/27. Staging includes an extension to the north of the current site providing 5 additional treatment spaces (3 isolation rooms, an additional mental health bay and rapid assessment space) and a major expansion into the mortuary area. Both stages require significant capital investment and based on projected demand are essential to provide sufficient capacity until the completion of the Toowoomba Hospital redevelopment.

2 INCREASE OUTPATIENT CAPACITY

The average annual compound growth rate for outpatient services at Toowoomba Hospital is 3.7 per cent per annum. Medical imaging provides the greatest volume of outpatient services with over 32,000 occasions of service in 2016/17, followed by allied health with almost 31,000 occasions of service. In total the number of outpatient occasions of service is projected to increase from 189,540 (2016/17) to 271,613 by 2026/27. Demand strategies include:

- Increase number of clinics.
- HealthPathways – decrease 'inappropriate' referrals for certain conditions that are frequently better managed in the primary setting and do not require specialist services. A Victorian study of referrals to specialist clinics found 13 to 26 per cent of referrals could have been managed by an experienced GP or with the use of specialist driven guidelines[45].
- Continue to use outsourcing opportunities to manage long wait patients.
- Reduce potential duplication by providing allied health outpatient services in areas where there is no equivalent primary care service giving consideration to access limitations due to payment gaps and return patients to primary care setting as early as possible according to pathway criteria.
- Increase primary contact clinics (allied health and nurse practitioner) noting potential ABF funding issues.
- Increase use of telehealth where safe to provide more services locally and decrease FTA rates.
- Extend hours of operation – requires increased workforce.

Figure 50: 10 year outpatient growth Toowoomba Hospital



3 EXPAND INPATIENT CAPACITY

Planning for additional inpatient capacity is required. Demand for overnight adult beds (acute and subacute excluding Mental Health) is increasing and projections based on 2016/17 activity data indicate that 326 beds will be required by 2026/27. This represents an increase of 101 beds excluding same day and bed alternatives, mental health and paediatric beds based on 225 adult overnight beds at TH in 2018/19 (includes 'flex' beds and 12 bed demountable). Strategies to reduce inpatient bed demand (extend AGES, increase HITH and reduce 28-day readmission rate) are required to ensure TH meets the reduction in average length of stay (ALOS) built into the 2026/27 AIM projections. If ALOS reductions are not achieved, then additional beds will be required over and above the AIM projected requirements. The AIM base case projections do not include starting any additional services such as interventional cardiology.

19 additional same day or bed alternatives are also required at Toowoomba Hospital by 2026/27 based on 68 actual same day or bed alternatives at Toowoomba Hospital in 2018/19. Same day bed alternatives include chemotherapy, endoscopy, medical and surgical day admissions and renal dialysis but exclude ED short stay. The greatest growth is in renal dialysis with a projected increase by 2026/27 for an additional 12 treatment chairs. The renal expansion infrastructure project due to be completed by 2019 will substantially meet the projected need. Future planning is required for seven additional same day treatment spaces in endoscopy, medical and surgical. These numbers do not include capacity for any new services.

Clinical treatment space and inpatient bed requirements for 2036/37 for all facilities are set out in the table in Appendix A.

4 INCREASE THEATRE CAPACITY

Theatre 7 became operational in November 2017. Emergency surgery (theatre cases) comprises approximately 35 per cent of total surgery and has been growing at a rate of 2.4 per cent per annum (compound). Elective surgery additions to wait list are over 500 per month (noting increase to greater than 600 between May 18 to November 18) and elective patients are treated at a similar rate of approximately 500 per month. Category 1 patients comprise approximately 25 per cent of all elective surgery cases.

Figure 51: Toowoomba Hospital Elective Surgery Waiting List

All categories - number of patients added and treated

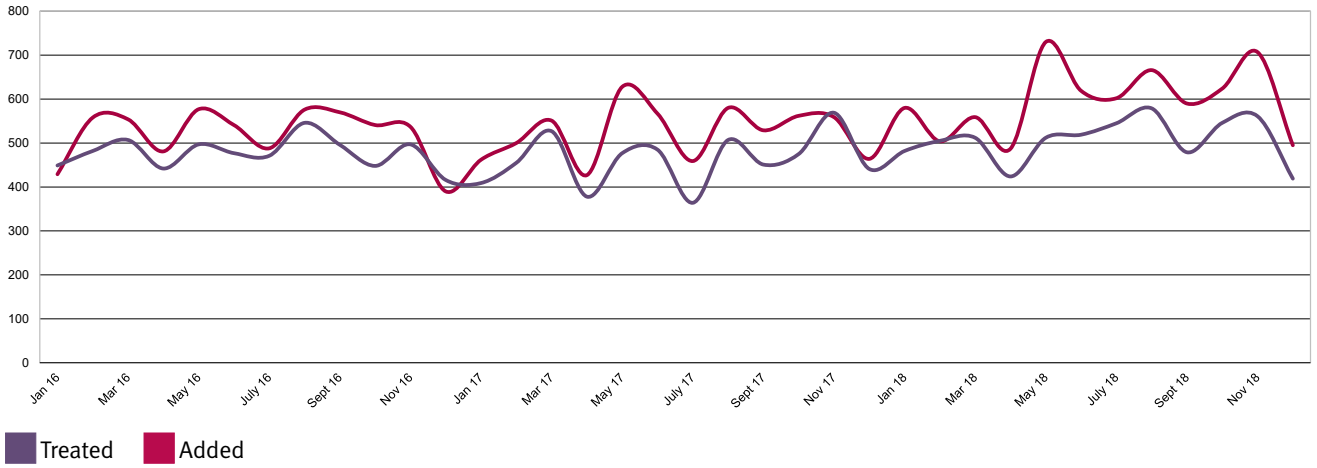
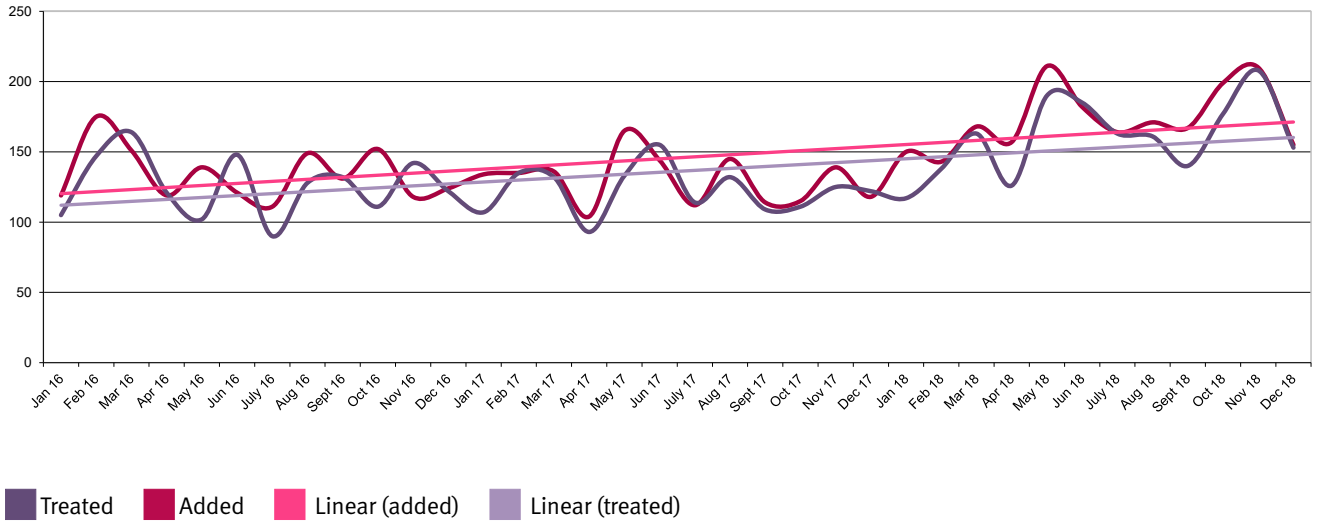


Figure 52: Toowoomba Hospital Category 1 Elective Surgery

Number of Cat 1 Patients Added & Treated



Stakeholders reported increasing case complexity requiring longer operating theatre time per case.

Projections based on AIM data (2016/17) indicate 8 theatres are required at Toowoomba Hospital by 2021/22 and 9 theatres by 2026/27. These projections do not include outsourced activity and do not include capacity for new services. Outsourced activity peaked in 2014/15 and 2015/16 (approximately 600 and 700 cases respectively, reducing to approximately 200 cases by 2016/17).

5 INCREASE MORTUARY CAPACITY AND POTENTIAL RELOCATION

The mortuary is the largest and only staffed mortuary west of Ipswich and provides significant services and support to surrounding Hospital and Health services. The Toowoomba Hospital mortuary houses around 800 bodies per year and provides secure storage of bodies for a range of reasons including bodies awaiting burial, bodies for coronial and non- coronial autopsy, bodies in transit from the west to the John Tonge Centre and long-term storage of bodies awaiting public trustee estate processing.

The current mortuary has capacity for 18 bodies in the holding area and freezer capacity for 2. The current mortuary is frequently over capacity, with additional bodies being left on stretchers in the cool room and the long-term bodies being cycled between freezer and cool room to maintain suitable long-term storage.

Planning for the Toowoomba Hospital redevelopment needs to include minimum capacity for 46 holding spaces and 10 freezer spaces (Toowoomba Hospital Emma Webb Ground Floor Master planning, May 2016 Elia Architecture Master Planning Report).

Post mortem autopsy facilities and services will be required into the long term with a minimum of 2 autopsy tables and a functional autopsy theatre essential to fulfil Darling Downs Health's role in post mortem patient care.

The existing mortuary area at Toowoomba Hospital does provide potential space for the expansion of the Emergency Department (May 2016 Elia Architecture Master Planning Report). Stakeholder engagement identified the 'old kitchen' at TH as a potential space for the relocation of the mortuary noting the significant costs associated with moving the mortuary.

6 ESTABLISH AN ACUTE DEMAND CLINIC – DEMAND MANAGEMENT STRATEGY

As outlined above any expansion to the existing Toowoomba Hospital ED prior to the completion of the TH redevelopment will require significant capital investment and time to complete. Alternative approaches to manage demand to decrease ED presentations, improve flow and reduce the frequency of ED overcrowding need to be considered.

36 per cent of presentations are triage category four and five. 51 per cent of presentations are triage category three. 26 per cent of category three ED presentations at TH are for children under 18 and the most frequent reasons for presenting include viral infection, upper respiratory tract infection and minor head injury. 52 per cent of presentations are aged between 18 and 65 and the most common reason for presentation is abdominal pain, suicidal ideation, non-cardiac chest pain and headache. The over 65 age group represents 22 per cent of presentations and the most common reasons include pneumonia, urinary tract infection and fracture neck of femur.

Although there are bulkbilling GP clinics in Toowoomba open to 10.00pm seven days a week including public holidays, most diagnostic imaging is only available until 4.00pm and pathology is generally off site. Consultation with primary care providers is required to develop sustainable acute demand clinics that will reduce Category 4, 5 and 3 presentations to TH ED.

There is significant revenue generation potential for advanced imaging (CT, ultrasound and MRI) if the primary care providers use the Toowoomba Hospital facilities. Whilst this would generate an activity and revenue benefit, staffing and facilities will need to match the demand and this may be difficult particularly for providing ultrasound services.

7 IMPROVE DELIVERY OF REFUGEE HEALTH

Darling Downs Health has a commitment to refugee health and wellbeing under the Queensland Health Refugee Health and Wellbeing strategic framework 2016[80]. The framework adopts a 'multi-faceted approach beyond what can be achieved by the public health system alone'. The strategic framework priorities are for:

- collaboration and partnership
- cultural responsiveness
- inclusion of consumer and community voice.

Kobi House at Toowoomba Hospital is a Refugee Health Service. In 2018/19 Kobi House provided specialist support to 850 refugees an increase of 90 from the previous year 2017/18. The health of our refugee population requires active pre-planning to avoid unplanned hospital presentations and inappropriate use of emergency departments. Ensuring new arrivals are assessed and linked to health services in a timely and effective manner prevents inappropriate hospital presentations and costly public health problems e.g. TB, under-immunisation. Kobi House provides integration and coordination with primary health and hospital clinical services such as ED, Antenatal clinic, Paediatrics, Oral Health, Medical Imaging, TB Clinic and child health.

Occasions of service for refugees in Darling Downs Health increased from 1,294 in 2016 to 4,893 in 2018. Correspondingly interpreter costs increased from $259,924 to $421,104. The use of interpreters is a cost currently not fully covered by existing funding arrangements but essential for providing safe quality health outcomes.

Demand strategies include:

- Review resourcing including interpreter services required to provide the services in accordance with Queensland Health Refugee Health and Wellbeing strategic framework 2016 while being responsive to the changing number of refugees settled under Australia's humanitarian program.
- Developing a nursing liaison role position to assist with language and cultural barriers when refugees access Toowoomba Hospital services to improve discharge processes and hospital avoidance. This includes acting as a central contact for general practices to coordinate care and provide education on refugee health.

8 INCREASE CARDIAC SERVICES CAPACITY (STAGED AS INDICATED)

PRELIMINARY ACTIONS (IN THE NEXT 1–3 YEARS)

- Create a cardiology department to support the current volume of patient activity and lead the transition to interventional cardiology services by implementing the following changes:
  - » Co-location of cardiology services including Cardiac Investigations Unit, Cardiology and Heart Care.
  - » Establish a cardiology department to assume management responsibility for the cardiac investigation unit.
  - » Apply for accreditation for cardiology advanced training - requires funding for a registrar position.
  - » Develop an implantable cardiac device (pacemaker and defibrillator) service. This is possible within the current infrastructure constraints of the Toowoomba Hospital site and is required to meet projected demand from an ageing and growing population. Specialised training of a cardiac scientist to perform pacemaker/device checks, including remote monitoring, and assist within the lab during implantation and an FTE increase equivalent to the service delivery demands will be required.
  - » 24-hour access to transthoracic echocardiography (required for Level 5 CSCF cardiac diagnostic and interventional services). Requires increased cardiac sonographer and consultant staffing, and home reporting access for cardiology staff.

MEDIUM TERM ACTIONS (IN THE NEXT 4–7 YEARS)

- Establish a cardiac catheter laboratory. Potential sites include Health Information Services space post ieMR implementation or as a hybrid interventional space in the TH theatres post completion of new Day Surgery to provide cardiac diagnostic and interventional services. This facility will help attract and retain specialist staff as well as providing more timely and local care. Additional coronary care unit bed days will be required to support this service. This strategy will also require an increase in cardiac scientist FTE. Typically 2.0 FTE HP4 cardiac scientists will be required to sustain a catheter laboratory. 3.0 FTE will be required to sustain an electrophysiology pacemaker implementation laboratory and the flow on requirement of device monitoring.
- Creation of a dedicated cardiology inpatient ward area to ensure cardiac patients are managed in an appropriate specialist environment. The majority of the beds are not additional to existing stock but rather a subset of existing general medicine beds however additional beds will be required for the new service of interventional cardiology services.
- Consultant cardiologist staffing needs to increase to cover existing and projected workforce demands including local interventional cardiology. A minimum of 3 FTE of clinical cardiologist consultants is required. The service will provide a 24/7 consultant on-call service, noting this is required for a level 5 cardiology service. The service will need to be supported by adequate registrar and resident medical officer hours.

LONGER TERM ACTIONS (> 7 YEARS)

- With appropriate staffing develop the catheter laboratory on-site services to a 24-hour service and facilitate low complexity electrophysiology services to meet the requirement for a level 5 cardiac medicine service.
- Toowoomba Hospital redevelopment planning requirements:
  - » provide two cardiac catheterisation laboratories (with one being dual-purpose for cardiac device implantation and low-complexity electrophysiology) and a dedicated coronary care unit in proximity to the intensive care unit
  - » or three catheterisation laboratories (1 x cardiac cath lab, 1 x EP/PPM lab and 1 x hybrid lab that can accommodate overflow cardiac catheter procedures). Staffing required: 2x nurse, 1 x radiographer, 1 x Cardiac Scientist, and 1 x Medical officer FTE required to operate a lab daily.
  - » develop a 24-hour STEMI service
  - » provide dedicated access to a gymnasium and physiotherapist or exercise physiologist for cardiac rehabilitation
  - » co-locate cardiac services with cardiac diagnostics (including the cardiac investigations unit and echocardiography) accessible to inpatient and outpatient areas.

12. Working with the private hospital sector

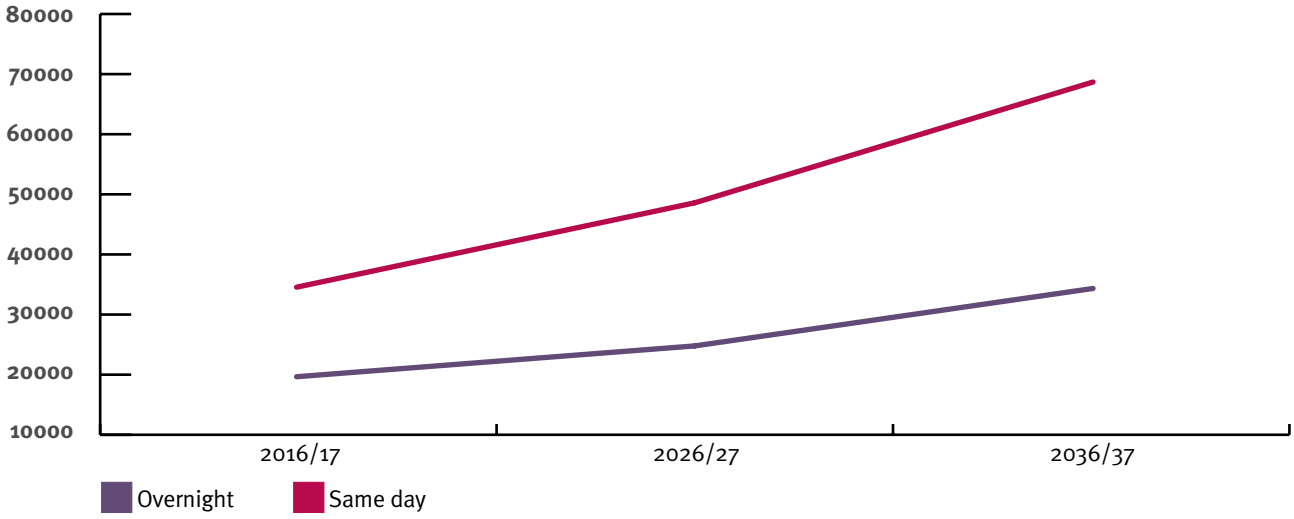
Partnerships between public and private health care providers can improve the sustainability of specialist services and equipment.

PLANNING INFORMATION

PRIVATE HOSPITAL PROVIDERS – TOOWOOMBA

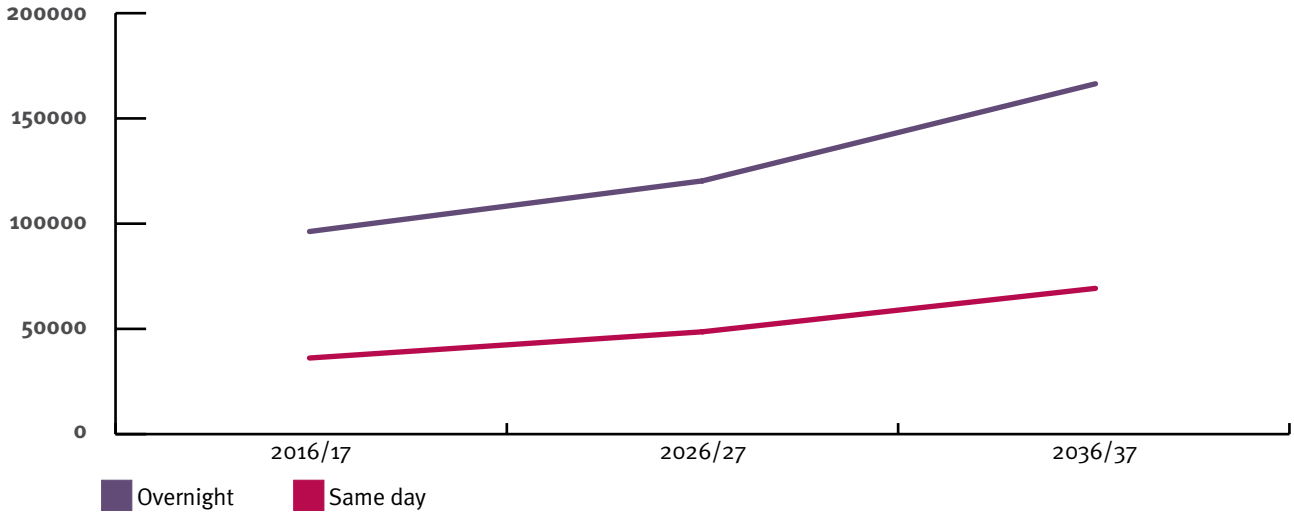
- St Andrews Hospital Toowoomba provides a range of services including acute medical, surgical and mental health services. The hospital has an eight-bed intensive care unit and 24/7 emergency rapid access heart centre, as well as a cardiac catheter laboratory. The hospital also provides renal dialysis, radiation oncology and sleep study services.
- St Vincent's Private Hospital Toowoomba provides medical, surgical, maternity, paediatric, emergency, cardiac, rehabilitation and intensive care services as well as comprehensive allied health services. The emergency centre is open 24 hours, seven days a week. One of the six theatres is a hybrid theatre to provide cardiac diagnostic services. Sleep study services are also available.
- Toowoomba Surgicentre offers a broad range of surgical day hospital services. Surgical specialties include dental, ear nose and throat, gynaecology & obstetrics, plastic & reconstructive, ophthalmology, orthopaedic, oral-maxillofacial and urology.

Figure 53: Private Hospital Separations Darling Downs Health Residents



Private hospital demand for Darling Downs Health residents is projected to grow at an annual rate of 3.1 per cent per year

Figure 54: Private Hospital Bed days Darling Downs Health Residents



In 2016/17 there were an equivalent of 312 overnight beds of private admitted activity provided for DD residents, regardless of where they accessed services. 72% of this was in Darling Downs or West Moreton private hospitals. This is projected to increase to a total of 535 beds by 2036-37.

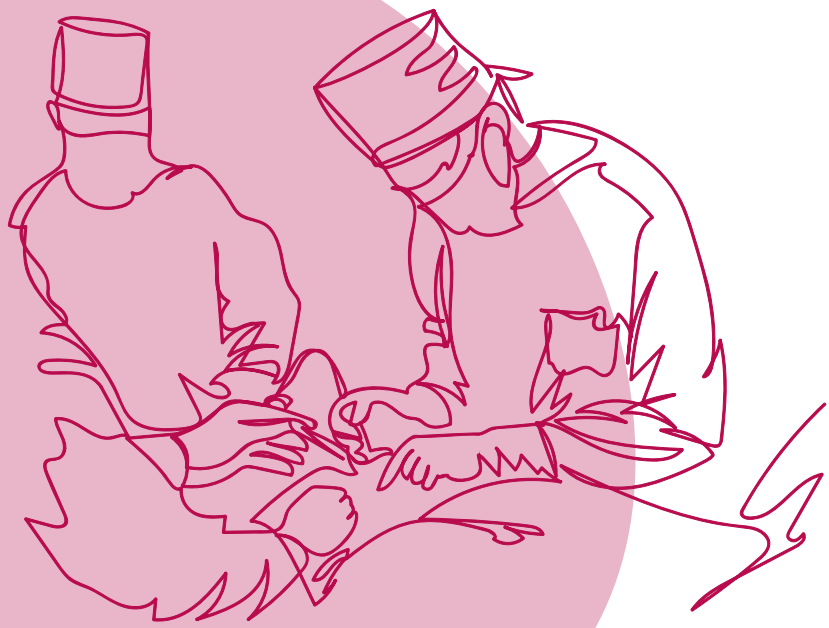
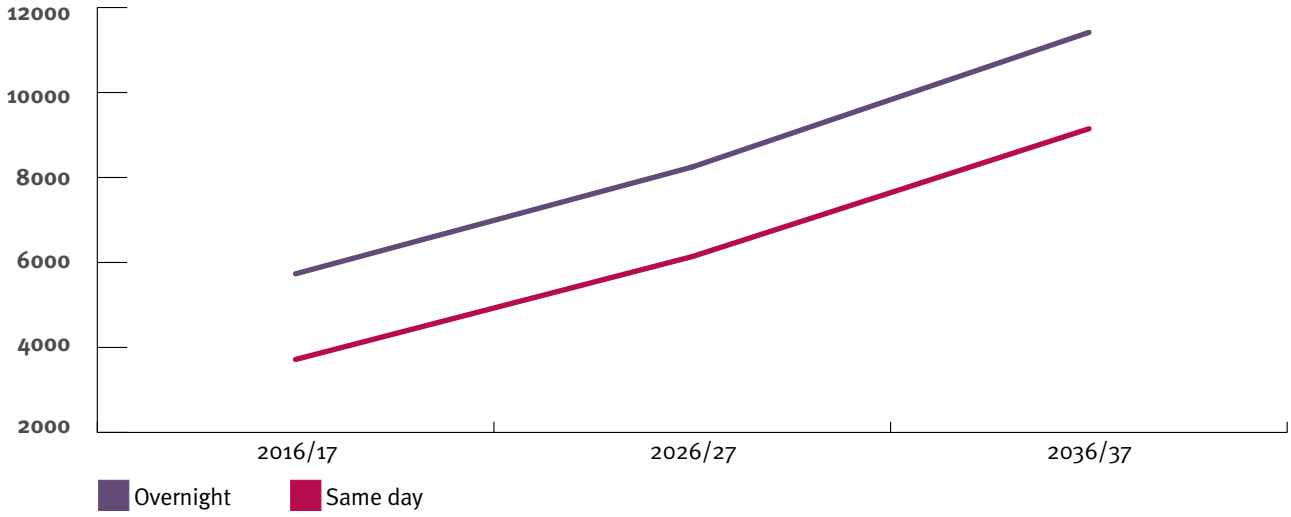
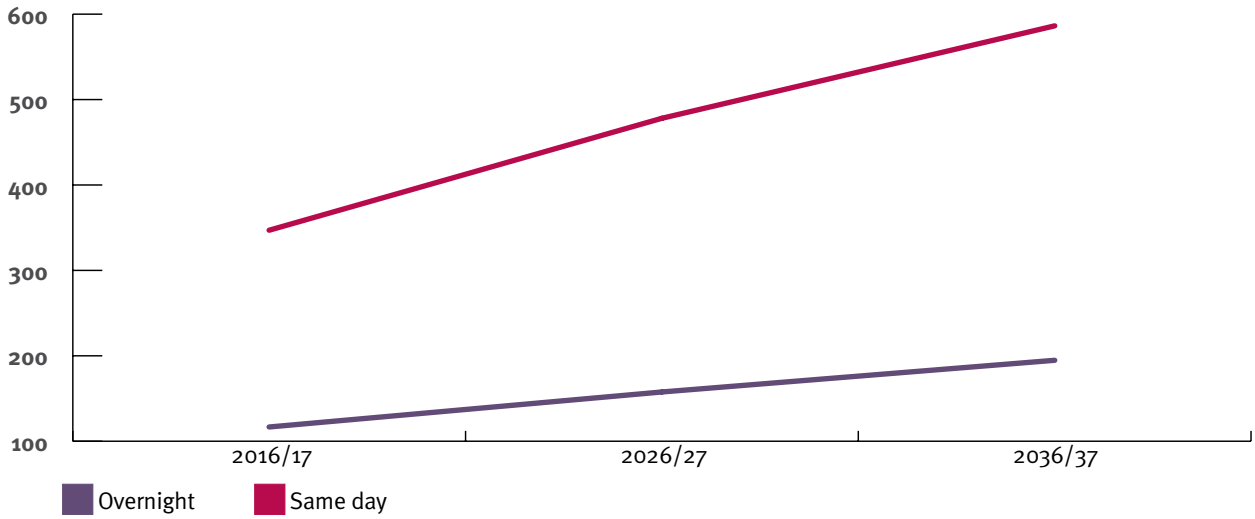


Figure 55: Darling Downs Health Residents Chargeable Patients at Darling Downs Health Public Hospitals



In 2016/17, 13 per cent of separations (9,450 out of 72,468) by Darling Downs Health residents in public hospitals were chargeable. This is projected to increase.

Figure 56: Darling Downs Health Residents Public Patients Treated at Private Hospitals



In 2016/17 less than one per cent of public separations (462 out of 72,468) by Darling Downs Health residents were treated in private hospitals

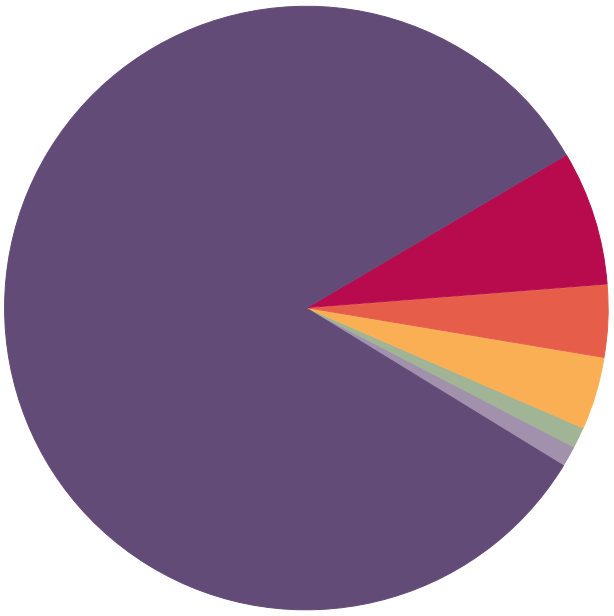
PRIVATE HOSPITAL PROVIDERS – RURAL

Lady Bjelke-Peterson Community Hospital located in Kingaroy provides endoscopy, general surgery, gynaecology, laparoscopic surgery, ophthalmology, urology, maxillofacial surgery, dental and orthopaedic surgery.

PLANNING CONSIDERATIONS

In the Darling Downs private hospitals provide 45 per cent of hospitalisations slightly higher than the rate of 40 percent for private hospitalisations in Australia. 83 per cent of private hospital patients have private health insurance, the remainder being self-funded, Department of Veteran Affairs or public patients (see Figure 57 below).

Figure 57: Private Hospital cohorts



Private health insurance - 83%
Self-funded - 7%
Department of Veterans' Affairs - 4%
Public patients - 4%
Workers' compensation - 1%
Motor vehicle third party personal claim - 0%
Other - 1%

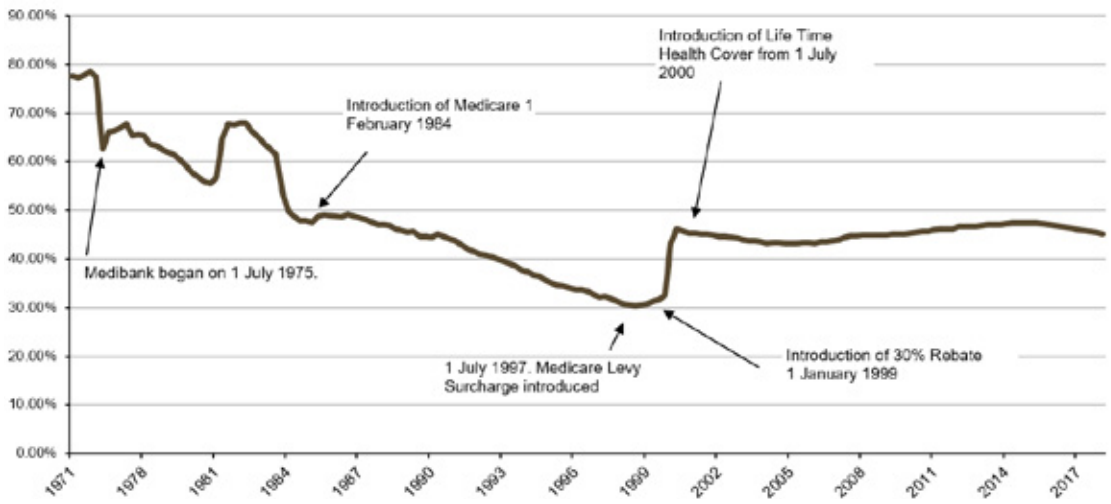
Source AIHW 2018 Admitted patient care 2016-17: Australian hospital statistics. Health services series no 84

Private hospitals and day surgeries perform two in three elective surgeries in Australia, increasing to three in four eye procedures for eye surgery[30]. In Toowoomba there has been recent growth in the scope and capacity of private services with the commencement of the 24/7 emergency rapid access heart centre at St Andrews Hospital and expanded operating theatre capacity and interventional cardiology services at St Vincent's Hospital.

In Australia private health insurance rates plummeted with the introduction of universal healthcare (Medibank 1975 and Medicare 1984) from 54 per cent in 1984 to 33 percent by 1997. With the introduction of the Medicare levy surcharge and the 30 per cent private health insurance rebate in 1999, as well as the introduction of the of 2 per cent of the premium penalty for every year over 30 not in private health in 2000, private health insurance increased to 46 per cent where it has remained (see Figure 54 below).

Figure 58: Private Health Insurance rates

Percent of population with private health insurance



Source: APRA Statistics Private Health Insurance Membership Trends June 2018

40 per cent of hospital cover policies contain exclusions such as arthroplasty and cataract surgery as well as excess payments. This results in a portion of the community with inadequate cover resulting in use of public services. Despite this the increase in demand for private health care is growing at a faster rate than public health demand. Private cataract and hip replacement surgery are growing at 4.9 per cent and 8.1 per cent per annum respectively[31].

In Queensland while both public and private admissions have increased, the market share of privately funded activity has decreased and the share of publicly funded activity has increased from 56.2 per cent in 2009/10 to 61.5 per cent 2016/17.

Figure 59 Total Public and Private Hospital Separations Queensland

Admitted hospital separations by funding type

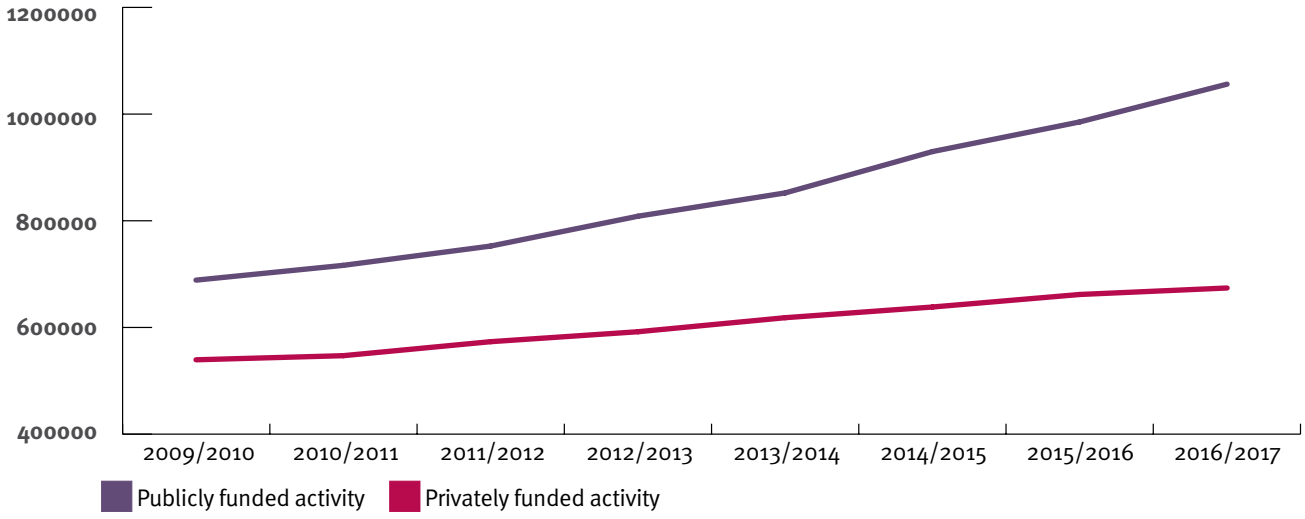
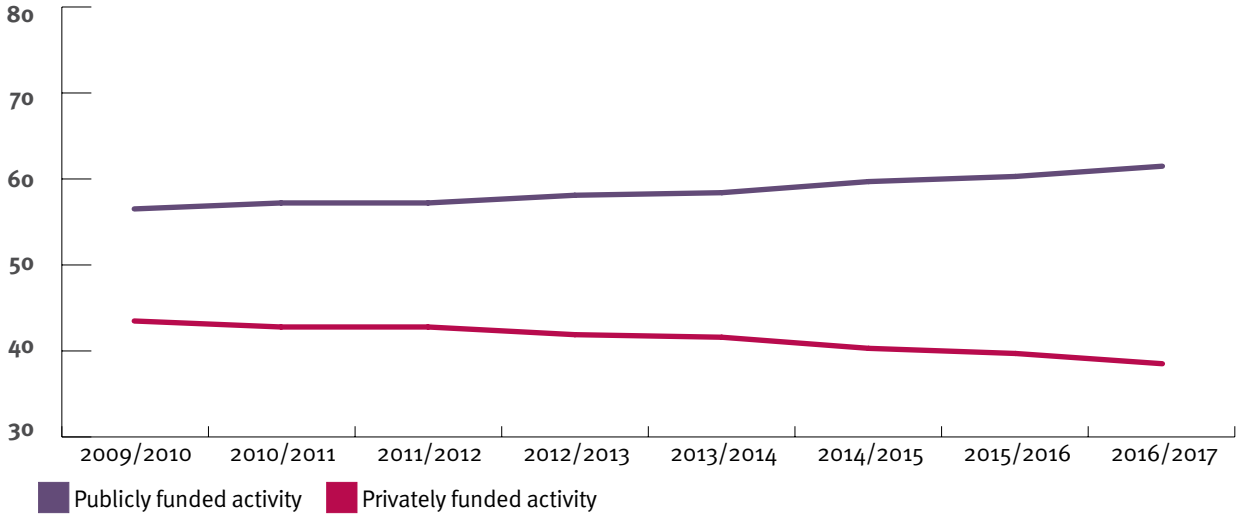


Figure 60: Total Public and Private Hospital Separations Queensland

Hospital market share by funding type



A decrease in the number of Darling Downs residents with health insurance together with the high number of privately insured who don't have cover for common procedures for elderly patients such as arthroplasty and cataract surgery will increase demand for public health care services. AIM activity projections include adjustments for changes in the public market share.

While private demand is projected to grow in areas such as chemotherapy, endoscopy, ophthalmology and orthopaedics, there are some SRGs such as obstetrics where private demand is projected to slow (DoH: HHS Base Case (16-17 ASGS_2011). Any reduction in the range of private services delivered in the Darling Downs and South Burnett has an impact on public service demand. There is an important relationship between the delivery of private and public health services that needs to be considered in health planning. This includes chargeable private patients in public hospital facilities.

PRIORITY PLANNING STRATEGIES

Partnering includes joint specialist appointments, integrated services and outsourced services where capacity is limited. Darling Downs Health currently has in place several partnerships with the private sector to support service provision in the following areas:

- Renal
- Endoscopy
- Sub-acute or non-acute inpatient care and transitional care
- Community based palliative care
- Ophthalmology
- Allied health
- Oral health
- Aboriginal Medical Services
- School based preventative health programs.

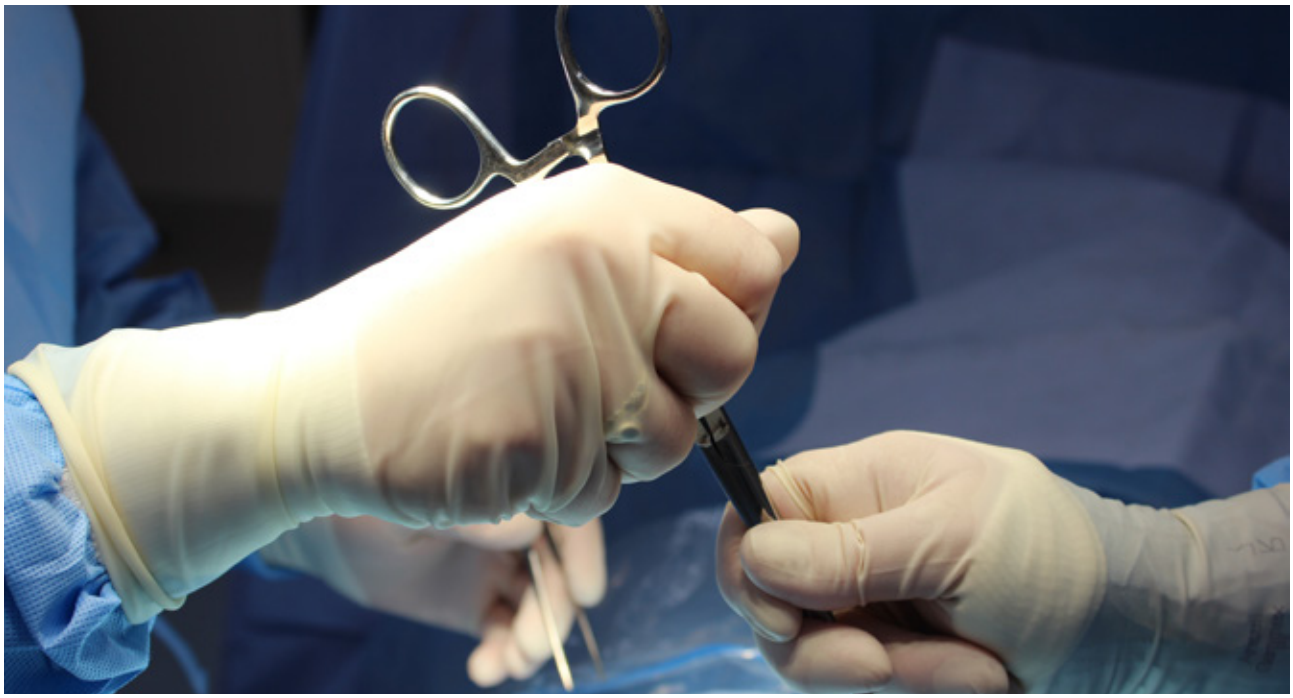
The current arrangements support the goals of providing services locally, reducing waiting lists and sustaining specialised services in a regional environment. A change in self-sufficiency can affect partnerships and subsequently any business model incorporating contracted clinical services requires regular review to ensure arrangements continue to provide the best possible value for Darling Downs Health.

OBJECTIVE

- Ensure contracted services continue to provide best possible value for Darling Downs Health over time.

SERVICE ACTIONS: MEDIUM TERM (4-7 YEARS)

1. Implement a system for annual review of contracted services incorporating high value health care principles and taking into consideration the relationship between private and public health care services.



13. Potential planning actions for selected facilities and services

A number of potential planning actions were identified through the stakeholder engagement process and provided an important contribution to the development of this plan. Possible actions for specific specialty areas not included in the previous chapters are detailed in the following table.

Priority has been given to recording stakeholder feedback items that require infrastructure or workforce investment or potential improvements to patient flow and models of care. Actions relating to short-term operational issues, workforce planning, information systems and resourcing, environmental sustainability have not been included and will need to be considered in the future phases of the planning process.

Table 4: Planning Actions

Area	Service	Priority Planning Action
Toowoomba Hospital	Medical	Create a dedicated MAPU (potentially in the Emma Webb Level 4 outpatient area pending relocation of Orthopaedic outpatients
		Nurse practitioner led heart failure & non-acute chest pain clinic
		Remote monitoring and active surveillance of high risk patients with COPD, chronic heart failure and renal disease using a case management model similar to DMOC.
		Investigate dedicated admission nurse to expedite admission to medical wards noting project success or failure Logan Hospital
	Surgical	Increase capacity of urology services
		Increase capacity of maxiofacilliary services
		Elective surgery on weekends including Sunday
		Capacity and resources for thoracic surgery and craniofacial reconstruction allowed for in new TH redevelopment plan
		Pre-hab clinics similar to MOPS clinics, preparing patients for major surgery and rehabilitation requirements post-surgery
	Ophthalmology	Increase ophthalmology services
		On call capacity for emergency consultations
		Establish on site optometrist in outpatients
	ENT	Establish dedicated ENT outpatient area
		Establish on site audiology services (currently only neonatal service)
	Neurology	Establish a clot retrieval services with support of the Statewide stroke network and Clinical Excellence Division
	Oral Health	Request for on call after hours emergency services, noting difficulties staffing this request.
	Burns	New service noting that in 2016/17 there were 70 inpatient admissions including metro facilities (26 admissions Queensland Children's Hospital (QCH). 365 OPD OOS including 231 at QCH

Area	Service	Priority Planning Action
Toowoomba Hospital	Dermatology	New service - on site consultation (current RU 88%)
	Genetics	New service - on site consultation 170 OOS to metro in 16/17, projected to be 250 by 26/27 and 360 by 36/37
	Medical Imaging	Develop specialist radiologist and radiographer capacity (ENT, neurology and urology) - currently generalists only
		Mobile x-ray service to aged care facilities and Baillie Henderson Hospital to prevent potential admissions
		Provide for development and expansion of existing advanced modalities (CT, MRI, Ultrasound) and plan for creation and development of 24/7 service provision
		Interventional suite in TH redevelopment to include facilities and resources for endobronchial and endoluminal ultrasound
	Orthopaedics	Include one to two plain x-ray rooms +/- CT Machine in outpatient clinic area noting 1 x-ray room is required now but not possible due to space constraints
	Specialist Outpatients	Extend hours to cater for increased demand. This action will also provide increased hours of specialist coverage.
	ICU	Separate ICU for interventional cardiology, cardiac ICU and separate HDU in TH redevelopment
	Child Youth Mental Health	Move service to Fountain House (requires $700k capital funds for refurbishment)
	AODS	Implement outreach model – requires additional resourcing
		Management of alcohol and drug affected patients with aggressive behaviour including patients going through withdrawal – complex issue requiring service wide approach
	Pathology	Relocate
	Kobi House	Service gap exists for public counselling services for children traumatised by sexual assault. Some services available for children in the care of Child Safety. For noting only as service gap.
	Clinical Support	Develop and staff a dedicated equipment store
	Pharmacy	Automate pharmacy with dispensing robot
		Extend clinical services to ED and MAPU, 8am to 8pm 7 days
		Provide satellite pharmacy in operating theatre and ED
	Anaesthetics	Investigate feasibility of chronic pain service including increased psychology services
		Increase acute pain service to 7 days a week
	Allied Health	Increase social worker capacity to cover emergent patient care in Women and Children's health.
		Longer term planning for podiatry service including foot care assistant to support podiatry team's management of high risk patients
		Investigate sustainability of providing exercise physiology – new service to support cardiac rehabilitation, chronic disease, mental health and bariatric programs
		Investigate requirements for providing audiology services noting this is a new service
		Support initiatives to better meet increased demand for hand therapy.
		Ensure increase in rate of TKR and THR are associated with corresponding increase in acute physiotherapy and occupational therapy services
		Investigate potential for physiotherapist review of patients post arthroplasty in lieu of surgeon and requirement for appropriate patients with a referral to orthopaedic surgeon to undertake six weeks physiotherapy prior to surgical review
		Rapid access to physiotherapy for ED presentations for acute pain associated with injury
		Physiotherapist as primary clinician for vestibular rehabilitation
		Integrated access to psychology services for renal patients

Area	Service	Priority Planning Action
Toowoomba Hospital	Child Health	Incorporate promoting First 1000 days of life into primary care programs for children's health
	ED	Investigate with DDWMPHN and GP Liaison Officer options to support after hours GP services and associated medical imaging and pathology testing to reduce Cat 4 & 5 ED presentations and appropriate Cat 3 presentations. Consider on site collocated clinic in TH redevelopment.
		Provide high observation area for children
	Research	Investigate feasibility of time for research within clinical roles
	Sleep studies	New service – investigate need and potential for partnership with private hospitals
	Endoscopy	Nurse practitioner for endoscopy
	Geriatric management	Increase capacity of same day unit capacity
	Cancer care	New model of care delineating points of handover including cancer survivorship and integration of medical governance, nurse navigation and cancer care coordination roles
		Increase administrative support for collecting data and revenue generation
	Hospital wide	Investigate feasibility of 7-day service to prevent bed block Monday morning.
Rural	Dalby	New location for renal chairs
		Investigate potential for colocation of general practitioner service on hospital grounds – will require consultation with Dalby GPs
		Fit out bariatric friendly bathrooms
		Improve after hours security by closing down multiple access points to hospital
		Fit out area in ED suitable for patients with acute mental health deterioration
		Increase telehealth for management of symptoms of palliative patients
	Kingaroy	Midwifery outreach service to Cherbourg to build cultural safety linkages in the community
		Increase general physician and oncology support
		Investigate feasibility of Kingaroy Hospital increasing role as hub hospital including staffing models.
		Establish physiotherapist led fracture clinic possibly Kingaroy Hospital with appropriate allied health resourcing
	Warwick	Continue work on developing a MOC development for afterhours care of mental health patients acknowledging the existing telehealth support in place
		Investigate feasibility of extending allied health and CHIP nursing hours to week ends
		Investigate potential to recruit a physician to enable self-sufficiency for the management of stroke patients
		Expand telechemo service to include Stage 2 treatment
	Stanthorpe	Increase SMO from 4.6 to 5.4 FTE to increase ability to accept step down transfers from Warwick and Toowoomba
		Fit out space for physio rehabilitation to assist with step down patients
		Fit out isolation room for influenza patients to avoid transfer of patients to Warwick
	Tara	Provide increased AODs services
		Provide increased access to social work, paediatrician, speech therapy and OT services
		Improve management of aggressive patients under influence of alcohol by fitting out room/s with two exits
		Opportunity to provide telehealth antenatal and outreach from Dalby
		Opportunity to form cooperative with Goondir for transport
	Antenatal	Increase access to ultrasound services and equipment

Area	Service	Priority Planning Action
Rural	Oral Health	Investigate potential to outsource to providers
		Investigate capacity for teledental
	Infrastructure	Warwick Hospital – fit out combined rehabilitation, palliative care and bariatric patient ward including outdoor area and rehabilitation gym to improve patient flow
		Build or fit out purpose built mental health and allied health outpatient area (potentially McCarthy House site) and repurpose existing mental health space for specialist outpatients clinical space. (This will enable redesign of inpatient space)
		Warwick Hospital – build a dedicated endoscopy suite to increase activity, such that it can also be used as an operating theatre for caesarean sections. Would require relocation of CSSD.
		Warwick Hospital – build new staff accommodation to improve recruitment opportunities
		Warwick Hospital – fit out dedicated telehealth room
		Tara Hospital - Increase size of doorways
	Medical Imaging	Investigate capacity to increase a/hrs service to reduce transfers to Toowoomba Hospital
	Surgery	Investigate opportunity to Increase endoscopy and general surgery at Dalby, Kingaroy and Warwick
	Obstetrics & Gynaecology	Investigate strategies to maintain sustainable services for low risk birthing
		Investigate digital modes for engaging expectant mothers in lieu of traditional antenatal classes and potential for group sessions with holistic focus on health
	Transport	Expand service models such as Texas volunteer service and Goondiwindi GRC/ PHN service to other rural areas to better meet health needs of patients in areas of disadvantage
	Medical workforce	Continue work on incentives to increase the availability of private GPs after hours on call services for anaesthetics and obstetrics
		Improve fatigue management strategies
		Increase rural generalist training pathway
		Review models of care and CSCF for hospitals in close proximity in South Burnett with consideration to medical recruiting opportunities and after-hours service
Nursing workforce	Darling Downs Health	Investigate strategies to increase midwifery and mental health nursing workforce
	Darling Downs Health	Continue working with USQ /SQRH to increase student nursing model
	Darling Downs Health	Develop role of Nurse Navigators to ensure working at full scope of practice and contributing to relevant KPIs.
	Darling Downs Health	Develop volunteer services to provide companionship support to aged patients and young mothers
	Darling Downs Health	Increase education on lifting techniques and responding to occupational violence
	Rural	Investigate options for hospitals with low number of ED presentations after hours including nurse led models of care.
Chronic Pain Management	Darling Downs Health	Provide increased access to chronic pain clinics including use of telehealth – see also anaesthetics
Operational Workforce	Rural	Consider increasing after hours wardsperson (currently limited or not available) to improve management of bariatric patients
Medicine	Rural	Extend Diabetes Model of care into rural hospitals
	Rural	Investigate feasibility for obstetric position Kingaroy
Wound management	Rural	Investigate potential for use of telehealth in wound management
Pharmacy	Rural	Increase use of telepharmacy including review of inpatients
Mental Health	Rural	Develop capacity of rural hub hospitals to accept higher acuity mental health patients including development of dedicated mental health beds
	Darling Downs Health	Investigate sustainability of extending community mental health service to after hours

Area	Service	Priority Planning Action
Allied Health	Darling Downs Health	Increase allied health to increase step down capacity to support bariatric, orthopaedic and rehabilitation admissions and transfers from Toowoomba Hospital. Particularly at hub hospitals, Dalby, Warwick and Kingaroy.
	Darling Downs Health	Develop strategies to meet rising demand from maternal and paediatric obesity for dietetic services
	Darling Downs Health	Increase resources for chronic disease management by incorporating allied health in chronic disease nurse navigation pathway
	Darling Downs Health	Implement strategies to reduce FTA rate
	Darling Downs Health	Review child development model of care including potential to resource an intake child psychologist position and also the potential to attract a GP with special interest to support demand in areas of identified need.
		Investigate ability to improve patient transfer from Toowoomba Hospital to Millmerran Hospital (step down model) with appropriate Allied Health support
	Rural	Upskill rural physiotherapy to manage acute cardio respiratory conditions
	Rural	Investigate central intake concept (reception and appointment entries) to reduce time spent by clinicians on administrative tasks
	Rural	Primary contact role - telehealth speech pathologist for dysphagia such as fibreoptic endoscopic evaluation of swallowing (FEES) clinics without need for referral to ENT surgeon
	Rural	Investigate potential for telehealth clinic Warwick with physiotherapist at receiving site with patient and orthopaedic surgeon on remote end to increase rate of orthopaedic telehealth appointments.
Workforce	Darling Downs Health	Rehabilitation gymnasiums available to staff and family out of hours
Community Health	Darling Downs Health	Review successful measures and processes embedded in the Sunshine Coast HHS Community Integrated and Sub Acute Services / Community Chronic Conditions Service and adopt successful strategies into Darling Downs Health existing models of care.https://qheps.health.qld.gov.au/schsd/community/cccs. Current review of nurse navigator models may incorporate components of the Sunshine Coast HHS model – possibly as part of proposed chronic disease centre outlined in Section 5.

14. Future requirements for capital infrastructure

FUTURE TREATMENT SPACES REQUIRED

Projections for future activity are presented in Section 5 of this document. A more detailed analysis is provided in the Darling Downs Health 2019-29 Health Service Plan Activity and Projections Paper.

Conversion of activity to treatment spaces provides a guide to the priority areas requiring investment of capital infrastructure in the future assuming no change to service delivery or the health of the Darling Downs population (Base Case). The number of presentations, bed days and separations are used to calculate the treatment spaces required as per endorsed Department of Health planning guidelines.

Base case projections are then moderated according to the prioritised service options identified in this plan. For example, hospital substitution strategies (HITH) will result in reduced inpatient bed days whereas introducing a new service such as interventional cardiology will result in increased inpatient bed days. The scenarios are based on estimates of 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 TH as a referral hospital for Darling Downs and South West residents.
- Working closely with the private hospital sector in the Darling Downs.

Darling Downs Health currently has a total of 882 beds (HHS Bed Profile source DSS December 2018) excluding Mental Health community care beds, nursing home beds and non SCN cots but includes 108 Baillie Henderson Hospital beds.

Toowoomba Hospital will require 446 beds by 2026/27 (includes ICU, CCU and SCN and same day bed alternatives but excludes ED short stay and mental health) under the Base Case. This increase takes into consideration the successful implementation of demand management strategies (increasing home-based and community-based alternative care settings, hospital avoidance and discharge planning strategies) required to achieve the decrease in ALOS built into the AIM base case projections. The introduction of interventional cardiology prior to 2026/27 will require additional beds including CCU beds.

A longer look to 2036/37:

- Toowoomba Hospital will require 566 beds by 2036/37 (excluding ED short stay and mental health.
- Projections for mental health beds are not available beyond 2026/27 as modelling for mental health beds is based on the National Mental Health Service Planning Framework (NMHSPF).

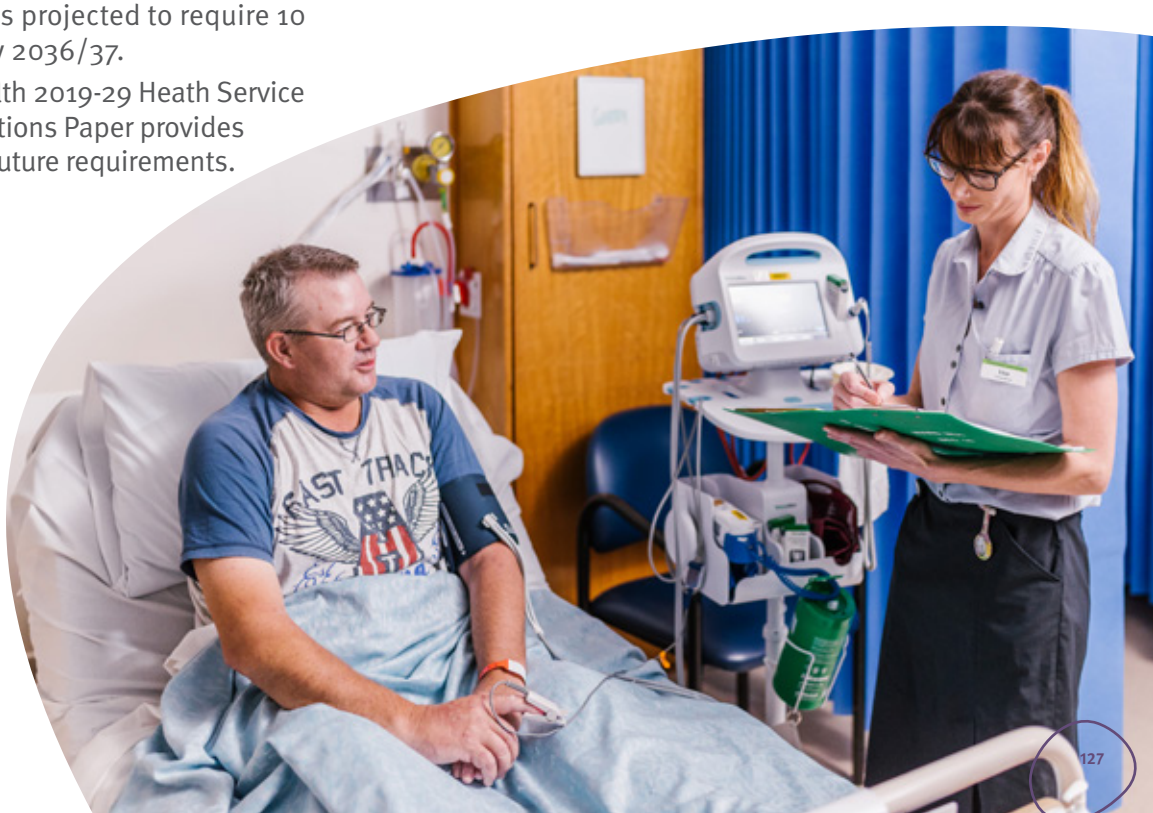
Generally, no additional beds will be required at rural facilities by 2026/27, however some sites may need additional beds by 2036/37:

- Murgon Hospital may require 5 additional beds by 2036/37 but this may be due to long stay admissions and needs further investigation.
- Nanango Hospital may require 6 additional beds by 2036/37 but this may be due to long stay admissions and needs further investigation.
- Oakey Hospital will require 6 additional beds by 2036/37 but this may be due to long stay admissions and needs further investigation.
- Warwick Hospital is projected to require 10 additional beds by 2036/37.

The Darling Downs Health 2019-29 Heath Service Plan Activity and Projections Paper provides details on rural facility future requirements.

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.



INFRASTRUCTURE PLANNING

The Darling Downs Health estate consists of 416 buildings valued at just over $1 billion across 20 hospital facilities (includes 3 multipurpose facilities) as well as primary health care clinics and 6 aged care facilities. The asset estate is characterised by historic underinvestment in asset replacement resulting in a high proportion of aged buildings and other asset classes which are not performing optimally to meet service delivery requirements. Ageing infrastructure is a key impediment in the delivery of contemporary, efficient and safe services. Critical infrastructure deficiencies are experienced at the major sites including Toowoomba Hospital, Kingaroy Hospital, Warwick Hospital, Dalby Hospital and Stanthorpe Hospital.

Many of the smaller rural facilities, built at a time in which inpatient care was the dominant paradigm, no longer support contemporary models of care, nor capacity for growth in ambulatory and outpatient care. A number of these facilities have low overnight occupancy levels.

The Darling Downs Health annual minor capital budget is $3.5 million. This provides for very limited investment in much needed infrastructure upgrades especially taking into consideration the compliance requirement gap that exists when undertaking any refurbishments associated with aged buildings.

Darling Downs Health is expected to fund requirements such as the upgrades required to meet the Australian Standard for sterilisation and a significant portion of the cost of rolling out the proposed digital hospital information systems. To implement the Digital Health Strategic Vision for Queensland 2026: 'all Queenslanders, irrespective of location, to have equitable access to healthcare services across public and private care settings' will require significant investment.

The Department of Health has committed funding to the following immediate priorities requiring major capital funding:

- Completion and fit out of Stage 1 of the Kingaroy Hospital redevelopment.
- Master planning and detailed design for the Toowoomba Hospital Redevelopment.
- Detailed Business Case Day Surgery Baillie Henderson Campus.

Other urgent infrastructure priorities include refurbishment of wards at Baillie Henderson Hospital for inpatient accommodation (note preliminary works completed in 2018/19 by the Darling Downs Health at Tuke Ward) and expansion of the Toowoomba Hospital ED.

CLIMATE CHANGE AND SUSTAINABILITY

A recent study published in The Lancet Planetary Health indicated that the health sector contributes seven per cent of Australia's greenhouse gas emissions and makes a substantial contribution to climate change (Malik, Lenzen, McAlister and McGain 2018). Climate change can have a range of direct and indirect impacts on human health and on the services provided in the human health services area. Direct impacts are those caused by exposure to climate change related events such the increasing frequency and intensity of weather events such as drought, flood, storms, hot days and heat waves. Health impacts might include heat stress, drowning, or trauma. Indirect impacts are those where other drivers of human health are changed due to climate effects. These include increases in harmful algal blooms, poor air and water quality (e.g. from dust storms or bush fires). Additionally, climate change is likely to act as a risk multiplier, exacerbating many of the pressures and risks which occur at present.

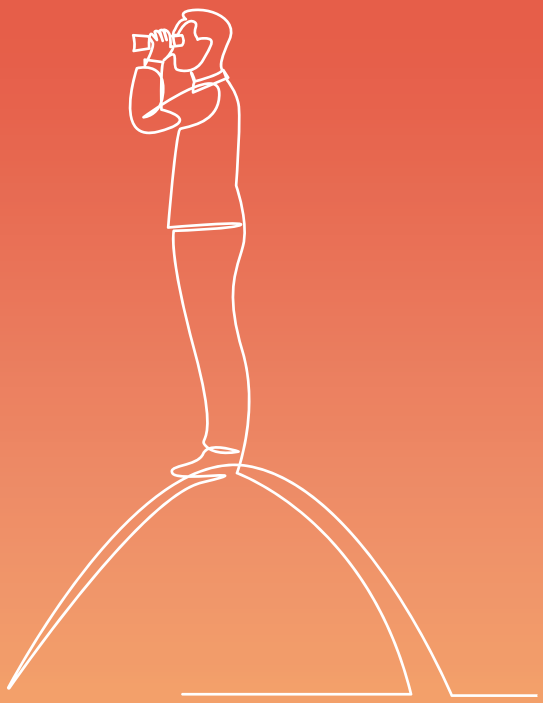
Some people are more sensitive to the impacts of climate change. These include the elderly, young children, people with medical conditions, people with a mental illness, people with a disability, culturally and linguistically diverse groups, and low-income households. Impacts on these communities will place more pressure on the public health system.

Darling Downs Health is taking a pro-active response in acknowledging climate change and its potential impacts to its business (i.e. delivery of health services) and to business continuity. As an initial step to underpin an informed and strategic approach to the emerging issue Darling Downs Health has undertaken a first pass risk screening to identify elements of the organisation and its operations which may be affected by a changing climate.

Sustainable business practices are an increasingly important consideration for the health sector. Understanding issues relating to sustainability can support organisations to meet changing community expectations, manage budgets by reducing unnecessary expenditure, support organisations to recruit and retain suitably qualified staff, support the organisation to operate in conditions of resource limitation, support organisations in infrastructure planning, contribute to improved patient health outcomes and importantly support the organisation to operate effectively in a changing world with changing incidences of disease, a growing and aging population, and a changing climate.

15. Future Requirements for Workforce

Consistently during the planning consultation, a number of workforce issues were raised as follows:



Difficulties recruiting to rural areas.

Very limited support for education and research.

The benefits of growing our allied health workforce.

A need to consider extending hours of operation to meet future demand especially where space is limited (Toowoomba Hospital).

RECRUITING TO RURAL AREAS

The 2018 Health Workforce Needs Assessment Summary Report[53] provides the following gap analysis for workforce in the DDWMPHN area. (Note higher scores represent stronger perceptions of a serious workforce gap).

Figure 61: Darling Downs and West Moreton PHN by Combined or Single SA2

	Chinchilla, Miles combined	Goondiwindi, Inglewood combined	Kingaroy combined	Nanango SA2	Stanthorpe SA2	Toowoomba & suburbs	Wambo SA2	Warwick, Sth Downs combined
General practice	22.6	43.2	56.9	16.7	22.0	19.0	38.6	32.8
ATSI health worker	41.0	42.3	50.0	16.7	32.7	27.2	30.0	36.6
Audiology	32.6	30.0	40.6	16.7	29.0	29.8	48.1	25.3
Dentistry	50.0	21.7	66.0	76.7	43.0	34.0	67.1	58.3
Diabetes education	64.0	21.5	56.0	36.7	58.0	22.4	54.8	44.3
Nursing	22.7	29.7	49.2	25.0	80.0	14.6	50.4	46.1
Nutrition	41.0	36.5	61.5	17.0	31.0	25.3	33.0	31.2
Optometry	53.2	23.3	48.2	53.3	80.7	12.8	40.2	28.4
Palliative care	67.0	41.8	74.8	77.3	33.3	27.5	48.1	70.9
Pharmacy	34.8	19.0	35.0	16.7	22.0	15.0	20.1	30.6
Physiotherapy	34.6	35.5	64.9	77.3	25.0	21.1	28.2	40.9
Podiatry	36.0	40.0	60.0	16.7	19.7	27.8	23.9	47.2
Radiology	46.0	19.8	43.5	66.7	29.7	10.4	50.2	33.6
Speech pathology	33.0	40.4	51.4	26.8	46.7	22.8	40.2	53.5
Exercise physiology	20.3	16.3	39.9	16.7	31.3	13.6	30.9	46.4
Psychology	78.4	26.2	75.4	33.3	55.0	19.3	53.9	59.3
Social work	56.5	27.5	71.4	66.7	54.0	24.9	37.4	60.3
Occupational therapy	55.8	24.2	48.6	35.3	60.0	31.6	32.9	75.6
Aged care	53.8	25.0	44.2	84.0	75.0	23.7	41.6	48.9
ATODS	71.5	38.3	77.0	66.0	51.7	39.7	58.0	56.2
Child health	68.2	56.6	54.7	36.3	56.0	32.8	54.7	41.4
Disability	54.0	32.7	48.4	66.5	72.3	33.8	47.9	54.4
Health promotion	53.8	46.6	44.2	63.8	76.7	32.0	51.5	50.8
Mental health	81.8	41.7	60.7	46.3	51.7	41.7	64.3	54.1
Refugee & immigrant health	41.5	32.2	59.0	50.0	67.3	32.5	32.5	52.9
Maternal health	61.5	6.0	31.5	60.0	42.0	23.1	37.4	27.6

Workforce gap ratings Service gap ratings

The best available estimate is that there are 405 GPs (headcount) and 354 GPs (FTE) practicing within the Darling Downs Health area. These figures are based on a combination of data from Health Workforce Queensland and the DDWMPHN. The estimated workforce requirements using AIHW Australian average supply rates as at 2015 based on population is 314 FTEs. Therefore, the GP workforce within the Darling Downs Health boundaries is reasonable when compared with the Australian rate for GP medical workforce91. However, an analysis at SA2 level shows the distribution within the Darling Downs Health area is not equitable relative to population. Figure 57 shows the estimated surplus or shortfall in GP workforce at an SA2 level. The workforce need is taken from the Medically Underserved Communities of Queensland (MUCs-Q) model, as provided by Queensland Country Practice. Current GP workforce is based on survey data from Health Workforce Queensland.

Three priority areas are apparent from this map. They are:

- **Western areas** - including Tara and Miles - Wandoan.
- **Inner regional areas** - including Crow's Nest – Rosalie, Jondaryan and Clifton – Greenmount.
- **Urban fringe areas** - including Toowoomba – West, Cambooya – Wyreema, Highfields and Gowrie.

The status of the GP workforce in Taroom is not clear from this data as the Banana SA2 – which Taroom is in – only partially overlaps the Darling Downs Health boundary. Queensland Country Practice conducted a detailed study of the Western Downs area in late 2017 however. This review suggested that the greatest GP workforce need was in Tara, and that the workforce size in Taroom was appropriate.

Note that areas surrounding Kingaroy, Warwick and Stanthorpe appear to require additional GPs but this is an artefact of the way the SA2 boundaries have been defined. In practice residents in the rural villages access general practices in their nearest town. When this is adjusted for, the GP workforce in these towns is well matched to the need. There is a similar issue for Darling Downs – Harristown and Rangeville in Toowoomba, both of which appear to have a workforce need but are only a short drive from an adjacent and well-serviced suburb.

As the National Primary Health Care Strategic Framework notes, "evidence demonstrates that those health systems with strong primary health care are more efficient, have lower rates of hospitalisation, fewer health inequalities and better health outcomes including lower mortality"[90]. Accordingly the potential GP workforce gaps that have been identified suggest there will be an increased reliance on Darling Downs Health services within these areas. This presents an opportunity for Darling Downs Health to collaborate with primary care providers and investigate alternative models of care to address outstanding health needs.

Figure 62: Estimated need for GPs in the Darling Downs Health District by SA2 area

PROMOTING EDUCATION AND RESEARCH

During the planning consultation stakeholders requested increased support to undertake education and research. In accordance with the 2018 Health Workforce Needs Assessment Summary Report strategies to build a capable and responsive workforce are summarised in the following table below:

Figure 63: Building a capable workforce

Key issue	
Building a capable workforce that is responsive to local needs	
Evidence	**Strategy**
• Need for increased access to quality continuing professional development for all health workforce. • Strategies needed to develop the health workforce locally including supporting youth to commence vocational training in health-related studies. • Mentoring and leadership training, particularly in the Aboriginal Community Controlled Health Organisations. • Need to expand existing scopes of practise and creation of new roles in all professions.	• Provide grants to support health professionals to become vocationally qualified and up-skilled. • Facilitate and coordinate professional development to ensure a knowledgeable, confident and competent workforce. • Provide organisational support to improve supervision and mentoring and providing educationand training for supervisors and mentors. • Provide organisational support for staff to undertake leadership training. • Offer support for role development and enhancing scope of practice. • Encourage collaboration between organisations with respect to career pathways and professional development.

Reference: 2018 Health Workforce Needs Assessment

ALLIED HEALTH WORKFORCE OPPORTUNITIES

An appropriately resourced allied health workforce can improve health services cost effectively by:

- improving patient access to services
- reducing waiting times in emergency departments and specialist surgical appointments
- improving patient flow
- improving targeted hospital avoidance

There are a number of evidence-based models of care that expand the scope of practice of allied health professionals. There are opportunities to do things differently and to do things better[52]. With an appropriate review of the skill-mix and allocation of resources within clinical teams, an allied health workforce working at full scope is cost effective. Future allied health workforce planning will include growing our allied health assistant model and other support staff to ensure allied health professionals can dedicate a greater proportion of their time to their full scope of practice.

Targeted initiatives include allied health professionals:

- delivering primary contact services in EDs
- delivering primary contact outpatient services
- developing the rural generalist model
- working in transdisciplinary roles and undertaking transdisciplinary tasks
- delegating to allied health assistants
- prescribing using formal training pathways and in accordance with legislation
- measuring value and digital transformation.

To meet the projected future activity growth and improve current efficiencies, targeted increases in the Darling Downs Health allied health workforce are required. Any future growth in clinical services needs to consider the allied health workforce requirements and scope of practice available to avoid other clinical streams duplicating roles that can be competently and cost effectively performed by allied health professionals. Mapping current gaps in allied health service provision – starting with items identified in this health service plan - is required to develop a business model to evaluate potential activity gains and overall improvements in service provision versus cost.

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.

Allied health professionals have expertise to optimise wellness in the management of chronic disease. Rural areas have high rates of chronic disease but low numbers of allied health workforce.

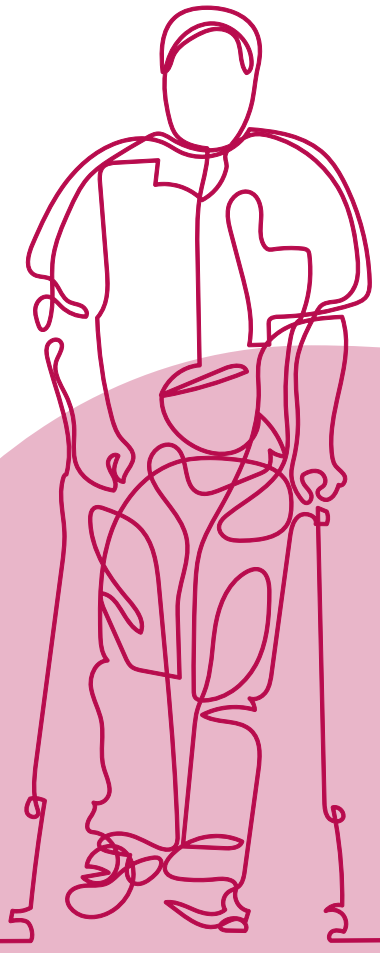


Figure 64: Areas with highest adult obesity rates (by SA2)

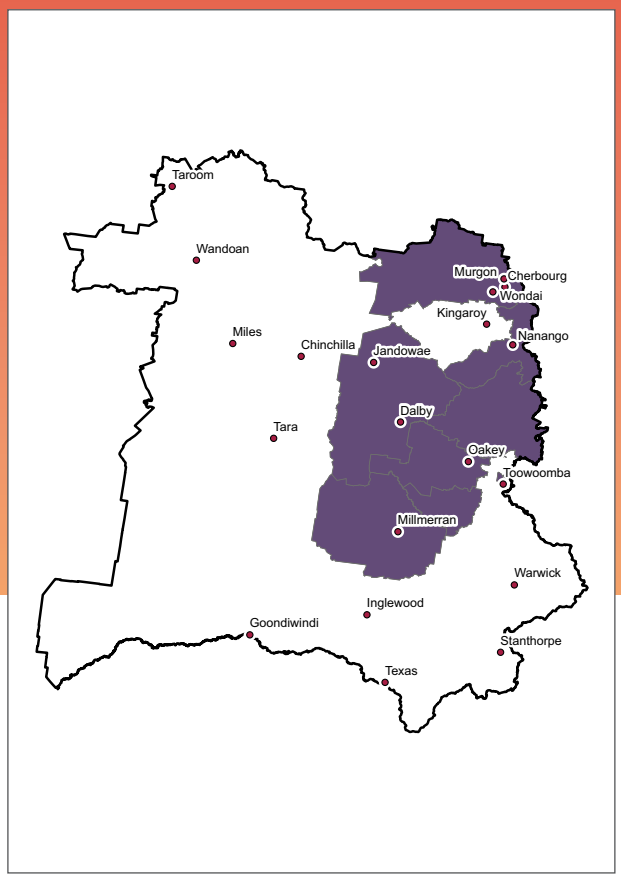
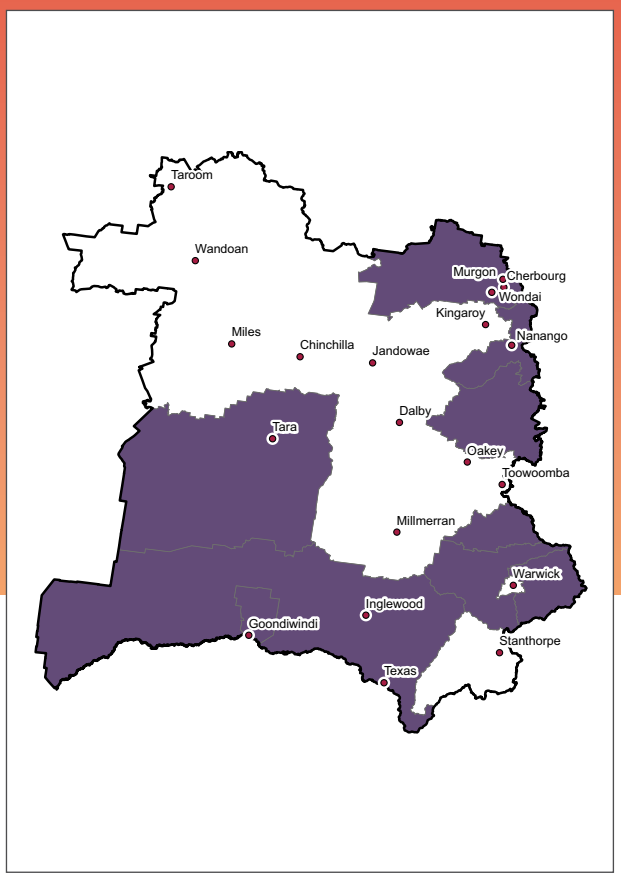


Figure 65: Areas with lowest physical activity rates (by SA2)



Darling Downs Health currently does not employ any exercise physiologists who are allied health professionals with skills and knowledge in preventing and managing chronic disease and can help consumers living with mental health conditions and cancer survival patients with treatment side effects.

A growing demand for podiatry service is expected given the high rate of diabetes in Darling Downs Health.

A review of the number of Allied Health Assistants (AHA) is required to ensure that this workforce has grown in proportion to the total allied health workforce. Engaging an appropriate number of AHA is one method for increasing allied health resources.

MEETING FUTURE DEMAND TOOWOOMBA HOSPITAL

Extending hours of operation at Toowoomba Hospital for specific service areas and professional streams will assist in meeting projected future demand. Given the limited physical infrastructure at Toowoomba Hospital – staged increases in hours of operation (services operating seven days a week and / or after business hours) for key areas could provide both increased capacity and better clinical coverage. Pending extensive consultation and business case development, consideration to be given to extending hours of operation in the following streams:

- Allied health
- Specialist services
- Medical imaging (24/7 for CT and X-Ray, 7-day MRI service)
- Pharmacy
- Pathology.

FIGURES AND TABLES

APPENDIX A: OVERNIGHT BED PROJECTIONS DARLING DOWNS HEALTH

It must be noted that base year 2016/17 numbers do NOT reflect actual physical capacity. 2016/17 bed numbers are calculated from applying DoH benchmarks to actual activity data. 'Actual Beds 2018/19' is taken from what is recorded in the Bed Availability Reporting Application (BARA) as part of the Monthly Activity Collection (MAC) process as at 14th of the month. Note that not all beds are resourced and bed numbers 'flex' depending upon activity requirements. Historical bed numbers have left a legacy of 'bed oversupply' in some of the smaller rural facilities. TH has some marginal capacity to increase bed numbers above the reported MAC total during periods of high activity. These beds include 10 'flex' beds over and above officially reported numbers (see Table 5 below for detailed breakdown).

Projections for 2021/22 and 2031/32 are available in Health Service Plan 2019/29 Activity and Projections Paper.

Table 5 Base Case Acute and Subacute "bed' Projections.

Note: Includes ICU and CCU, paediatric (incl. SCN but excluding qualified baby cots) and same day (incl. endo, renal and chemo) and bed alternatives. Includes 10 ED short stay and 59 mental health beds at Toowoomba Hospital for 2018/19.

Facility	Actual Beds 2018/19	2016/17	2026/27	2036/37
Toowoomba	384	400	523	650
Cherbourg	17	10	12	14
Chinchilla	16	10	13	16
Dalby	43	23	34	46
Goondiwindi	33	14	18	21
Inglewood	10	4	5	6
Jandowae	12	12	12	12
Kingaroy	49	27	40	51
Miles	13	5	7	9
Millmerran	12	7	9	13
Murgon	15	11	15	20
Nanango	10	9	13	16
Oakey	10	9	12	16
Stanthorpe	45	27	38	46
Tara	15	4	6	8
Taroom	10	2	3	4
Texas	6	3	3	4
Warwick	69	47	62	79
Wondai (MAC)	5	5	5	6
Total	**774**	**629**	**830**	**1037**

Table 6 Adult Mental Health Beds based on National Mental Health Service Planning Framework Projections

(does not include 40 non-acute psychiatric beds and 20 non-acute legacy intellectual disability beds at the Baillie Henderson Hospital).

Facility	Primary Classification	2018/19	2021/22	2026/27
Toowoomba Hospital	Acute Adult+PICU+PIMH	43	38	41
	Acute older adults	8	9	11
	Acute Total	**51**	**47**	**52**
Community Care Unit	CCU ABI	24	48	48
Non-acute Older Persons	Older Persons Extended Treatment	24	26	29
Non-acute Medium Secure	SMHRU Medium secure	24	32	35
Grand Total Adult Mental Health Beds		**123**	**153**	**164**

Note the above table does not include 40 non-acute psychiatric beds and 20 non-acute legacy intellectual disability beds at the Baillie Henderson Hospital. Pending capital funding availability 24 of these extended treatment beds will be replaced in the future with 24 CCU beds.

Note beds for Secure Mental Health Rehabilitation include beds for other HHSs including Central, Central West and Wide Bay. Mental health services are projected utilising a population-based methodology, with flows applied. Projections are based on the National Mental Health Service Planning Framework principles provided by Mental Health and Other Drugs (MHAOD) Branch. See Section 2.4.1 in the Activity and Projections Paper for methodology and limitations on using the National Mental Health Service Planning Framework to forecast inpatient bed requirements.

Note the following table does not include capacity for any new services and is the base case only (no adjustments made for demand management strategies such as HITH).

Table 7 Toowoomba Hospital - Bed and Treatment Space Calculations Base Case

Treatment Space	Base Year	Projected Years				Notes
	2016/17	2021/22	2026/27	2031/32	2036/37	
Adult Acute Overnight (ON) Beds						
ON Medical	82	97	114	132	149	OR .85
ON Surgical/Procedural	85	97	109	121	134	OR .85
ON Obstetrics & Gynaecology	27	29	32	30	30	OR.75&.85
ICU	8	9	11	12	13	OR .7
CCU	5	6	7	8	8	2.5% of ON
Subtotal Acute ON Adult Beds	**207**	**238**	**273**	**303**	**335**	
Adult Subacute ON Beds						
GEM	6	10	14	21	29	OR .85
Other Non-Acute	14	16	17	19	20	OR .85
Palliative Care	5	6	7	8	9	OR .85
Rehabilitation	10	13	15	18	21	OR .85
Subtotal Subacute Beds	**35**	**45**	**53**	**66**	**79**	
Paediatric ON Beds						
Paediatric Beds	13	14	15	16	17	OR 0.75
SCN	15	17	18	17	17	
Subtotal all Paed ON beds	**28**	**31**	**33**	**33**	**34**	
Subtotal ON Beds exc MH	**270**	**314**	**359**	**402**	**447**	**Excludes MH**
Same Day/Bed Alternatives OR 1.7						
SD Medical	6	9	14	19	24	OR1.7
SD Obstetrics	4	4	4	5	5	OR1.7
SD Paeds Medical	1	1	1	2	2	
SD Surgical inc Gyn	11	13	15	18	21	OR 1.7
SD Endoscopy	8	9	10	11	12	OR 1.7
Renal Dialysis*	15	23	27	32	36	OR1.7
Chemotherapy	15	14	16	18	20	16/17 actual
Total Same Day Excl. ED SS	**60**	**73**	**87**	**104**	**119**	**Excludes ED**

Treatment Space	Base Year	Projected Years				Notes
	2016/17	2021/22	2026/27	2031/32	2036/37	
Emergency Department						
Adult Treatment Spaces						
Cat 2, 3, 4 & 5	24	31	38	45	52	
Resuscitation	4	6	8	9	11	
Isolation	3	4	5	6	7	
Decontamination Room						
Sub Total	**31**	**41**	**51**	**60**	**70**	
Paediatric Treatment Spaces						
Cat 2, 3, 4 & 5	6	8	10	12	14	
Resuscitation	-	-	-	-	-	
Subtotal	**6**	**8**	**10**	**12**	**14**	
ED Total Treatment Spaces	**37**	**49**	**61**	**72**	**84**	
ED Short Stay Beds						
Adult	9	12	14	17	20	
Paediatric	2	3	3	4	5	
Total ED Short Stay Beds	**11**	**15**	**17**	**21**	**25**	
Acute Mental Health (AMHU) Beds						
Adult Acute	43	38	41	n/a	n/a	MH Branch
Older Persons Acute (65+)	8	9	11	n/a	n/a	MH Branch
Child and Youth (0-17)	8	6	7	n/a	n/a	MH Branch
Subtotal AMHU Beds	**59**	**53**	**59**	**n/a**	**n/a**	
Grand Total All Beds	**400**	**453**	**523**	**584**	**650**	**Notional 59 MH beds >26/27**
Perioperative / Interventional Spaces						
Theatre Elective ON cases	3	4	4	4	4	
Elective Same Day Theatre	1	2	3	3	4	
Emergency Theatre	2	2	2	3	3	
Total Theatres	**6**	**8**	**9**	**10**	**11**	
Stage 1 Recovery*	14	19	21	25	26	
Stage 2 Recovery	7	14	17	21	24	
Endoscopy Suites	**1**	**2**	**2**	**2**	**3**	
Birthing Suites	6	7	7	7	7	

* Includes recovery for theatre and endoscopy

Note 1: NICU cot calculations for 26/27, 31/32 and 36/37 are 18.4, 16.9 and 17.13 respectively. Allowing 1 additional cot for any 'partial' cot would increase cots required to 19, 17 and 18 respectively.

Table 8 Toowoomba Hospital beds as at December 2018

Treatment Space	Type	Number
Adult Acute ON Beds		
MU2	Medical	24
4C	Medical	24
MU1	Medical	30
ICUCCU	Critical Care	11
Surgical	Surgical	28
Harbison	O&G	20
Orthopaedics	Surgical	24
Demountable		12
Subtotal Adult Acute ON Beds		**173**
Adult Subacute ON Beds		
GARS	Rehabilitation	28
6D	Subacute	24
Subtotal Subacute Beds		**52**
Paediatric excluding qualified baby cots		
Paediatric		12
SCN		12
Subtotal		**24**
Paediatric excluding qualified baby cots		
Bed Alternatives		
Day Surgical		12
Endoscopy		8
Renal		17
Chemotherapy		15
ADTW		8
Birth Suite		6
Bed Alternative Total		**66**
ED Short Stay		**10**

Source: "BARA" (Beds Availability Reporting Application, Qld DoH)

APPENDIX B: GLOSSARY OF TERMS

Key Words	Explanation
Admission	A patient stay in hospital. Note there is a statistical difference between a patient admission and 'separation'. A separation is counted when an episode of care for an admitted patient ceases and an 'admission' is counted when a patient is admitted. In this plan the term admission is used to describe what are technically separations to improve readability noting the effective difference is immaterial in terms of analysis when reviewing activity patterns over several years.
Population Density	The number of people per square kilometre that make up the population of the area defined.
Remoteness Index	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. 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.
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	• 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). • 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.
Clinical services Capability Framework (CSCF)	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: • 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.
Community Health	Services provided by Community Health Service clinics. This activity does not fit the criteria prescribed in General list of in-scope public hospital services. Community Health Services are often designated as "Non-ABF Service Categories". These may include: Care Co-ordination, rehabilitation, child and youth health, chronic disease, communicable disease, palliative care, offender health services, primary health care. (Monthly Activity Collection Manual, Statistical Services Branch 2018/19 pg 4)
Darling Downs	Includes the South Burnett region.

APPENDIX C: SERVICE RELATED GROUPS

Surgical & Neonate	Medical & Endoscopy	Mental Health	Rehabilitation & Palliative Care
Breast surgery	Cardiology	Mental Health	Geriatric medicine non-acute
Cardiac surgery	Interventional cardiology	Drug and alcohol	Other non-acute
Colorectal surgery	Chemotherapy		Rehabilitation
Dentistry	Dermatology		Palliative care
Ear, nose and throat	Diagnostic GI endoscopy		
General surgery	Endocrinology		
Haematological surgery	Gastroenterology		
Head and neck	General medicine		
Neurosurgery	Haematology		
Maxillo surgery	Immunology and infections		
Orthopaedics	Medical Oncology		
Ophthalmology	Neurology		
Plastic and reconstructive surgery	Renal medicine		
Urology	Renal dialysis		
Upper Gastrointestinal surgery	Respiratory medicine		
Vascular surgery	Rheumatology		
Transplantation			
Extensive burns			
Prolonged ventilation			
Thoracic suirgery			
Gynaecology			
Obstetrics			
Qualified neonate			
Unqualified neonate			

Note non-subspecialty medicine denoted as general medicine and non-subspecialty surgery denoted as general surgery.

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