

Service Profile for Charters Towers Hospital

Infrastructure Renewal Planning
Project for Rural and Remote Areas

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1 Executive summary

The Infrastructure Renewal Planning Project for Rural and Remote Areas has been identified by the Deputy Premier as a priority project aimed at providing a comprehensive and prioritised health infrastructure program for rural Queensland. The need to address health inequities and access to hospitals in remote areas has also been identified by the Commonwealth Government's National Health and Hospital Network Agreement 2010.

This Service Profile for Charters Towers Hospital is one of 12 profiles developed for each of the Queensland prioritised rural sites. The profile identifies the current level (draft CSCF v.3.0 Level 3) and mix of clinical services provided at each site with a focus on the core services of surgical and procedural, maternity, Emergency Department and general medical. Table 1 details current beds and future bed requirements for Charters Towers Hospital.

To improve the efficiency of current service delivery, infrastructure upgrades are required for the Emergency Department and maternity services area. In addition, an Outpatients Department is needed so that these services can be relocated from the Emergency Department and expanded.

Charters Towers Hospital Emergency Department requires additional space, particularly for consultation rooms and trolley space. In addition, there is insufficient capacity for Stage 2 recovery bays to be located on the same floor as the Operating Theatre.

The maternity services area needs improvement as the delivery suites are located separately to other maternity services and are inadequate in size and layout. An additional maternity consultation room, a multipurpose staff/antenatal/postnatal education room and a child-friendly waiting area are also required. Infrastructure improvement to these services would enable growing levels of emergency activity to be safely accommodated and provide an enhanced environment for women to access maternity care close to where they live.

Rural hospitals rely on visiting clinicians to provide a range of specialist services. Dysfunctional layouts and insufficient treatment spaces make it difficult to attract specialists to the hospital to provide these services. Without the services provided by visiting specialists rural communities will continue to experience health inequities.

Rural hospitals typically have difficulty recruiting staff, and the age and condition of accommodation provided is a major barrier to attracting and retaining a skilled workforce. If staff cannot be recruited and retained, patient access to safe and sustainable services will be compromised.

Table 1: Summary of current and future bed requirements for Charters Towers Hospital

Bed and treatment spaces	Current number	Number required by 2021/22
Overnight beds	25	21
Same day beds	0	2
Bed alternatives	7	7
Emergency Department treatment spaces	4	10
Multipurpose consultation rooms (for outpatients)	0	7

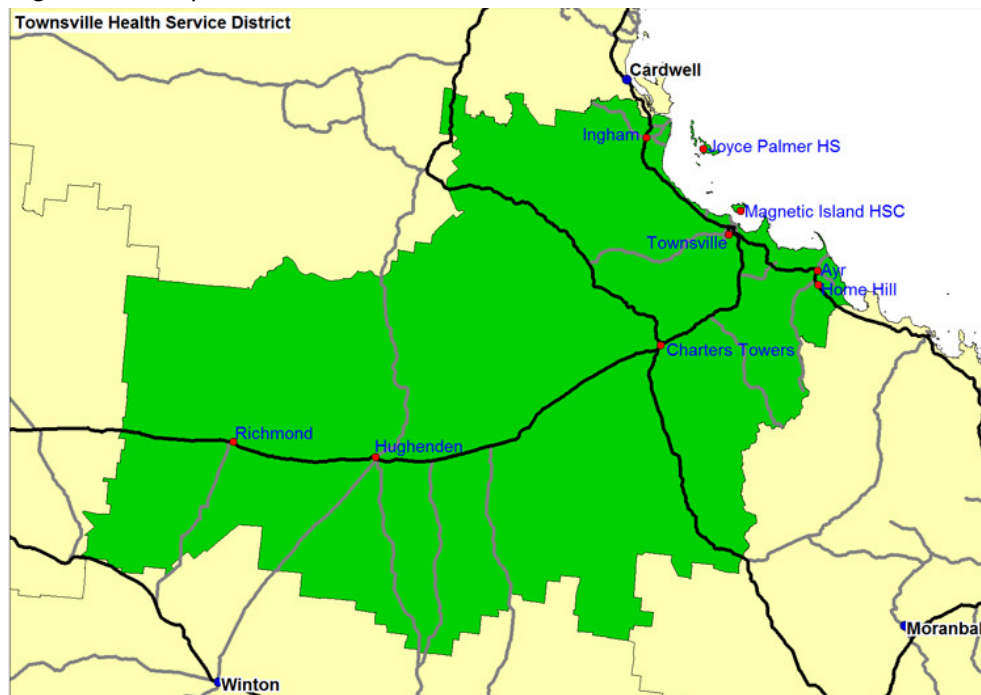
2 Service Profile for Charters Towers Hospital

2.1 Geographic profile

Charters Towers Hospital is located in the Townsville Health Service District (the District) in North Queensland, approximately 1400 kilometres from Brisbane. District boundaries are from Ingham in the north to Home Hill in the south to Richmond in the west. The District borders Mt Isa Health Service District in the west, Cairns and Hinterland Health Service District in the north, and Mackay and Central West Health Service Districts in the south (Figure 1).

Charters Towers and Ayr Hospitals are the primary rural hub hospitals for the Townsville Health Service District, providing support to all health services in the District. Other small hospitals in the District include Hughenden, Richmond and Home Hill. The Charters Towers rehabilitation unit and Eventide aged care facility are also located in Charters Towers.

Figure 1: Map of Townsville Health Service District



Source: Queensland Health

According to the Australian Statistical and Geographical Categories, Charters Towers is classified as 'outer regional' with a remote area score of RA3, while other parts of the catchment are classified as 'remote' RA4 or 'very remote' RA5 (Table 2).¹

Table 2: *Remoteness Classifications for the Charters Towers catchment*

Statistical Local Area	Remoteness	Remoteness Code
Charters Towers	Outer regional	RA3
Dalrymple	Remote	RA4
Flinders	Very remote	RA5
Richmond	Very remote	RA5

Source: Australian Bureau of Statistics

2.2 Demographic profile

2.2.1 Catchment population

Charters Towers Hospital is located approximately 137 kilometres from Townsville Hospital. The primary catchment area for Charters Towers Hospital includes the town of Charters Towers. The secondary catchment for Charter Towers includes the four Statistical Local Areas (SLAs) of Charters Towers, Dalrymple, Flinders and Richmond.

In 2008, the estimated resident population for the Charters Towers catchment was 15,320, which is 6.9 per cent of the total District population (Table 3).

Table 3: *Charters Towers catchment estimated resident population by age group 2008/09*

Catchment	0–14 years	15–44 years	45–69 years	70+ years	Total
Population	3562	5874	4472	1412	15,320
% Age Group	23.3	38.3	29.2	9.2	100

Source: ERP by SLA, Sex and Age Groups, Queensland as at 30 June 2008

Table 4 shows that by 2026 the resident population is projected to increase three per cent, with the age group 70+ years increasing by 104.2 per cent (1,472 people). Projections indicate that by 2026 the area with the largest growth will be within the Dalrymple SLA (28.7%).

Table 4: *Projected population, Charters Towers catchment 2008–2026*

Age Group in Years	2006 (v2008)	2011	2016	2021	2026	% Age Distribution 2008	% Growth 2008–2026
0–14	3562	3216	2968	2783	2783	23.3	-21.9
15–44	5874	5544	5250	5019	4822	38.3	-17.9
45–69	4472	4823	5159	5307	5292	29.2	18.3
70+	1412	1554	1937	2405	2884	9.2	104.2
Total	15,320	15,137	15,314	15,514	15,781	100	3.0

Source: Population Projections (Medium Series) by Age and Sex, 2006 for Health Service Districts (v2008), Queensland (based on 2006 census figures; ASGC 2008 reformed LGAs) August 2008
Produced by Dept of Infrastructure & Planning (Produced by Planning Information & Forecasting Unit) (District groupings added by Health Information Centre) Oct 9, 2008

In 2006, there was an estimated 8.5 per cent (1305 people) of the catchment population who identified as Aboriginal and Torres Strait Islander. Aboriginal and Torres Strait Islander people are estimated to make up 7 per cent (15,037 people) of the total resident population for the District (212,457 people).

In 2006, 4.9 per cent of residents identified as being born outside Australia, with 6.3 per cent of residents speaking a language other than English at home, compared to 6.7 per cent of Queensland residents.

2.2.2 Services in the Health Service District

In 2008/09, the majority of inpatient activity in the District was provided at the Townsville Hospital, the main specialist centre for the District. Townsville is classified as 'other metropolitan centre' (an area consisting of one or more statistical subdivisions which have an urban centre of population of 100,000 or more in size) hence the high rate of self sufficiency, listed below:

- 96 per cent for adult overnight separations
- 96 per cent for adult same day separations
- 92 per cent for children's overnight separations
- 83 per cent for children's same day separations.

The District was self sufficient in most of the special Enhanced Service Related Groups, with the exception of child haematology, oncology and cardiac services.

Nearly all of the inflow for the District, for both special and non-special Enhanced Service Related Groups, came predominantly from Cairns and Hinterland and Mackay Health Service Districts.

2.3 Charters Towers Hospital

Charters Towers Hospital provides a range of surgical and procedural, maternity, general medical, Emergency Department inpatient and ambulatory care services, including:

- accident and emergency
- maternity
- specialist outpatients
- medical imaging
- pharmacy
- general medicine
- general surgical
- palliative care (community based)
- paediatric
- day surgery
- obstetrics and gynaecology.

Charters Towers Hospital currently provides 25 overnight beds and seven bed alternatives (Stage 2 recovery chairs) providing acute care to the SLAs of Charters Towers, Dalrymple, Flinders and Richmond.

The basis for identifying gaps in service capability against the core service profile is to secure and consolidate services provided at Charters Towers Hospital, the primary rural hub service in the District. This may involve the enhancement of existing service roles and staffing levels to support its role in the District.

The current level of service capability at Charters Towers Hospital is outlined in Table 5. Gaps are also identified against this level of service in Table 5. Services provided should align with the draft CSCF v3.0 Level 3 or lower.

Providing the minimum suite of core services aims to ensure the provision of surgical and procedural, maternity, Emergency Department and general medical services at Charters Towers Hospital.

Table 5: Draft CSCF v3.0 service gap analysis

Core services	Draft CSCF v3.0 Level	Current services	Current CSCF Level	Gaps
Emergency services	3	Emergency services	3	
Medical services	3	Medical services	3	
Surgical services	3	Surgical services	3	
Peri-operative services	3	Peri-operative Services	3	
Anaesthetics services	3	Anaesthetics services	3	
Maternity services	3	Maternity services	3	
Neonatal services	3	Neonatal services	3	
Mental health Services	2	Mental health services	2	
Rehabilitation services	3	Rehabilitation services	3	
Palliative care services	2	Palliative care services	2	
Pathology services	3	Pathology services	2	Specimens to Townsville Hospital as no laboratory onsite
Medical imaging services	3	Medical imaging services	3	Ultrasound equipment available, but no ultrasonographer on site
Pharmacy services	3	Pharmacy services	3	No pharmacist on call 24hrs

Source: Queensland Health, February 2010

2.3.1 Hospital inpatient activity

Charters Towers Hospital has an annual average occupancy rate of 62.4 per cent for all age services. In 2008/09, District residents (all ages) accounted for 97.2 per cent of all overnight beddays and 98.6 per cent of same day separations at Charters Towers Hospital. There were no other significant inflows from any other district or region.

Table 6: Same day separations (all age) by district of residence, Charters Towers Hospital 2008/09

HSD Residence	Same Day Separations	% of Total	Overnight		% of Total Beddays
			Separations	Beddays	
Townsville	428	98.6	994	4411	97.2
Other States and Overseas			15	55	1.2
Cairns and Hinterland	2	0.5	9	24	0.5
Central Queensland			6	16	0.4
Central West	1	0.2	4	9	0.2
Darling Downs-West Moreton			4	7	0.2
Mackay	1	0.2	3	4	0.1
Metro South			3	3	0.1
Sunshine Coast-Wide Bay			2	2	0.0
Metro North	1	0.2	2	2	0.0
Cape York			1	2	0.0
Mt Isa	1	0.2	1	1	0.0
South West			1	1	0.0
Total	434		1045	4537	

Source: Queensland Health Admitted Patient Data Collection 2010

The acute ward at Charters Towers Hospital is a 25 bed ward that provides acute medical, surgical, paediatrics, maternity, some limited high acuity care, aged and respite care and mental health services at draft CSCF v3.0 Level 3. The ward is also used as an Emergency Department after hours with two monitored beds used as emergency observation beds.

In 2008/09, 97.4 per cent of all adult same day separations and 95.8 per cent of all adult overnight separations for District residents were provided at District facilities. Over the period from 2004/05 to 2008/09, separations at District facilities increased for resident adults same day (34.4%) and overnight (8.3%), as shown in Table 7 and Table 8.

Table 7: Adult same day separations for Charters Towers catchment residents 2004/05–2008/09

Place of Treatment	2004/05	2005/06	2006/07	2007/08	2008/09	% Change Over 5 Years
Other HSD	45	38	41	51	45	0.0
Townsville Health Service District	1268	1100	1099	1342	1704	34.4

Source: Queensland Health Admitted Patient Data Collection 2010.

Table 8: Adult overnight separations for Charters Towers catchment residents 2004/05–2008/09

Place of Treatment	2004/05	2005/06	2006/07	2007/08	2008/09	% Change Over 5 Years
Other HSD	77	76	74	111	90	16.9
Townsville Health Service District	1911	1950	2004	2023	2070	8.3

Source: Queensland Health Admitted Patient Data Collection 2010

In 2008/09, the top three reasons for adult overnight separations at Charters Towers Hospital were cardiology, non-subspecialty medicine and non-subspecialty surgery (Table 9). Non-subspecialty medicine, cardiology and orthopaedics accounted for the highest number of adult overnight beddays in the same period. The most common reasons for same day separation were for plastic and reconstructive surgery, and diagnostic gastrointestinal endoscopy.

Table 9: Top 10 Adult Service Related Groups (SRGs) at Charters Towers Hospital for same day separations and overnight beddays 2008/09

Top 10 SRGs – Same Day by Separations	Seps	Top 10 SRGs – Overnight by Beddays	Seps	Beddays
Plastic and Reconstructive Surgery	101	Cardiology	169	626
Diagnostic GI Endoscopy	63	Non-subspecialty Medicine	97	642
Cardiology	28	Orthopaedics	72	513
Non-subspecialty Surgery	27	Neurology	68	363
Endocrinology	24	Respiratory Medicine	88	344
Orthopaedics	18	Gastroenterology	84	344
Dermatology	16	Endocrinology	45	293
Haematology	13	Non-subspecialty Surgery	95	266
Gastroenterology	13	Immunology and Infections	53	218
Drug and Alcohol	13	Psychiatry - Acute	51	199

Source: Queensland Health Admitted Patient Data Collection 2010

Over the five year period from 2004/05 to 2008/09, there was an increase in the number of adult same day separations (6.1%) and no change for paediatric same day separations.

Table 10: Paediatric and adult same day separations at Charters Towers Hospital 2004/05–2008/09

Age Group	2004/05	2005/06	2006/07	2007/08	2008/09	% Growth 2004/05–2008/09
Paediatric	31	26	35	23	31	0
Adult	380	367	410	485	403	6.1
Total	411	393	445	508	434	5.6

Source: Queensland Health Admitted Patient Data Collection 2010

Over the same period, overnight separations increased (adult separations by 10.6%, and paediatric separations by 4.5%).

Table 11: Paediatric and adult overnight beddays at Charters Towers Hospital 2004/05–2008/09

Age Group	2004/05	2005/06	2006/07	2007/08	2008/09	% Growth 2004/05–2008/09
Paediatric	44	45	55	66	46	4.5
Adult	903	925	1009	977	999	10.6
Total	947	970	1064	1043	1045	10.3

Source: Queensland Health Admitted Patient Data Collection 2010

2.3.2 Projected activity

In rural hospitals providing a draft CSCF v3.0 Level 3 service, beds are not designated into specific bed type categories, as there are no specialist clinical units. This provides flexibility at the local District/facility level to use beds as needed, dependent on local activity. The profile of projected activity in rural hospitals is not expected to change, however, with improved infrastructure, including modernised layouts or refurbished buildings, current services would be enhanced. Maternity, emergency services, surgical and outpatient services could continue to grow and provide more efficient services.

The bed types and treatment spaces set out in Table 22 and Table 23 reflect the categories from the More Beds for Hospitals Strategy. ^{Error! Bookmark not defined.} It should be noted that many of the categories outlined in the More Beds for Hospitals Strategy ^{Error! Bookmark not defined.} are not applicable for rural hospitals. The projections have been calculated using aIM data and data templates developed by the Planning and Coordination Branch Statewide (Data) Team. The benchmarks and methodology used for calculating the projected bed categories are described in the Methodology Section of the Statewide Implications for Rural Service Provision.

Charters Towers Hospital currently has 25 multipurpose overnight beds, and projections indicate that 21 overnight beds will be required by 2021/22 (applying an 85% occupancy rate) or 26 overnight beds (applying a 70% occupancy rate). Currently there are no designated same day beds, but it is projected that two will be required in 2011/2012, with no further increase required by 2021/22.

Using the Victorian Normative Benchmarks, Charters Towers Hospital currently has a major Operating Theatre with sufficient Stage 1 recovery bays to meet benchmark requirements. There are currently seven Stage 2 recovery chairs, which are sufficient to meet demand (based on current activity levels) up to 2021/22. However, the chairs are currently located in a waiting room on the floor above the Operating Suite and should be integrated with the Operating Suite area.

The number of Emergency Department treatment spaces will need to increase from 4 to 10 by 2021/22. These treatment spaces will need to include a mix of acute treatment trolley spaces, consultation rooms and specific treatment rooms (e.g. plaster, procedure and isolation rooms). Additional multipurpose consultation rooms will be required for outpatient activity.

As there is currently no Outpatient Department at Charters Towers Hospital, there are insufficient outpatient consultation rooms. Seven multipurpose outpatient consultation rooms are required by 2011/12, with no further increase required by 2021/22.

Charters Towers Hospital currently has two maternity/women's health consultation rooms. However, these are located in the Community and Child Health and should be integrated with the maternity services area. An additional maternity/women's health consultation room is required by 2011/12, with no further increase required by 2021/22.

Table 12 details total projected births for the District and Charters Towers Hospital to 2021/22. In 2007/08, there were 203 births at Charters Towers Hospital, projected to decrease to 191 births by 2021/22 if there is no change in the model of care.

Table 12: Current and projected births

	2007/08	2011/12	2016/17	2021/22
Total births for Townsville Health Service District as a district of residence	3333	3508	3951	4196
Charters Towers Hospital	203	184	188	191

Live births by district of usual residence Queensland 2006–2008 source perinatal data collection
Projections developed by Office of Economic and Statistical Research using Perinatal Data Collection and high series population projections October 2009.

2.4 Core services

Outlined below is a description of the four core services provided at Charters Towers Hospital: surgical and procedural, maternity, Emergency Department and general medical.

2.4.1 Surgical and procedural

Charters Towers Hospital provides surgical and procedural services at a draft CSCF v3.0 Level 3 service. The Hospital Operating Theatre is accessible 24 hours a day, seven days a week. Most surgery is done on a weekly or monthly basis by visiting specialists.

Visiting specialists generally travel from Townsville and require consultation spaces and theatre time on the day of visiting. Charters Towers Hospital has seven Stage 2 recovery bays, which are sufficient to meet current demand. However they are disconnected from the Operating Theatre space, do not offer any privacy to patients and create staffing difficulties because of the dislocation.

Infrastructure improvements are required as the Operating Suite currently does not have the built capacity to accommodate sufficient Stage 2 recovery chairs. There are seven Stage 2 recovery chairs located on a separate floor to the Operating Suite. The dysfunctional location of these chairs and the absence of any outpatient spaces inhibits service provision.

Substantive theatre specialties are non-specialty surgery, ophthalmology, obstetrics and gynaecology, urology and dental. Charters Towers Hospital does not have an Intensive Care Unit and therefore cannot undertake complex surgery. Charters Towers Hospital, like all rural hubs, has the capability to manage emergencies and higher acuity care while waiting transfer out to a higher level facility.

Charters Towers Hospital generally provides surgery only as a visiting service of which there are 44 days of surgery a year. There were 269 surgical separations in 2008/09 and 238 same day surgical separations, demonstrating a small decrease for the five year period (Table 13).

Over the five year period 2004/05 to 2008/09, adult surgical separations decreased for same day (-9.8%) and overnight (-3.6%).

Table 13: Adult surgical separations at Charters Towers Hospital 2004/05–2008/09

Stay Type	2004/05	2005/06	2006/07	2007/08	2008/09	% Growth 2004/05–2008/09
Same Day	264	254	244	275	238	-9.8
Overnight	279	267	309	300	269	-3.6
Total	543	521	553	575	507	-6.6

Source: Queensland Health Admitted Patient Data Collection 2010

2.4.2 Maternity

As a primary hub for maternity services in the District, Charters Towers Hospital provides a booking-in clinic, antenatal clinic and classes, and birthing and postnatal care. There are currently no allocated maternity beds in the General Ward area. There was one qualified neonate bed/day in 2008/09.

For the period 2004/05 to 2008/09, there was a significant decrease in maternity separations (-48.4%). Vaginal deliveries decreased by 27.3 per cent, while caesarean deliveries decreased by 95 per cent (Table 14); this may be due to workforce recruitment issues.

Table 14: Maternity separations at Charters Towers Hospital 2004/05–2008/09

Age Group	2004/05	2005/06	2006/07	2007/08	2008/09	% Growth 2004/05–2008/09
Vaginal	44	43	43	44	32	-27.3
Caesarean	20	9	19	6	1	-95
Total	64	52	62	50	33	-48.4

Source: Queensland Health Admitted Patient Data Collection 2010 (Classified by Enhanced Service Related Groups used by Hardes and Associates)

Maternity beds/rooms

Maternity service provision at Charters Towers Hospital is complicated by the configuration of the current infrastructure, including delivery suites, ward and antenatal and gynaecology clinics. The two delivery suites are dysfunctional in layout and size, and the two maternity/women's health consultation rooms are located away from the maternity services area. In addition, there is no child-friendly waiting area, no multipurpose staff/antenatal/postnatal education room and an additional consultation room is required.

In conjunction with maternity services, draft CSCF v3.0 Level 3 neonatal services are required to provide routine care for unqualified babies (Attachment A) and qualified neonates who require resuscitation and management while awaiting transfer out, and management of back transferred babies. Additionally, neonates who require low risk care may be managed in this level of facility (Attachment A).

Charters Towers Hospital currently requires a resuscitation bay/cot for back transferred babies or low risk qualified babies, as well as two cot spaces. The District advises that not all clinical staff have completed a recognised neonatal resuscitation program and that the registered nurse in charge of the unit on each shift, who holds ongoing clinical competency, is not always available.

Paediatrics

In 2008/09, District facilities provided 63.9 per cent of same day separations to paediatric residents (0–14 years) and 86.4 per cent of overnight separations. Most of this activity was at The Townsville Hospital with small numbers of separations for Charter Towers Hospital.

In 2008/09, the most common reason for paediatric overnight separations was for non-subspecialty medicine. The largest number of paediatric same day separations were for the non-subspecialty surgery and ear, nose and throat Service Related Groups.

Table 15: Top four Service Related Group (SRG) separations at Charters Towers Hospital for ages 0–14 years 2008/09

Top 10 SRG – Same Day By Separations	Seps	Top 10 SRG – Overnight By Beddays	Seps	Beddays
Non-subspecialty Surgery	8	Non-subspecialty Medicine	15	26
Ear, Nose and Throat	6	Immunology and Infections	6	16
Non-subspecialty Medicine	<5	Respiratory Medicine	6	8
Plastic and Reconstructive Surgery	<5	Extensive Burns	<5	8

Source: Queensland Health Admitted Patient Data Collection 2010
Note: Top 10 not included as low numbers may be identifiable

Over the five year period 2004/05–2008/09, same day paediatric surgical separations increased by 16.7 per cent, while overnight surgical separations decreased by 53.8 per cent (Table 16).

Table 16: Paediatric surgical separations at Charters Towers Hospital 2004/05–2008/09

Stay Type	2004/05	2005/06	2006/07	2007/08	2008/09	% Growth 2004/05–2008/09
Same Day	18	16	20	6	21	16.7
Overnight	13	12	15	12	6	-53.8
Total	31	28	35	18	27	-12.9

Source: Queensland Health Admitted Patient Data Collection 2010

Over the same five year period, same day paediatric medical separations decreased by 25 per cent, while overnight paediatric medical separations increased by 13.3 per cent (Table 17).

Table 17: Paediatric medical separations at Charters Towers Hospital 2004/05–2008/09

Stay Type	2004/05	2005/06	2006/07	2007/08	2008/09	% Growth 2004/05–2008/09
Same Day	12	7	14	16	9	-25
Overnight	30	29	37	52	34	13.3
Total	42	36	51	68	43	2.4

Source: Queensland Health Admitted Patient Data Collection 2010

2.4.3 Emergency Department

The Charters Towers Emergency Department is located in a building separate from the main hospital. This arrangement is unsuitable for an emergency service and creates issues with after hours security making it necessary to use the ward as an Emergency Department. Consequent disruption to the ward areas and patient care, and compromised staff safety are an ongoing issue because of this. The ward has two monitored beds used as observation beds for Emergency Department patients.

This service is provided by staff at the hospital including nurses, general practitioners and hospital-employed doctors rostered on 24 hours a day, seven days a week.

Over the five year period 2004/05–2008/09, Emergency Department activity at Charters Towers Hospital increased by 29.5 per cent. Presentations to the Emergency Department (ED) showed the greatest increase (31.5%) during that time (Table 20). This could be due to a number of reasons including the decreasing number of general practitioners in the community, a lack of general practitioners who bulk bill, or who are unable to take on new patients.

Table 18: Charters Towers Hospital Emergency Department activity 2004/05–2008/09

ED Activity Type	2004/05	2005/06	2006/07	2007/08	2008/09	% Growth 2004/05–2008/09
Presentations to ED	6869	8182	8997	9248	9033	31.5
Admissions from ED	590	609	650	649	625	5.9
Died	4	4	1	8	6	50.0
Total	7463	8795	9648	9905	9664	29.5

Source: Queensland Health Admitted Patient Data Collection 2010

2.4.4 General medical

General medical services at Charters Towers Hospital are routinely provided by nursing, medical (general practitioner and senior medical officers) and allied health staff. In addition, there are visiting medical specialists who provide services on a regular basis dependant on need in the community. These specialists include a respiratory physician, paediatrician and gastroenterologist. Patients requiring renal dialysis are treated in Townsville.

For the period 2004/05–2008/09, medical separations for adults increased for same day (45.5%) and overnight (18.8%).

Table 19: Adult medical separations at Charters Towers Hospital 2004/05–2008/09

Stay Type	2004/05	2005/06	2006/07	2007/08	2008/09	% Growth 2004/05–2008/09
Same Day	99	91	146	199	144	45.5
Overnight	544	582	600	619	646	18.8
Total	643	673	746	818	790	22.9

Source: Queensland Health Admitted Patient Data Collection 2010

Non-admitted occasions of service

Outpatient services at Charters Towers Hospital provide a range of non-admitted services. These include general practice clinics (provided by hospital medical officers or visiting general practitioners), minor operations clinic, fracture clinic and pre-admission/anaesthetic, ante and postnatal clinics, dressing and wound clinic, child health clinic and immunisation clinic.

For the five year period 2004/05 to 2008/09, there was a decrease (9.2%) in non-admitted occasions of service at Charters Towers Hospital (Table 20). Obstetrics/gynaecology clinics accounted for the greatest growth (61%). During 2008/09, allied health clinics accounted for the largest number of occasions of service (6052).

Table 20: Charters Towers Hospital non-admitted occasions of service 2004/05–2008/09

Clinic Group	2004/05	2005/06	2006/07	2007/08	2008/09	% Growth 2004/05–2008/09
Allied Health/Nurse	6094	7392	6612	6838	6052	-0.7
Dental	2324	2315				
Medical	4284	4065	4477	5116	4927	15.0
Obstetrics/Gynaecology	823	852	911	1474	1325	61.0
Surgical	96	38	326	116	64	-33.3
Total outpatient occasions of service	13,621	14,662	12,326	13,544	12,368	-9.2

Source: Queensland Health Admitted Patient Data Collection 2010

Visiting specialist services

Visiting specialist outreach services are largely provided by Townsville Hospital and include maternity, specialist medicine, surgical, paediatric, nutrition, anaesthetics and hearing services.

Flying Specialist Services

Flying Specialist Services are not provided at Charters Towers Hospital as specialists usually drive from Townsville.

Medical Specialist Outreach Assistance Program

The Medical Specialist Outreach Assistance Program provides two trips per year for child and adolescent psychiatry.

2.4.5 Current support services

Pathology

There is no pathology laboratory on site at Charters Towers Hospital. The pathology service is coordinated by the Townsville Hospital as a support and advisory service. Specimens are transferred to Townsville for testing as there is no laboratory in Charters Towers.

Medical imaging

The medical imaging service is available 24 hours a day, seven days a week, provided by a radiographer and licensed x-ray operators. Support for licensed x-ray operators is provided by the radiographer or Townsville Hospital radiographers. Ultrasound equipment is available at Charters Towers Hospital; however, there is no ultrasonographer on site.

Pharmacy

Charters Towers Hospital provides a limited clinical pharmacy service on weekdays only. A pharmacist is on site during business hours, but no on-call service is available. The pharmacist also provides outreach services to Hughenden and Richmond, and relief is required to cover these periods of absence from Charters Towers Hospital.

Dental/oral health services

A Dental Clinic is located on the hospital site. The Clinic is aged and does not meet current access requirements despite several refurbishments, the most recent in 2007. It is a two chair facility with a dental laboratory, reception area, waiting room and a multipurpose room.

2.5 Primary health care and community health services

One of the major challenges of health services in the catchment is to effectively implement evidence-based interventions aimed at addressing preventable disease. The growth in the population, the travel required to access health services and the need to provide services to sparsely populated regions, has created a need to reconsider current models of care and look for alternative service delivery models.

Implementation of alternative models of care, such as Hospital in the Home, Hospital in the Nursing Home, integrated models of care across primary health care and acute services, and nurse practitioner led clinics, may achieve some efficiency in service delivery.

A key strategy in achieving these efficiencies will be expanding community-based resources for targeting, identifying and managing key chronic diseases and common conditions of ageing in collaboration with other local agencies.

Future community-based service requirements have been broadly considered in the context of the catchment and opportunities for enhancing community-based services. Detailed consideration of future community health services and capacity requirements will occur if the preliminary evaluation progresses to a business case.

A range of primary health care and community health services are available in Charters Towers including:

- Aboriginal and Torres Strait Islander
- maternity
- child safety
- child and family
- Alcohol, Tobacco and Other Drugs.

Integrated mental health services

A non-medical community mental health team is based in Charters Towers. This team provides the basic range of community mental health services for adults, older people, child and youth, and Aboriginal and Torres Strait Islander people, and increasingly drug and alcohol dual diagnosis services. There are mental health consultation rooms and offices on site with the hospital.

Allied health services

At Charters Towers Hospital allied health services are provided both as inpatient and ambulatory care services. Allied health services provided at Charters Towers Hospital include a range of services, including physiotherapy, social work, occupational therapy and speech pathology. All services provide a primary community and acute service.

The number of occasions of service over the last five years for allied health services has not changed markedly. However, where there are gaps in the numbers, there has either been no service or problems with recruitment of staff.

*Table 21: Occasions of service for allied health at Charters Towers Hospital
2004/05–2008/09*

Allied Health type	2004/05	2005/06	2006/07	2007/08	2008/09
Nutrition	166	150	141	173	234
Occupational Therapy	75	232	233		
Other Allied Health	1				
Physiotherapy	3480	4380	3564	4548	3671
Social Work	784	657	571	357	142
Speech Pathology	508	729	854	315	740
Total	5014	6148	5363	5393	4787

Source: Queensland Health Admitted Patient Data Collection 2010

3 Current and future bed requirements

3.1 Summary of projected bed requirements

Table 22 and Table 23 present a high-level summary of the projected bed and other treatment space requirements for the Charters Towers Hospital to 2021.

Table 22: Current and projected bed requirements for Charters Towers Hospital

Beds/Alternatives	Current numbers	Projections using 85% occupancy rates			Projections using 70% occupancy rates		
	2010	2011	2016	2021	2011	2016	2021
Overnight Beds							
Total multipurpose overnight beds	25	17	19	21	20	23	26
Same day beds/bed alternatives							
Same day beds	0	2	2	2			
Stage 2 recovery chairs	7	7	7	7			
Chemotherapy chairs	0	0	0	0			
Renal dialysis chairs (in centre)	0	0	0	0			
Other medical (inc. Discharge Lounge)	0	0	0	0			
Total same day beds/bed alternatives	7	9	9	9			

* Overnight bed numbers reflect current operational beds

Other treatment spaces

Projected requirements for recovery spaces, delivery suites, outpatient clinic rooms and Emergency Department spaces currently exceed the current built capacity at Charters Towers Hospital.

Table 23: Current and projected other treatment space requirements for Charters Towers Hospital

	2010	2011	2016	2021
Operating Theatres	1	1	1	1
Procedure rooms	0	1	1	1
Stage 1 recovery spaces	2	2	2	2
Delivery Suites	2	2	2	2
Outpatient clinic rooms	0	7	7	7
ED treatment spaces	4	8	9	10
X-ray rooms, ultrasound, plain film x-ray	1 x-ray room	1 x-ray room 1 ultrasound room	1 x-ray room 1 ultrasound room	1 x-ray room 1 ultrasound room
CT scanner	0	0	0	0

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5 References

1. Australian Bureau of Statistics. Australian Statistical and Geographical Categories. Australian Standard Geographical Classification (ASGC) 2009 (cat. no. 1216.0); Australian Standard Geographical Classification (ASGC) - Electronic Structures 2009 (cat. no. 1216.0.15.001) and Australian Standard Geographical Classification (ASGC) Correspondences 2009 (cat. no. 1216.0.15.002); 2009
2. Queensland Government. More Beds for Hospitals Strategy. Queensland Health; 2006.