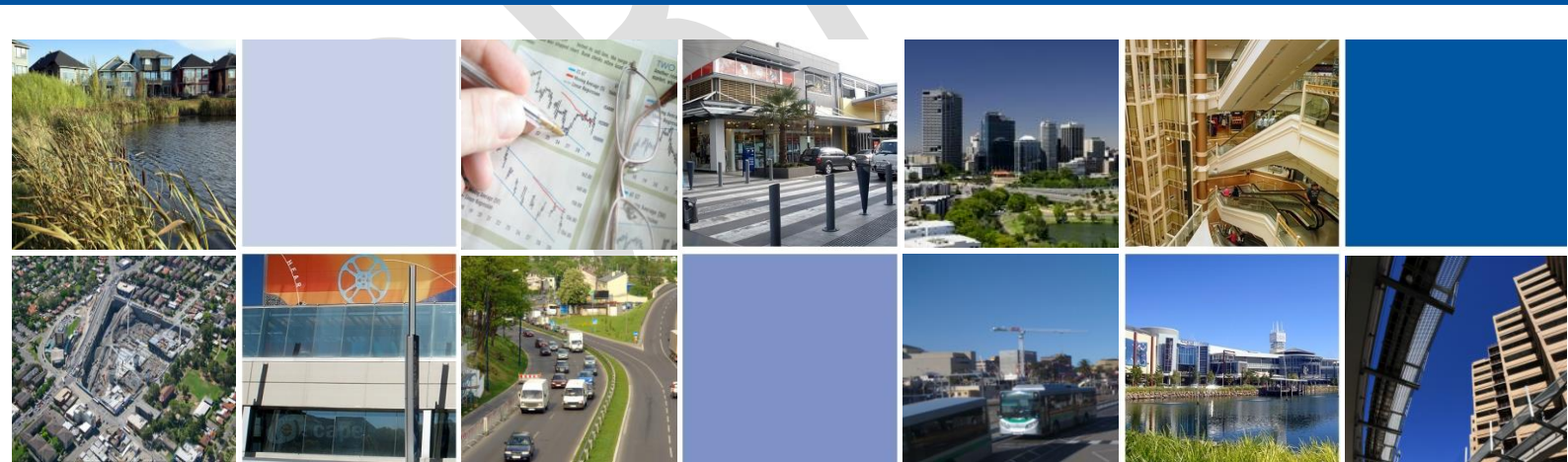


Blacktown Health Precinct

Potential Market Assessment

April 2019

DRAFT



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Executive Summary

MacroPlan has been engaged by Hames Sharley and Blacktown City Council to undertake an economic assessment of the existing and future market conditions for specific land and floorspace uses at the proposed Blacktown Health Precinct. The context of this report is having regard for recent population and employment growth trends and ageing, and existing land uses, and the proposed renewal/redevelopment project in the Blacktown CBD. This assessment considers the existing provision of health services at nearby towns and will identify where business synergies are possible.

Our report outputs will support the project team to understand the potential floorspace demand for health/medical services and other specific land uses at the potential Blacktown Health Precinct, and will assist Council to establish the Concept Plan for a Strategic Healthcare Precinct.

The function and form of health precincts around the world is changing including the measurement for success. The size and co-location of medical uses within these precincts is not on its own an indicator of a successful health precinct. The largest hospital knowledge precinct in the world, the Texas Medical Centre, which has over fifty-plus organisations, is not achieving meaningful collaboration, which is fundamental to creating innovative precincts¹.

The most successful health precincts are internationally competitive and are often described as 'innovation districts'. These districts are transit-accessible precincts that include health assets surrounded by a network of medical institutions, a mix of complementary industry tenants, housing, ancillary facilities and services².

The changing nature and mix of uses within health precincts are also changing the built form of health precincts. Buildings in innovative health precincts are getting larger and taller as the pursuit for collaboration commands that more departments, organisations and uses be located within the same building to facilitate the opportunity to congregate, exchange ideas, meet, talk and eat. This includes providing spaces for healthcare professionals to walk, talk, think and work³.

Flexibility is therefore key in planning for these types of precincts, given the broad mix of uses that often make them successful. Each health precinct is unique in some manner, however there are a range of principles which define successful health precincts nationally and internationally and they include:

- Brand recognition / pulling power through embracing size and scale;
- High concentrations of specialisation / expertise;
- Industry connections and connectivity including active engagement of business and industry and presences of incidental locations to stop and have casual interactions;
- Health, educational and research uses including partnerships;
- Porous / permeable boundaries which promote a clear focus on market and outcome domains over institutional domains;

¹ Michaela Sheahan, Architecture Australia – May 2015 (Issue 3), *The importance of public spaces and pedestrians in hospital precincts*

² Greater Sydney Commission (March 2018), *Greater Sydney Region Plan*, p115

³ Michaela Sheahan, Architecture Australia – May 2015 (Issue 3), *The importance of public spaces and pedestrians in hospital precincts*.

- Housing diversity including designs for different types of people and their varying lifestyles;
- Urban fabric including density and diversity of building types and activated street frontages including ground floor retail;
- Mix of uses which provide services and lifestyle amenities that provide relief from work pressures and opportunities to engage and interact with the community;
- “3D” approach to use of land and space – more than one use per space but rather vertical spaces and focus on integration / collaboration; and
- Shared and creative “play spaces” / “innovation spaces”.

With a number of health and innovation precincts being established in Greater Sydney, the Blacktown Health Precinct will need a competitive advantage in the form of:

- A broadly-based strategy that integrates a mix of uses
- Globally recognised tenants
- A deep ‘industry structure’ facilitating the growth of subject matter experts
- Anchor infrastructure
- Points of difference

Health precincts evolve over time however they must diversify in their use to become ‘innovative’ and hence deliver improved economic outcomes.

We have summarised our findings and recommended land use options (with its sequencing) in the table below, to explore the range of potential tenants / operators in the health precinct in the future.

Our analysis and assessment are discussed in greater detail in later sections of this report.

Summary of demand assessment for specific land uses

Land Use	Identified demand (2021-2036)	Justification for the provision of supply	Timing/Sequencing*
1. Private Hospital	<ul style="list-style-type: none"> 50-100 beds (based on O'Connell report) 5,000 to 10,000 m² GFA Potential for another 50-100 beds additional demand 5,000 to 10,000 m² GFA 	<ul style="list-style-type: none"> Ageing population Private health insurance coverage has increased over the past five years in Australia Private hospitals have gained market share in the General Hospitals industry, with private health insurance growth exceeding increases in public hospital funding. 	<ul style="list-style-type: none"> 'Anchor use'
2. GPs & Allied Health	<ul style="list-style-type: none"> A multi-faceted development concept of 9,000 to 10,000 m² GFA <ul style="list-style-type: none"> Medical – 2,000 to 3,000 m² GFA 7,000 m² GFA for allied health practitioners, supporting uses (i.e. gym, wellness centre, alternative health, etc.) 	<ul style="list-style-type: none"> Rapidly increasing population Ageing population Need space for a major/branded operator Need spaces for specialist Specific allied health services (dedicated physio studio, chiropractors, pathology etc.) more awareness of these type of health uses 	<ul style="list-style-type: none"> 'Anchor use' or 'Follow up'
3. Retail	<ul style="list-style-type: none"> 2,000-2,500 m² GFA <ul style="list-style-type: none"> Including a small supermarket of between 1,000 and 1,500 m² 	<ul style="list-style-type: none"> Rapidly increasing population Creating local employment opportunity Very limited contribution from the surrounding residential main trade area population The proposed Warrick Lane Development in an area just beyond (north-west) of the Precinct will include a yet to be determined amount of retail GFA/GLA Convenience, service and food retail focus to serve immediate worker population in particular. Complement well with medical and other health related uses at subject land. Stage 2 hospital will include additional retail. 	<ul style="list-style-type: none"> 'Follow up'
4. Commercial	<ul style="list-style-type: none"> 4,000-5,000 m² GFA 	<ul style="list-style-type: none"> The potential health precinct can attract interest from health providers (e.g. medical/consulting suites), education, R&D, and a range of SMEs seeking to purchase strata office. Attract doctors and experienced health professionals Complement well with medical and other health related uses at subject land Need spaces for medical specialists – mostly obsolete office stock available in the immediate locality 	<ul style="list-style-type: none"> 'Early activator' or 'Anchor use'

5. Student Accommodation	<ul style="list-style-type: none"> • 5,500 - 6,500 m² GFA <ul style="list-style-type: none"> ○ internal communal floorspace of about 1,500-1,800 m² 	<ul style="list-style-type: none"> • At present, there is no student accommodation supply provided within Blacktown. • Potentially 1,000 students in 2021 and 5,000 student in 2026 (i.e. new University campus at Blacktown CBD) • Western Sydney University, there is a current composition of foreign student-to-PBSA beds of 27%. 	<ul style="list-style-type: none"> • 'Early activator' or 'Anchor use'
6. Seniors housing	<ul style="list-style-type: none"> • Blacktown Health Precinct <ul style="list-style-type: none"> ○ 2-4 large-scale villages 18,000 to 36,000 m² GFA ○ 2-3 large-scale RACFs 8,000 to 12,000 m² GFA 	<ul style="list-style-type: none"> • Ageing population • Lack of retirement options in the immediate locality • Complement well with the existing RACF, new private hospital, upgraded public hospital, and new Blacktown health precinct • Local employment/tertiary education opportunity (for new campus & TAFEs) • Development potential within Blacktown LGA (i.e. next 5 years): <ul style="list-style-type: none"> ○ 400-800 ILUs ○ 300-500 aged care places 	<ul style="list-style-type: none"> • 'Early activator'
7. Healthcare staff accommodation	<ul style="list-style-type: none"> • 8,000 - 12,000 m² GFA <ul style="list-style-type: none"> ○ 80 m² GFA for average/typical unit size (i.e. per unit) 	<ul style="list-style-type: none"> • Attract doctors and experienced health professionals • Creating local employment opportunity • Complement well with medical and other health related uses at subject land • Could be a positive influence on the local community 	<ul style="list-style-type: none"> • 'Early activator'
8. Nursing Teaching Institution	<ul style="list-style-type: none"> • 2,000 - 3,000 m² GFA 	<ul style="list-style-type: none"> • Increasing demand for nursing courses nationally and in NSW. • Complement well with the existing TAFE, Blacktown public hospital, new private hospital, and other health related land uses at the health precinct • Could be a positive influence on the local community 	<ul style="list-style-type: none"> • 'Early activator' or 'Anchor use'
9. Short Term Accommodation	<ul style="list-style-type: none"> • 150-200 rooms 6,500 - 8,500 m² GFA 	<ul style="list-style-type: none"> • Solid demand with increasing numbers of holiday visitors and business travellers • Serviced apartment could attract both holiday visitors and business travellers, particularly those who are budget-constrained 	<ul style="list-style-type: none"> • 'Anchor use' or 'Follow up'
10. Childcare Centre	<ul style="list-style-type: none"> • 2,500 and 3,500 m² GFA <ul style="list-style-type: none"> ○ 2 large-scale centres (100-150 places each) ○ 2-4 small to moderate scale centres (50-100 places each) 	<ul style="list-style-type: none"> • Rapidly increasing population • Creating local employment opportunity • Could be a positive influence on the local community 	<ul style="list-style-type: none"> • 'Early activator'

Source: MacroPlan (2019)

* Sequencing order: 'Early activator' < 'Anchor use' < 'Follow up'. This is not an actual development staging, but an early planning/concept based on the same principle as staging.

1. Introduction

Health precincts evolve over time however they must diversify in their use to become 'innovative' and hence deliver improved economic outcomes. With a number of health and innovation precincts being established in Greater Sydney, the Blacktown Health Precinct will need a competitive advantage to stimulate its growth. Blacktown Hospital is developing specialisations in certain health areas (e.g. obesity and general wellbeing) and this is likely to continue in the future. This provides opportunities to attract and have high concentrations of health expertise relating to these health conditions.

However, having high concentrations of medical uses will not on its own deliver a successful and innovative health precinct. Flexibility is key in planning for these precincts, given the broad mix of uses that often make them successful. A market assessment has been undertaken of the below uses to determine the potential future demand (by 2036) for these uses within the Blacktown Health Precinct based on a broader view of the surrounding locality (SA3) and / or LGA. A review of the current and forecast demographic profile of Blacktown has also be undertaken given it will influence the demand for health services and other infrastructure.

This report has considered the future demand for the following uses:

- Health services (Section 4)
- Seniors housing (Section 5)
- Nursing teaching institutes & facilities (Section 6)
- Accommodation for healthcare staff (Section 7)
- Commercial & Retail Opportunities within the Proposed Health Precinct (Section 8)
- Student accommodation associated with a future university campus in Blacktown (Section 9)
- Childcare Facilities (Section 10).

2. Demographic Profile

This section of the report outlines the projected population levels for the Blacktown LGA. Population trends and forecasts for Blacktown have been based on the population projections prepared by the New South Wales Department of Planning and Environment, released in 2016.

2.1 Age Profile

Forecast population by age cohorts is shown below in Table 1. The Blacktown population at the time of year 2016 was estimated at 349,100. Looking forward, official projections have Blacktown growing at an average annual rate of 2.0% over the 20 years to 2036. This would see the LGA population increase by 172,300 to 521,400 by 2036.

Table 1: Blacktown LGA Population Projections, 2016 - 2036

	2016	2021	2026	2031	2036	CAGR (%)
0-19	104,050	114,750	127,850	139,250	149,950	1.8%
20-34	78,650	82,400	88,500	94,450	103,800	1.4%
35-54	95,400	106,000	118,900	128,850	138,150	1.9%
55-64	34,250	38,200	42,100	46,600	52,250	2.1%
65+	36,750	45,850	56,200	66,650	77,250	3.8%
Total	349,100	387,200	433,550	475,800	521,400	2.0%

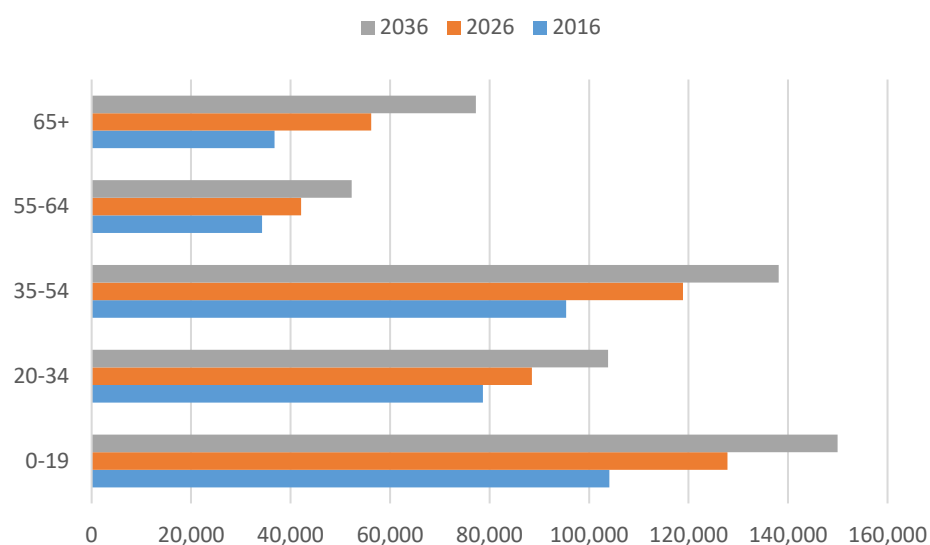
Source: DP&E Population Projections (2016), MacroPlan (2019)

At 2016, the dominant cohorts in the study area are 0-19s and 20-34s, accounting for 30% and 23% of the total resident population. This reflects the nature of the region and is expected to maintain its young age profile.

While the age of residents remains skewed towards a young adult population, significant increases are expected for the elderly population (i.e. those aged 65 years and over) over the next 20 years. This reflects the need for the future redevelopment of the site to accommodate the growing and ageing population of Blacktown and North West Growth Area generally.

Notably, the 65 year+ population for the Blacktown LGA is projected to grow at a significant growth rate between 2016 and 2036, equating to average growth rate of 3.8% per annum. This rate of growth is far greater than that were observed in the New South Wales (2.6%) and Greater Sydney (2.9%).

Figure 1: Projected Population Growth by Age Cohorts, Blacktown LGA

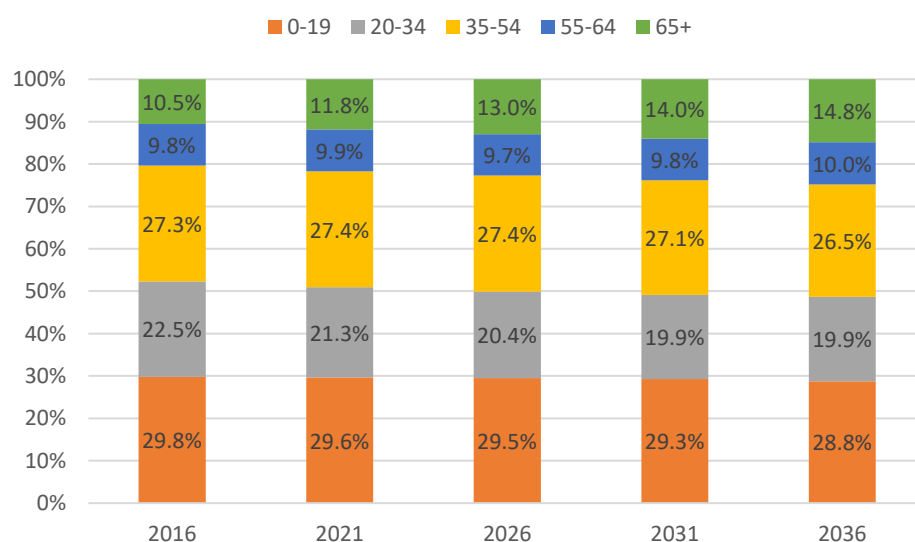


Source: DP&E Population Projections (2016), MacroPlan (2019)

Our population projection analysis has revealed the following key drivers and trends:

- Total population is increasing – so there will be more babies, kids, teenagers, elderly etc.
- Ageing population – Increasing share in health services-reliant age cohorts (i.e. 65+). Senior residents will visit medical/allied health once every 1-2 weeks.
- Nationally, around 50% of Medicare service visitations are by persons aged 55 and above and 35% by those 65 years and above. Yet these populations represent around 28% and 16% of the Australian population.

Figure 2: Projected Population Proportion by Age cohorts, Blacktown LGA



Source: DP&E Population Projections (2016), MacroPlan (2019)

2.2 Socio-demographic profile

In Tables 2 to 4 below, we set out the key socio-demographic Census data for selected statistical areas and Greater Sydney for 2016, and compared with New South Wales and Australia. In reference to the 2016 profile, the key points to note include the following:

- The Blacktown region (SA3 and LGA) population has a younger age profile compared with 'Greater Sydney', with a higher than average proportion for residents aged 0 – 14 years of age, and a lower proportion age 65 years or older.
- The median personal income and household income levels in the Blacktown SA3 are on lower by 9-10% respectively than for the 'Greater Sydney'.
- The Blacktown LGA has income levels is on par with the Sydney Metropolitan average, reflective of North West Growth area.
- The proportion of the younger population is higher in the Blacktown LGA than 'Greater Sydney' and 'NSW' Benchmarks. This characteristic is also prevalent across the Blacktown SA3 region.
- The proportion of children is also higher in the Blacktown SA3 region versus Greater Sydney, but its age profile is more in line with the 'Greater Sydney' average.
- Home ownership levels within the Blacktown SA3 are on par with the respective 'Greater Sydney' average.
- When comparing the proportion of homes within the Blacktown LGA that are privately owned (64%) to the Sydney Metropolitan average (62%), indicating a higher proportion of home ownership.
- The Blacktown SA3 region has a higher than average proportion of lone person households, at 1.3% higher than the Blacktown LGA.
- Within the catchment there is also a significantly higher proportion of overseas born residents (43%) when compared to the Sydney Metropolitan average (37%).

Table 2: Socio-demographic profile 2016 – Population and Households

Census item	Blacktown SA3	Blacktown LGA	Greater Sydney	New South Wales	AUSTRALIA
Population	134,753	336,962	4,823,991	7,480,228	23,401,892
• Children 0-14	20.4%	22.8%	18.7%	18.5%	18.7%
• Working age 15-64	67.2%	66.9%	67.4%	65.2%	65.6%
• Seniors 65 and over	12.4%	10.3%	13.9%	16.3%	15.7%
• Indigenous population	2.1%	2.8%	1.5%	2.9%	2.8%
• Non-Indigenous population	97.9%	97.2%	98.5%	97.1%	97.2%
Population	134,753	336,962	4,823,991	7,480,228	23,401,892
• 0-14 years	20.4%	22.8%	18.7%	18.5%	18.7%
• 15-24 years	13.0%	13.7%	13.0%	12.5%	12.8%
• 25-54 years	43.2%	43.2%	43.5%	40.8%	41.1%
• 55-74 years	18.3%	16.4%	18.6%	20.9%	20.6%
• 75 years +	5.2%	3.9%	6.2%	7.2%	6.8%
Household (no.)	44,846	106,249	1,675,260	2,670,010	8,448,770
Average household size	3	3.2	2.8	2.6	2.6
- Family households	80.2%	83.3%	74.4%	72.7%	71.8%
Couple families with children	42.4%	46.2%	36.9%	33.2%	32.1%
Couple families without children	22.2%	20.7%	24.9%	26.6%	27.1%
Single parents families	14.1%	15.0%	11.3%	11.6%	11.4%
Other families	1.5%	1.4%	1.4%	1.2%	1.2%
- Non-family households	19.8%	16.7%	25.6%	27.3%	28.2%
Lone person	8.2%	6.9%	9.2%	10.4%	10.8%
Other household	11.6%	9.8%	16.3%	16.9%	17.3%
Country of birth	134,753	336,962	4,823,991	7,480,228	23,401,892
Australia born	52.0%	54.1%	57.1%	65.5%	66.7%
Overseas born	42.8%	40.4%	36.8%	27.7%	26.3%
• Asia	23.4%	20.7%	17.7%	12.2%	9.8%
• Europe	5.2%	4.4%	6.8%	6.0%	7.0%
• Other	48.1%	46.4%	41.0%	31.1%	30.2%
Country of birth not stated	5.3%	5.8%	6.5%	7.1%	7.3%
Country of birth	134,753	336,962	4,823,991	7,480,228	23,401,892

Source: ABS Census of Population & Housing (2016), MacroPlan (2019)

Table 3: Socio-demographic profile 2016 – Housing Preferences

Census item	Blacktown SA3	Blacktown ©	Greater Sydney	New South Wales	AUSTRALIA
Dwelling structure	45,058	106,205	1,759,927	2,889,057	9,325,955
Separate house	75.7%	74.2%	52.5%	59.9%	64.8%
Semi-detached	12.4%	15.3%	12.9%	11.0%	11.3%
Flat, unit, apartment	6.4%	4.9%	25.9%	18.0%	11.7%
Other	0.2%	0.4%	0.5%	0.8%	0.7%
Not stated	0.3%	0.3%	0.4%	0.5%	0.4%
Unoccupied	5.0%	4.8%	7.7%	9.9%	11.2%
Tenure Type	42,786	101,100	1,623,883	2,604,332	8,286,082
Fully owned	26.3%	22.5%	29.1%	32.2%	31.0%
Being purchased	36.8%	41.9%	33.2%	32.3%	34.5%
Rented	33.3%	32.2%	34.1%	31.8%	30.9%
Other	0.6%	0.6%	0.9%	0.9%	1.0%
Tenure type not stated	3.1%	2.8%	2.7%	2.8%	2.7%

Source: ABS Census of Population & Housing (2016), MacroPlan (2019)

Table 4: Socio-demographic profile 2016 – Income and Household Expenses

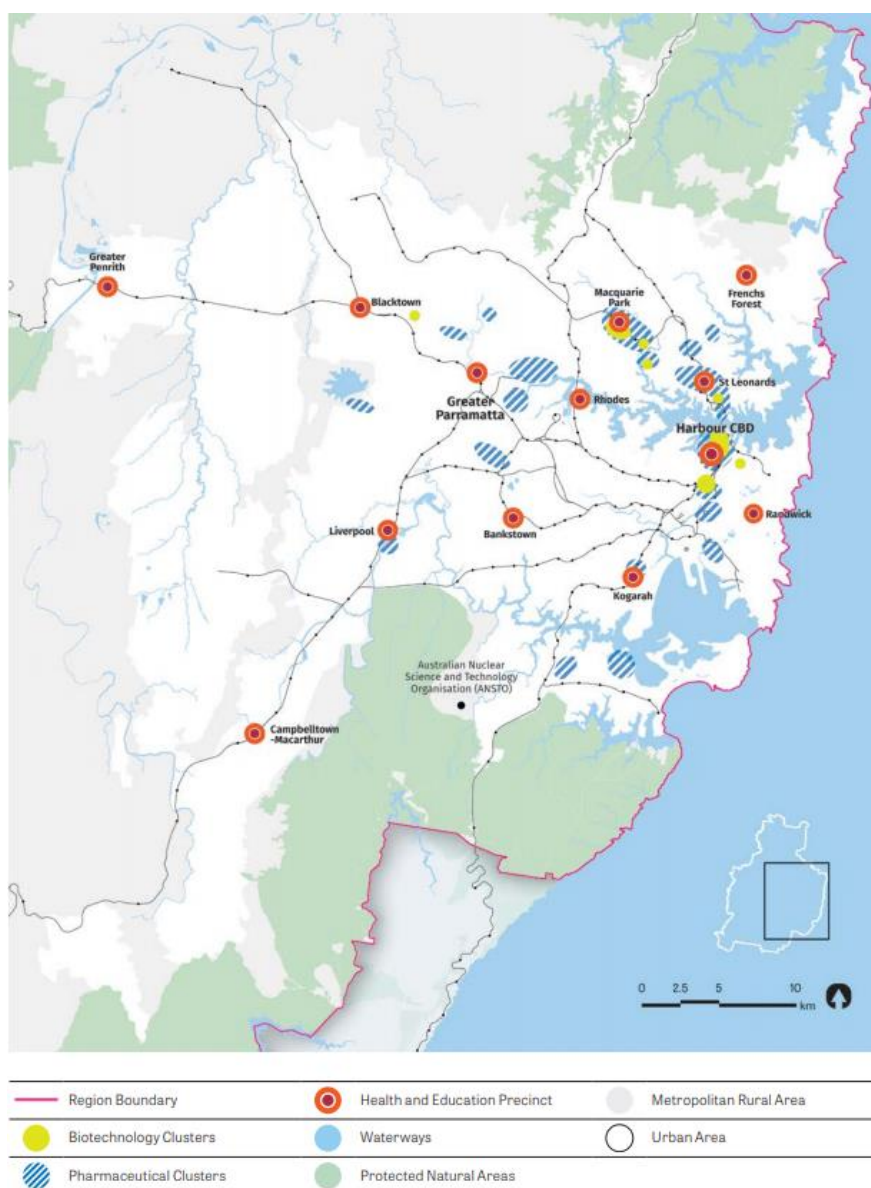
Census item	Blacktown SA3	Blacktown (C)	Greater Sydney	New South Wales	AUSTRALIA
Income					
Median personal weekly income	\$652	\$672	\$719	\$664	\$662
Median family weekly income	\$1,723	\$1,817	\$1,988	\$1,780	\$1,734
Median household weekly income	\$1,584	\$1,711	\$1,750	\$1,486	\$1,438
Household expenses					
Median weekly rent	\$380	\$380	\$440	\$380	\$335
Median monthly mortgage repayments	\$2,000	\$2,150	\$2,167	\$1,986	\$1,755

Source: ABS Census of Population & Housing (2016), MacroPlan (2019)

3. Strategic Context

Blacktown has been identified as one of 13 a health and education precincts in Greater Sydney (Figure 3). Blacktown Hospital and the Clinical School and Research Centre form part of the District's health facilities and specialist services. Blacktown Hospital is a major teaching hospital for medical students at Western Sydney University. As such the health and education precinct provides opportunities for a private hospital and associated specialist medical services that support practitioners, students and patients⁴.

Figure 3: Health and education precincts in Greater Sydney



Source: Greater Sydney Commission, Greater Sydney Regional Plan (2018)

⁴ Greater Sydney Commission, *Central City District Plan* (March 2018)

TAFE NSW Western Sydney and a new university campus have the potential to further grow Blacktown as a health and education precinct. The Precinct current has the three key stakeholders (i.e. Government, academia and industry) to continue to facilitate the transformation of the precinct into an innovative district.

Blacktown and Mount Druitt Hospital is a single hospital operating across two campuses – one at Blacktown and one at Mount Druitt. Blacktown Hospital provides a 24-hour emergency service, intensive and high dependency care, sub-specialty acute medical and surgical care, obstetrics and newborn care and sub-acute rehabilitation. Inpatient acute mental health and community mental health services are delivered from Bungaribee House. Mount Druitt Hospital offers 24-hour emergency care, and a district-wide role in the provision of planned surgery, with a high proportion of general, orthopaedic and breast surgery⁵.

The Blacktown Mount Druitt Clinical School and Research Centre offers a range of research, ranging from liver and cancer-related research to metabolic research and diabetes. Its proximity to Blacktown Hospital has enabled significant collaboration with health professionals to tackle the issues facing communities in Western Sydney, and around the world

The Precinct's specialisations in certain health areas (e.g. obesity and general wellbeing) is likely to continue into the future. This provides opportunities to attract and have higher concentrations of health expertise relating to specific health conditions and thereby strategically position Blacktown as having a specialised role in Greater Sydney and NSW.

Several factors will influence the Blacktown Health Precincts success. This includes the land use mix and development yield / floor space supply as well as the Precinct's ability to continue to specialise in specific medical conditions impacting Sydney's growing population. The Precinct's proximity to the Blacktown CBD and train station will also support the Precinct's growth potential, providing accesses to services, amenity and infrastructure which will be sought by workers, visitors and residents.

3.1 Successful and innovative health precincts

The function and form of health precincts around the world is changing including the measurement for success. The size and co-location of medical uses within these precincts is not on its own an indicator of a successful health precinct. The largest hospital knowledge precinct in the world, the Texas Medical Centre, which has over fifty-plus organisations, is not achieving meaningful collaboration, which is fundamental to creating innovative precincts⁶.

The most successful health precincts are internationally competitive and are often described as 'innovation districts'. These districts are transit-accessible precincts that include health assets surrounded by a network of medical institutions, a mix of complementary industry tenants, housing, ancillary facilities and services⁷.

⁵ NSW Health, Western Sydney Local Health District, <http://www.wslhd.health.nsw.gov.au/Blacktown-Mount-Druitt-Hospital/Blacktown-Mount-Druitt-Hospital>

⁶ Michaela Sheahan, Architecture Australia – May 2015 (Issue 3), *The importance of public spaces and pedestrians in hospital precincts*

⁷ Greater Sydney Commission (March 2018), *Greater Sydney Region Plan*, p115

The changing nature and mix of uses within health precincts are also changing the built form of health precincts. Buildings in innovative health precincts are getting larger and taller as the pursuit for collaboration commands that more departments, organisations and uses be located within the same building to facilitate the opportunity to congregate, exchange ideas, meet, talk and eat. This includes providing spaces for healthcare professionals to walk, talk, think and work⁸.

Flexibility is therefore key in planning for these types of precincts, given the broad mix of uses that often make them successful. Each health precinct is unique in some manner, however there are a range of principles which define successful health precincts nationally and internationally and they include:

- Brand recognition / pulling power through embracing size and scale;
- High concentrations of specialisation / expertise;
- Industry connections and connectivity including active engagement of business and industry and presences of incidental locations to stop and have casual interactions;
- Health, educational and research uses including partnerships;
- Porous / permeable boundaries which promote a clear focus on market and outcome domains over institutional domains;
- Housing diversity including designs for different types of people and their varying lifestyles;
- Urban fabric including density and diversity of building types and activated street frontages including ground floor retail;
- Mix of uses which provide services and lifestyle amenities that provide relief from work pressures and opportunities to engage and interact with the community;
- “3D” approach to use of land and space – more than one use per space but rather vertical spaces and focus on integration / collaboration; and
- Shared and creative “play spaces” / “innovation spaces”.

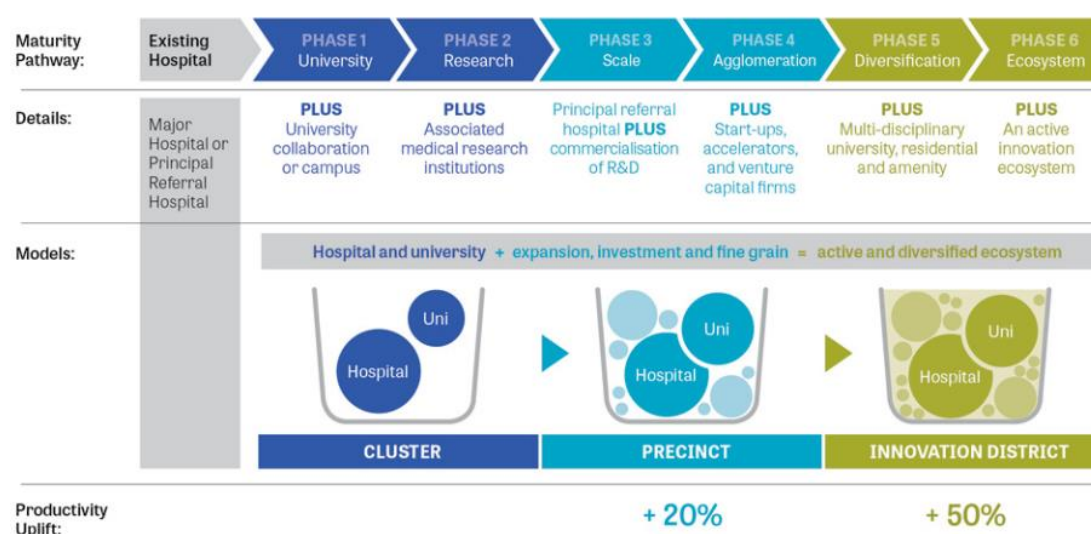
With a number of health and innovation precincts being established in Greater Sydney, the Blacktown Health Precinct will need a competitive advantage in the form of:

- A broadly-based strategy that integrates a mix of uses
- Globally recognised tenants
- A deep ‘industry structure’ facilitating the growth of subject matter experts
- Anchor infrastructure
- Points of difference

Health precincts evolve over time however they must diversify in their use to become ‘innovative’ and hence deliver improved economic outcomes. Figure 4 below shows the evolution of such precincts.

⁸ Michaela Sheahan, Architecture Australia – May 2015 (Issue 3), *The importance of public spaces and pedestrians in hospital precincts*.

Figure 4: Maturity Pathway for health and education precincts



Source: Greater Sydney Region Plan (2018)

3.2 Provision of health services and employment

Health care is provided through a network of services across Sydney ranging from large hospitals providing complex emergency and planned services through to care in people's homes and community health centres. It includes ambulance services, local hospitals, population health and preventative services, mental health services, primary care including general practice, allied health services, pharmacy, dental care and residential aged care⁹.

Health care and social assistance is Australia's largest industry employing 1,168,000 of Australia's 12.6 million workers nationwide (i.e. 13.3% of all workers)¹⁰. This industry is forecast to continue to grow at 2.8% per annum over the next 5 years on the back of continued population growth and an ageing population. As a knowledge base sector, the industry continues to transform due to factors such as:

- Technology and digitisation
- Enterprise consolidation
- Globalisation and service exports
- Chronic disease and new models of care
- Clustering

Within Blacktown LGA, the health care and social assistance industry employs approximately 10,600 people in 2016 (i.e. 10% of all workers in the LGA)¹¹. The industry is forecast to grow at 2.3% per annum over the next 5 years. Clustering of health services already exists within Blacktown which has been acknowledged by Council through the identification of the Blacktown Health Precinct (Figure 5).

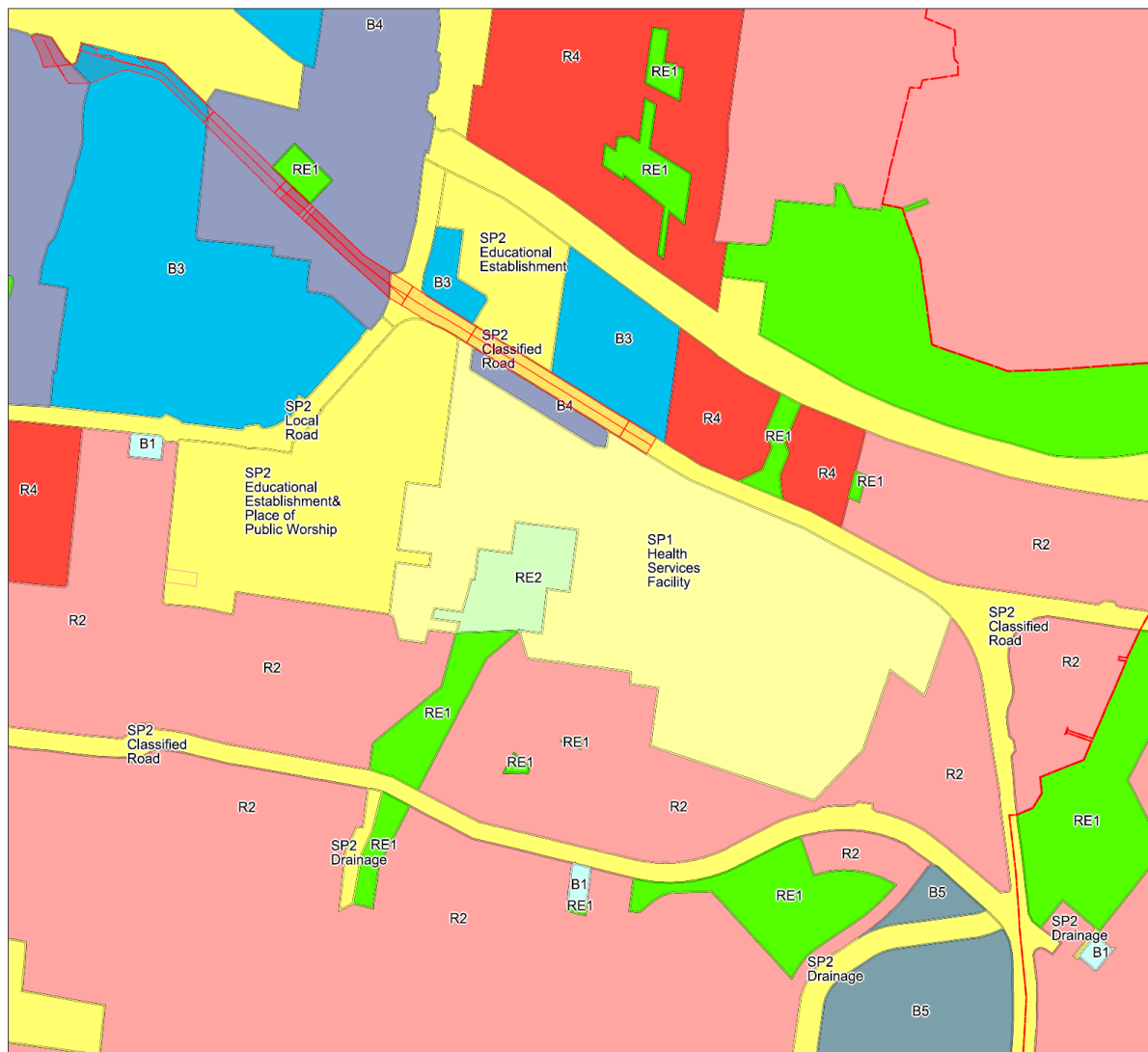
⁹ Greater Sydney Commission, *Greater Sydney Region Plan* (March 2018), p113

¹⁰ Department of Jobs and Small Business, May 2018 Employment Levels

¹¹ Department of Jobs and Small Business, May 2018 Employment Levels, SA4 data

The ageing population of Blacktown LGA will support the demand and growth of existing and future health and medical services and therefore jobs within Blacktown. On average, people aged 65 and over made four times as many claims for specialised services as people aged under 65¹². Hence the opportunity to concentrate older people within or in proximity to the Blacktown Health Precinct will further drive the demand for health services including specialised medical services.

Figure 5: Current Blacktown Health Precinct – SP1 Health Services Facility zoned land



Source: Blacktown LEP (2015)

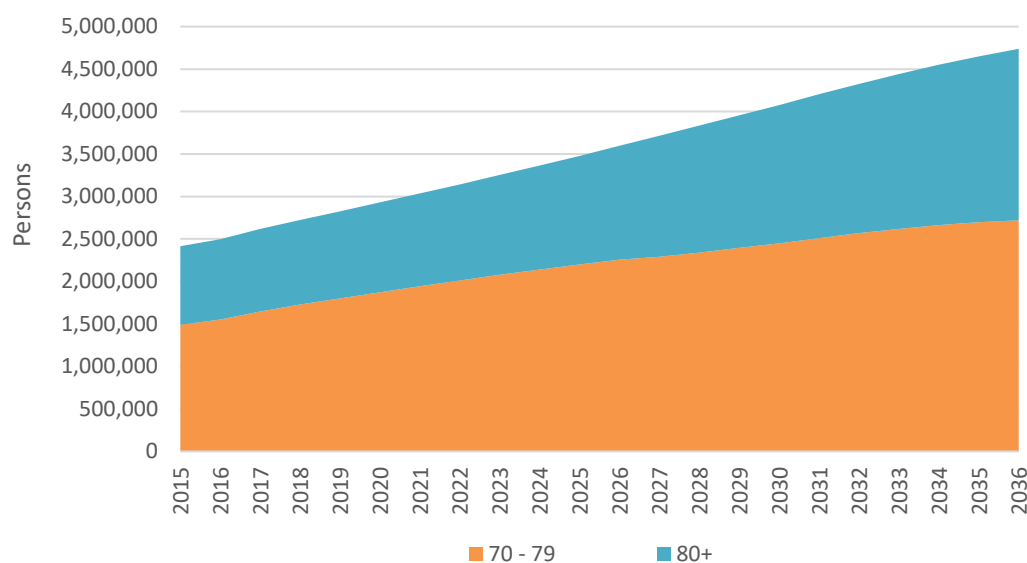
¹² Australian Institute of Health and Welfare (September 2018) <https://www.aihw.gov.au/reports/older-people/older-australia-at-a-glance/contents/health-aged-care-service-use/health-care-gps-specialists>

3.3 Ageing population

Australia's ageing population will be a primary driver of health services growth over the next five years. Australia's median age is projected to continue growing as the baby boomer generation ages.

As illustrated in Figure 5, the population aged 70 years and over is forecast to almost double over the next 20 years, increasing by 2.2 million people over the period. More importantly, both the number and proportion of Australians aged 80 and over will grow to represent nearly 43% of the population aged 70 years and over.

Figure 6: Population Projections, number of persons aged 70 years and over, Australia



Source: ABS Population Projections (2018)

With an aging population comes an attendant health issue that drive increases in care demand and associated costs, including:

- Coronary heart disease (CHD) was the leading underlying cause of death for both males and females in Australia in 2016, accounting for 12 % of all deaths. 65% of these were deaths in people aged 75 and over; 7% were deaths of people under the age of 55.
- Malignant neoplasms of digestive organs (e.g., gastrointestinal cancer) is the second most common underlying cause of death in Australia, accounting for 9 % of all deaths. 46% of these were deaths in people aged 75 and over; 9% were deaths of people under the age of 55.
- Cerebrovascular disease (e.g., stroke) is the third most common underlying cause of death in Australia, accounting for 5% of all deaths in 2016. Stroke deaths increase greatly with age, with 75% of deaths occurring in people aged 75 or over in 2016.

In 2017, people aged 65 and over are estimated to account for 33% of health services revenue, despite only making up about 15% of Australia's population. This age bracket is expected to continue expanding as a share of the population over the next five years, which will consequently boost health services revenue.

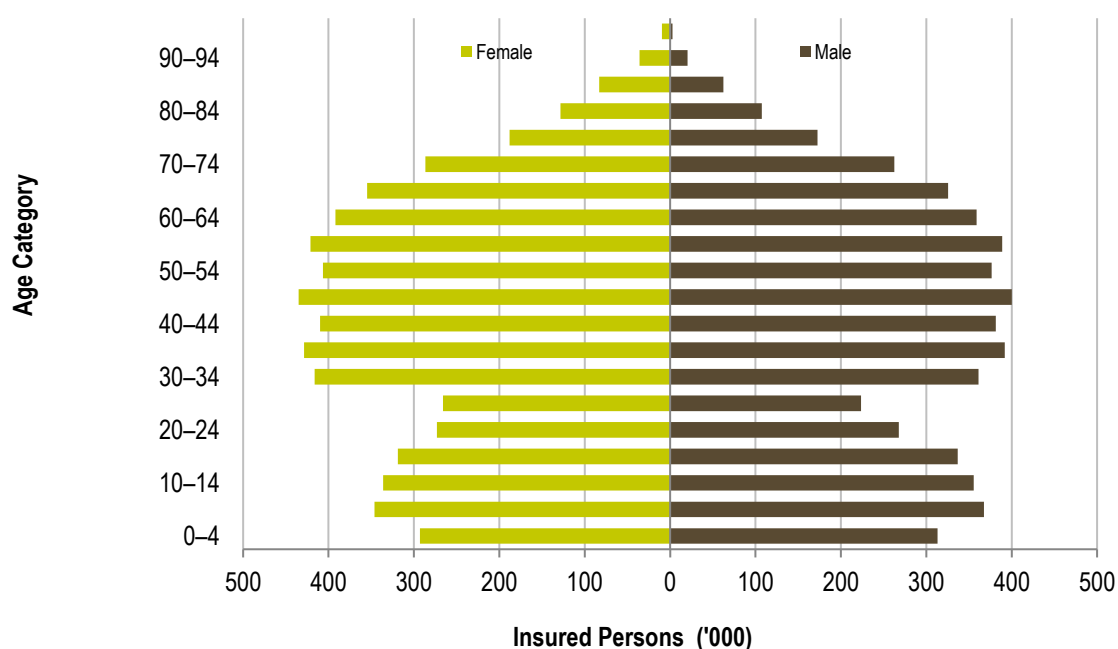
Greater Sydney's population continues to grow, and it is also ageing. Population growth forecasts for the Central City District region anticipate significant increases in the 65+ age cohort. Between 2016 to 2036, the 65-84 age group will increase from 101,300 to 197,900 people (i.e. a 95% proportional increase) and the 85+ age group will increase from 13,900 to 39,400 people (i.e. an 183% proportional increase)¹³.

In the Blacktown LGA, the number of people aged 65 or over will increase by 40,550 people, accounting for almost a fifth of its population growth in the next 20 years¹⁴. The increase in people aged 65 and over will drive the demand for health services, social infrastructure and housing diversity to cater for the ageing population.

3.4 Private Health Insurance Coverage

The ageing population has also partially driven growth in private health insurance coverage. Older people tend to have greater private health insurance coverage than younger people. This disparity is due to the greater wealth accumulated by older people, which enables them to pay for private health insurance, along with their increased health issues that require services not covered by Medicare.

Figure 7: Insured persons for Hospital Treatment by Age and Gender, Australia



Source: APRA, Private Health Insurance Membership and Coverage (2018)

Private health insurance coverage has increased over the past five years. An estimated 11.3 million Australians will be covered by private health in 2017, up from 10.3 million people in 2011¹⁵.

¹³ Greater Sydney Commission, *Central City District Plan* (March 2018), p9

¹⁴ NSW Department of Planning and Environment, 2016 NSW household and dwelling projections data, Age profiles and dependencies

¹⁵ AIHW (2016)

The surge in private health coverage, driven by Federal Government incentives, has resulted in revenue increases across numerous health service industries.

Private hospitals have gained market share in the General Hospitals industry, with private health insurance growth exceeding increases in public hospital funding. Many health services that do not receive Medicare funding are benefiting from the private health insurance boom. Paying for services completely out of pocket is often too expensive for patients however, increased private health coverage has widened the client base for health services, such as dental services, optometry, physiotherapy, chiropractic services and osteopathy.

Private health benefits primarily fund these services, which may reduce or remove out-of-pocket costs for patients, resulting in demand growth.

3.5 Health Illness trends

Chronic diseases are the leading cause of illness, disability and death in Australia, driven by both our changing lifestyles and ageing population. In 2014-15, more than 11 million Australians had at least one of eight selected chronic diseases, and one-quarter of the population had two or more of them.

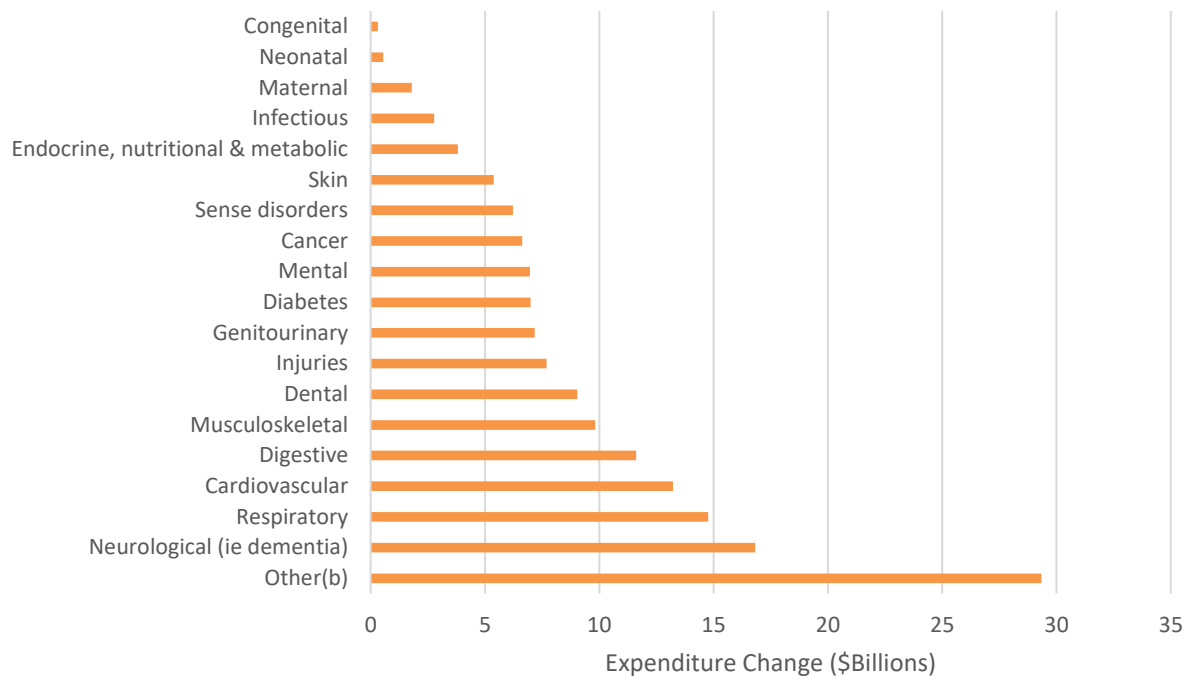
Notably, mental health-related issues are not a major cause of death, but they do cause significant ill health and disability in the Australian population. As illustrated in Figure 7, of identifiable expenditure, the largest projected growth segment, equating to an increase in expenditure of \$16.83bn to 2032/33 is for Neurological conditions, predominately being dementia.

Due to its personal, social and economic impact, tackling chronic disease and its causes are considered by the Australian Institute of Health and Welfare as ***the biggest health challenge that Australia faces***.

According to the Australian Institute of Health and Welfare, the growing chronic disease burden will require effective treatment of multiple chronic conditions and catering to complex health-care needs and will drive the evolution of new business models and patterns of service delivery.

The Blacktown Health Precinct is already focusing on research and treating patients with chronic diseases and illnesses such as obesity and diabetes and therefore is well positioned to treat this growing health issue.

Figure 8: Total Health and Residential Aged Care Expenditure (2002-2033)



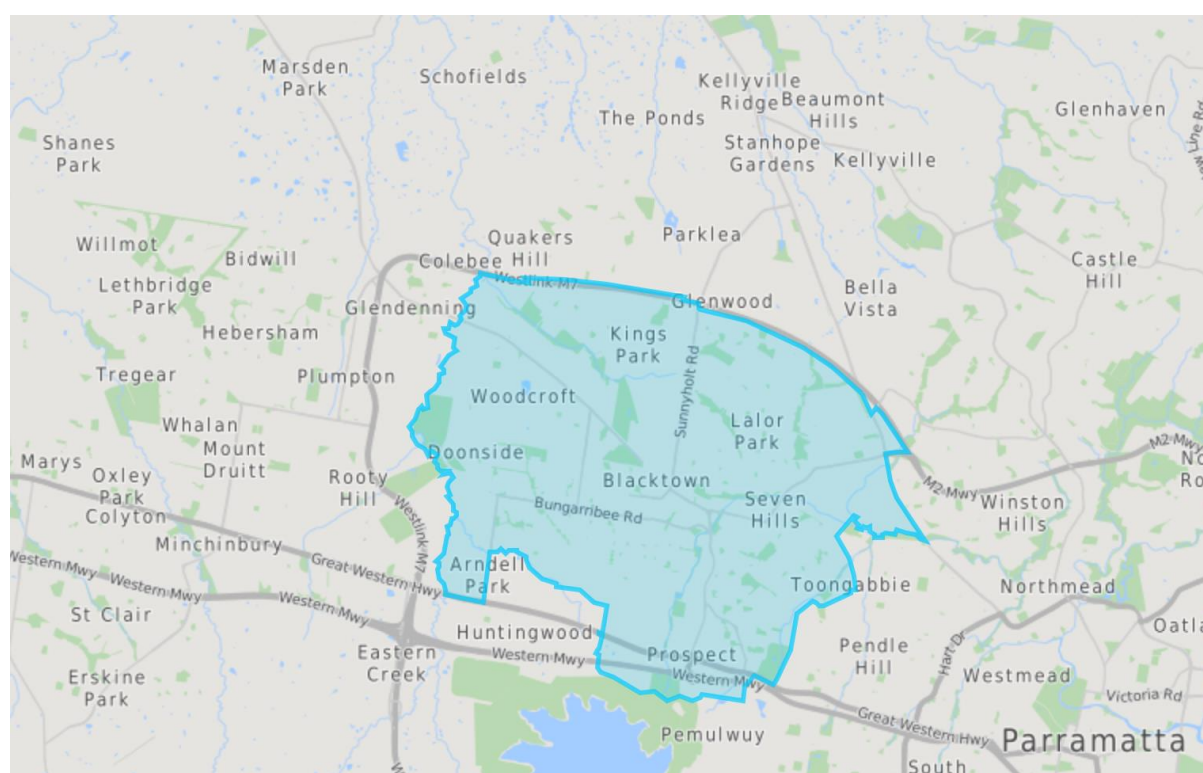
Source: AIHW, Projection of Australian health care expenditure by disease, 2003 to 2033 (2018)

4. Health Services

In this section of the report, MacroPlan reviews the characteristics of the current and future population and key demographic profile of the Blacktown region which is expected to influence the demand for health services. This includes medical centres, GPs and allied health services (e.g. dentists, physiotherapists, dieticians, etc.).

Most health/medical centres are self-contained (i.e. accessed) by residents in an immediate locality. We have assumed that there will be no demand beyond trade area for GPs and allied health (e.g. residents from Blacktown LGA would not travel all the way to Westmead for doctor's appointment). Hence, for the purpose of our demand and supply assessment for health services within the Blacktown Health Precinct, we define the catchment of this area as Blacktown SA3 (Figure 8).

Figure 9: Catchment area for health services relative to the Blacktown Health Precinct Study Boundary



Source: ABS (2019), MacroPlan (2019)

According to the Blacktown Private Hospital Independent Market Assessment (O'Connell 2018), the O'Connell Advisory's high-level demographic analysis and market profiling exercise has revealed the following key drivers and trends:

- Australia's population is growing and ageing. This trend is reflected in Blacktown.
- The O'Connell Advisory population projections have the Blacktown SA3 area population growing at an average annual rate of 2.1% between 2016 and 2032. This would see the Blacktown SA3 increase by 54,130 to 193,521 by 2032.

- Looking forward, the project population growth would be the most prominent amongst the 85+ year age cohort (6.1% per annum), followed by 70-84 year age cohort (4.1% per annum); and
- On average, the Blacktown region has an insurance rate of 55%, which is above the insurance rates of Greater Sydney (52%), NSW (48%) and the national average (47%).
- Blacktown is in a region of on-going development and is expected that this will decrease the level of socio-economic disadvantage and increase the level of private health insurance.

The O'Connell Advisory's analysis has revealed the following key drivers and trends:

- Total population is rapidly-increasing in the Blacktown SA3 – so there will be more babies, kids, teenagers, elderly etc.
- Ageing population – Increasing share in health services-reliant age cohorts (i.e. 65+). Senior residents will visit medical/allied health once every 1-2 weeks.
- Nationally, around 50% of Medicare service visitations are by persons aged 55 and above and 35% by those 65 years and above. Yet these populations represent around 28% and 16% of the Australian population.

4.1 Demand for GPs and Allied Health

The Department of Health publishes annual visitation data for medical services based off Medicare card data. This data shows that there is considerably higher utilisation rates for persons aged 55-64 years, 65-74 years, 75-84 years and 85+ years (i.e. proportion of utilisation of medical services for these population cohorts is much higher than their shares of the actual population).

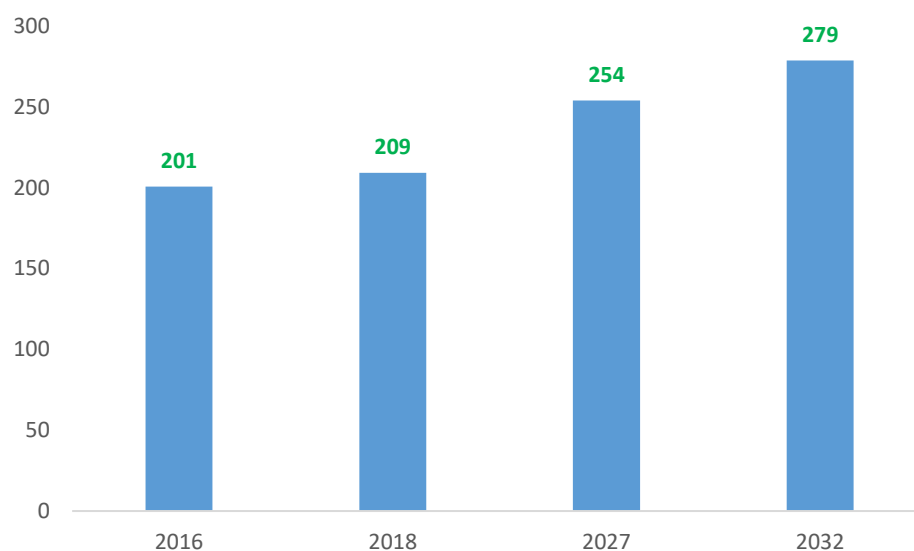
For our demand assessment, we have applied the benchmark of 144 GPs per 100,000 people (approximately 1 GP per 700 people) and adopted 650 allied health staff per 100,000 persons. These are below the metropolitan provision rates, (i.e. compared to Inner Sydney) particularly for allied health, reflecting a series of adjustments to allow for the socio-demographic profile, private health coverage, and future employment/workers profile at Blacktown.

The following charts present general projections of the estimated demand for medical and allied health services across the catchment over the period 2016 to 2036. We note the following:

- The aggregate demand is significantly greater as the breadth of allied health professional covers many fields, however, not all this demand would be met/serviced by local specialist in private local health clinics – i.e. registered allied health professionals can also work in a larger health precinct organisation and/or public health organisation, where a significant majority of general practitioners tend to work within medical centres.
- Overall, demand is expected to increase by 40% in Blacktown by 2036.
- A significant proportion of the allied health demand is attributable to dentists (about 30%).

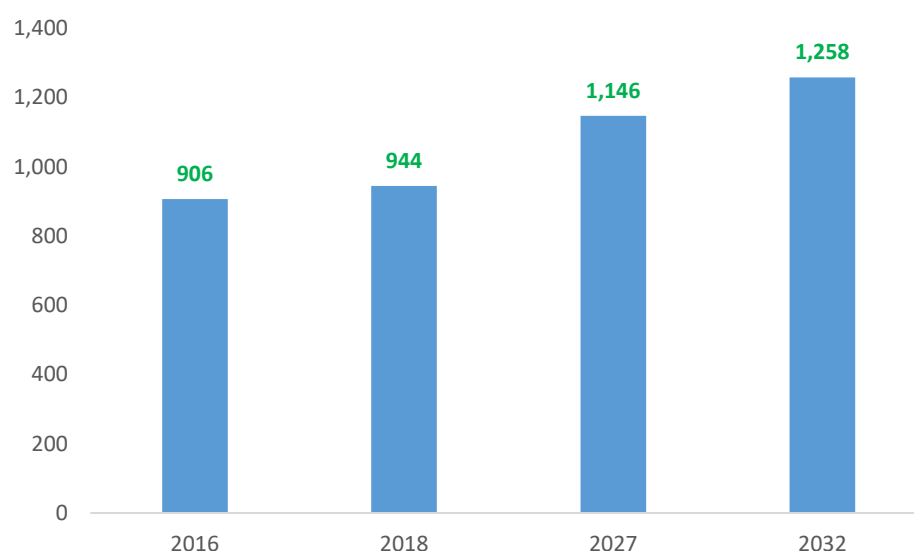
In terms of distribution/format of demand, other professions tend to be broadly distributed across private practice, hospitals, workplaces, education institutions, community health centres etc. For example, most chiropractors and optometrists work in private practice, whereas psychologists, physiotherapist, occupational therapists, tend to work broadly across a range of institutions including hospitals, universities, within organisations etc.

Figure 10: General Practitioner Demand (number of practitioners)



Source: Department of Health (2018), ABS (2018), MacroPlan (2018)

Figure 11: Allied Health Practitioner Demand (number of practitioners)



Source: Department of Health (2018), ABS (2018), MacroPlan (2018)

4.2 Existing Supply of GPs and Allied Health

The purpose of this section of the report is to provide an understanding of existing health and medical services within Blacktown SA3 and its surrounds.

4.2.1 Medical/health related employment

Table 6 presents the local medical employment and other health care/social assistance employment by detailed 4-digit ANZSIC, from the 2016 ABS Census, across the defined catchment area, and compares this with the provision across the 'NSW' and 'Australia'.

The following key points are noted:

- The defined catchment areas are significantly under-supplied in terms of medical/health related employment, relative to the rest of 'NSW' and Australia'. Most of this undersupply is driven by the lack of a hospital/health precinct within Blacktown as hospital related jobs make up a significant share of total medical related employment.
- There are 45 health/medical jobs per 1,000 residents in the catchment, compared with 56 across the 'NSW' and 58 across the nation.
- The provision of allied health services is below the 'NSW' average, particularly the provision of pathology, dental and other allied health services.
- Compared to Westmead (Parramatta SA3) & Liverpool (i.e. Liverpool SA3), the current provision of health/medical jobs

4.2.2 Existing Supply of Medical/health related services (excluding public hospital)

MacroPlan has also undertaken a desktop study of existing GPs and Allied health services positioned within the immediate locality, Blacktown CBD.

In the table 5, we have listed our findings (as at March 2019). There are 27 medical centres within the Blacktown CBD. Collectively, there are 140 general medical practitioners.

In terms of allied health services, there are 102 operators in the Blacktown CBD. Collectively, there are 182 allied health practitioners.

4.3 Specialist Medical Services

Table 6 also shows that Blacktown (SA3) is well below the state and national average for 'specialist medical services'. Well established health and education precincts should have a much higher concentration of specialised practitioners than the state and national average of 1.7 specialists per 1,000 residents. A comparison of the Blacktown Health Precinct against three of Greater Sydney's health and education precincts; Liverpool 3.1 specialists per 1,000 residents & Westmead 4.8 specialists per 1,000 residents; confirms that Blacktown not only has a shortage of specialised practitioners at a state and national level but is also significantly lower than other health and education precincts in Greater Sydney.

Table 5: Medical/health related services, Blacktown CBD

Medical Centre	27
Allied Health	102
Acupuncture	11
Alternative Health Services	1
Audiologists	1
Chiropractors	4
Dental Emergency Services	1
Dental Laboratories	2
Dental Prosthetists	4
Dentists	31
Dieticians	2
Hearing Aids Equipment & Services	3
Massage Therapy	8
Occupational Therapists	1
Optical Prescription Dispensers	2
Optometrists	9
Orthodontists	2
Osteopaths	1
Physiotherapists	11
Podiatrists	3
Psychologists	3
Speech Pathologists	2

Source: MacroPlan, ABS Census (2016)

4.4 Key Findings

The current provision of GPs is more than what the Blacktown region requires with an undersupply not forecast until at least 2036. In terms of allied health professionals, MacroPlan identified 537 professionals, this is undersupply of about 360 professionals.

Based upon this assessment, the delivery of 'one-stop-shop' medical centres that offer a range of services could boost the number of allied health professionals within the Health Precinct. Whilst there is no shortage of GPs, often a medical centre will require GPs as an anchor tenant to attract other health professionals.

- In terms of the provision of allied health services, the provision of 'pathology', 'dental' and 'other allied health services' is below the state & national average. The current provision is significantly lower than the Westmead & Liverpool health precincts.
- In terms of the provision of other health services, the provision of 'specialist' is below the state & national average. Again, the current provision at Blacktown is significantly lower than the Westmead & Liverpool health precincts.

Table 6: Medical related employment (2016)

	Blacktown SA3		Parramatta SA3		Liverpool SA3		NSW		Australia	
	Total jobs	Per 1,000 residents	Total jobs	Per 1,000 residents	Total jobs	Per 1,000 residents	Total jobs	Per 1,000 residents	Total jobs	Per 1,000 residents
Resident population 2016	134,751		113,523		91,085		7,480,230		23,401,891	
Health Care and Social Assistance, nfd	104	0.8	263	2.3	158	1.7	7,578	1.0	22,786	1.0
Hospitals, nfd	3	0.0	16	0.1	20	0.2	447	0.1	1,116	0.0
Hospitals (except Psychiatric Hospitals)	1,936	14.4	9,935	87.5	4,497	49.4	118,319	15.8	411,807	17.6
Psychiatric Hospitals	37	0.3	312	2.7	57	0.6	2,428	0.3	7,183	0.3
Medical and Other Health Care Services, nfd	61	0.5	141	1.2	90	1.0	4,525	0.6	15,639	0.7
Medical Services, nfd	0	0.0	4	0.0	17	0.2	400	0.1	1,277	0.1
General Practice Medical Services	570	4.2	726	6.4	547	6.0	31,465	4.2	96,012	4.1
Specialist Medical Services	148	1.1	544	4.8	285	3.1	12,930	1.7	39,024	1.7
Pathology and Diagnostic Imaging Services	160	1.2	598	5.3	444	4.9	13,848	1.9	42,188	1.8
Allied Health Services, nfd	5	0.0	7	0.1	11	0.1	362	0.0	1,421	0.1
Dental Services	206	1.5	530	4.7	227	2.5	14,670	2.0	47,899	2.0
Optometry and Optical Dispensing	66	0.5	142	1.3	100	1.1	5,133	0.7	15,419	0.7
Physiotherapy Services	67	0.5	131	1.2	95	1.0	6,004	0.8	19,716	0.8
Chiropractic and Osteopathic Services	19	0.1	55	0.5	22	0.2	2,511	0.3	8,698	0.4
Other Allied Health Services	174	1.3	456	4.0	249	2.7	21,119	2.8	68,694	2.9
Other Health Care Services, nfd	0	0.0	0	0.0	0	0.0	22	0.0	77	0.0
Ambulance Services	44	0.3	118	1.0	56	0.6	4,301	0.6	17,062	0.7
Other Health Care Services nec	14	0.1	52	0.5	41	0.5	1,917	0.3	8,116	0.3
Residential Care Services, nfd	0	0.0	9	0.1	0	0.0	227	0.0	695	0.0
Aged Care Residential Services	689	5.1	1,515	13.3	931	10.2	67,109	9.0	211,625	9.0
Other Residential Care Services	151	1.1	215	1.9	61	0.7	5,504	0.7	16,628	0.7
Social Assistance Services, nfd	84	0.6	212	1.9	109	1.2	6,127	0.8	21,466	0.9
Child Care Services	733	5.4	946	8.3	790	8.7	39,022	5.2	118,232	5.1
Other Social Assistance Services	808	6.0	1,726	15.2	598	6.6	54,016	7.2	158,232	6.8
Total	6,089	45.2	18,656	164.3	9,404	103.2	419,986	56.1	1,351,018	57.7

4.5 Development Potential for Health Services

MacroPlan identified potential for a multi-faceted development concept of 9,000 to 10,000 m², including 2,000 – 3,000 m² the 'Health One concept' medical centre.

This means around 7,000 m² or so of private or not-for-profit (NFP) uses could potentially be supported in conjunction with the potential 'health one concept' medical centre. This could include:

- Not-for-profit head offices and government services
- A large medical centre (branded operator), which would include allied health specialists
- Specific allied health services (dedicated physio studio, chiropractors, pathology etc.)

Some supporting ancillary uses like a café, gym, wellness, alternative health and other commercial space (e.g. co-working space).

5. Seniors Housing

In this section we examine the market basis for a retirement living and aged care offer at the proposed health precinct at Blacktown.

We note that seniors housing tends to attract residents from a wider demand catchment than standard residential developments. Hence, for the purpose of our demand and supply assessment for seniors housing, we define the catchment of the subject site as Blacktown LGA.

Our assessment of market potential has therefore been informed by socio-demographic trends and drivers as well as an overview of competition in the retirement market in the Blacktown LGA. The assessment has not considered other factors that may attract older people to live in Blacktown such as access to amenity, services and infrastructure.

Our high-level socio demographic and market profiling exercise has revealed the following key drivers and trends:

- Like other parts of Sydney, the Blacktown LGA is ageing, but not exclusively so;
- Population growth over the five years to 2016 has been the most prominent amongst the 65+ year age cohort (5.1% per annum), followed by 55-64 year age cohort (2.6% per annum);
- The number of residents aged 65+ is expected to increase over the next 20 years, from 35,000 in 2016 to 72,000 by 2036;
- Our assessment of dwelling tenure data, asset values and the recent migration patterns demonstrates that many retirees in the Blacktown LGA choose to move to other LGAs that offer more retirement options (in terms of RACF or ILU) and/or retirement residential accommodation with more amenities (more local services, integrated with RACF, new retirement facilities etc.); and
- Higher income earning capacity and elevated house prices (since 2010) means that more retirees have the income & wealth capacity to partake in retirement and downsizing activity into a retirement product.

5.1 Existing Supply – Independent Retirement Living (ILU)

A competitive supply assessment has been undertaken for the Blacktown LGA with consideration for any new development in pipeline. This reconnaissance informs the supply characteristics of the catchment. Our assessment considers specialist provision of retirement village (ILUs) in the catchment.

Our investigation has identified 12 existing retirement villages, with 5 of these facilities offering a combined independent living and aged care provision (i.e. integrated) (Table 7). Subsequently, we derive a total of 711 ILUs. There existing units are provided in a low-density/ single storey building configuration generally.

Table 7: Existing Independent Living Retirement Villages

Existing Facility	Provider	Address	Suburb	ILUs
Blessed Frances Siedliska	Holy Family Polish Aged Care Services	116 Quakers Road	Marayong	28
Eighth Avenue Seniors Living	LAHC	18-26 Eighth Av	Seven Hills	14
Euroka Homes Retirement Village	Euroka Homes Retirement Village	51 Sunnyholt Road	Blacktown	25
Kings Langley Village	Adventist	54 Elsom Street	Kings Langley	75
Mullauna Village	Uniting Care	61 Bungarabee Rd	Blacktown	30
Rochford Place	Lendlease	12 Avoca Street	Ropes Crossing	206
Seven Hills Seniors Development	NSW Housing	5 Jordan Street	Seven Hills	17
Plumpton	Southern Cross Care	122 Hyatts Rd	Plumpton	40
St Elizabeth's Home	Trustees of the Hungarian Catholic Community	1 Symonds Rd	Dean Park	18
St Hedwig Village	Catholic Church	140 Reservoir Road	Blacktown	48
The Ponds	Anglicare	2 The Ponds Blvd	The Ponds	145
Aspire Elara	Stockland	Parish St & Elara Bvd	Marsden Park	65
Total	-	-	-	711

Source: MacroPlan (2019)

We also note that there are very limited trade-down (or downsize) opportunities for retirees in the immediate locality, particularly the Blacktown CBD. Our investigation has only identified 3 existing retirement villages, a total of 103 ILUs.

5.2 Existing Supply – Residential Aged Care Facility (RACF)

A similar supply assessment has been undertaken for aged care facilities. Overall, our investigation has identified 20 existing aged care facilities, and 5 of these facilities offer a combination of independent living units and aged care provision (Table 8). Subsequently, we have derived a total of 2,027 aged care places.

Compared to the independent retirement living, we note that there are relatively more options for retirees in the Blacktown CBD. Our investigation has identified 5 existing RACFs, a total of 406 places.

5.3 Proposed Retirement Villages and RACFs

An examination of projects listed on Cordell Connect and proposed estate masterplans has revealed there are 6 retirement living projects in the pipeline, 1 with both aged care and ILU provision. Collectively, the pipeline only provides for development of 337 ILUs to be constructed by 2022 (Table 9).

There are a further 5 proposed aged care facilities, one with both aged care and ILU provisions. Collectively, the potential development pipeline provides for approximately 624 new aged care places, to be constructed by 2023 (Table 10).

Notably, there is a potential for a new RACF development at Kings Langley to offer 600+ new aged care places, but this is still in early stage (i.e. the development site is still on sale and no development approval¹⁶).

Table 8: Existing Residential Aged Care Facilities

Existing Facility	Provider	Address	Suburb	Places
St Dominic's Home for the Elderly	The Congregation of the Dominican Sisters of Malta in New South Wales	171 Walters Road	Blacktown	50
Uniting Mullauna Blacktown	The Uniting Church in Australia Property Trust (NSW)	61 Bungarribee Road	Blacktown	65
Blacktown Nursing Home	Budumu Pty Ltd	190 Stephen Street	Blacktown	134
St Hedwig Village	St Hedwig Village	140 Reservoir Road	Blacktown	133
Blacktown Transitional Aged Care Service	NSW State Government (NSW Ministry of Health)	c/-Blacktown Hospital	Blacktown	24
St Elizabeth Home	St Elizabeth Home Limited	1 Symonds Road	Dean Park	114
Henley Manor	Japara Aged Care Services Pty Ltd	84 Earle Street	Doonside	71
Adventist Nursing Home	Seventh-day Adventist Aged Care (Greater Sydney) Ltd	56 Elsom Street	Kings Langley	87
Brother Alberts Home	Holy Family Services	116-132 Quakers Road	Marayong	146
Southern Cross Care St Francis Residential Aged Care	Southern Cross Care (NSW & ACT)	Southern Cross Village	Plumpton	50
Quakers Hill Nursing Home	DPG Services Pty Ltd	35 Hambledon Road	Quakers Hill	127
Our Lady Of Consolation Home	Our Lady of Consolation Aged Care & Services Limited	32 Evans Road	Rooty Hill	172
Residential Gardens	Residential Gardens For Spanish Speaking Frail Aged Limited	420 Woodstock Avenue	Rooty Hill	106
St Simeon Village	Serbian Orthodox Diocese Aged Care and Education Property Fund	261 Hyatts Road	Rooty Hill	51
Our Lady Of Consolation Nursing Home	Our Lady of Consolation Aged Care & Services Limited	32 Evans Road	Rooty Hill	131
Minchinbury Manor	Australasian Accommodation Aged Care Pty Limited	2 John Street	Rooty Hill	108
Seven Hills Nursing Home	Seven Hills Nursing Home Pty Ltd	1 Crews Road	Seven Hills	104
SummitCare St Marys	St Marys Gardens Aged Care Centre Pty Limited	57 Saddington Street	St Marys	126
Boronia House	Thompson Health Care Pty Ltd	183-197 Boronia Road	St Marys	124
Dudley Foord House	Anglican Community Services	4 View Street	The Pond	104
Total	-	-	-	2,027

Source: MacroPlan (2019), Australian Institute of Health and Welfare (2019)

¹⁶ Therefore, we excluded this potential development from our gap assessment.

Table 9: Proposed Independent Living Retirement Villages

Name	Address	Suburb	ILUs
Rooty Hill	1- 3 Rooty Hill Rd	Rooty Hill	147
Kings Langley Village	54 Elsom Street	Kings Langley	27
St Hedwig Village	140 Reservoir Road	Blacktown	65
Seven Hills Seniors Living Units	313 Seven Hills Rd (Lot 1 DP778916, Lot 1 DP338023)	Seven Hills	10
Frank Street Seniors Living Units	30 Frank St (Lot 7 Sec Z DP2042)	Mount Druitt	4
Adventist Aged Care	56 Elsom St (Lot 33 DP1089417)	Kings Langley	4
Total	-	-	337

Source: CordellConnect (2019), MacroPlan (2019)

Table 10: Proposed Residential Aged Care Facilities

Name	Address	Suburb	Places
Opal Aged Care Facility	37-43 Kildare Rd	Blacktown	149
Mount Druitt Aged Care Facility	21-27 Durham St & 56-60 Mount St	Mount Druitt	259
Vardys Road Residential Development	1 Vardys Rd (Lot 1)	Kings Langley	600
Minchinbury Manor	57 John St & 2-8 Sharon Pl (Lots 1-4 DP778377)	Rooty Hill	38
Hardi Aged Care	92 Solander Rd (Lot 58 DP29947)	Seven Hills	126
Quakers Road Residential Aged Care	116 Quakers Rd (Lot 101 DP1013737)	Marayong	52
Total	-	-	624

Source: CordellConnect (2019), MacroPlan (2019)

5.4 Gap Assessment for ILUs

5.4.1 Penetration Rates for ILUs

In order to ascertain future demand for retirement developments, we have sourced penetration rates for the Blacktown LGA. Obtained from Census data, these penetration rates refer to the percentage of the population by age cohort (typically 65 years and over) who live in retirement villages – essentially it is a probability function for retirement utilisation. Obviously, the younger the person, the less likely they are to reside in a retirement village. The average age of entry across Australia is estimated to be 76 years.

However, persons aged 55-64 could be at the retirement stage – if so, then these households could be potential candidates for new ILUs at Blacktown as well.

There are limitations to relying solely on Census data to derive penetration rates. Census based penetration rates can significantly underestimate demand for retirement villages as:

- They are based purely on supply, and do not consider any latent demand that may exist, i.e. where demand for retirement villages is constrained by limited supply.

- Secondly, the Census undercounts the number of occupied Independent Living Units (for numerous reasons).

Penetration rates can be influenced by a number of variables such as:

- Changing perceptions of retirement living;
- Affordability (this includes cost of development, final price of retirement units in relation to competing living options);
- Trends in retirement age;
- Supply of retirement living options (including amount and quality of supply);
- Characteristics of the region (e.g. is it a seaside, is it a growth area or an established area, availability of diverse facilities and services in close proximity, etc.); and
- Demographic characteristics of the catchment (e.g. income, ethnicity, etc.).

For the purpose of our assessment we consider the ABS-derived penetration rate in association with the above factors and the observed impacts of internal migration i.e. residents aged 55+ who have relocated from another region into the catchment area. Our calculated penetration rates for the various age cohorts are presented in the below table.

Table 11: Penetration Rates, Blacktown LGA (2016)

Age Cohort	Penetration Rate
55-59	0.2%
60-64	0.5%
65-69	1.3%
70-74	2.2%
75-79	3.7%
80-84	4.6%
85+	4.6%

Source: MacroPlan (2019), ABS Census (2016)

5.4.2 Demand for ILUs

Applying these age-specific penetration rates to the population projections, we generate a demand from 1,622 persons aged 55+ by 2026 and 2,289 persons by 2036.

Notably, couple families also live in retirement villages. In fact, according to ABS data, the average household size for those aged 65+ in the region is approximately 1.15 persons per household and varies dependent on age cohort. Those aged 85+ tend to have fewer people per household than the 'younger' age cohorts. Our modelling has used different household formation rates for selected age groups to determine demand for ILUs.

We estimate a current catchment demand for 963 ILUs (2016), which will increase to 1,516 ILUs by 2026 and 2,156 ILUs by 2036.

12: Demand for ILUs, In terms of persons

Age Cohort	2016	2021	2026	2031	2036
55-59	45	50	54	61	68
60-64	84	95	105	115	129
65-69	174	197	226	250	274
70-74	204	272	311	356	397
75-79	224	305	410	471	545
80-84	177	222	307	415	482
85+	128	162	209	284	394
Total	1,038	1,302	1,622	1,952	2,289

Source: MacroPlan (2019), ABS Census (2016)

Table 13: Demand for ILUs, In terms of persons

Age Cohort	2016	2021	2026	2031	2036
55-59	36	40	43	49	54
60-64	70	79	88	96	108
65-69	152	171	196	218	238
70-74	186	247	282	324	361
75-79	214	291	391	448	519
80-84	177	222	307	415	482
85+	128	162	209	284	394
Total	963	1,211	1,516	1,833	2,156

Source: MacroPlan (2019), ABS Census (2016)

5.4.3 Gap Assessment

Following our review of future supply and demand of retirement product in the Blacktown LGA, we have determined the market positions for Independent Retirement Living dwellings.

At present, there is a shortage of 252 ILUs across the catchment. However, due to the rapidly ageing profile and an increasing demand for downsizing, we envisage that there will be a shortage of 468 dwellings (undersupplied) by 2026 even though there are some proposed new ILUs in the pipeline.

We also anticipate the current market gap to deteriorate to an undersupply of 1,108 ILUs by 2036, if there is no future supply from 2022 onwards.

Table 14: Forecast Growth in ILU – Supply and Demand

	2016	2021	2026	2031	2036
Supply	711	941	1,048	1,048	1,048
Demand	963	1,211	1,516	1,833	2,156
Shortage/Surplus	252	270	468	785	1,108

Source: MacroPlan (2019), ABS Census (2016)

Our investigation also found that Blacktown LGA would be in a greater deal of deficit if it fails to take into account the rapid obsolescence of existing retirement living dwellings. Many existing retirement villages were established under the repealed SEPP 5 during the 1980s and therefore may not be appealing to the next wave of retirees.

If we assume a 10% rate of obsolescence of existing ILUs in the Blacktown LGA, we estimate that the current market is expected to already have had a shortage of 323 independent living options in 2016, increasing to 539 units by 2026 and 1,179 units by 2036.

Table 15: Forecast Growth in ILU – Supply and Demand (10% Obsolescence of Existing Stock)

	2016	2021	2026	2031	2036
Supply	640	870	977	977	977
Demand	963	1,211	1,516	1,833	2,156
Shortage/Surplus	323	341	539	856	1,179

Source: MacroPlan (2019), ABS Census (2016)

5.5 Gap Assessment for RACFs

The federal government has set national benchmarks for the provision of aged care places. At present the government has previously indicated a goal that for every 1,000 persons aged 70 and over there is a benchmark of 80 residential care places¹⁷.

According to the NSW Department of Planning and Environment (as well as ABS data), the population aged 70+ is expected to expand from 21,800 persons to 51,330 persons between 2016 and 2036.

Table 16: Forecast Growth in RACF – Supply and Demand

	2016	2021	2026	2031	2036
Supply	2,027	2,473	2,651	2,651	2,651
Demand	1,744	2,294	2,886	3,497	4,107
Shortage/Surplus	283	179	235	846	1,456

¹⁷ The Government was aiming for 45 home care places, 78 residential places and 2 STRC places per 1,000 people aged 70 and over by 2021–22 (AIHW 2018).

Source: MacroPlan (2019), ABS Census (2016)

Based on Federal Government aged care benchmarks, projected population of residents aged 70 years+ in the catchment area; there is currently a net surplus of 283 aged care places (2016). Future supply additions are expected to alleviate additional demand by 2021 and the market will still be fully saturated.

However, due to the rapidly ageing profile in the catchment area, there could be a shortage of 235 places in 2026 and 1,456 places in 2036 if there is no future supply from 2021 onwards.

We have also conducted a sensitivity analysis of our gap assessment, assuming a 10% of obsolescence of existing RACFs in the Blacktown LGA. We estimate that the current market is still fully saturated (a surplus of 80 places) however, it is expected to have a shortage of -23 places by 2021, blowing out to 438 places by 2026 and 1,658 places by 2036.

Table 17: Forecast Growth in RACF – Supply and Demand (10% Obsolescence of Existing Stock)

	2016	2021	2026	2031	2036
Supply	1,824	2,270	2,448	2,448	2,448
Demand	1,744	2,294	2,886	3,497	4,107
Shortage/Surplus	80	23	438	1,049	1,658

Source: MacroPlan (2019), ABS Census (2016)

5.6 Sensitivity Analysis

MacroPlan also conducted sensitivity analysis of our gap assessment – future supply and demand of retirement product in the catchment area (i.e. Blacktown LGA).

The rationale is that Blacktown represents as one of the fast-growing regions in NSW (and Australia) with house prices have grown rapidly over the last 5 years (i.e. went up by 60-70%) and growing population.

We note that the number of people aged 65 or over will increase by 40,550 people in the Blacktown LGA over the next 20 years¹⁸, accounting for almost a fifth of its anticipated population growth. Besides, households with large superannuation savings and substantial housing equity are more prevalent in Canberra (particularly, Canberra-based public servants). Consequently, the increase in people aged 65 and over will drive the demand for retirement living products to cater for the ageing population.

¹⁸ NSW Department of Planning and Environment, 2016 NSW household and dwelling projections data, Age profiles and dependencies

5.6.1 Sensitivity Analysis (ILU Gap Assessment)

Our reconnaissance considers the following notion – what would be the future market gap if the higher penetration rates are anticipated? MacroPlan escalated market penetration (as below) based upon those trends seen across Greater Sydney due to the rapidly ageing profile and an increasing demand for downsizing.

Table 18: Penetration Rates, Greater Sydney (2016)

Age Cohort	Penetration Rate
55-59	0.3%
60-64	0.6%
65-69	1.5%
70-74	3.2%
75-79	5.2%
80-84	7.4%
85+	9.1%

Source: MacroPlan (2019), ABS Census (2016)

Based on these penetration rates, we estimated that there is currently demand for 688 units in the catchment but expected to grow rapidly to 2,230 dwellings by 2026 and 3,247 dwellings by 2036. Consequently, our sensitivity analysis reveals that it returned a worsened shortage of independent living options in the catchment area – 1,182 units by 2026 and 2,199 units by 2036.

Table 19: Sensitivity Analysis – ILU Gap Assessment

	2016	2021	2026	2031	2036
Supply	711	941	1,048	1,048	1,048
Demand	1,399	1,769	2,230	2,730	3,247
Shortage/Surplus	688	828	1,182	1,682	2,199

Source: MacroPlan (2019), ABS Census (2016)

If we assume a 10% rate of obsolescence of existing ILUs in the Blacktown LGA, we estimate that the current market is expected to already have had a shortage of 759 independent living options in 2016, increasing to 1,253 units by 2026 and 2,270 units by 2036.

Table 20: Sensitivity Analysis – ILU Gap Assessment (10% Obsolescence of Existing Stock)

	2016	2021	2026	2031	2036
Supply	640	870	977	977	977
Demand	1,399	1,769	2,230	2,730	3,247
Shortage/Surplus	759	899	1,253	1,753	2,270

Source: MacroPlan (2019), ABS Census (2016)

5.6.2 Sensitivity Analysis (RACF Gap Assessment)

MacroPlan also escalated national benchmarks for the provision of aged care places based upon those trends seen across Greater Sydney and NSW due to the rapidly ageing profile and an increasing demand for downsizing. According to the Sixth report on the Funding and Financing of the Aged Care Sector (AIHW, July 2018), the provision ratio achieved for residential care & restorative care at 30 June 2018 was 81.7¹⁹.

Based on this higher benchmark, projected population of residents aged 70 years+ in the catchment area; there is currently a net surplus of 246 aged care places (2016). Future supply additions are expected to alleviate additional demand by 2021 and the market will still be fully saturated.

However, due to the rapidly ageing profile in the catchment area, there could be a shortage of 297 places in 2026 and 1,543 places in 2036 if there is no future supply from 2021 onwards.

Table 21: Sensitivity Analysis – RACF Gap Assessment

	2016	2021	2026	2031	2036
Supply	2,027	2,473	2,651	2,651	2,651
Demand	1,781	2,342	2,948	3,571	4,194
Shortage/Surplus	246	131	297	920	1,543

Source: MacroPlan (2019), ABS Census (2016)

If we assume a 10% rate of obsolescence of existing RACFs in the Blacktown LGA, we estimate that the current market is still fully saturated (a surplus of 80 places in 2016), however, it is expected to have a shortage of 72 places by 2021, blowing out to 499 places by 2026 and 1,746 places by 2036.

Table 22: Sensitivity Analysis – RACF Gap Assessment (10% Obsolescence of Existing Stock)

	2016	2021	2026	2031	2036
Supply	1,824	2,270	2,448	2,448	2,448
Demand	1,781	2,342	2,948	3,571	4,194
Shortage/Surplus	43	72	499	1,123	1,746

Source: MacroPlan (2019), ABS Census (2016)

5.7 Development Potential for Seniors Housing

The 'new ageing' demographic of the catchment is much more accustomed to vertical living and is expected to drive demand for this type of product into the future. Over the last 5 years to 2016, as well as the development of North West Growth Area, have positively impacted on incomes and wealth growth in the Blacktown LGA region. Through an economic multiplier effect,

¹⁹ 80 residential places and 1.7 STRC places per 1,000 people aged 70 and over

increased demand has increased the value of property substantially. Consequently, retirees have a greater capacity to downsize from an existing property to a new seniors housing and still realize a substantial positive cash-flow.

In our view, co-locating the potential new retirement village(s) with aged care facilities would be preferable. Provision of aged care would be consistent with greater provision of independent living housing, where older couple households are seeking to 'future proof' their downsizing moves through knowledge that RACF exists on-site or nearby provision of aged care would be consistent with greater provision of ILUs.

Based on our gap assessments, we identified that there is development potential within the Blacktown LGA for 400 to 800 ILUs and 300 to 500 aged care places by 2026. MacroPlan envisages that the Blacktown Health Precinct is well-located to absorb about 50-60% of the total market demand, equating to 2-4 large-scale villages (18,000 to 36,000 m² GFA) and 2-3 large-scale RACFs (8,000 to 12,000 m² GFA).

6. Nursing Facilities

In this section of the report, we provide an overview of nursing facilities in NSW to inform facility requirements and provide an overview of major players in order to consider what the locational requirements are for such facilities. This is supplemented by an overall supply and demand outlook for healthcare workers, particularly nursing students and staff in NSW.

6.1 Professional standards

There are two levels of regulated nursing in Australia – Registered Nurses (RNs) and Enrolled Nurses (ENs).

An RN must complete a minimum three-year bachelor degree and is registered with the Nursing and Midwifery Board of Australia (NMBA). RNs are university qualified and practise independently and interdependently.

An EN must complete a Certificate IV or a Diploma of Nursing from a vocational education and training provider (TAFE). ENs usually work alongside RNs to provide patients with basic nursing care, undertaking less complex procedures than RNs.

To maintain registration, both RNs and ENs are subject to a 'recency of practice' standard requiring a minimum period of practice of 450 hours within the last five years.

RN and EN education accreditation standards (developed by the Australian Nursing and Midwifery Council), specify a minimum number of clinical placement hours a course must provide for it to be accredited:

- A minimum of 800 hours of workplace experience for RNs
- A minimum of 400 of professional experience placement for ENs

6.2 Practising Nurses

There are currently 398,530 practising nurses and midwives in Australia²⁰. Of that total, 62,727 are categorised as EN's (16%), 321,681 as RN's (81%), and 7,925 nurses (2%) have both qualifications. There are approximately 5,117 practitioners with pure midwifery qualifications.

Victoria and NSW encompass the largest proportion of EN's in Australia – 20,243 (32%) and 13,569 (22%), respectively. These two states also constitute the largest share of RN's in Australia. Victoria has 71,972 RN's (25%) and NSW has 83,112 (29%).

²⁰ Nursing and Midwifery Board of Australia (March, 2018)

Table 23: Practising Nurses and Midwives - Australia

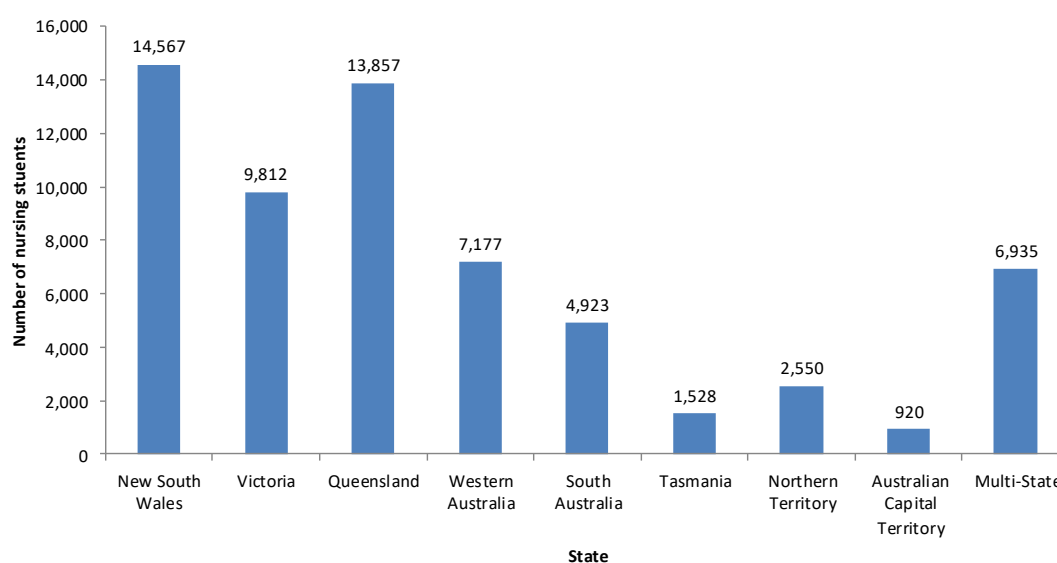
	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	No PPP	Total
Enrolled Nurse (EN)	698	13,569	401	13,064	7,690	1,543	20,243	5,408	111	62,727
Registered Nurse (RN)	4,925	83,112	3,407	57,375	22,345	6,835	71,972	29,562	10,083	289,616
EN & RN	81	1,429	66	1,624	829	78	2,974	712	28	7,821
Midwife	163	1,171	89	1,024	624	33	1,326	430	191	5,051
Nurse (EN & RN) and Midwife*	503	7,758	496	5,708	1,870	626	7,526	2,840	291	27,618

Source: Nursing and Midwifery Board (2018)

6.3 Nursing Students

As at 2014, there were 53,307 total nursing students enrolled in Australian public universities. NSW comprised the largest number of enrolled students with 12,808, followed by Queensland (11,564) and Victoria (8,226).

Figure 12: Enrolled Nursing Students – Australian Universities (2016)



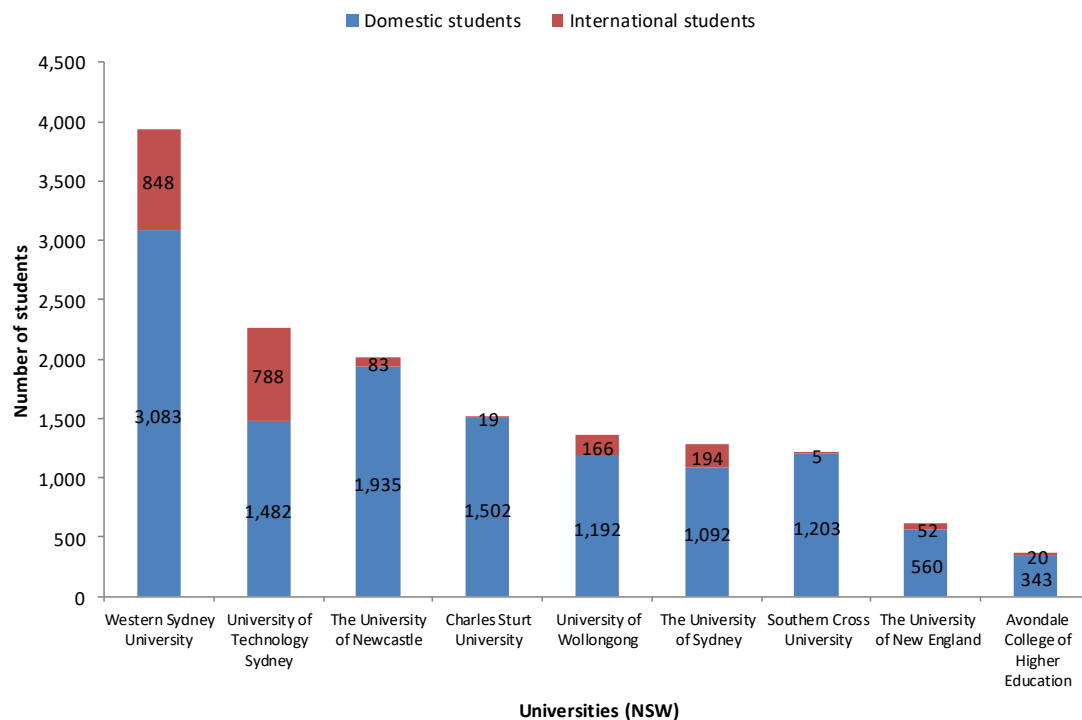
Higher

Education Statistics - uCube (2018)

The largest tertiary nursing education providers in NSW are the University of Western Sydney (UWS - 3,931 students), the University of Technology (UTS – 2,270 students) and the University of Newcastle (UN – 2,018 students). Notably, Charles Sturt University had the 3rd largest intake of domestic nursing students - 1,502 students.

UWS and UTS also had the largest intake of international nursing students amongst NSW public universities, with 848 and 788 students, respectively.

Figure 13: Enrolled Nursing Students – NSW Universities (2016)



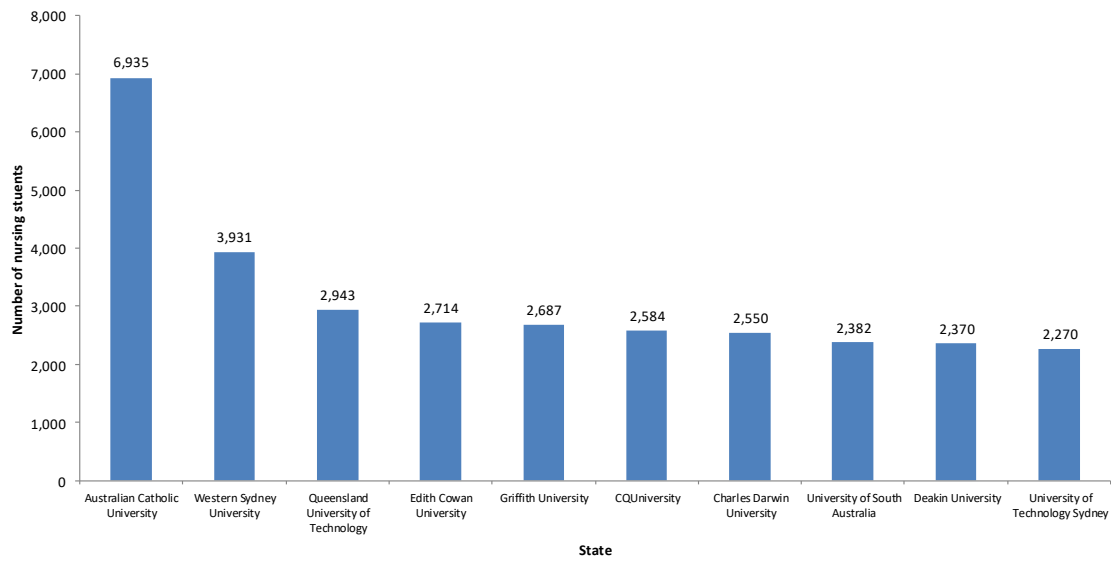
Higher Education Statistics - uCube (2018)

Of the private university providers, the Australian Catholic University has the largest number of nursing students in Australia (6,935), including 1,263 international students. Private enrolments are not available on a state-by-state basis (please refer to figure 10).

In 2016, the greatest number of tertiary qualified nursing students in NSW public universities graduated from UWS (981 students), followed by UTS (599 students) and the UN (447 students).

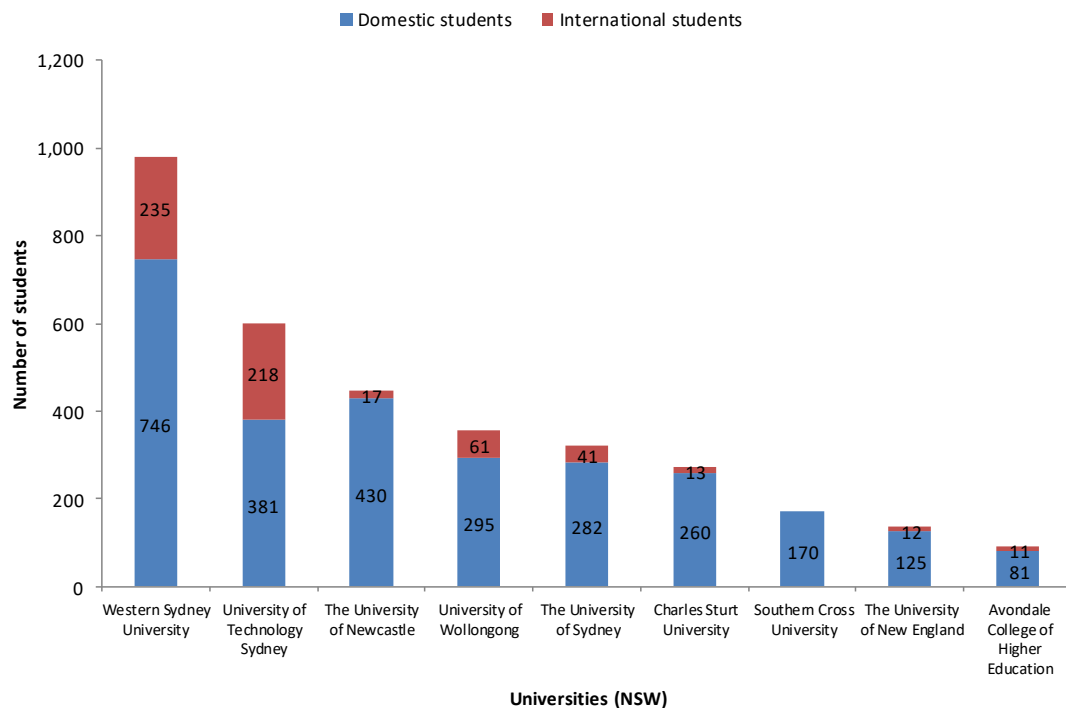
Comparing the number of university completions against enrolments suggests that there are a significant number of students who undertake their studies part-time. Post-graduate nursing qualifications are likely to be undertaken on this basis.

Figure 14: National Top 10 University Enrolments – Nursing Students only (2016)



Source: Higher Education Statistics - uCube (2018)

Figure 15: Nursing Completions – NSW Universities (2016)

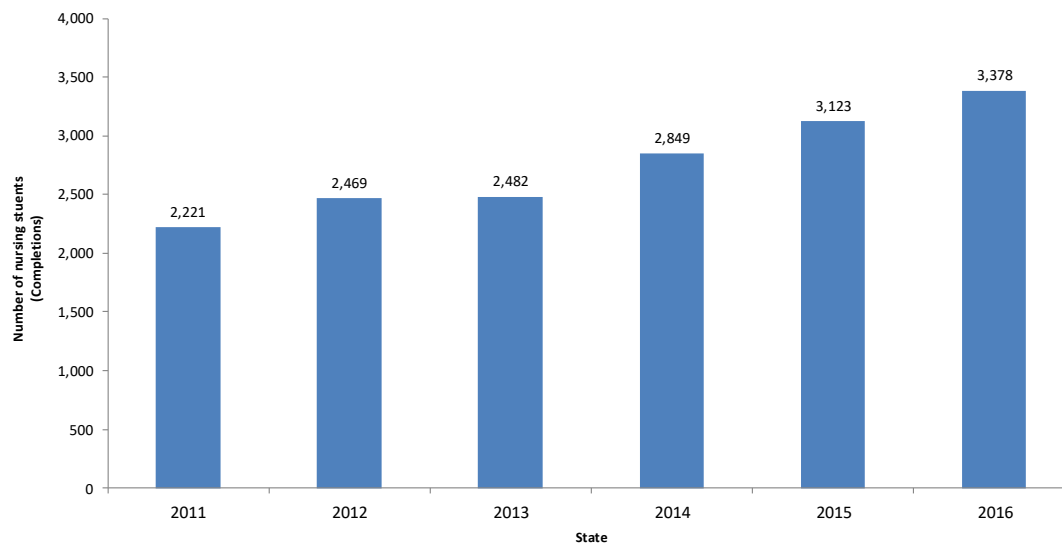


Source: Higher Education Statistics - uCube (2018)

6.4 Overall Supply - Tertiary Qualified Nurses

Between 2011 and 2016, an annual average of 2,750 nursing (and midwifery) students graduated from tertiary institutions in NSW. If we include private universities such as the Australian Catholic University, University of Notre Dame and other interstate universities, this figure is likely to be closer to 5,500.

Figure 16: Nursing student completions – NSW Universities (2011 to 2016)



Source: Higher Education Statistics - uCube (2018)

Between March 2016 and March 2018, an additional 5,184 NSW nurses and midwives were recorded in the Nursing and Midwifery Board of Australia database, demonstrating an annual average intake of 2,592 nurses.

Comparing the annual number of annual NSW tertiary completions (approximately 5,500 students per annum) against growth in RN numbers suggests there is an oversupply of tertiary qualified nursing students in NSW.

Over the two year period to 2018, the number of nurses and midwives expanded by an annual average of 21,650 in Australia. By comparison, the number of tertiary nursing (and midwifery) completions expanded by an annual average of 12,722. Evidently, in Australia, nurses and midwifery nursing staff are being sourced from overseas. Also, NSW trained and qualified nurses are more likely to find work in other states and territories.

6.5 Demand for Nursing Facilities

The demand for nursing is closely tied with nursing staff to patient bed ratios in NSW. At present there are no minimum legislative requirements dictating the number of nurses per bed in NSW. Unions have been active in pushing for mandated nurse-patient ratios to safeguard patient outcomes and to protect the interests of nurses and health practitioners, where demand significantly outstrips supply.

According to a study conducted by health professionals titled 'Ratios and nursing staff: the vexed case of emergency departments' (2014)²¹, the average number of emergency beds per nurse in NSW are as follows:

- morning shift – 3.8
- evening shift – 3.6
- night shift – 5.1

However, ratios as high as 8.4 (morning), 7.3 (night shift) and 16 (night shift) have been identified in particular hospitals on specific shifts.

The NSW Nurses and Midwives Association (2015) has advocated for the following ratio of nurses to patients:

- 1:3 for paediatrics;
- 1:4 for general adult inpatient wards, increasing to a ratio of 1:7 at night;
- 1:1 for resuscitation beds;
- 1:3 for emergency departments;
- 1:4 for adult inpatient mental health;
- 1:2 for child and adolescent inpatient mental health;
- 1:6 for long term mental health;
- 1:1 for ICU neonatal intensive care units;
- 1:2 for HDU neonatal intensive care units;
- 1:1 for adult and paediatric critical care (ICU);
- 1:2 for adult and paediatric critical care (HDU); and
- 1:2 for adult and paediatric critical care (CCU).

Our analysis of ABS hospital data (2016-17) demonstrates that, for private hospitals, there is currently an average allocation of staff per occupied bed of:

- 1.0:1 for Registered Nurses; and
- 0.2:1 for Enrolled Nurses.

²¹ Wise S, Duffield C, Roche M, Buchanan J – Ratios and nurse staffing: the vexed case of emergency departments (2014)

6.6 Nursing Teaching Institutions

According to the Australian Education Network (2018), there are currently 31 tertiary institutions that offer undergraduate nursing courses and 23 institutions that offer postgraduate nursing courses in Australia. In NSW, there are 10 institutions that offer undergraduate and 7 institutions offer postgraduate nursing courses on campus, as listed below.

NSW tertiary institutions that offer undergraduate nursing courses

- Australian Catholic University*
- Charles Sturt University
- Southern Cross University
- The University of Notre Dame Australia*
- The University of Sydney*
- University of Newcastle
- University of Tasmania
- University of Technology, Sydney*
- University of Western Sydney*
- University of Wollongong*

NSW tertiary institutions that offer postgraduate nursing courses

- Australian Catholic University
- Avondale College of Higher Education
- The University of Notre Dame Australia
- The University of Sydney
- University of Technology, Sydney
- University of Western Sydney
- University of Wollongong

Our comparison of nursing educational facilities across a number of provides is summarised in the following table.

Overall, our examination of nursing facilities has revealed:

- Floorspace ratios for nursing facilities range from 4m² of floorspace per student to 17m² per student.
- Generally, the quantum of floorspace per students is 5-6m²
- Central locations (i.e. UWS Campbelltown and Parramatta campuses) tend to have more densely populated nursing facilities.
- Regional locations (i.e. UWS Lithgow and Avondale College Lake Macquarie) have larger student to floorspace ratios.

Below, we examine the supply and demand outlook for nursing resources in the state.

Nursing Facilities

Institution	Characteristics	Education facilities	Students	Density (m ² per student)
University of Tasmania (Sydney Nursing Facilities)	<ul style="list-style-type: none"> Two campuses located in Rozelle and in Darlinghurst Rozelle Campus accommodates Bachelor of Nursing and Bachelor of Paramedic Practice Students Darlinghurst Campus only accommodates nursing students Darlinghurst Campus is co-located with St Vincent's Hospital Centrally located to the Sydney CBD, serviced by public transportation Bachelor of Nursing is in conjunction with the Sydney Local Health District 	<ul style="list-style-type: none"> 4,000 m² (Rozelle) 2,000 m² (Darlinghurst) 	<ul style="list-style-type: none"> 1,000 students (Rozelle) 400 students (Darlinghurst) 	<ul style="list-style-type: none"> 4m² per student (Rozelle) 5m² per student (Darlinghurst)
Avondale College of Higher Education	<ul style="list-style-type: none"> Two campuses located in Lake Macquarie and in Wahroonga (SAN Hospital site) Under-graduate and post-graduate qualifications Affiliation with the SAN hospital Nursing accommodation provided at the SAN hospital 	<ul style="list-style-type: none"> 1,000 m² (Lake Macquarie) 3,000 m² (Wahroonga) 	<ul style="list-style-type: none"> 60 students (Lake Macquarie) 450 students (Wahroonga) 	<ul style="list-style-type: none"> 17m² per student (Lake Macquarie) 6-7m² per student (Wahroonga)
University of Western Sydney (nursing facilities)	<ul style="list-style-type: none"> Nursing courses are offered at Campbelltown, Parramatta, Hawkesbury and Lithgow campus UWS also offers bridging courses at UWS College, with classes offered at Nirimba and Kingswood. Undergraduate and Post-graduate courses 3,543 total enrolments in 2014 (745 international students) Approximately 6,000-7,000 students currently enrolled. However, not all students will utilise facilities at the same time*. 	<ul style="list-style-type: none"> 3,000 m² (Parramatta) 5,000 m² (Campbelltown) 2,500 m² (Hawkesbury) 150 m² (Lithgow) 	<ul style="list-style-type: none"> 2,000 students (Parramatta) 2,000 students (Campbelltown) 500 students (Hawkesbury) 15 students (Lithgow) 	<ul style="list-style-type: none"> 1-2m² per student (Parramatta) 2-3m² per student (Campbelltown) 5m² per student (Hawkesbury) 10m² per student (Lithgow)

Source: Various Sources, MacroPlan (2019)

7. Health Staff Accommodation

In this section we examine the market basis for a health staff accommodation offer at the proposed health precinct at Blacktown.

7.1 Health Industry Trends

Health care and social assistance is Australia's largest industry employing 1,168,000 of Australia's 12.6 million workers nationwide (i.e. 13.3% of all workers)²². This industry is forecast to continue to grow at 2.8% per annum over the next 5 years on the back of continued population growth and an ageing population. As a knowledge base sector, the industry continues to transform due to factors such as:

- Technology and digitisation
- Enterprise consolidation
- Globalisation and service exports
- Chronic disease and new models of care
- Clustering

Within Blacktown LGA, the health care and social assistance industry employs approximately 10,600 people in 2016 (i.e. 10% of all workers in the LGA)²³. The industry is forecast to grow at 2.3% per annum over the next 5 years. Clustering of health services already exists within Blacktown which has been acknowledged by Council through the identification of the Blacktown Health Precinct.

7.2 Staff Accommodation Complex (Westmead)

The WSLHD currently provides staff accommodation to all employees of Western Sydney Local Health District (WSLHD), The Children's Hospital Westmead, students of clinical schools and allied health students of NSW regional universities attending practicum.

The staff accommodation complex is on the corner of Darcy and Bridge Roads, Westmead; 700m from the main entrance of Westmead Hospital. It is also 1km from Westmead Children's Hospital, and less than 1km from Westmead and Wentworthville Railway Stations. It comprises about 200 fully-furnished units, including self-contained 1 & 4 bedroom units.

At present, there are the following facilities and services available for the residents at the WSLHD staff accommodation complex:

- Most units are fully furnished and include an electric stove, refrigerator, automatic front-loading washing machine and dryer

²² Department of Jobs and Small Business, May 2018 Employment Levels

²³ Department of Jobs and Small Business, May 2018 Employment Levels, SA4 data

- Two tennis courts (for hire)
- Lawn reserve areas
- Children's playground
- Recyclable waste service
- Free open air parking
- Undercover parking available for a weekly fee

7.3 Short-Term Accommodation

Our analysis of current and proposed supply (of accommodation rooms) shows that there is about 650 rooms available in Blacktown LGA. At present, however, there is virtually no accommodation available or provided within the Black CBD.

Table 24: Current Supply, Short-Term Accommodation

Existing STA providers	Address	Suburb	Rooms	Grade
Nightcap at Colyton Hotel	Corner of Great Western Highway and Hewitt Street	Colyton	30	3.5
Novotel Sydney West HQ	33 Railway Street	Rooty Hill	164	4.5
Plumpton hotel	556 Richmond Rd	Glendenning	21	3
Alpha Hotel Eastern Creek	Cnr Peter Brock And Brabham Drive	Eastern Creek	164	4.5
Travelodge Hotel Blacktown Sydney	170 Reservoir Rd	Blacktown	120	3.5
Atura Blacktown	32 Cricketers Arms Road	Prospect	122	4
Toongabbie Hotel	15 Aurelia Street	Toongabbie	12	2.5
Cutmore Cottages - Meurants Manor	52 Meurants Lane	Glenwood	7	3
Cutmore Cottages - Highclaire House	11 Highclaire Place	Blacktown	7	3
Total			647	

Source: Various Sources, MacroPlan (2019)

Our assessment highlights that the Blacktown CBD has been unavailable to business visitor seeking convenience and quality of accommodation rooms and services, particularly for students, outside groups and guests, university and hospital staff and family of patients of the existing Blacktown Hospital.

The existing hotels in the Blacktown LGA would not accommodate the projected increase in demand. The Blacktown CBD, as well as the potential Blacktown Health Precinct, will continue to create demand for health/medical staffs, hospital visitors, and business travellers.

7.4 Development Potential for Health Staff Accommodation

At present, there is no health staff accommodation provided or proposed to be built within the Blacktown CBD.

Considering that Blacktown Hospital is a 700+ bed hospital²⁴, the second largest in the Western Sydney Local Health District (WSLHD), as well as the potential Blacktown private hospital, our view is that there is sufficient residual demand to absorb a further 100-150 staff accommodation units at the Blacktown Health Precinct.

Allowing 80 m² GFA for average/typical unit size (i.e. per unit), we anticipate that a provision of between 8,000 and 12,000 m² GFA is required for future healthcare staff accommodation purposes by 2036. This is a net figure which does not include open space, building setbacks, parking and interior and external roadways gross floor.

7.5 Development Potential for Short Term Accommodation

In terms of points of distinction against established hotels and serviced apartment at Blacktown, the path could lead toward a high/luxury grade hotel, extensive service model or towards a medium/high grade serviced apartment, with limited services.

Our analysis points to the latter. Blacktown still is on a lower status tier compared to Parramatta, and this is reflected in our demographic and employment assessments.

At present, there is no short-term accommodation provided or proposed to be built within the Blacktown CBD.

Even with the existing supply of about 650 rooms in the Blacktown LGA, our view is that there is sufficient residual demand to absorb further 150-200 rooms. We anticipate that a provision of between 6,500 and 8,500 m² GFA is required for future serviced apartment development by 2036

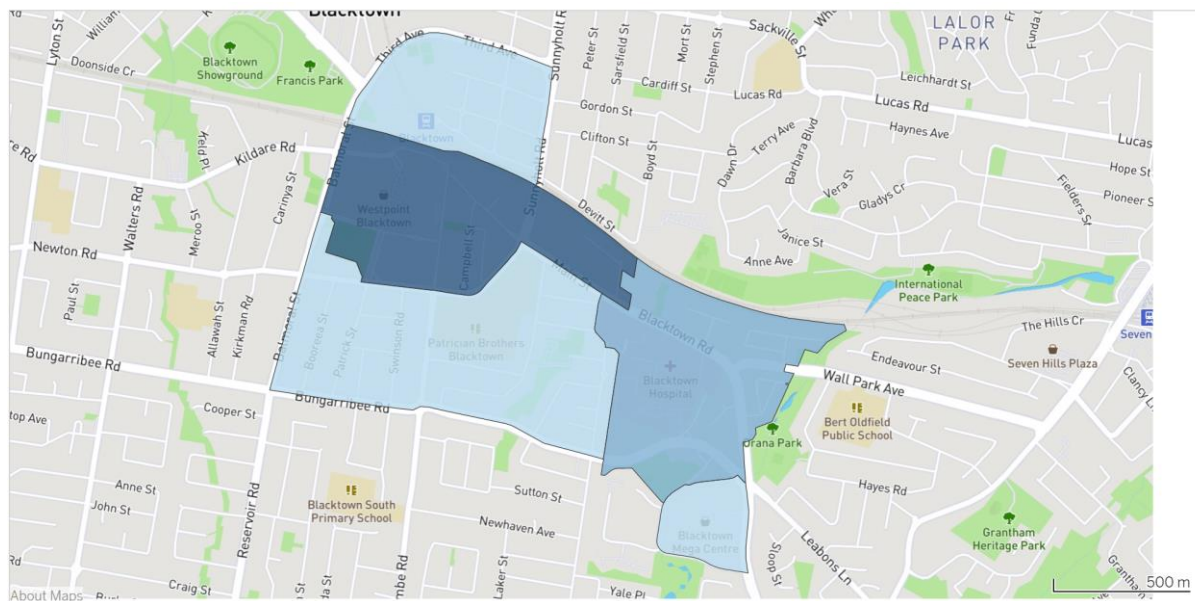
²⁴ This includes 501 beds at the Blacktown Hospital and a further 200 beds at the Mt Druitt campus,

8. Commercial & Retail Opportunities within the Proposed Health Precinct

8.1 Context and definition

In this section, for clarity, when reference is made to the 'Blacktown Area', we are referring to the area including the Blacktown CBD stretching through to area inclusive of the subject health precinct and the Hospital. This Area is shown on Figure 13.

Figure 17: Study Area Delineation, 'Blacktown Area'



Source TPA (2019)

Office uses broadly fit into three category types, these are:

- **Investment grade office assets:** These are generally defined as large floor plate office buildings within 'defined' office precincts. Within Sydney these include Sydney CBD, Macquarie Park and Parramatta, as well as others identified within this report. While the Blacktown CBD has some assets that broadly fits into this category we are aware that the majority of the A-REITS, which own the majority of investment grade assets, would consider Blacktown outside their investment profile.
- **Support office uses:** These uses generally provide localised services to the community and share some characteristics to retail uses. They often benefit from access to the public and therefore car parking and exposure are important considerations. Examples include real estate agents, local solicitors, health/medical specialists' offices.
- **Office uses that support another primary land use:** A small amount of office within an industrial facility or medical facility. This is not considered in significant detail in this report as the nature of this type of product is generally found outside the CBD. Note, for the purposes of definition we have assumed the small amount of office that supports retail uses within the 'support office uses' above.

Our observation of the opportunity for office uses in the Blacktown CBD generally fall into the second category. The Blacktown CBD has some potential for more of the first category, albeit, this has more risk associated to it and is in the longer term.

As defined above, support office generally provides localised services to the community. This type of office shares some characteristics with retail uses, mostly strip retail, particularly as it primarily seeks to service the local population, examples including; medical services, accounts and business services. Support office, by comparison to investment grade office, is typically smaller and often found within ground floor or part of another development (e.g. first floor above retail shops). The users are typically small local businesses.

8.2 Blacktown Area Employment in 2016

In order to make our assessment of the Blacktown Area, MacroPlan has identified the current level of employment within the Area. To do this we utilised Journey to Work (JTW) data (derived from the census by the ABS) and the Transport Performance and Analytics (TPA) employment forecast data (from Bureau of Transport Statistics data). We used employment figures from the Travel Zones which most accurately account for the study area.

From this data set we obtained the Full-time equivalent (FTE) by ANZIC industry code for both CBDs. We then made some broad assumptions having consideration to the types of employment which exist in the centres and split the employment by property types, these being; office, retail and other. This is summarised in the tables below.

Table 25: Employment within Blacktown Area, Property Types

Employment (no.)	2016	2021	2026	2031	2036
Retail	2,827	2,996	3,125	3,262	3,391
Office	2,572	2,572	2,802	3,005	3,208
Non-Retail	2,104	2,105	2,292	2,459	2,624
Total	7,504	8,090	8,589	9,094	9,629

Source: TPA (2019), ABS Census (2016), MacroPlan (2019)

8.3 Blacktown Area Office Opportunity

In deriving our assessment of the existing office stock in Blacktown CBD, we utilised the office employment derived above and multiplied by a square metre per employee of 20 m² (i.e. employment density) to derive the floor area of 51,450m² for office workers within the Blacktown CBD.

Based on our database, as at year 2016, approximately 32,000 m² are associated with investment grade office, and about 19,500 m² being utilised as a support office at the Blacktown CBD.

Table 26: Forecasted Office Floorspace Demand, Blacktown Area

Office Floorspace (m ²)	2016	2021	2026	2031	2036
Investment Grade	32,000	33,833	35,460	37,081	38,863
Additional Demand (cumulative)	-	1,833	3,460	5,081	6,863
Support Office	19,449	22,199	24,640	27,071	29,744
Additional Demand (cumulative)	-	2,749	5,191	7,622	10,295

Source: TPA (2019), ABS Census (2016), MacroPlan (2019)

While these methods are broadly in line, our view is this forecast is a mid-point assessment and in reality, this projected growth could be significantly higher through opportunity arising from a major tenant (most likely Government) or effectively zero if what has occurred in recent history for investment grade office continues.

We are of the view that from a demand perspective significant medium to long term opportunity should exist for the Blacktown Area. This opportunity will be driven by the significant population growth expected for Blacktown LGA. The Blacktown Area should therefore continue their logical role in supporting the local area through the provision of this support office.

By applying the TPA employment projections, we derived the additional demand for office space at the Blacktown Area of 8,600 m² by 2026 and 17,200 m² by 2036.

8.4 Blacktown Area Retail Potential

Potential retail facilities in the subject precinct could service several broad customer segments, defined as follows:

- **Workers** – including Blacktown Hospital staff as well as workers in the immediate surrounds.
- **Residents** – including residents in the immediate vicinity of Blacktown Hospital, who could potentially use hospital retail facilities if easily accessible and of the appropriate scale/mix.
- **Patients** – including inpatients and outpatients at Blacktown Hospital.
- **Visitors** – including visitors (i.e. family and friends) associated with patients at the Blacktown Hospital.
- **Students** – includes students/trainees at the hospital who do not form part of the official staff/worker estimates.

The *worker and visitor markets* would be key drivers of the demand for food catering and convenience-based non-food retail at the hospital. We expect a very limited contribution from the surrounding residential main trade area population, given the likely internalised nature of the proposed retail mix, the scale of the offer and the competitive effects of the surrounding retail hierarchy, which limits the extent of the potential residential trade area that could be served by external oriented retail facilities.

Therefore, to assess retail floorspace demand in the Blacktown Area, we utilised the retail employment derived above and multiplied by a square metre per employee of 45 m² (i.e. employment density²⁵) to derive the floor area of 140,624 m² for retail workers within the Blacktown Area.

By applying the TPA employment projections, we derived the additional demand for retail space at the Blacktown CBD of 7,630 m² by 2026 and 25,405 m² by 2036.

Table 27: Forecast Retail Floorspace Demand, Blacktown Area

Retail Floorspace (m ²)	2016	2021	2026	2031	2036
Retail	127,210	134,841	140,624	146,779	152,616
Additional Demand (cumulative)	-	7,630	13,414	19,569	25,405

Source: TPA (2019), ABS Census (2016), MacroPlan (2019)

8.5 Commercial & Retail Opportunities within the Proposed Health Precinct

Whilst the floorspace demand is derived from the *employment density metric* alone, it may seem conservative. However, also note that these figures refer to the wider 'Blacktown Area' as defined, *not* the proposed Health Precinct itself. Furthermore, the figures denote the *total retail floorspace demand* in the Area, some of which will escape.

The proposed Warrick Lane Development in an area just beyond (north-west) of the Precinct will include a yet to be determined amount of retail GFA/GLA, so will absorb some of the floorspace demand over the timeline (note the doubling of retail demand forecast in the 5 years between 2021 and 2026).

- Our preliminary view²⁶ is that there is sufficient residual demand to absorb a further 4,000-5,000 m² of commercial/office floorspace. MacroPlan envisages that the potential health precinct can attract interest from health providers (e.g. medical/consulting suites), education, R&D, and a range of SMEs seeking to purchase strata office.
- With regards to retail provision, based on all the assumptions, our view is that the Precinct is well-placed to absorb up to 20% of the anticipated floorspace demand in 2026, equal to say 2,500 m² of convenience and food retail from the mid-2020s, including a small supermarket of between 1,000 and 1,500 m².

²⁵ This figure of 45 m² is derived from standard industry benchmarks relatable to an urban area such as Blacktown.

²⁶ Subject to change, further consultation required

9. Purpose Built Student Accommodation (PBSA)

This section looks to address the future demand for purpose-built student accommodation (PBSA) within the Blacktown region.

The rapid growth of in foreign student numbers, coupled with a period of high growth in domestic student enrolment, has placed increased pressure on the Sydney market to provide student accommodation, both generally and within the locality of Blacktown. This demand emanating from foreign enrolments is expected to increase moving into the future, with Blacktown tipped to open a 'pop up' campus with 1,000 students by 2020 expanding to 5,000 students by 2023. However, it is MPDs position that this enrolment target of 5,000 students is more likely to be achieved by 2026²⁷.

In accounting for Blacktown's lack of student accommodation supply, Western Sydney University and its satellite campuses at Parramatta, Penrith, Bankstown, Campbelltown, Hawkesbury and Nirimba (of which all provide student accommodation) were used as benchmarks. These benchmarks will assist in providing a more focused approach for Blacktown and help shed light on the subsequent supply and demand shortfall of PBSA.

9.1 Metropolitan Market Context

The tertiary education sector, particularly the university sector, has experienced a period of strong growth. This reflects recent growth in the domestic market as participation rates in tertiary education have risen, but more particularly significantly strong growth in the foreign student market. As the table below implies both domestic and international figures are forecasted to continue to increase within the metropolitan market. This will in turn place increased pressure on the Purpose-Built Student Accommodation (PBSA) market.

Overall, the PBSA development pipeline in Sydney remains somewhat restricted due to the fluctuating values of development sites, driven by residential developers in core location sites for student accommodation. This is becoming increasingly noticeable in Sydney's central and eastern suburbs with developments surrounding tertiary institutions such as University of Sydney, UTS and UNSW slowing following many of their completions. Moving into the future, there is continued excess demand for quality PBSA, with many developers and investors looking for new opportunities in Sydney with Blacktown providing this opportunity.

9.2 Western Sydney University: PBSA Provisions

Currently across all Western Sydney University Campuses there are 1,590 student beds provided for both domestic and international accommodation. As Western Sydney University does not provide enrolment breakdowns per campus per domestic and international enrolment, MPD has had to apply a blanket analysis across the university as a whole.

The list of each campus and the total number of student beds they provide is listed below:

²⁷ Indicative figure – subject to change

- Parramatta Campus (344 beds), Penrith Campus (310 beds), Bankstown Campus (290 beds), Campbelltown (326 beds), Hawkesbury (260 beds), Nirimba (60 beds)

Table 28: Actual and Projected 'Sydney Metropolitan Universities' Enrolments

	Domestic	International	Total
2001	146,253	32,429	178,682
2006	150,938	45,449	196,682
2011	175,715	55,669	231,384
2016	197,913	66,702	264,615
2021	222,915	79,922	302,837
2026	251,076	95,761	346,837

Source: uCube (2018), Macroplan (2019)

Looking at the currently enrolment make up of Western Sydney University (table 29 below), of the approximately 45,000 students 14% (5,945) are international with the remaining 86% domestically located. Given current supply of student accommodation provided by Western Sydney University, there is a current composition of foreign student-to-beds of 27%.

Table 29: Actual and Projected 'Western Sydney University' Enrolments

	Domestic	International	Total	CAGR (%)
2001	28,543	6,784	35,327	-
2006	28,430	4,473	32,903	-1.41%
2011	34,757	4,422	39,179	3.55%
2016	39,536	4,839	44,375	2.52%
2017	38,752	5,945	44,697	0.72%

Source: uCube (2018), Macroplan (2019)

9.3 Development Potential for PBSA at Blacktown

At present, there is no student accommodation supply provided within Blacktown. Given a 'pop-up' campus of approximately 1,000 students is tipped to open in 2021 with enrolment set to increase to 5,000 by 2026, the provision of student accommodation is highly recommended. **Using Western Sydney University as a benchmark for the Blacktown market, it is suggested that there will be a shortfall of about 35 – 40 beds in 2021 and given no additional supply from 2021 onwards the Blacktown market this will increase to 180 – 190 beds by 2026.**

Allowing 30-35 m² GFA for average/typical unit size (i.e. per unit), we anticipate that a provision of between 5,500 and 6,500 m² GFA is required for future student accommodation purposes. This is a net figure which does not include open space, building setbacks, parking and interior and external roadways gross floor (but includes an indicative internal communal floorspace of about 1,500-1,800 m²).

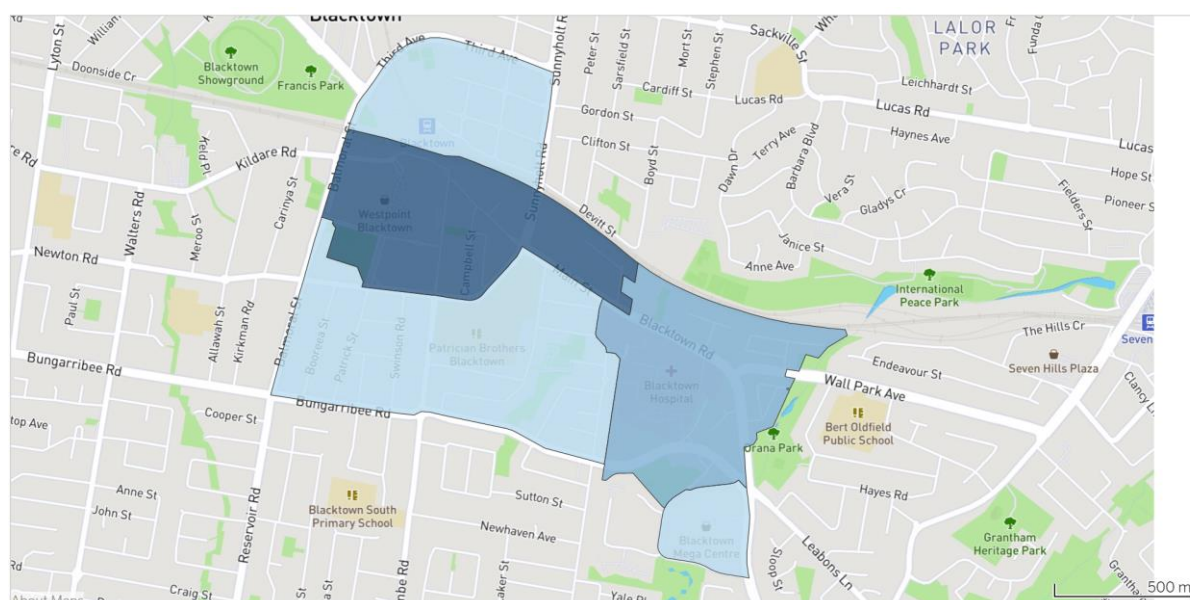
10. Childcare

This section looks to address the future demand for Childcare centres within the Blacktown region.

In meeting the needs of the catchment and its future residents from a non-retail perspective, we have also identified a 'childcare centre' as a candidate tenancy for the subject health precinct at Blacktown.

In this section, for clarity, when reference is made to the 'Blacktown Area', we are referring to the area including the Blacktown CBD stretching through to area inclusive of the subject health precinct and the Hospital. This Area is shown on Figure 13.

Figure 18: Study Area Delineation, 'Blacktown Area'



Source TPA (2019)

10.1 Existing & Proposed Childcare Centres

There are currently 787 places within the catchment over 15 centres. There is one large centre (with more than 100 places), 7 moderate-sized centres (50-100 places) and 7 small childcare centres (less than 50 places). The closest competition to the subject precinct is the centres located within Blacktown Hospital, along Main Street, along Campbell Street. These centres provide approximately 320 places.

At present there are 2 proposed childcare centres in the Blacktown Area with well over 190 places in the pipeline to 2022. The largest proposed centre is the Third Avenue Mixed Use Development (VISION Blacktown) with an anticipated 151 Places.

The childcare centres within Macquarie Park primarily serve local workers and students, but with more residential apartments being built there will likely be demand for even more childcare services in the area. There could even be potential to provide childcare to staff and students of Macquarie University given the site's proximity to the campus.

10.2 Gap Assessment

Our market gap assessment for child care places is provided in the table below.

Child care places could also potentially be filled by residents from outside of Blacktown Area and as well as by the children of parents that work in or near the catchment area. MacroPlan also escalated containment rate (as below) based upon the fact that Blacktown is the fastest growing LGA in Australia with its population and employment, and those trends across Greater Sydney seen due to an increasing demand for childcare.

In November 2016, DP&E NSW also recognised that there is a shortage of high quality and safe child care facilities. According to their findings, more child care centres are required to address shortages and meet projected demand for 2,700 more long day centres by 2036²⁸.

Table 30: Demand for ILUs, In terms of persons

	2016	2021	2026	2031	2036
Population Projections (person, Blacktown SA3)					
No. of 0-4 years old	10,680	11,418	11,972	12,488	12,972
Est. Childcare Demand (% of Blacktown SA3)					
% of attendance 0-4 years old	35%	40%	45%	45%	45%
Containment Rate (i.e. % of the SA3 demand could be contained in the Blacktown Area)					
Blacktown Area	25%	30%	30%	32.5%	32.5%
Est. Childcare Demand (number of places, Blacktown Area)					
Blacktown Area	935	1,370	1,616	1,826	1,897
Est. Childcare Supply (number of places, Blacktown Area)					
Blacktown Area	787	827	978	978	978
Shortage/Surplus	148	543	638	848	919

Source: MacroPlan (2019), ABS Census (2016)

We estimated that there is currently unmet demand for 148 units in the Blacktown Area. It is expected to grow rapidly to 638 places by 2026 and 919 places by 2036.

²⁸ More quality child care where it is needed (Ministerial Media Release) - <http://www.planning.nsw.gov.au/News/2016/More-quality-child-care-where-it-is-needed>

10.3 Development Potential for PBSA at Blacktown

Based on our gap assessments, we identified that there is development potential within the Blacktown Area for 600 to 650 places by 2026. MacroPlan envisages that the Blacktown Health Precinct is well-located to absorb about 60% of the total market demand for the Blacktown Area, equating to 2 large-scale centres (100-150 places each) and 2-4 small to moderate scale centres (50-100 places each).

Allowing 7-10 m² GFA for average/typical child care place size (i.e. per place), we anticipate that a provision of between 2,500 and 3,500 m² GFA is required for future childcare centres.

11. Conclusion

The potential Blacktown Health Precinct is strategically located as a basis of greater housing and employment provision for Blacktown CBD (and its surrounds) and more commuters/visitors to the area and is therefore able to 'tap into' the economic opportunity that the precinct's accessibility and exposure presents.

- Contributing synergistically to the growth and strength of the Western Sydney region with a form of development and land uses that are suitable for the edge of the centre and complement the Blacktown CBD core.
- Increasing the employment floor space area and potential number of jobs on the proposed precinct area.
- Broadening the diversity of business and employment sectors permitted on the proposed precinct area. These new businesses and employment opportunities can 'cluster' at the Blacktown Health Precinct, ensuring mutual co-location benefits that support the wider Western Sydney region.
- Retaining potential for contemporary high-tech & R&D industries, modern health-related industries and service industries forms that are suitable for the potential Blacktown Health Precinct.
- Consistency with strategic directions and priorities in the Greater Sydney Regional Plan and the relevant District Plans (the Greater Sydney Commission).
- Improved pedestrian and cycle accessibility, and road connectivity, whilst also providing a safe access for local residents and commuter from/to Blacktown station.

The potential Blacktown Health Precinct can enhance the employment capacity and the local employment opportunities. This additional capacity will allow the Blacktown Health Precinct to contribute to the Blacktown City Centre transformation project.

In its fully evolved form, the proposed Blacktown Health Precinct can employ between 2,800 and 3,200 employees. Macroplan envisages that the Blacktown Health Precinct can generate an Industry Value Added (IVA) of close to \$250M to \$270M per annum (MacroPlan, 2019).

Furthermore, the Health Precinct can deliver more health service provision and the level of local services and amenities (e.g. specialist, medical/health service providers) for Blacktown and the Western Sydney region generally. It capitalises on the site's distinctive location strengths and has potential to trigger much needed local investment and job creation as well.