Footscray Clinical Hub

Economic assessment of proposed private hospital

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Document details

Deep End Services
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Contact
Deep End Services Pty Ltd
Suite 304
9-11 Claremont Street
South Yarra VIC 3141

T +61 3 8825 5888
F +61 3 9826 5331
deependservices.com.au

Enquiries about this report should be directed to:

Matthew Lee
Principal
matthew.lee@deependservices.com.au

Trudy Rigoni
Senior Associate
trudy.rigoni@deependservices.com.au

Contents

Tables + Figures

Executive Summary

A new healthcare development is proposed for a site opposite the New Footscray Hospital, on Geelong Road, Footscray

This development, the Footscray Clinical Hub ('FCH'), will provide a range of integrated clinical services to private and Medicare-funded patients, with a particular focus on surgical and procedural specialities.

The core of the new development will be a short-stay high volume surgical hospital. This private hospital component of the development will be complemented by a range of outpatient health services that will provide patients with a one-stop shop for their treatment journey. The outpatient services will include specialist medical consultation, diagnostic imaging, pathology and allied health. This clustering of services in a convenient location will lead to better patient outcomes, improved access and higher clinician productivity and reflects state of art healthcare delivery trends.

The subject site is in a strategic position within the Footscray Metropolitan Activity Centre, at the gateway to Melbourne's western suburbs, directly opposite the New Footscray Hospital ('NFH') which is currently under construction and due for completion in 2024.

Co-located with the new public hospital, the FCH will augment and expand the regional health offering, reducing or eliminating the need for patients to access private specialist services outside the region.

The Footscray Clinical Hub responds to an overwhelming need for additional private health capacity in the region, particularly for private hospital operating theatres and beds

The FCH will serve a region extending throughout Melbourne's western suburbs, accounting for around 20% of Melbourne's population, and containing fast-growing areas on the western fringe.

The region's demand for health services will increase significantly due to population growth across age groups, existing chronic health conditions, the incidence of health risk factors such as obesity, growing affluence and, ultimately, increases in private health insurance coverage.

The private sector has an important role to play in serving future healthcare demands, as it bears a significant proportion of the burden of total surgical care, accounting for around 60% of all surgical services[1].

Healthcare demand modelling shows that there is significant unmet demand for private hospital capacity in the region, particularly in acute health services, which is the core target market for the FCH. The modelling shows demand for approximately 1,500 private hospital beds (including 760 acute beds) and 47 operating theatres in 2023, with growth of another 520 hospital beds (376 acute beds) and 14 theatres over the next ten years.

The existing provision of around 269 private hospital beds and 15 operating theatres represents a significant under-capacity when compared to modelled demand.

[1] Australian Private Hospital Association, Federal Budget submission 2021-22

The effect is that residents in the region are obliged to travel long distances to access private facilities in the existing healthcare precincts in which most private hospitals are located. These precincts are mainly in the inner city, eastern and southern suburbs. Alternatively, patients will use local public facilities, therefore placing added pressure on an already stretched public health system.

The development will generate important healthcare benefits

The development of a new private facility within Melbourne's west will improve both access to and the effectiveness of health services within a geographic region that has been poorly served in this regard, especially in terms of private hospitals.

To the extent that improved access to healthcare services would lead to more timely health care, this has potential to lead to better health outcomes for the local community and added convenience for patients.

The co-location of integrated in and outpatient services will also provide a more seamless patient experience, consistent with state-of-the-art clinical care models. This will avoid the fragmentation of care and ultimately lead to improved clinical outcomes.

The development has potential to generate positive effects on the healthcare system

The FCH will improve the operation of the healthcare system in Melbourne's western suburbs, by:

- Attracting quality specialists by providing a local base for private sector work, important for those who work in both public and private sectors.
- Creating additional surgical capacity that can be utilised by the public health system on a contingent basis, as circumstances require.
- Improving efficiencies by reducing duplication and allowing for shared facilities, staffing and equipment.
- Providing a catalyst for further investment into health facilities in the surrounding area, consistent with the evolution of medical and innovation clusters elsewhere in Australia.

The development will generate economic benefits during construction and operation

Development of the FCH would:

- Attract capital investment of $164m.
- Directly generate 390 full-time equivalent (FTE) jobs during construction project, and another 685 FTE jobs indirectly through industry linkages.
- Directly generate 380 staff during ongoing operation (340 jobs measured in FTE terms), with another 470 jobs created indirectly in the wider economy.
- Provide local employment opportunities for some of the 17,000 residents in Melbourne's west who currently work in the hospital sector; more than 7,000 of these people currently travel outside the region to work.

1

Introduction

1.1 Background

Erica Healthcare Partners Pty Ltd ('EHCP') have commissioned this report to examine a proposed healthcare development, the Footscray Clinical Hub ('FCH'). The FCH is to be located at 5-11 Geelong Road, Footscray, immediately opposite the New Footscray Hospital ('NFH') which is currently under construction and due for completion in late 2025.

The proposal is for a multi service healthcare development anchored by a private high volume, short-stay surgical hospital with a large 5 theatre operating unit and 48 inpatient beds. Other clinical facilities proposed for the FCH include a stand-alone endoscopy unit, a cardiac investigation unit with a cardiac catheter laboratory; a comprehensive medical imaging centre with MRI and CT; and day rehabilitation centre and consulting rooms for specialists.

1.2 Scope

This report has been prepared to examine the proposed development from an economic perspective, including:

- Analysing the need for additional hospital capacity and associated specialist health services, and
- Assessing the economic and community benefits that would be generated if the proposed development were to eventuate.

The report has been prepared to accompany an application to the Development Facilitation Program ('DFP') at the Department of Transport and Planning ('DTP') to help progress the project.

1.3 This report

Part A of the report presents contextual information including a review of the site's regional and local context, a summary of existing planning controls, a description of the proposed development, and a summary of population and demographic trends in a defined study region.

Part B considers the need for additional medical services to be provided at the proposed development. Demand factors include age-specific population trends that influence medical service demand, presence of existing health conditions, and trends in private health insurance coverage. Supply-side factors include an assessment of the location of existing hospitals and service accessibility and coverage.

Part C examines the economic outcomes arising from development of the proposed Footscray Clinical Hub. These include health system improvements associated with the co-location of public and private health facilities; measurable economic outcomes such as employment generation during construction and operation; and other economic and community benefits such as reduced travel time and opportunities for improved health outcomes.

PART A: BACKGROUND

2

Context

2.1 Regional context

The FCH will be located at the gateway to Melbourne's west, and adjacent to the NFH which is under construction at the intersection of Ballarat Road and Geelong Road.

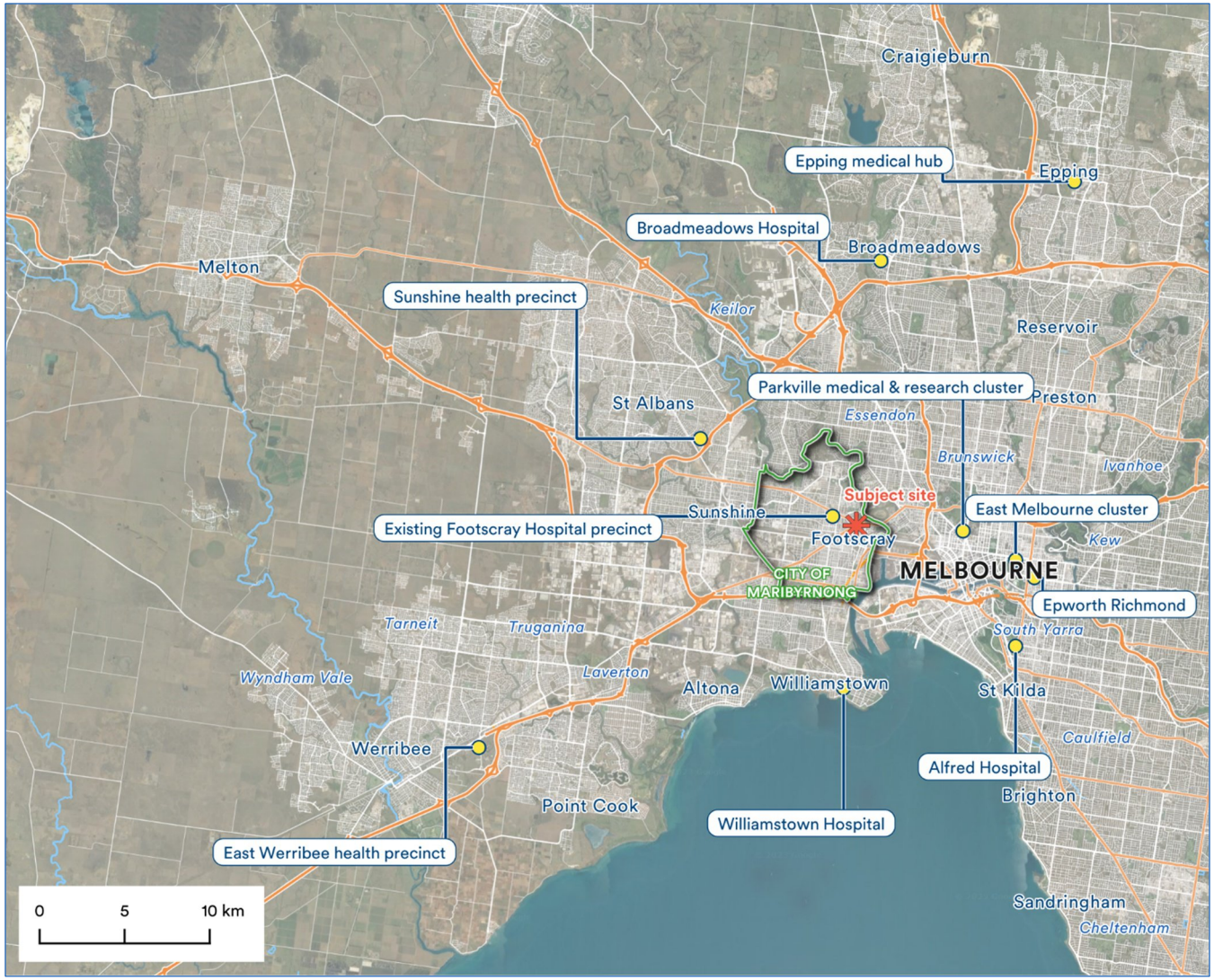
Just as the NFH is intended to upgrade public health services for residents throughout the western region of Melbourne, FCH will introduce new private health facilities to augment and expand the regional health offering, reducing or eliminating the need for patients to access private specialist services outside the region.

Melbourne's western region has long been identified as lacking in health service provision, with other health precincts only at Sunshine and East Werribee. Otherwise, the major health clusters are within the inner city and the eastern and southern suburbs, as shown in Figure 1.

The site is in the suburb of Footscray, close to the commercial heart of the activity centre which is expected to undergo significant change and growth as new commercial, residential and community uses are attracted to the centre.

Regional road connections are excellent, with the site adjacent to Geelong Road which extends south-west to merge onto the Princes Freeway. Ballarat Road is nearby and provides a connection to the Metropolitan Ring Road and Western Freeway.

Figure 1—Regional context map



Source: Deep End Services; OpenStreetMap; Google; QGIS

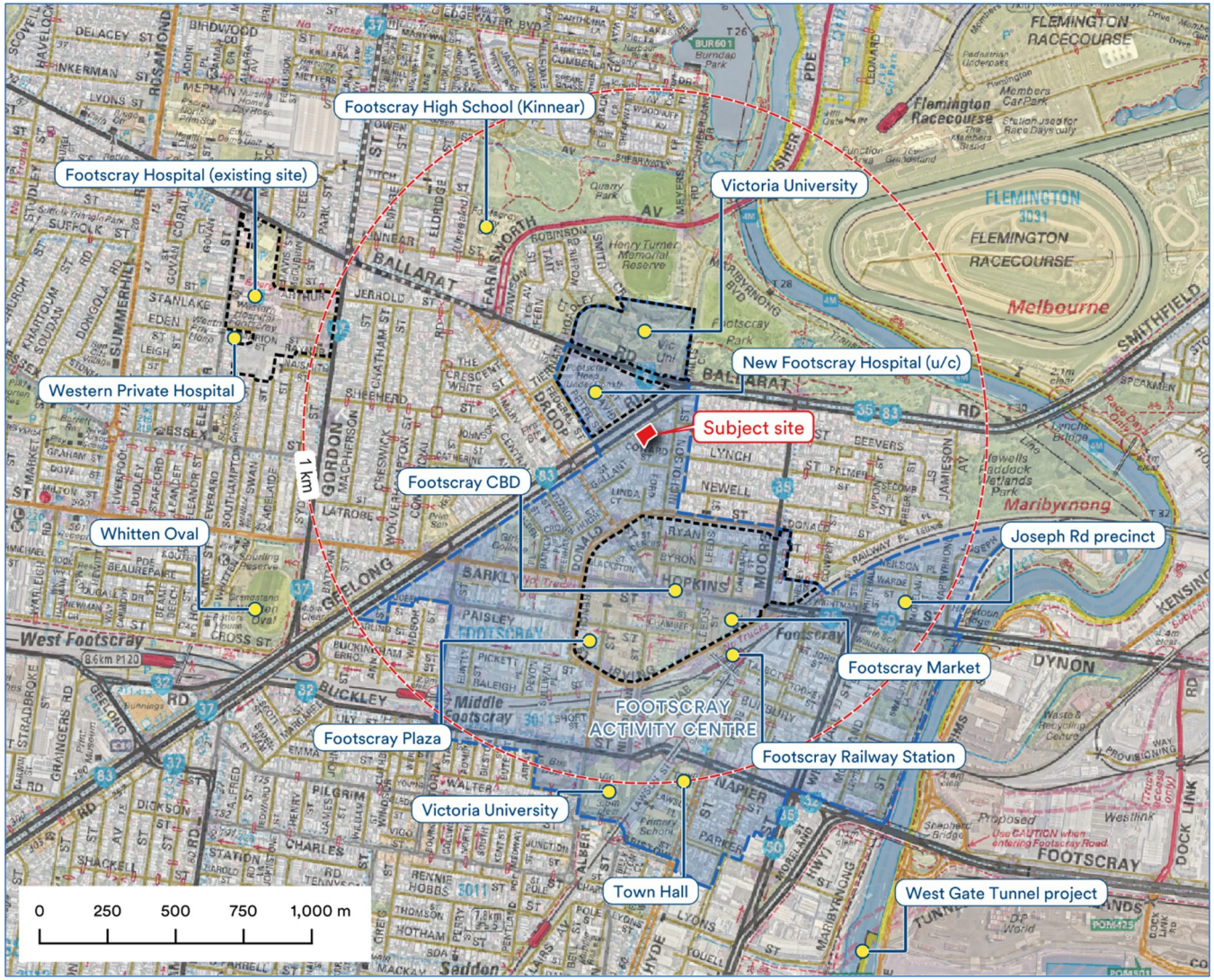
2.2 Site location

The subject site is an amalgamated parcel of four properties with a combined area of 0.23 ha, located on the southern side of Geelong Road (Princes Highway), Footscray and immediately opposite the NFH campus to the north.

An existing service road along the Geelong Road frontage provides immediate access to the site's front entry, while regional accessibility is provided by the nearby confluence of Geelong Road and Ballarat Road.

The site forms part of the Footscray Metropolitan Activity Centre (MeAC) which incorporates most of the area between the Maribyrnong River and Geelong Road and extends north to include the NFH and the Victoria University - Footscray Campus. The activity centre enjoys a wide mix of uses and is expected to transition in the future to accommodate more significant residential, commercial and community uses.

Figure 2—Local context map



Source: Deep End Services; AusWay; NearMap; QGIS

2.3 New Footscray Hospital

The NFH is the catalyst for the development of the FCH. The NFH is a major project of State significance with goal of creating a world-class facility to meet the growing demands of Melbourne's west. The project is the largest ever health infrastructure investment in Victoria, with a capital budget of $2 billion. When it is complete in September 2025, it will replace the current Footscray Hospital which opened 70 years ago on its nearby Gordon Street campus. The new facility will be delivered as a Public Private Partnership, with Plenary Health as the development consortia and Western Health as the public operator of clinical services.

The new hospital will have 608 points of care (including 508 beds, 8 operating theatres and 4 cardiac catheter laboratories) with an additional 86 points of care in shell space, ready to be activated to accommodate future growth in demand (refer Table 1).

These facilities represent a significant increase on the current hospital's capacity. Compared to the existing facility, the new hospital will treat approximately 15,000 additional patients and enable around 20,000 additional people to be seen by the emergency department each year. With this increase in surgical capacity and modernisation of operating room facilities, the NFH will function as Western Health's main surgical site, providing a home for the most complicated surgical services and a range of surgical sub-specialties.

In addition to surgical services, the NFH will provide a full range of acute medical and sub- acute care including mental health, drug and alcohol interventions, palliative care and other clinical services including an emergency department, specialist diagnostic facilities and teaching and research spaces (in collaboration with Victoria University).

Table 1—NFH points of care

Department	Fitted-out	Shell space	Total potential capacity
Multi Day Medical/Surgical Inpatient Unit beds	224	28	252
Critical Care Beds	54		54
Emergency	50		50
Multi Day ED Short Stay Beds	24		24
Mental Health and Alcohol and Other Drugs Hub	8		8
Acute Dialysis Beds	8		8
Perioperative Operational Rooms	8	2	10
Perioperative Recovery	18	9	27
Perioperative Procedure	4	4	8
Interventional Labs	4		4
Interventional Recovery	8		8
Same Day Medical/Surgical beds	36	14	50
Rehab/GEM/Palliative Care Inpatient Unit Beds	96	4	100
Mental Health Inpatient Unit Beds	50	25	75
Drug and Alcohol Beds	16		16
Total	**608**	**86**	**694**

Source: New Footscray Hospital Project Summary, Department of Treasury and Finances (May 2021)

The proposed FCH would be positioned opposite the acute services wing of the main hospital building on Geelong Road. This part of the hospital will accommodate perioperative services, cardiology, surgical and medical inpatient units, the emergency department and other acute services. The entry to the acute services wing is immediately opposite the proposed FCH, while the emergency department entry is just 100m to the west at the Federal Street corner.

The proximity between the hospitals would create important synergistic opportunities, especially for specialists working in both the public and private sectors. Given the NFH's role and its mix of facilities, significant numbers of specialists in the following disciplines are likely to work at the sites:

- Orthopaedic surgery
- General surgery
- Urology
- Plastic and reconstructive surgery
- Vascular surgery
- Interventional cardiology
- Endoscopy.

Most of these specialists treat private patients in addition to the work undertaken in public hospitals such as the NFH. The FCH will provide specialists with mixed practices in these areas with an easily accessible facility for the treatment of local private patients. This will enhance their productivity and increase the time they spend in the western suburbs treating public and private patients.

Figure 3—New Footscray Hospital Context

Source: Western Health; Plenary Health

2.4 Planning context

The subject site is within the ACZ – Schedule 1 which applies across the Footscray MeAC as shown in Figure 4.

The ACZ is designed to encourage a mixture of uses and the intensive development of the MeAC as a focus for business, shopping, working, housing, leisure, transport and community facilities. Land use objectives aim to attract a broad mix of employment-based activities and to provide services that meet the needs of the community.

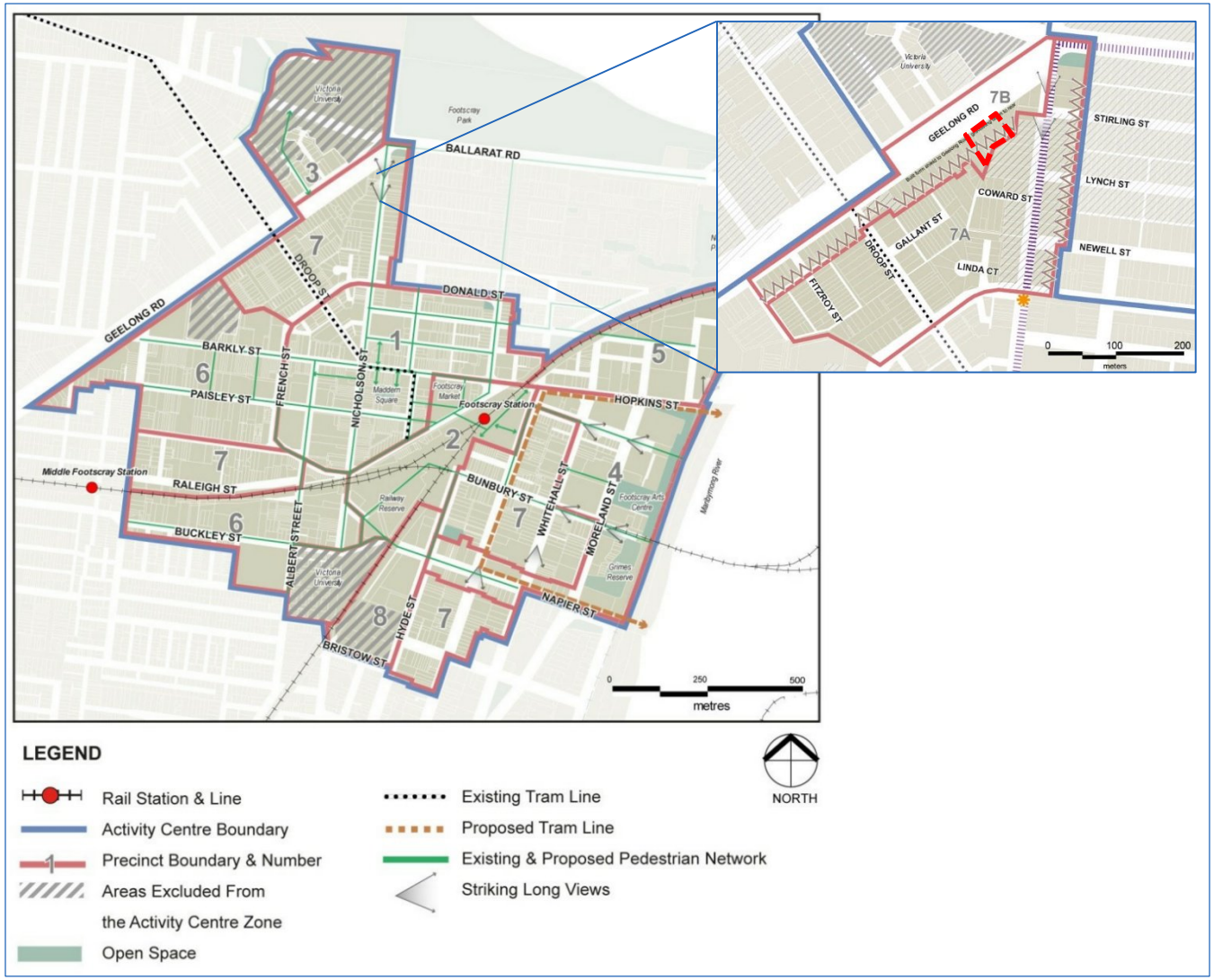
As the Framework Plan was prepared prior to the announcement of the NFH, there is little reference to improved medical facilities other than to add to the small existing cluster on Paisley Street. The introduction of the NFH and its linkages with Victoria University fundamentally alter the nature of the northern part of the MeAC (ie Precincts 3 and 7).

Precinct 3 encourages further development for university and related activities.

Precinct 7A, which incorporates the subject site, is designated 'Neighbourhood', where the emphasis is on protection of residential amenity.

These planning controls require review given the significant investment and change occurring within this part of the MeAC.

Figure 4—Footscray Framework Plan (ACZ1)



Source: City of Maribyrnong Planning Scheme Cl 37.08 – Schedule 1

3

Proposed development

3.1 Overview

The proposal is to develop an integrated healthcare facility comprised of:

- A specialist high volume short stay surgical hospital with state of the art operating rooms, a cardiology investigation unit with a cardiac catheter laboratory, a two-room endoscopy suite and 48 inpatient beds
- A comprehensive medical imaging centre with a full range of modalities including MRI, CT and digital X-Ray
- An allied health unit, providing a range of day or outpatient services including prehabilitation care to prepare patients for short-stay surgery and rehabilitation care to assist with post-operative recovery
- Consulting suites where specialists can provide pre- and post-operative care.

The development would be supported by 108 on-site car spaces, including some with EV charging capability and end-of-trip facilities including secure bicycle storage and shower and change rooms.

The proponent for the project is EHCP, a grouping of highly experienced healthcare executives, entrepreneurs and doctors who have identified an opportunity to improve local healthcare provision in Melbourne's west and to leverage from the significant expansion and improvement in public health services to be provided at the NFH.

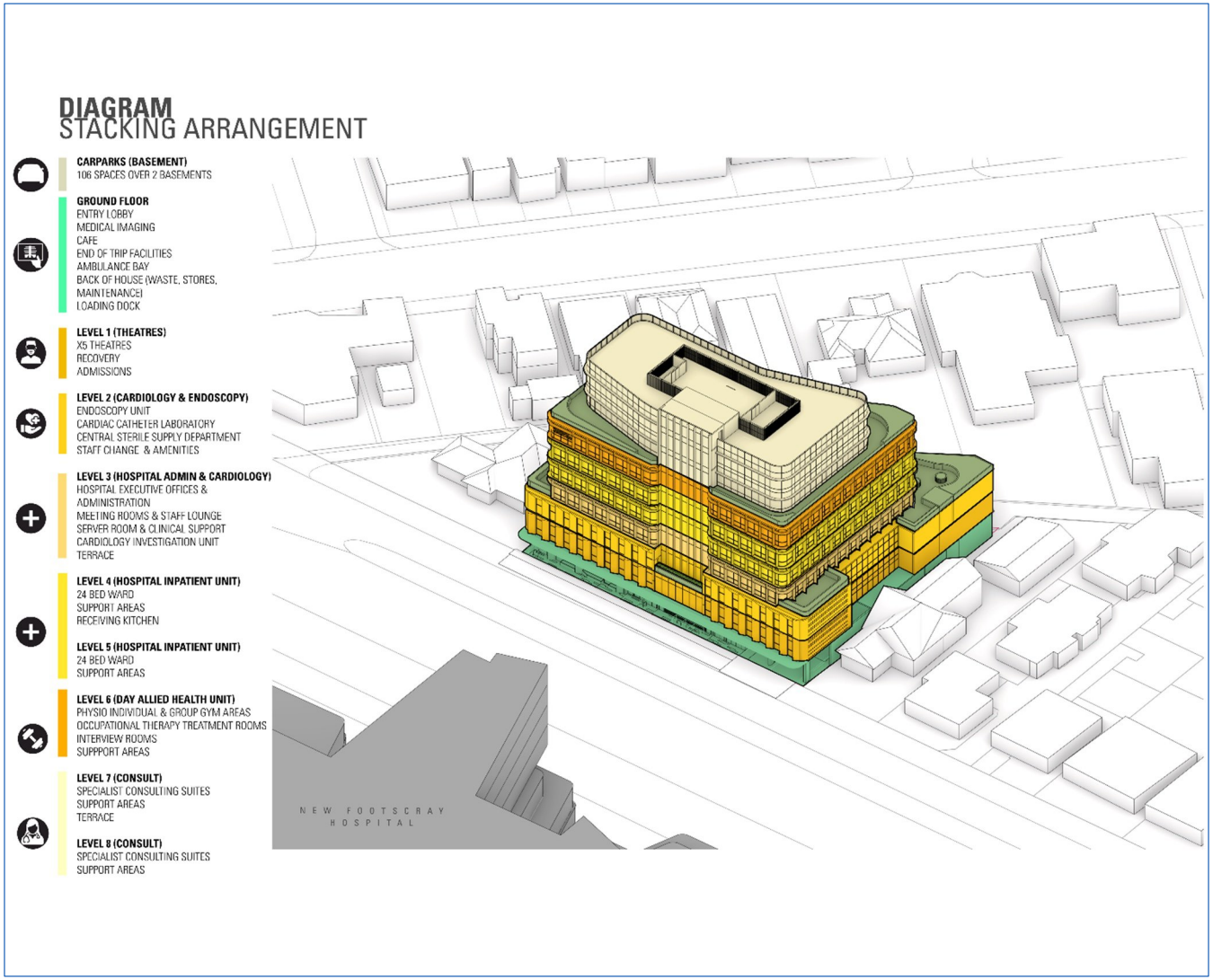
Figure 5—Indicative development concept - render

Source: Erica Healthcare Partners (subject to revision)

3.2 Development plan

A plan package has been prepared by HSPC Architects for assessment by the DTP. The plan for the FCH provides for approximately 12,110 sqm gross floor area (GFA) over 9 levels, excluding basement car parking.

Figure 6—Indicative stacking diagram



Source: HSPC

4

Study region

4.1 Introduction

The western suburbs are expected to be the source for most admissions within the proposed FCH, having regard to settlement patterns, accessibility to the site, and the current usage of health facilities in the region.

Along with factors such as road network and travel patterns, the geographic extent of the study region is also influenced by the existing clustering of existing health services in inner Melbourne and to the east of the CBD, as noted later in this report at Chapter 7.

This Chapter includes a description of the study region used later in the analysis, and a summary of population trends and the demographic characteristics of people living within the study region.

Chapter 6 of this report contains an analysis of the need for additional private hospital and other private health services for the community living within the study region.

4.2 Study region definition

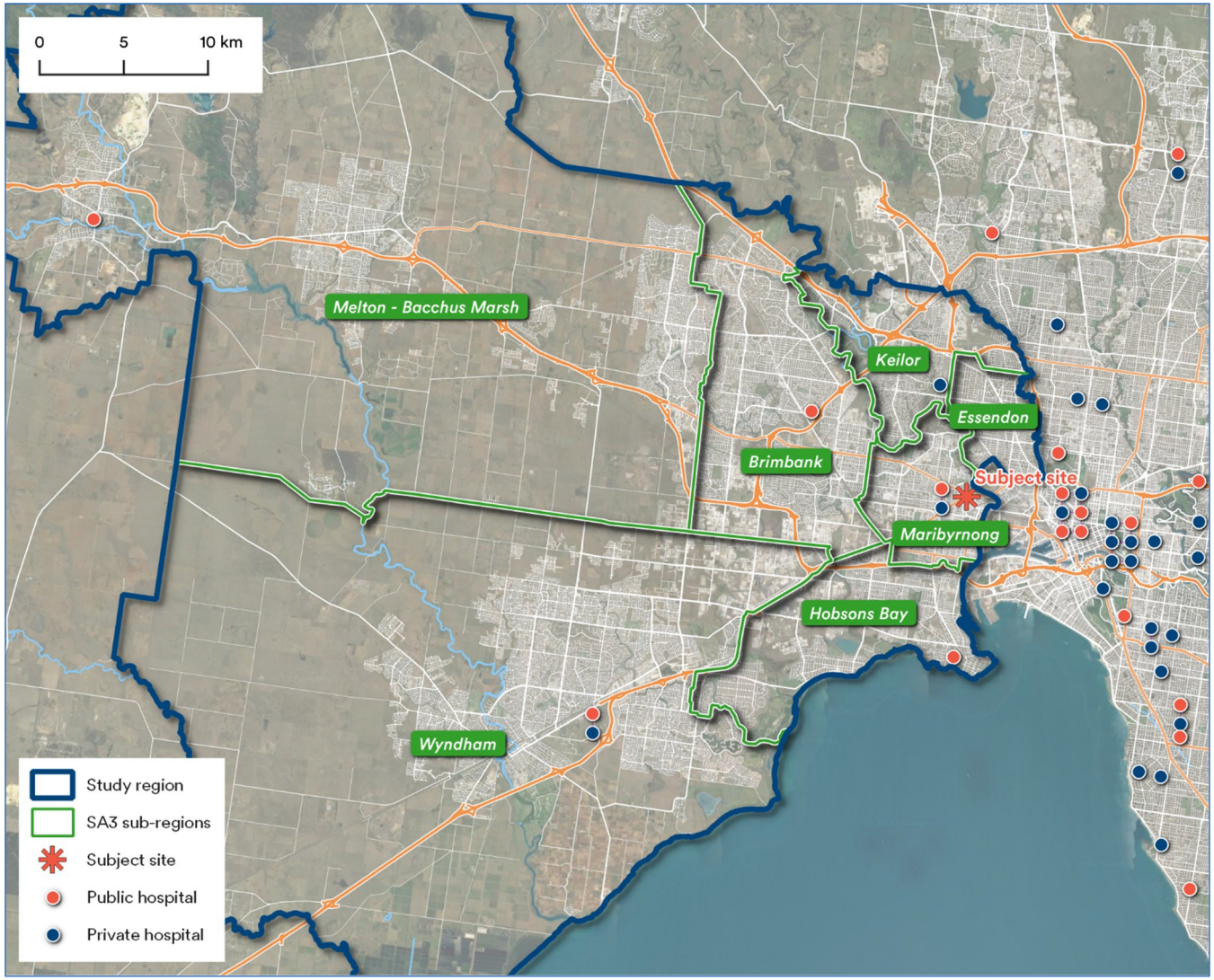
The study region has been defined with reference to Statistical Area 3 (SA3) geographics as defined by the Australian Bureau of Statistics (ABS), as shown in Figure 7. The region contains most of the local government areas (LGAs) of Brimbank, Hobson's Bay, Maribyrnong, Moonee Valley, Melton and Wyndham. It also covers the bulk of the Western Health service area, apart from the Sunbury area.

This is an extensive catchment which incorporates a wide variety of urban settlement patterns, including inner-city suburbs that are now going through a new cycle of redevelopment and change; middle-ring suburbs in which the population is still ageing in place and only incremental change is likely over the next 10-20 years; and new suburbs on the urban fringe where rapid greenfield development is ongoing.

In very broad terms, the study area can be grouped into the more established communities of Maribyrnong, Essendon, Hobsons Bay, Keilor and Brimbank, and the new growth corridors along the Princes Freeway (Wyndham) and the Western Freeway (Melton-Bacchus Marsh).

The varying socio-economic, demographic and epidemiological characteristics across the study region will have a significant impact on the mix and volume of health services uses, and in particular private health services.

Figure 7—Study region definition



Source: Deep End Services; ABS; Google; OSM; QGIS

4.3 Region overview

Population trends

The population within the study region has been increasing rapidly over the last 20 years, from 567,423 residents in 2001 to an estimated 995,516 in 2021, for which the latest data is available. This represents average growth of 21,405 new residents each year, or an average annual growth rate of 2.9%.

Notwithstanding the effects of COVID, which has led to population loss in established suburbs, the study region as a whole has continued to grow as a result of even faster population increases in Wyndham and Melton-Bacchus Marsh.

The rate of growth occurring within the study region is far more rapid that across Melbourne as a whole, which grew at a rate of 1.8% over the period 2001 to 2021.

This means that the study region's share of the total Melbourne population has increased from 16.2% in 2001 to 20% in 2021. Throughout this period, the study region accounted for 29% of all population growth across Melbourne.

Table 2—Study region population trends

Sub-region (SA3)	2001	2006	2011	2016	2021	2001-21
Population						
Maribyrnong	60,848	65,518	75,154	86,942	86,398	+25,550
Essendon	57,155	58,818	63,695	70,335	69,440	+12,285
Hobsons Bay	78,274	79,493	82,754	88,419	87,464	+9,190
Keilor	56,978	55,836	57,131	61,513	62,120	+5,142
Brimbank	157,872	165,294	182,862	195,201	188,119	+30,247
Wyndham	91,184	119,574	171,340	232,034	301,004	+209,820
Melton - Bacchus Marsh	65,112	94,263	128,226	159,962	200,971	+135,859
Total study region	**567,423**	**638,796**	**761,162**	**894,406**	**995,516**	**+428,093**
Population growth (No. per annum)						
Maribyrnong	-	934	1,927	2,358	-109	1,278
Essendon	-	333	975	1,328	-179	614
Hobsons Bay	-	244	652	1,133	-191	460
Keilor	-	-228	259	876	121	257
Brimbank	-	1,484	3,514	2,468	-1,416	1,512
Wyndham	-	5,678	10,353	12,139	13,794	10,491
Melton - Bacchus Marsh	-	5,830	6,793	6,347	8,202	6,793
Total study region	**-**	**14,275**	**24,473**	**26,649**	**20,222**	**21,405**
Population growth (% per annum)						
Maribyrnong	-	1.5%	2.8%	3.0%	-0.1%	1.8%
Essendon	-	0.6%	1.6%	2.0%	-0.3%	1.0%
Hobsons Bay	-	0.3%	0.8%	1.3%	-0.2%	0.6%
Keilor	-	-0.4%	0.5%	1.5%	0.2%	0.4%
Brimbank	-	0.9%	2.0%	1.3%	-0.7%	0.9%
Wyndham	-	5.6%	7.5%	6.3%	5.3%	6.2%
Melton - Bacchus Marsh	-	7.7%	6.3%	4.5%	4.7%	5.8%
Total study region	**-**	**2.4%**	**3.6%**	**3.3%**	**2.2%**	**2.9%**
Melbourne - Persons	3,500,250	3,760,750	4,169,350	4,714,400	4,976,150	+1,475,900
- Average annual growth	-	1.4%	2.1%	2.5%	1.1%	1.8%

Source: ABS

Population trends by age

Table 3 summarises changes in the study region population by age cohort.

The study region displays significant population growth across different service age groups generating demand for health services, including:

- An increase of 32,410 in young children (0-4 years) generating demand for neonatal and paediatric services
- An increase of 146,066 in adult age groups covering family formation and child-rearing (25-44 years)
- An increase of 57,245 people in older age groups (65+) that generate demand across a range of procedures.

Overall, the wide age profile coupled with strong population growth provides a strong basis for ongoing increases in medical facility provision, as highlighted later in this report.

Table 3—Population by age 2001-2021

Age cohort	2001	2006	2011	2016	2021	2001-21
Population						
Under 4	39,407	44,309	56,671	70,401	71,817	+32,410
5 to 14	79,738	85,248	94,864	115,200	138,063	+58,325
15 to 24	79,528	90,002	105,714	116,345	118,488	+38,960
25 to 34	94,551	103,912	132,486	157,792	166,972	+72,421
35 to 44	91,390	101,854	119,866	137,089	165,035	+73,645
45 to 54	75,956	85,874	97,828	111,153	122,188	+46,232
55 to 64	47,121	60,259	74,950	87,518	95,976	+48,855
65 to 74	33,911	36,337	43,418	57,515	68,755	+34,844
75 to 84	20,276	24,138	25,959	29,611	34,677	+14,401
85 and over	5,545	6,863	9,406	11,782	13,545	+8,000
Total	**567,423**	**638,796**	**761,162**	**894,406**	**995,516**	**+428,093**
Population growth (no. per annum)						
Under 4	-	980	2,472	2,746	283	1,621
5 to 14	-	1,102	1,923	4,067	4,573	2,916
15 to 24	-	2,095	3,142	2,126	429	1,948
25 to 34	-	1,872	5,715	5,061	1,836	3,621
35 to 44	-	2,093	3,602	3,445	5,589	3,682
45 to 54	-	1,984	2,391	2,665	2,207	2,312
55 to 64	-	2,628	2,938	2,514	1,692	2,443
65 to 74	-	485	1,416	2,819	2,248	1,742
75 to 84	-	772	364	730	1,013	720
85 and over	-	264	509	475	353	400
Total	**-**	**14,275**	**24,473**	**26,649**	**20,222**	**21,405**

Source: ABS

Socio-demographics 2021

Data on demographic characteristics for the study region is set out in Table 4 and compared against Melbourne averages.

The key points to note are:

- Economic indicators are for less educated workers mainly employed in blue collar occupations. However, this masks differences across the study region, with the inner-city sub-regions of Maribyrnong, Essendon, Hobsons Bay exhibiting a strong white-collar orientation with highly educated workers.
- The study region has a younger age profile overall, but this is influenced mainly by new family formation in the Wyndham and Melton growth corridors, with an older profile in the more established sub-regions.
- Generally higher incomes in established sub-regions and lower incomes in growth areas (as well as in Brimbank).
- Relatively more homogenous Australian-born population but with pockets of immigration-led ethnicity in Brimbank and Wyndham and to some degree Maribyrnong. Similar patterns are evident in terms of ancestry.
- An emphasis on young family households in growth areas, but higher proportions of lone person and group households in inner sub-regions.

Table 4—Socio-demographic characteristics, 2021

Demographic characteristic	Maribyrnong	Essendon	Hobsons Bay	Keilor	Brimbank	Wyndham	Melton – Bacc. Marsh	Study region	Melbourne
Economic indicators									
White collar workers	61%	67%	60%	58%	39%	47%	43%	50%	55%
Bachelor degree or higher	41%	43%	32%	27%	20%	32%	21%	29%	33%
Age group									
0-4	6%	5%	6%	5%	6%	9%	8%	7%	6%
5-19	14%	15%	17%	18%	17%	22%	23%	19%	18%
20-34	29%	25%	18%	17%	23%	24%	22%	23%	23%
35-49	25%	22%	23%	20%	20%	25%	24%	23%	21%
50-64	16%	19%	19%	19%	18%	12%	14%	16%	17%
65-84	9%	12%	14%	18%	14%	7%	9%	11%	13%
85+	2%	2%	2%	3%	2%	1%	1%	1%	2%
Average age	37.3	39.4	40.3	42.7	39.2	32.2	34.1	36.2	38.8
Annual household income									
<$33,800	14%	14%	15%	16%	19%	10%	12%	14%	15%
$33,800 - $78,200	24%	23%	23%	25%	31%	25%	27%	26%	25%
$78,200 - $130,300	24%	23%	22%	22%	24%	29%	28%	26%	25%
$130,300 - $182,400	15%	13%	15%	16%	14%	19%	18%	16%	15%
>$182,400	22%	26%	24%	23%	12%	17%	15%	18%	20%
Average household income	$125,665	$132,915	$128,223	$123,917	$98,244	$120,804	$113,296	$117,814	$119,668
Country of birth									
Australia	61%	73%	71%	73%	48%	50%	66%	59%	63%
India	4%	3%	2%	2%	5%	18%	8%	9%	5%
Vietnam	10%	2%	2%	2%	15%	1%	2%	5%	2%
Philippines	2%	1%	1%	1%	3%	3%	3%	2%	1%
New Zealand	2%	2%	2%	1%	1%	3%	2%	2%	2%
Other	22%	20%	22%	22%	27%	24%	19%	23%	27%
Top 4 regions of ancestry									
North-West European	38%	43%	45%	33%	17%	25%	31%	30%	39%
Oceanian	24%	26%	30%	25%	16%	23%	29%	24%	27%
Southern and Eastern European	18%	27%	26%	41%	27%	13%	24%	22%	19%
Southern and Central Asian	7%	6%	4%	5%	10%	31%	16%	16%	12%
Household composition									
Couples with children	27%	28%	34%	38%	37%	49%	46%	40%	35%
Couples without children	25%	24%	25%	26%	22%	20%	21%	22%	25%
One parent family	10%	8%	11%	11%	16%	12%	14%	12%	11%
Lone person	30%	34%	27%	23%	21%	16%	18%	22%	25%
Group	8%	5%	3%	2%	4%	3%	2%	4%	4%

Source: ABS Census 2021

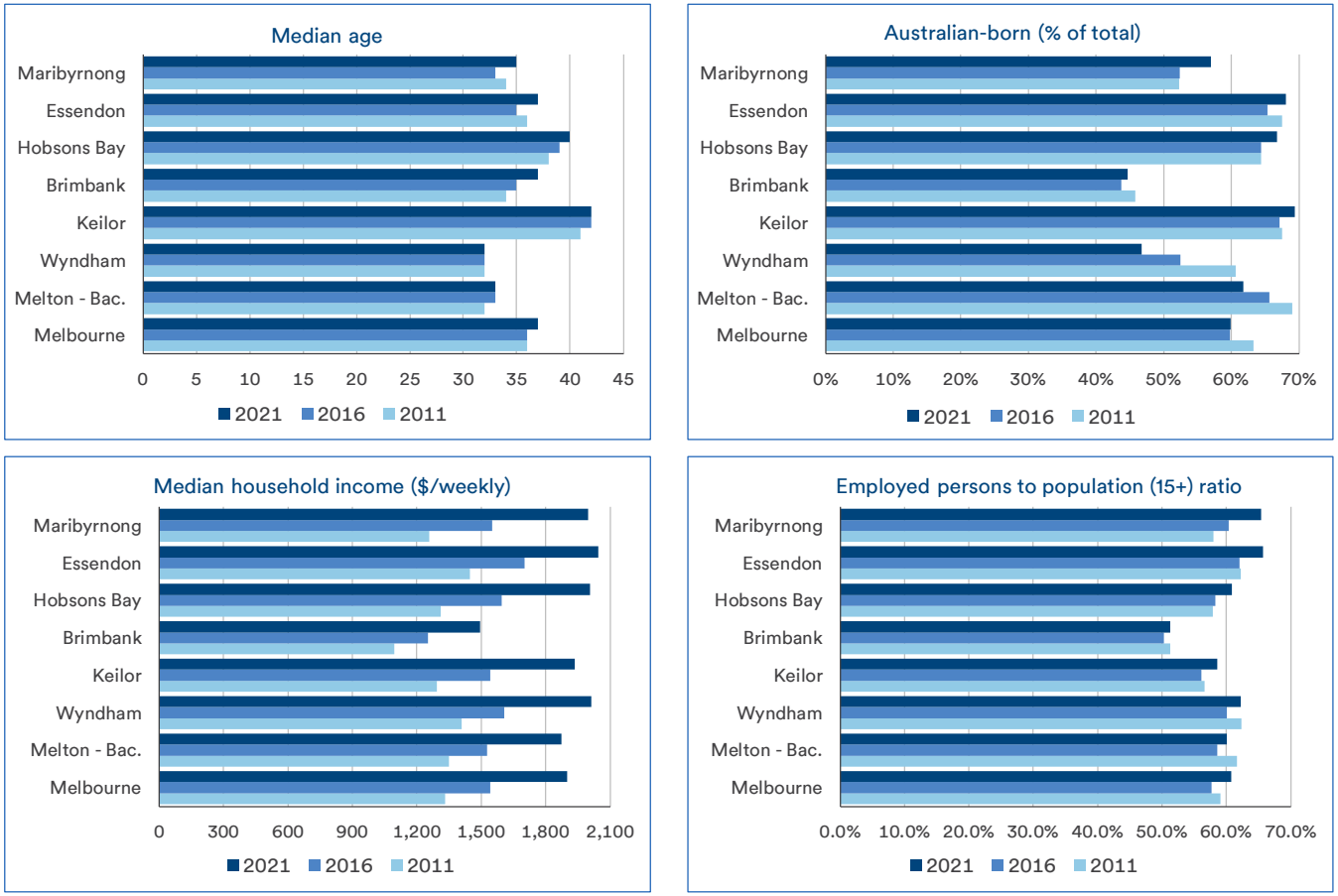
Demographic changes

The study region is undergoing significant change, both in terms of incoming families on the urban fringe, as well as gentrification and other changes evidence as the original immigrant communities evolve through generational change.

The charts in Figure 8 highlight the following changes:

- An ageing population emerging in inner sub-regions, although to some degree offset as new higher density development occurs and as suburbs undergo generational change with families replacing older residents now moving into aged care.
- Greater ethnic variation in new growth areas attracting migrant families.
- Increasing household incomes, at faster rates than across Melbourne more generally – particularly in sub-regions such as Maribyrnong, Essendon and Hobsons Bay where rapid gentrification is taking place.
- Improving employment to population ratio, generally contributing to greater incomes and opportunities.

Figure 8—Key demographic changes



Source: ABS Census 2011, 2016, 2021

PART B: NEED ASSESSMENT

5

Introduction

5.1 Methodology and data sources

Part B of this report presents an analysis of the need for future private health facilities of the type proposed for the subject site, and consists of:

- Chapter 6 which examines a range of contributing factors that underpin future demand for private hospital services;
- Chapter 7 which presents information on the number and distribution of existing and planned private hospital beds and analyses the existing provision with respect to local population levels and travel accessibility; and
- Chapter 8 which brings together the analysis of demand and supply and presents conclusions with respect to the need for additional private hospital facilities in the study region.

The key data sources used in this analysis include:

- The latest age-specific population estimates by the ABS (to 2021)
- Official population projections prepared by the Victorian Government (Victoria in Future, 2019) which include age-specific forecasts
- Post-COVID population projections by the Australian Government Centre for Population
- Information from the Australian Institute of Health and Welfare (AIHW) on age and gender-specific hospital attendances (separations) and health service demand (based on Medicare Benefits Schedule claims data)
- Information on the epidemiological characteristics of the study area population, drawing on Census 2021 data for long-term health conditions
- Health risk factors for the local population published by the Public Health Information Unit (PHIDU) at Torrens University
- Analysis of Private Health Insurance (PHI) coverage, drawing on data from the Australian Tax Office (ATO)
- Private hospital demand modelling by Hardes & Associates (HardesData), a recognised source for health demand forecasting
- Existing hospital bed supply based on various sources including AIHW, internal hospital databases held by Deep End Services, and information provided by Erica
- Proposed hospital developments, sourced from official announcements by the Victorian Government, development pipeline data from Cordell Connect and industry information provided by EHCP.

6

Private hospital service demand

6.1 Introduction

This section presents analysis of factors that influence existing and future demand for private hospital services and other private health services proposed to be provided at the FCH.

Factors driving general healthcare demand are analysed, from age-specific population growth forecasts to epidemiological contributions to health service requirements. Specific factors relevant to private sector health demand are also considered, including increased affluence and changes in private health insurance coverage.

This section also presents a summary of the results of detailed future hospital demand modelling undertaken by Hardes & Associates ('HardesData'). HardesData is an internationally recognised health demand analysis and forecasting service, based in Australia. The company has completed engagements for all Australian state and territory public health systems as well as the major private hospital operators including Ramsay Healthcare and Healthscope.

The HardesData projections are based on a proprietary methodology that incorporate factors such as age and gender profile and other demographic factors to forecast the underlying demand for hospital admissions across different specialisations.

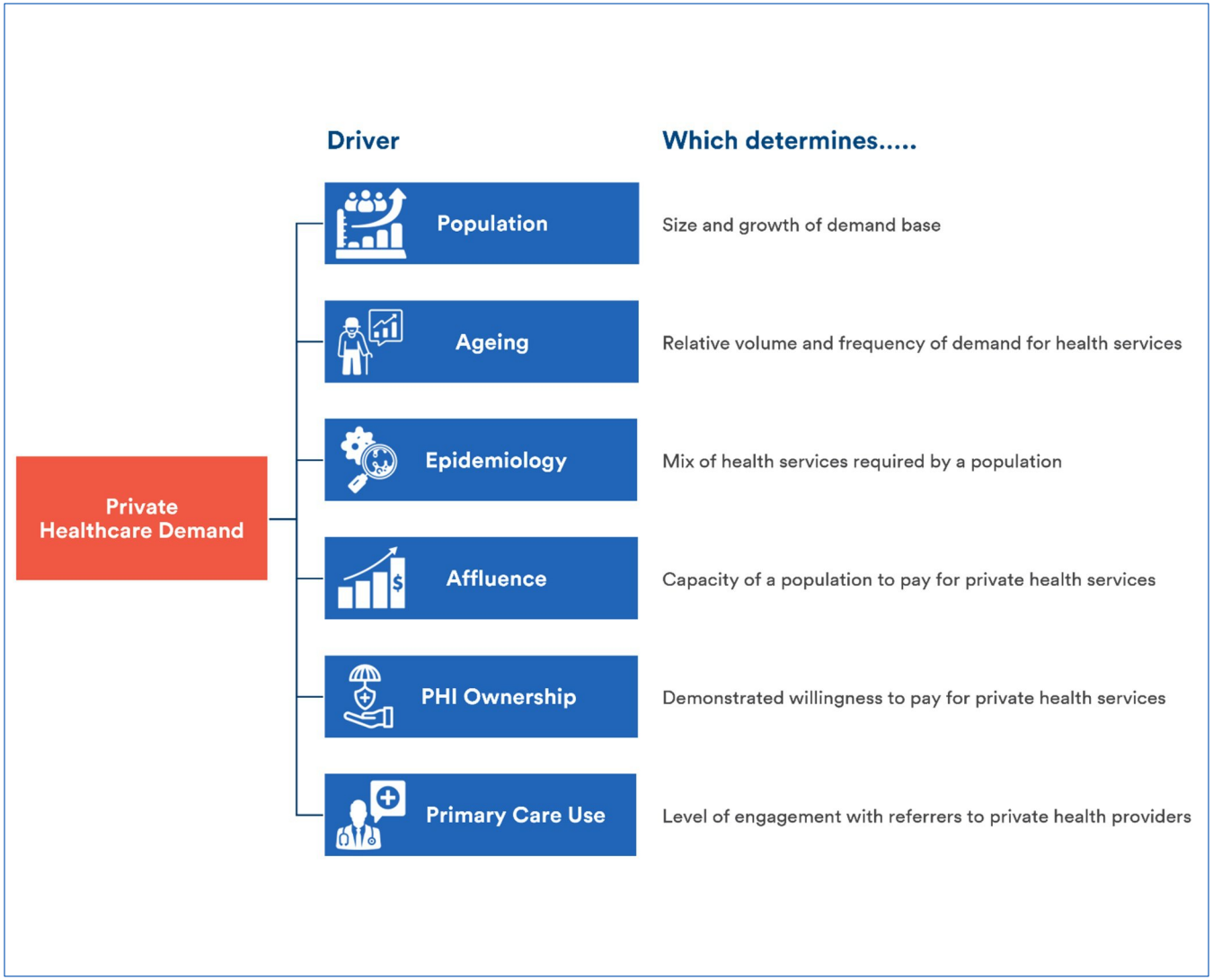
This data has been aggregated across specialisations to present an overview of the demand for additional private hospital beds generated by residents within the study region. SA3-based results are also presented to provide further granularity.

6.2 Private healthcare demand drivers

The demand for private health services, and in particular those delivered within a private hospital setting, is a function of six main drivers as illustrated in Figure 9.

Each driver is examined in subsequent sections in the context of the study region, highlighting the implications for private healthcare demand.

Figure 9—Drivers of private healthcare service demand



Source: EHCP

6.3 Population projections

The study region's population will exceed 1 million during the period 2021-2026, accounting for 20% of Melbourne's population in 2021 and with this share growing in the future as the region's rate of growth exceeds that of other parts of Melbourne.

As Table 5 illustrates, the study region is forecast to grow rapidly over the coming 15 years, adding more than 395,000 residents at an average rate of more than 26,000 people per year or 2.3% per year.

The most rapid growth is expected on the urban fringe where the Wyndham and Melton growth areas are expected to each add almost 10,000 new residents each year. Within the inner parts of the study region, strong growth is projected in Maribyrnong associated with high density projects in and around Footscray and elsewhere in the inner western suburbs.

These projections are based on official local level projections by the Victorian Government, published as 'Victoria in Future – edition 2019'. They have been adjusted to reflect recent trends through the COVID-19 pandemic and expected recovery profile over the next few years, drawing on the most recent forecasts by the Australian Government's Centre for Population.

Even in the absence of other factors, the significant pace of population growth will add to total healthcare demand generated by study region residents.

Table 5—Study region population projections

Sub-region (SA3)	2021	2026	2031	2036	2021-36
Population					
Maribyrnong	86,398	95,048	110,255	124,555	+38,157
Essendon	69,440	74,308	80,540	87,040	+17,600
Hobsons Bay	87,464	91,230	97,101	103,101	+15,637
Keilor	62,120	63,654	67,094	70,894	+8,774
Brimbank	188,119	195,392	203,442	212,642	+24,523
Wyndham	301,004	350,159	398,577	449,877	+148,873
Melton - Bacchus Marsh	200,971	242,009	290,944	343,044	+142,073
Total study region	**995,516**	**1,111,800**	**1,247,953**	**1,391,153**	**+395,637**
Population growth (No. per annum)					
Maribyrnong	-	1,730	3,041	2,860	2,544
Essendon	-	974	1,246	1,300	1,173
Hobsons Bay	-	753	1,174	1,200	1,042
Keilor	-	307	688	760	585
Brimbank	-	1,455	1,610	1,840	1,635
Wyndham	-	9,831	9,684	10,260	9,925
Melton - Bacchus Marsh	-	8,208	9,787	10,420	9,472
Total study region	**-**	**23,257**	**27,231**	**28,640**	**26,376**
Population growth (% per annum)					
Maribyrnong	-	1.9%	3.0%	2.5%	2.5%
Essendon	-	1.4%	1.6%	1.6%	1.5%
Hobsons Bay	-	0.8%	1.3%	1.2%	1.1%
Keilor	-	0.5%	1.1%	1.1%	0.9%
Brimbank	-	0.8%	0.8%	0.9%	0.8%
Wyndham	-	3.1%	2.6%	2.5%	2.7%
Melton - Bacchus Marsh	-	3.8%	3.8%	3.3%	3.6%
Total study region	**-**	**2.2%**	**2.3%**	**2.2%**	**2.3%**
Melbourne	**-**	**1.7%**	**1.7%**	**1.6%**	**1.7%**

Source: Deep End Services; ABS; Centre for Population (Australian Government); Victoria in Future 2019 (Dept Transport & Planning)

6.4 Ageing

Age-specific population projections

Age-specific population projections have been prepared with reference to official forecasts (Victoria in Future), adjusted to reflect the most recent age-specific population data released by the ABS.

The data presented in Table 6 demonstrates that population growth is forecast to occur across age cohorts. Given typical age-specific medical demand, this will lead to much higher demand across a wide range of medical specialities associated with neonatal, paediatric, obstetrics and gynaecology, cardiology, oncology and palliative care.

With the gentrification occurring in inner areas, along with ongoing increases in household income, the large increase in the population is also likely to generate higher demand for elective surgery procedures delivered within the private health sector.

Table 6—Study region population projections by age range

Age cohort	2021	2026	2031	2036	Change 2021-36	Share of growth
Population						
Under 4	71,817	79,635	86,761	90,144	+18,327	4.6%
5 to 14	138,063	155,252	172,560	188,217	+50,154	12.7%
15 to 24	118,488	133,104	155,475	181,818	+63,330	16.0%
25 to 34	166,972	171,408	177,403	182,289	+15,317	3.9%
35 to 44	165,035	188,338	204,897	220,742	+55,707	14.1%
45 to 54	122,188	138,344	164,401	193,853	+71,665	18.1%
55 to 64	95,976	107,161	122,329	140,078	+44,102	11.1%
65 to 74	68,755	78,703	89,725	101,076	+32,321	8.2%
75 to 84	34,677	43,621	53,873	66,761	+32,084	8.1%
85 and over	13,545	16,233	20,541	26,187	+12,642	3.2%
Total	**995,516**	**1,111,800**	**1,247,965**	**1,391,165**	**+395,649**	**100.0%**
Population Growth (No. per annum)						
Under 4		1,564	1,425	677	1,222	
5 to 14		3,438	3,462	3,131	3,344	
15 to 24		2,923	4,474	5,269	4,222	
25 to 34		887	1,199	977	1,021	
35 to 44		4,661	3,312	3,169	3,714	
45 to 54		3,231	5,211	5,890	4,778	
55 to 64		2,237	3,034	3,550	2,940	
65 to 74		1,990	2,204	2,270	2,155	
75 to 84		1,789	2,051	2,577	2,139	
85 and over		538	862	1,129	843	
Total		**23,257**	**27,233**	**28,640**	**26,377**	
Population Growth (% per annum)						
Under 4		2.1%	1.7%	0.8%	1.5%	
5 to 14		2.4%	2.1%	1.8%	2.1%	
15 to 24		2.4%	3.2%	3.2%	2.9%	
25 to 34		0.5%	0.7%	0.5%	0.6%	
35 to 44		2.7%	1.7%	1.5%	2.0%	
45 to 54		2.5%	3.5%	3.4%	3.1%	
55 to 64		2.2%	2.7%	2.7%	2.6%	
65 to 74		2.7%	2.7%	2.4%	2.6%	
75 to 84		4.7%	4.3%	4.4%	4.5%	
85 and over		3.7%	4.8%	5.0%	4.5%	
Total		**2.2%**	**2.3%**	**2.2%**	**2.3%**	

Source: Deep End Services; ABS; VIF2019

Age-specific service demand

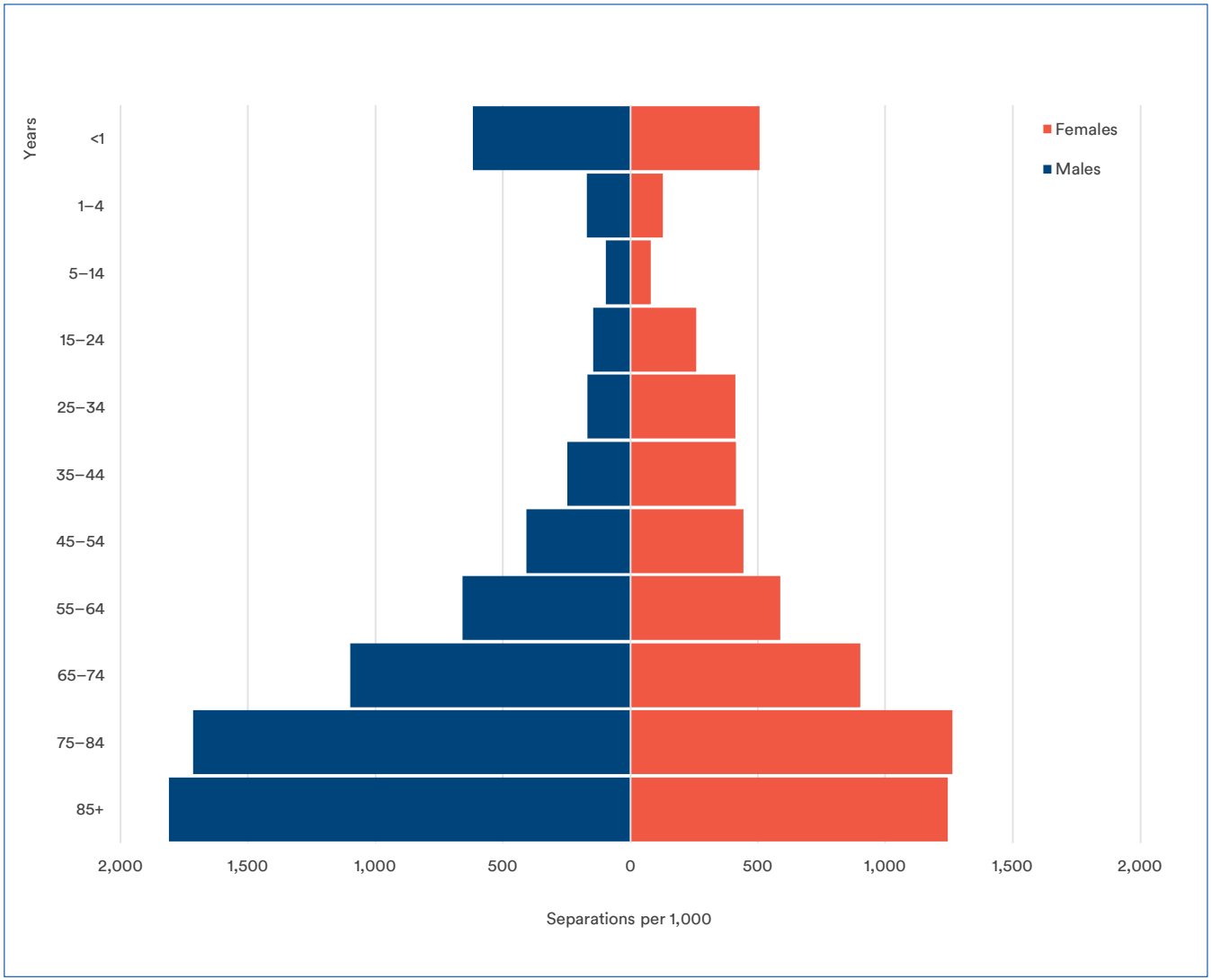
The link between ageing and increased usage of health services is well established. About 40% of all elective surgeries including hip and knee replacements carried out in Australia in 2020–21 were for people aged 65 and over. Older people are also more likely to end up in hospital, with people aged over 65 accounting for more than 40% of day and overnight hospital admissions according to the Australian Institute of Health and Welfare (AIHW), despite the fact this age group accounts for only around 15% of the population. According to AHIW, this pattern is also reflected in the use of specialist, general practice, allied health and medical imaging services, based on Medicare service data.

Hospital separation rates (2020-21)

Age-specific hospital attendances (or 'separations') are presented in Figure 10 as a proportion of the underlying population, showing that higher hospitalisation rates occur:

- At birth and during the first year
- During child-bearing years (principally 25-44 years) for women
- During older age, particularly for men.

Figure 10—Total hospital separation rates (Australia)



Source: AIHW Admitted Patient Care 2020-21

Private hospital separation rates (2020/21)

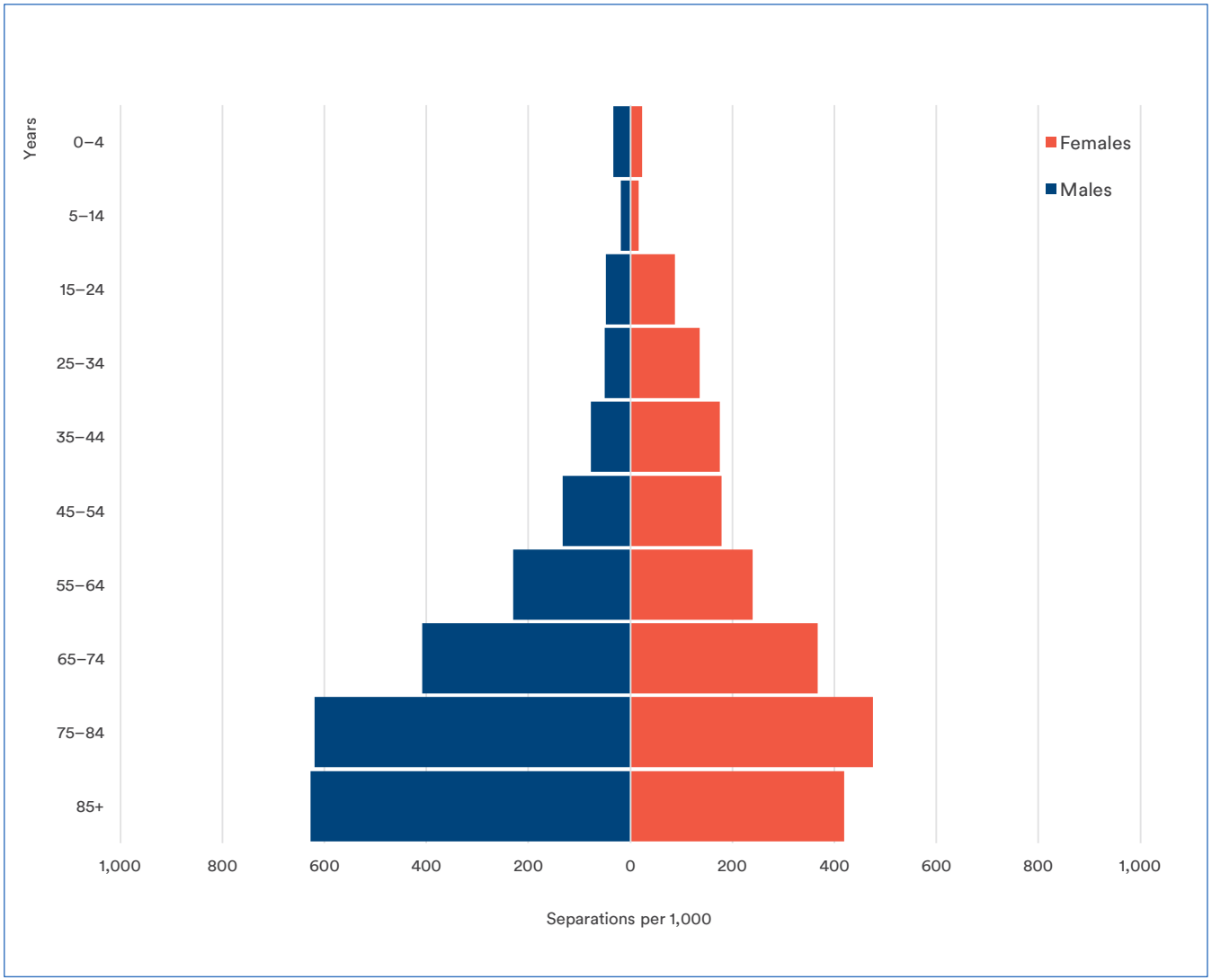
Age and gender-specific hospitalisation rates at private hospitals in Victoria are shown in Figure 11.

Within Victoria, private hospital separation rates are approximately 60% of the level of public hospital separations, according to AIHW data (Admitted Patient Care 2020-21).

However, separation rates in private hospitals tend to increase across age cohorts, and differ according to gender:

- Private hospital separations for the 0-4 age group are just 16% of public hospital separations, as a large proportion of families use the public health system for maternity care
- Overall, private hospital usage peaks in the 65-74 age cohort, in which private sector hospitalisation rates are 70% of those for public hospitalisations
- Females generally have higher usage of private hospitals (65% overall)
- The highest level of private hospital usage is for females of 65-74 year cohort, in which private sector hospitalisation rates are 81% of those for public hospitalisations.

Figure 11—Private hospital separation rates (Victoria)



Source: AIHW Admitted Patient Care 2020-21

Service demand

Information on use of medical services, based on Medicare Benefits Schedule (MBS) claims data is shown in the charts in Figure 12 (for general practise usage) and Figure 13 (for specialist and allied health services). Comparisons are made between the study region and Melbourne as a whole.

Overall, Higher medical service usage occurs in older age groups and by females.

The study region has slightly higher comparative usage of GP services than Melbourne, slightly lower specialist usage and higher use of allied health services.

Figure 12—GP service demand

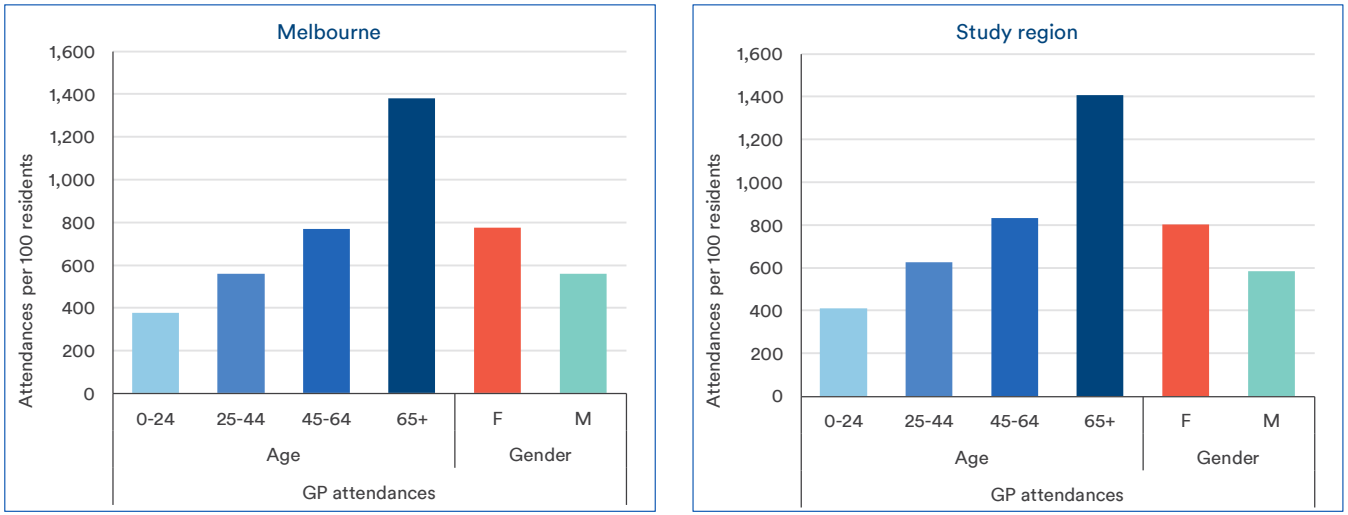
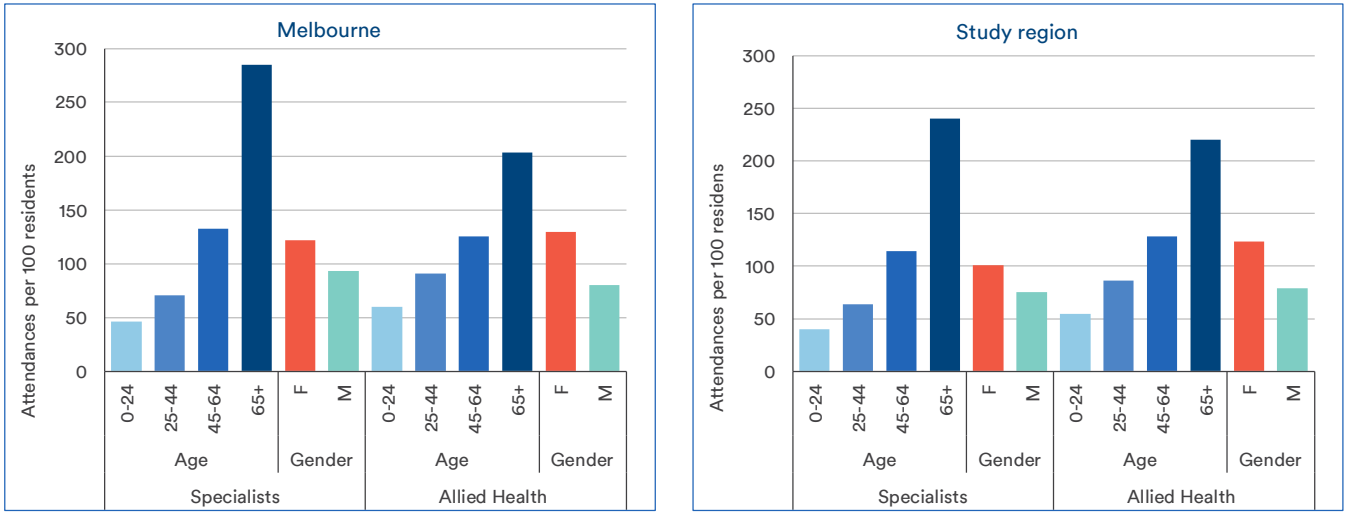


Figure 13—Specialist and allied health service demand



Source: AIHW, Medicare Benefits Schedule claims data (2020-21)

6.5 Epidemiology

The epidemiological characteristics of the population are an important determinant of existing and future healthcare demand, and can be due to differences in socio-demographic status, cultural/ethnic background, and lifestyle risk factors that influence future healthcare requirements.

Long-term health conditions

Census data for 2021 has been analysed with respect to the number of people reporting that they have long term health conditions, with comparisons made to Melbourne as a whole.

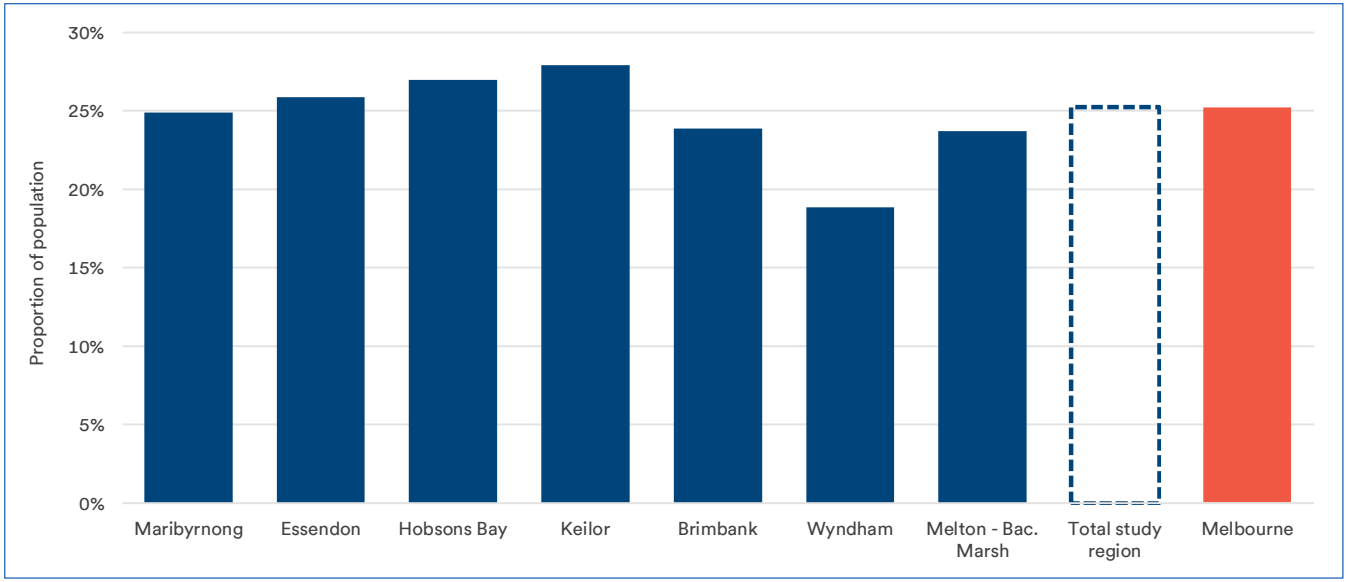
The data shows that while the proportion of the study region population with one or more long term health condition is similar to that of Melbourne, this is strongly influenced by the relatively young and healthy population within the growth corridor sub-regions (Wyndham in particular). In contrast, inner sub-regions such as Keilor and Hobsons Bay have a higher incidence of long-term health conditions, generating potential for higher hospitalisation rates in the future.

Table 7—Long-term health conditions

Long-term health conditions	Brimbank	Essendon	Hobsons Bay	Keilor	Maribyrnong	Melton - Bac. Marsh	Wyndham	Total study region	Melbourne
One or more conditions (no.)									
Children	2,491	755	1,339	820	1,054	4,205	4,803	15,470	69,768
Adults	42,427	17,200	22,263	16,508	20,461	43,419	51,936	214,211	1,185,354
Total	**44,918**	**17,955**	**23,602**	**17,328**	**21,515**	**47,624**	**56,739**	**229,681**	**1,255,122**
One or more conditions (% of pop.)									
Children	7.5%	7.1%	8.1%	7.6%	7.8%	8.6%	6.3%	7.4%	11.4%
Adults	27.4%	29.2%	31.4%	32.2%	28.1%	28.5%	23.1%	27.3%	27.2%
Total	**23.9%**	**25.9%**	**27.0%**	**27.9%**	**24.9%**	**23.7%**	**18.8%**	**23.1%**	**25.2%**

Source: ABS Census 2021: Deep End Services

Figure 14—One or more long-term health conditions



Type of long-term health condition

Details on the types of long-term health conditions within each sub-region are provided in Table 8, with comparisons against the Melbourne average.

The highlighted cells identify particular long-term health conditions that are comparatively more prevalent compared to Melbourne. This is likely to lead to higher demand for specialist services in these areas.

Table 8—Long-term health condition by type

Type of condition	% of population with long-term health condition								
	Brimbank	Essendon	Hobsons Bay	Keilor	Maribyrnong	Melton - BM	Wyndham	Study region	Melbourne
Asthma	7.2%	8.1%	8.2%	7.6%	8.4%	8.5%	6.5%	7.5%	7.8%
Mental health	6.2%	9.1%	8.3%	7.3%	9.8%	7.5%	5.6%	7.0%	8.0%
Arthritis	6.8%	6.5%	7.5%	9.0%	5.2%	6.1%	4.5%	6.0%	6.9%
Diabetes	6.4%	3.5%	4.7%	5.3%	3.9%	4.9%	4.3%	4.8%	4.4%
Heart disease	3.3%	3.2%	3.6%	4.5%	2.3%	2.7%	2.1%	2.8%	3.3%
Cancer (inc. remission)	2.0%	2.6%	2.6%	3.2%	1.8%	1.8%	1.3%	1.9%	2.5%
Lung condition	1.1%	1.1%	1.3%	1.3%	0.9%	1.3%	0.8%	1.1%	1.2%
Kidney disease	1.0%	0.8%	1.0%	1.0%	0.7%	0.8%	0.6%	0.8%	0.8%
Stroke	1.0%	0.7%	0.9%	1.1%	0.7%	0.7%	0.5%	0.7%	0.8%
Dementia/Alzheimer's	0.7%	0.7%	0.8%	1.1%	0.6%	0.4%	0.3%	0.5%	0.7%
Other condition(s)	7.5%	7.9%	7.8%	8.0%	7.9%	7.0%	5.9%	7.1%	7.7%
None / not stated	56.9%	56.0%	53.4%	50.5%	57.8%	58.4%	67.5%	59.7%	56.1%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: ABS Census 2021; Deep End Services

Health risk factors

Health risk factors are indicators of medium to longer term likelihood of chronic health conditions and thus health service usage.

Table 9 presents modelled estimates of the incidence of health risk factors for component LGAs that are within or partly within the study area, based on data published by PHIDU at Torrens University.

The table highlights the fact that residents of the study have a higher incidence of most main health risk factors compared to the population within Melbourne as a whole. This pattern was particularly marked in the incidence of key health risks including obesity, smoking and dietary pattern, which are indicative of long-term demand for services in key areas such as cardiology, orthopaedics and cancer care, among others.

Table 9—Health risk factors: age-standardised rate per 100 (2017-18)

LGA of residence	High blood pressure	Overweight (but not obese)	Obese	Current smokers	>2 standard alcoholic drinks per day	Adequate fruit intake	Low, very low or no exercise in the previous week
Brimbank	22.6	35.4	33.0	17.9	7.3	55.1	76.2
Hobsons Bay	22.2	36.9	31.6	15.7	13.9	55.3	67.9
Maribyrnong	23.0	35.2	29.0	16.5	10.7	50.8	68.1
Melton	23.6	34.9	42.0	17.7	9.6	53.5	73.8
Moonee Valley	22.4	37.2	28.1	14.0	14.2	54.3	60.9
Wyndham	23.4	35.0	35.4	15.6	7.9	52.7	72.3
Greater Melbourne	22.4	36.5	29.5	14.5	13.0	52.3	65.5

Source: Public Health Information Development Unit (PHIDU), Torrens University

6.6 Affluence

As highlighted in section 4.3, the study region is undergoing significant demographic change, with a key component of this being relatively rapid gentrification occurring in the more established parts of the region, especially in inner-city localities like Maribyrnong, Essendon, Hobsons Bay and Keilor.

Changes in median equivalised weekly household income are presented in Table 10 and Source: ABS Census 2011, 2016, 2021

Figure 15, highlighting areas within the study region where affluence is rising faster than across Melbourne as a whole.

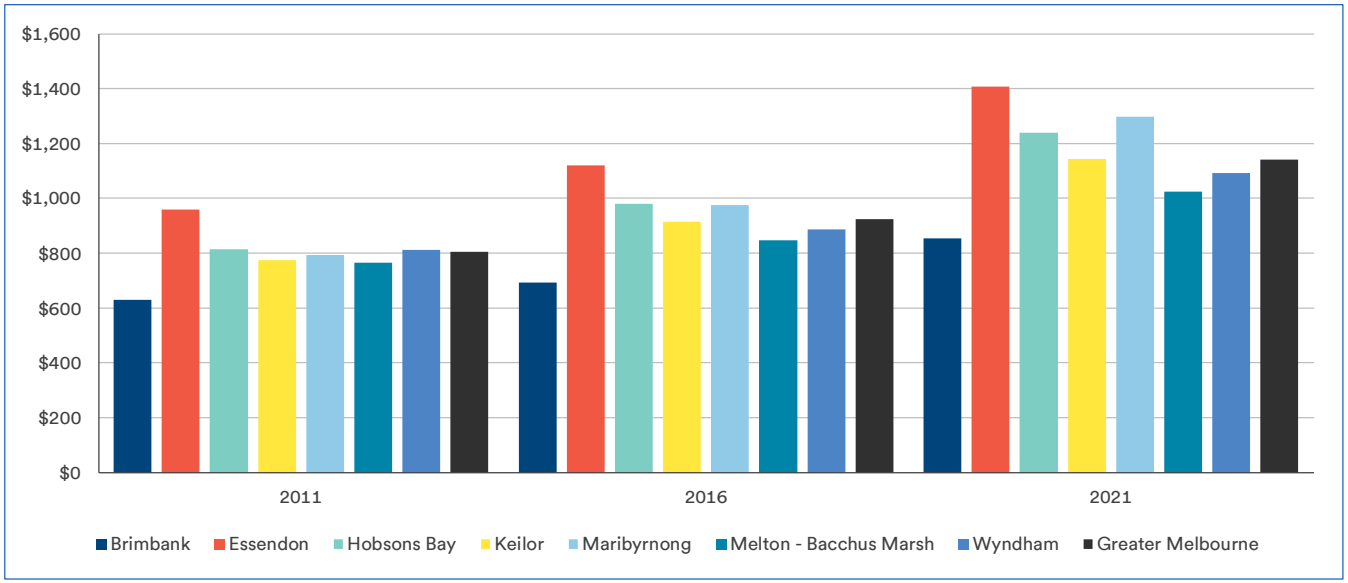
For example, in 2011 only Essendon had a median income well above that for Greater Melbourne as a whole. However, by 2021 there were three sub-regions (Essendon, Maribyrnong and Hobsons Bay) in which the median household income was well in excess of that for Melbourne.

Table 10—Median equivalised total household income ($/week)

Year	Brimbank	Essendon	Hobsons Bay	Keilor	Maribyrnong	Melton - Bacchus Marsh	Wyndham	Greater Melbourne
2011	$629	$958	$815	$774	$794	$766	$811	$805
2016	$693	$1,119	$979	$915	$975	$847	$886	$923
2021	$853	$1,406	$1,238	$1,143	$1,297	$1,025	$1,092	$1,141
5-year growth rate (aagr 2016-2021)	4.2%	4.7%	4.8%	4.6%	5.9%	3.9%	4.3%	4.3%
10-year growth rate (aagr (2011-2021)	3.1%	3.9%	4.3%	4.0%	5.0%	3.0%	3.0%	3.5%

Source: ABS Census 2011, 2016, 2021

Figure 15—Changes in median equivalised weekly household income 2011-2021



Source: ABS Census 2011, 2016, 2021

6.7 Private health insurance ownership

Proportion of taxpayers with PHI

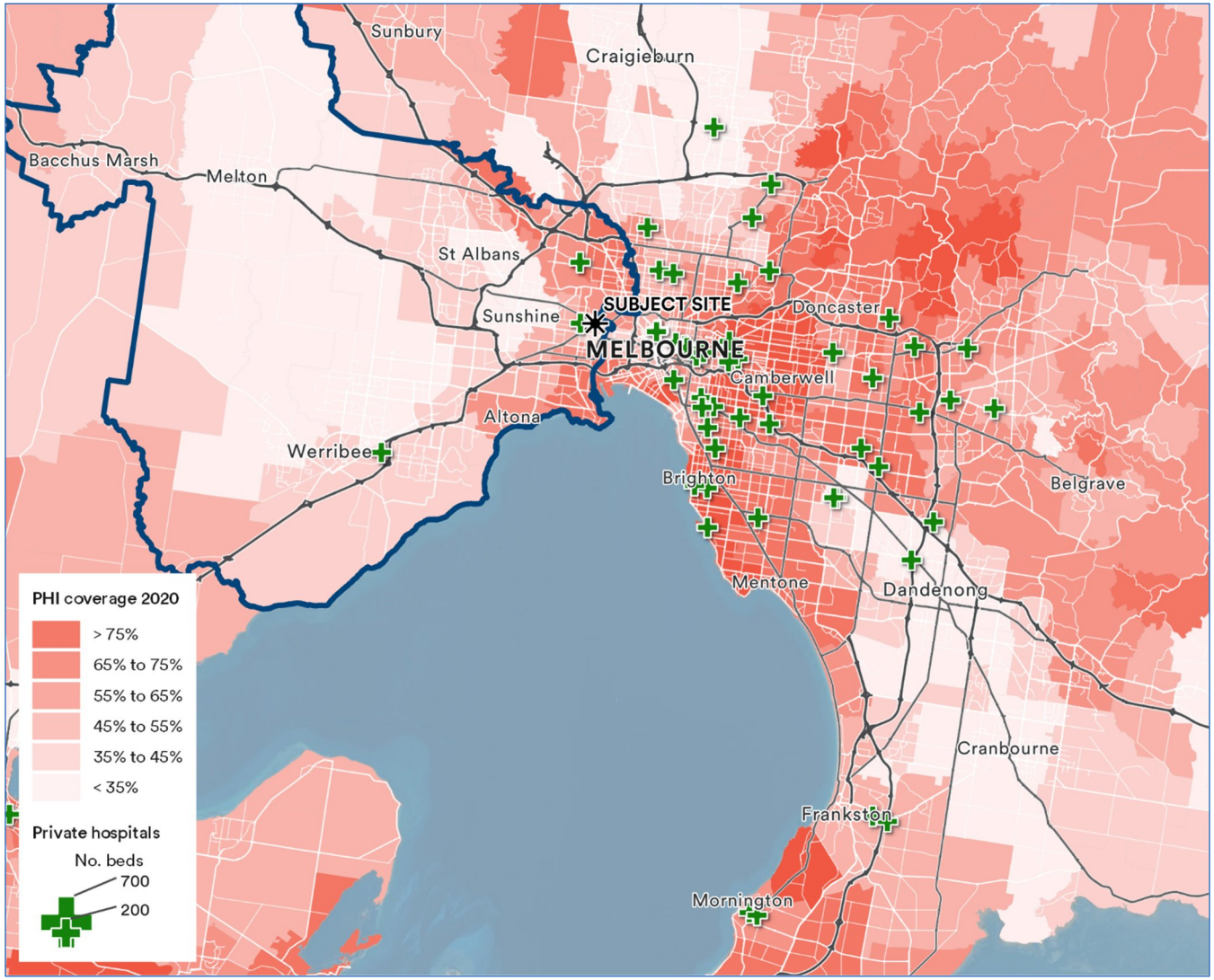
Insurance coverage is a key factor leading to demand for health services in the private rather than public sector.

Variations in PHI coverage are illustrated in Figure 16, overlaid with the locations of private hospitals.

The data is based on information released by the Australian Tax Office in 2020 at the postcode level, which identifies whether people lodging tax returns have PHI. Coverage rates are expressed as the number of PHI holders as a proportion of individual taxpayers lodging returns.

As shown in the map, PHI coverage is highest within inner, east and southern suburbs where household incomes are highest – PHI rates drop on the fringe of Melbourne.

Figure 16—Private Health Insurance (PHI) coverage



Source: Deep End Services; ATO

Summary by sub-region

A summary of PHI coverage for the period 2016 to 2020 is presented in Table 11 and Table 12, using ATO data that has been aggregated to each sub-region (this is a 'best-fit' given the lack of exact concordance between postcodes and SA3 geographies).

The data shows that the number of PHI holders within the study region represents around 15% of all PHI holders across Melbourne, noting that the study region accounts for around 20% of Melbourne's population.

Importantly, the number of PHI holders within the study region has increased significantly since 2016, with almost 29,500 more people having insurance coverage. This represents an average growth rate of 3.4% compared with 1.9% growth across Melbourne. Over the period 2016 to 2020, the study region's share of all PHI holders has increased from 14.2% to 15.1%.

Table 12 highlights changes in the proportion of taxpayers with PHI, indicating that PHI coverage within the study region has declined slightly, dropping from 45% to 43.2% over the period.

However, parts of the study region have maintained their PHI coverage rates, with small increases in Maribyrnong, Essendon and Keilor.

Melbourne's PHI coverage has declined more significantly, by 2.8 percentage points over the period 2016 to 2020.

Table 11—Private Health Insurance holders

Study sub-region	No. of PHI holders					Change 2016-2020	
	2016	2017	2018	2019	2020	No.	% pa
Maribyrnong	19,582	20,484	21,454	22,051	22,727	3,145	3.8%
Essendon	28,903	29,689	30,317	30,879	31,198	2,295	1.9%
Hobsons Bay	27,924	28,774	29,426	29,988	30,242	2,318	2.0%
Keilor	23,044	23,308	23,768	23,954	24,341	1,297	1.4%
Brimbank	43,455	44,242	45,734	47,008	48,445	4,990	2.8%
Wyndham	49,763	52,637	55,619	58,599	61,724	11,961	5.5%
Melton - Bacchus Marsh	10,899	11,588	12,369	13,200	14,387	3,488	7.2%
Study region	**203,570**	**210,722**	**218,687**	**225,679**	**233,064**	**29,494**	**3.4%**
Melbourne	1,430,904	1,467,086	1,499,179	1,521,758	1,541,062	110,158	1.9%
Study region share of Melbourne	14.2%	14.4%	14.6%	14.8%	15.1%	26.8%	

Source: Deep End Services; ATO

Table 12—Private Health Insurance coverage

Study sub-region	Proportion with PHI (% of total individual taxpayers)					Change in % pts
	2016	2017	2018	2019	2020	2016-20
Maribyrnong	47.4%	47.4%	47.3%	47.0%	48.0%	+0.6%
Brimbank	34.6%	34.3%	34.4%	34.4%	35.3%	-2.3%
Essendon	65.9%	65.2%	64.6%	63.6%	63.7%	+0.2%
Hobsons Bay	56.2%	56.2%	56.0%	55.8%	56.4%	-1.0%
Keilor	65.2%	64.7%	64.3%	63.7%	64.2%	+0.7%
Melton - Bacchus Marsh	32.8%	31.9%	30.8%	30.1%	29.5%	-3.1%
Wyndham	40.5%	39.9%	38.8%	37.8%	37.3%	-3.3%
Total study region	**45.0%**	**44.5%**	**43.9%**	**43.2%**	**43.2%**	-1.8%
Melbourne	**55.5%**	**54.9%**	**53.9%**	**53.0%**	**52.8%**	-2.8%

Source: Deep End Services; ATO

Change in PHI coverage

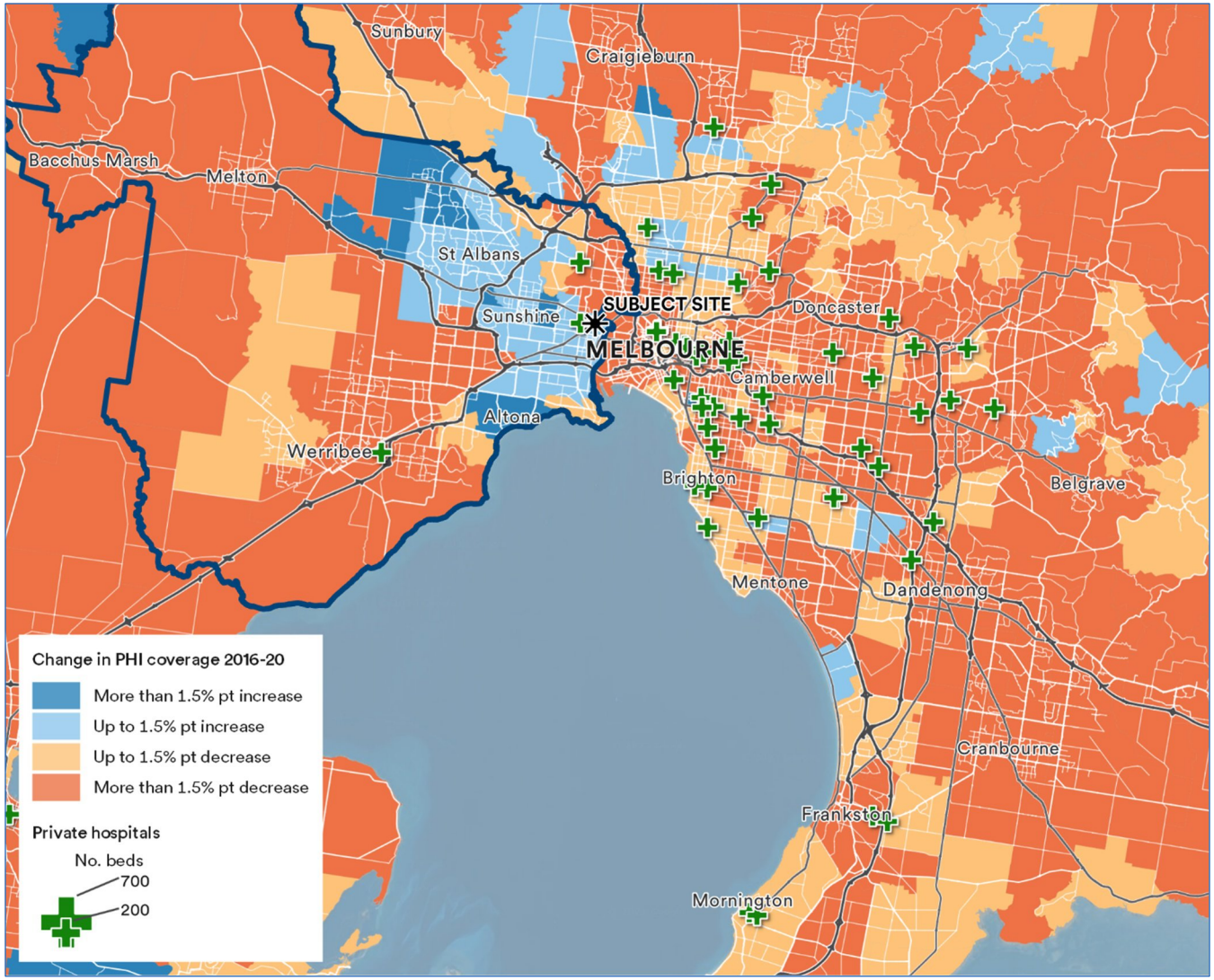
The map at Figure 17 shows how PHI coverage rates have generally declined across Melbourne as a percentage of all taxpayers.

However, the inner part of the study region is the only geographic cluster within Melbourne in which PHI rates have increased over this period.

These trends demonstrate how increases in household income, combined with new development opportunities in higher density housing, have led to higher levels of socio-economic status and increases in the proportion of taxpayers holding PHI.

The strong increase in PHI coverage has a direct effect on local demand for private health facilities.

Figure 17—Change in PHI coverage 2016-2020



Source: Deep End Services; ATO

6.8 Primary healthcare usage

Primary (i.e. non-hospital) health care services can be analysed with respect to the usage of Medicare-subsidised services based on data published by AIHW for 2020-21, as shown in Table 13.

The usage of primary health care services is a major driver of the demand for private healthcare, particularly private hospital services. These services function as a key referral channel for more complex healthcare such as that proposed to be delivered at FCH.

The data suggests that study area residents tend to use primary healthcare services broadly in line with Melbourne averages.

A key point of difference however is the substantially lower level of usage of specialist services.

In growth areas such as Wyndham this is likely due to the younger demographic leading to lower healthcare requirements for specialists.

Lower usage of specialists also extends into some inner sub-regions such as Maribyrnong, where usage rates may be affected by the lack of specialist provision within the study region, as discussed in section 7 of this report.

Table 13—Primary health care service usage (2020-21)

Measure	Brimbank	Essendon	Hobsons Bay	Keilor	Maribyrnong	Melton - Bacchus Marsh	Wyndham	Study region	Greater Melbourne
GP attendances									
% who have had service	84.7%	77.2%	83.0%	86.3%	73.2%	85.4%	84.7%	83.1%	81.2%
Services per 100	731	585	655	764	568	722	715	694	670
Allied Health attendances									
% who have had service	35.7%	35.8%	37.2%	42.5%	31.7%	34.6%	32.2%	34.7%	35.3%
Services per 100	102	110	119	134	103	99	87	101	106
Specialist attendances									
% who have had service	26.8%	31.3%	32.4%	37.7%	24.7%	27.0%	24.2%	27.5%	30.8%
Services per 100	86	110	109	138	80	83	73	88	108
Diagnostic Imaging									
% who have had service	37.5%	34.5%	36.8%	42.3%	30.2%	36.7%	34.2%	35.7%	36.0%
Services per 100	100	88	96	120	75	96	87	93	95

Source: AIHW

6.9 Service demand modelling

The tables to the right provide a summary of private hospital demand modelling conducted by Hardes & Associates on behalf of EHCP. The modelling uses proprietary techniques to estimate hospital admissions demand, based on inputs relating to demography, population growth and other factors.

The modelling output includes expected admissions demand and bed day requirements in 2023 and forecast growth to 2032 generated by the study region.

Overall, the modelling indicates that significant growth in demand for hospital activity will be generated by study region residents over the period 2023 to 2032, expressed in terms of hospital admissions and bed days.

In terms of forecast bed demand, the modelling indicates that almost 1,500 hospital beds are needed to cater for same day and overnight stays by study region residents, with this increasing by 521 beds to reach around 2,020 beds in 2032.

Around 73% of the additional bed demand, or 376 new beds by 2032, is for acute procedural and surgical private hospital beds.

The implications for bed capacity and future hospital requirements are examined in Sections 8 and 9 of this report.

Table 14—Forecast hospital admissions

	Same day			Overnight			Total admissions		
Study region SA3	2023	2032	Growth	2023	2032	Growth	2023	2032	Growth
Maribyrnong	14,178	19,351	5,173	6,218	8,372	2,153	20,397	27,723	7,326
Essendon	13,763	16,981	3,219	5,967	7,309	1,343	19,729	24,291	4,561
Hobsons Bay	15,880	18,892	3,011	6,987	8,358	1,371	22,867	27,249	4,383
Brimbank	22,491	26,455	3,964	10,211	12,317	2,106	32,702	38,772	6,069
Keilor	12,489	13,763	1,274	5,611	6,292	682	18,100	20,055	1,956
Wyndham	37,091	53,962	16,871	16,091	23,417	7,326	53,182	77,378	24,196
Melton - Bacchus Marsh	24,321	35,783	11,462	10,598	15,813	5,215	34,919	51,596	16,677
Total	**140,213**	**185,186**	**44,973**	**61,682**	**81,878**	**20,195**	**201,895**	**267,064**	**65,169**

Table 15—Forecast bed days

	Same day			Overnight			Total bed days		
Study region SA3	2023	2032	Growth	2023	2032	Growth	2023	2032	Growth
Maribyrnong	14,178	19,351	5,173	32,549	44,131	11,582	46,727	63,483	16,755
Essendon	13,763	16,981	3,219	32,532	40,360	7,828	46,295	57,342	11,047
Hobsons Bay	15,880	18,892	3,011	38,765	47,327	8,562	54,645	66,218	11,574
Brimbank	22,491	26,455	3,964	54,596	68,742	14,145	77,088	95,197	18,109
Keilor	12,489	13,763	1,274	32,540	36,858	4,318	45,029	50,621	5,592
Wyndham	37,091	53,962	16,871	79,778	120,924	41,146	116,869	174,885	58,016
Melton - Bacchus Marsh	24,321	35,783	11,462	53,964	83,018	29,053	78,285	118,801	40,515
Total	**140,213**	**185,186**	**44,973**	**324,725**	**441,360**	**116,635**	**464,938**	**626,546**	**161,608**

Table 16—Forecast bed demand

	Same day			Overnight			Total indicative bed demand		
Study region SA3	2023	2032	Growth	2023	2032	Growth	2023	2032	Growth
Maribyrnong	46	62	17	105	142	37	151	205	54
Essendon	44	55	10	105	130	25	149	185	36
Hobsons Bay	51	61	10	125	153	28	176	213	37
Brimbank	72	85	13	176	222	46	248	307	58
Keilor	40	44	4	105	119	14	145	163	18
Wyndham	120	174	54	257	390	133	377	564	187
Melton - Bacchus Marsh	78	115	37	174	268	94	252	383	131
Total	**452**	**597**	**145**	**1,047**	**1,423**	**376**	**1,499**	**2,019**	**521**

Source: Hardes & Associates; Deep End Services

6.10 Procedural admissions

Table 17 presents the HardesData modelling for particular Service Related Groups (SRGs) that represent surgical procedure admissions, with further detail provided for selected categories of admissions (based on Enhanced Service Related Groups, or ESRGs) that are of relevance to the proposed FCH.

Based on a typical average throughout of 1,350 annual procedures per theatre, the modelling demonstrates demand for around 47 theatres to cater to existing demand, with another 14 theatres required to undertake the 19,000 additional surgical procedures by 2032.

With respect to interventional cardiology admissions, the modelling implies a current need for approximately 4 cardiac catheter laboratories to serve the study region, based on a typical average annual throughout of 1,000 procedures per cath lab. Another cath lab will be required to service the modelled increase in demand to 2032.

Table 17—Surgical procedure admissions modelling

SRG/ selected ESRG categories	2023	2032	Growth 2023-32
Surgical procedure SRGs			
Breast Surgery	1,846	2,325	
Cardiothoracic Surgery	936	1,215	
Colorectal Surgery	1,485	1,923	
Dentistry	4,937	5,928	
ENT	3,739	4,529	
Gynaecology	8,600	10,459	
Head & Neck Surgery	877	1,134	
Neurosurgery	1,948	2,576	
Ophthalmology	11,279	15,736	
Orthopaedics	12,543	16,307	
Plastic & Reconstructive Surgery	5,957	7,992	
Upper GIT Surgery	2,682	3,423	
Urology	5,099	6,816	
Vascular Surgery	1,540	2,126	
Total Surgical Procedure Admissions	**63,468**	**82,489**	**+19,021**
Other selected procedures			
Interventional Cardiology Admissions	3,529	4,910	+1,382
GIT Endoscopy	27,980	36,755	+8,775
Gynaecology - Endoscopic	1,687	2,076	+389
Total Endoscopy Admissions	29,667	38,831	+9,164

Source: Hardes & Associates; Deep End Services
Notes: SRG = Service Related Group
ESRG = Enhanced Service Related Group

6.11 Summary

Several factors will lead to strong growth in demand for additional private hospital beds within the study region:

- The resident population within the study region is expected to grow significantly, adding another 395,000 residents over the next 15 years including 105,000 new residents within the inner part of the study region close to the subject site.
- Population growth is across all age cohorts, leading to likely demand for a wide range of services and admissions types.
- Parts of the study region have comparatively high incidence of long-term health conditions and risk factors that will generate increased demand for health services.
- Increasing household incomes linked to gentrification means that capacity to pay for private health services is enhanced.
- Although the study region exhibits lower rates of PHI ownership at present, the variation against the Melbourne average is declining, and there is evidence of local growth in coverage rates in the inner part of the study region at a time when PHI coverage has declined elsewhere in Melbourne.

HardesData provides a modelled output of private sector admissions demand, and the subsequent requirement for additional hospital beds, using its own proprietary methodology that aims to account for various demand drivers such as those described above.

Based on HardesData, current private hospital bed demand is approximately 1,500 in 2023, increasing to around 2,020 beds in 2032. That is, 520 new private hospital beds will be required simply to service the additional demand generated in the study region over the next 9-10 years.

Additional beds required to resolve any current undersupply would be in addition to this.

Most of the demand is for acute beds, accounting for nearly three quarters of total bed demand.

More detailed outputs relating to particular service admissions indicate that the study region currently generates demand for approximately 47 surgical theatres, and that this demand is expected to increase to 61 theatres (i.e. 14 new theatres) by 2032.

Similarly, the demand for cardiac catheter laboratories is forecast to increase from 4 in 2023 to 5 in 2032.

While facilities outside the study region will continue to play a role in serving the needs of local residents, this modelling provides a strong case for an expansion in private hospital beds located within the study region.

The subject site's position at the 'gateway' to Melbourne's west, easily accessible via the regional road network and adjacent to a new public hospital, provides strong support for the additional demand to be served at the proposed FCH.

7

Private hospital service provision

7.1 Introduction

This section identifies Melbourne's existing and planned hospital network and examines how easily local residents can access facilities within a reasonable drive time.

Existing private hospital bed provision rates are also analysed, expressed in terms of the underlying population and when compared to the estimated number of PHI holders.

Future developments are also identified to show how investment is beginning to be focussed within Melbourne's west to help counter a current lack of access to local services.

7.2 Melbourne hospital network overview

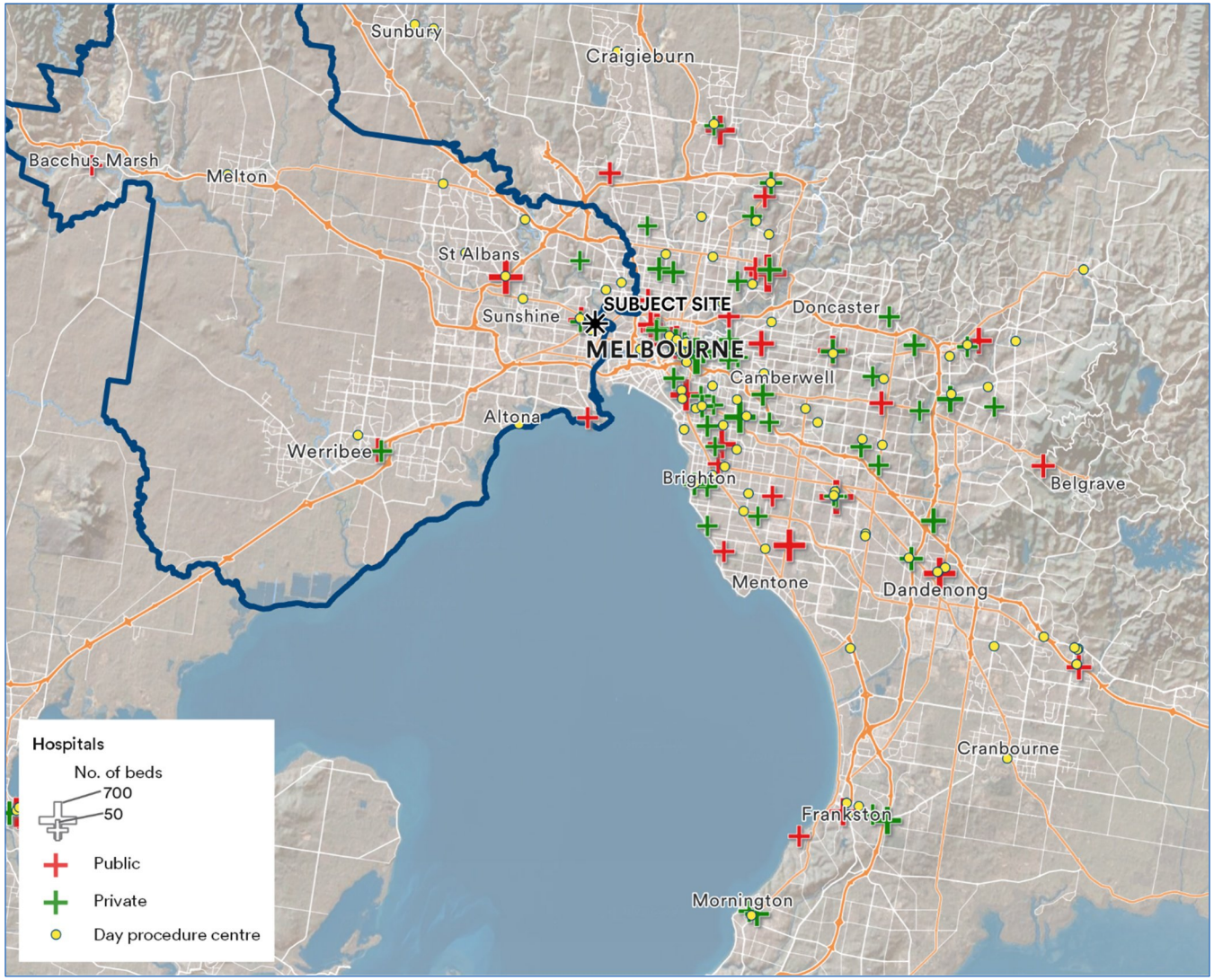
Melbourne's existing health network of public and private hospitals and day procedure centres is shown in Figure 18.

As shown in the map, there is a very significant skew of hospitals located in Melbourne's inner and eastern suburbs, with major concentrations around the CBD (Parkville, East Melbourne, Richmond) and extending southwards to Prahran, Caulfield and Malvern.

Other significant clusters include Clayton (Monash), Cheltenham, Dandenong, Frankston, and, to the north-east, Heidelberg. Epping provides a health focus in Melbourne's north.

Within the study region there are few major health clusters, with Sunshine Hospital providing the largest provision in terms of number of beds. Other hospitals are at Footscray (the existing site, where there is also an existing private facility), Williamstown, Werribee (including the St Vincent's Private) and the small facility at Bacchus Marsh.

Figure 18—Melbourne hospital context



Source: Deep End Services; QGIS

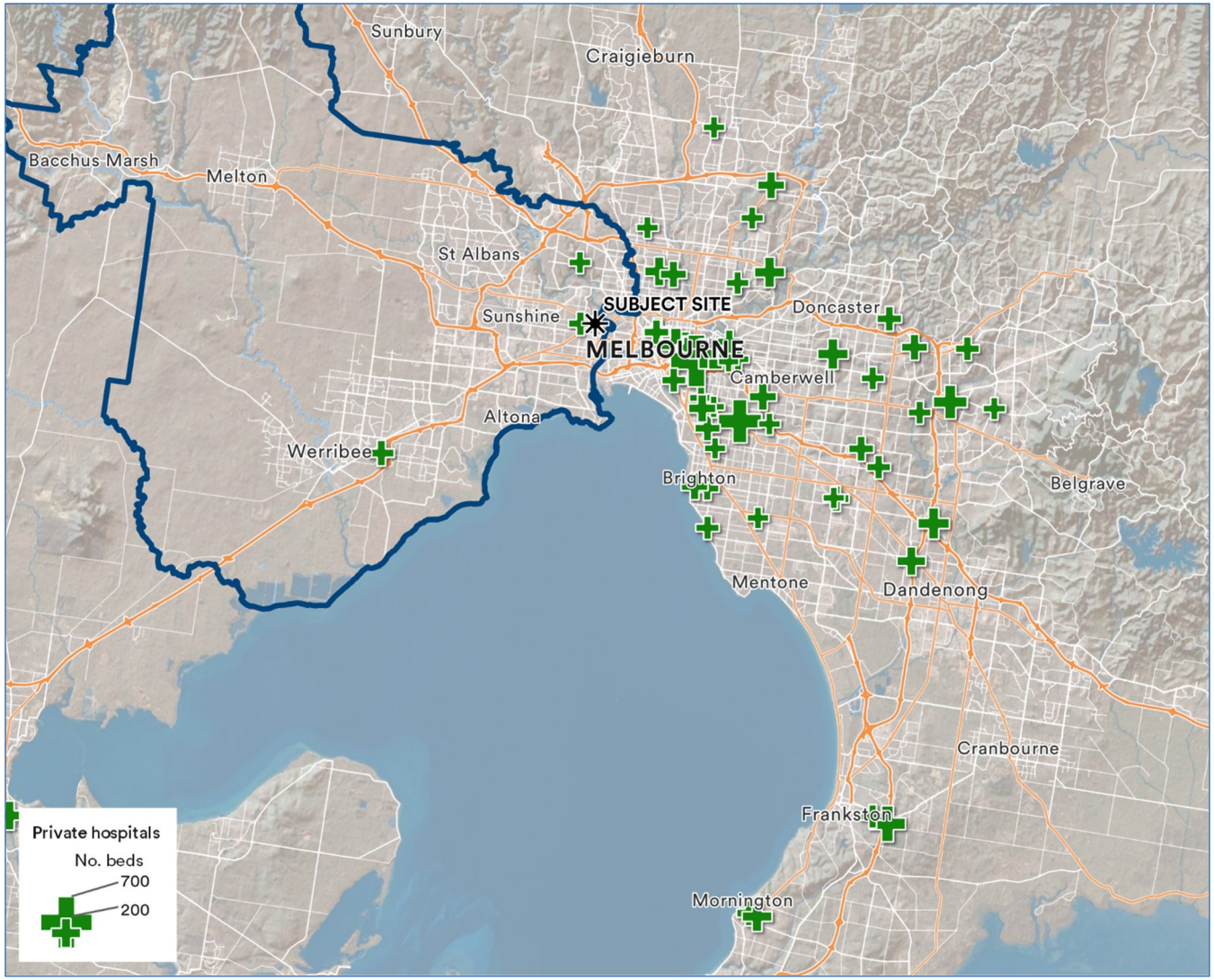
7.3 Melbourne private hospital network

Spatial distribution

The spatial distribution of Melbourne's network of private hospitals is shown in Figure 19.

The geographic skew towards the inner city and eastern suburbs is even more pronounced when private hospitals are considered.

Figure 19—Melbourne private hospital context



Source: Deep End Services; QGIS

Private hospital summary

Table 18 provides further information on the supply of private hospitals by region.

The table shows that of the 119 private hospitals identified across Melbourne, only 12 (or 10%) are located within the Melbourne – West SA4 (which approximately the study region excluding Keilor and Essendon), even though this region accounts for 17% of the population of Melbourne.

Of those facilities located within the Melbourne – West SA4, only 3 provide multi-day inpatient care facilities, representing just 2.3% of the total multiday bed capacity in metropolitan Melbourne.

Table 18—Melbourne private hospital summary

Region (SA4)	No. facilities			No. of multi-day beds	Population	Share of capacity		Share of population
	Day procedure	Multi day facility	Total hospitals			No. hospitals	No. multi-day beds	
Melbourne - Inner	13	16	29	2,532	713,203	24%	36%	14%
Melbourne - Inner East	3	5	8	460	400,191	7%	7%	8%
Melbourne - Inner South	11	7	18	869	450,242	15%	12%	9%
Melbourne - North East	6	4	10	445	566,199	8%	6%	11%
Melbourne - North West	0	0	0	0	429,721	0%	0%	8%
Melbourne - Outer East	6	6	12	676	536,496	10%	10%	10%
Melbourne - South East	13	8	21	1,106	883,260	18%	16%	17%
Melbourne - West	9	3	12	163	867,699	10%	2%	17%
Mornington Peninsula	5	4	9	709	312,200	8%	10%	6%
Total metropolitan Melbourne	**66**	**53**	**119**	**6,960**	**5,159,211**	**100%**	**100%**	**100%**

Source: EHCP

7.4 Access to hospitals

All hospitals

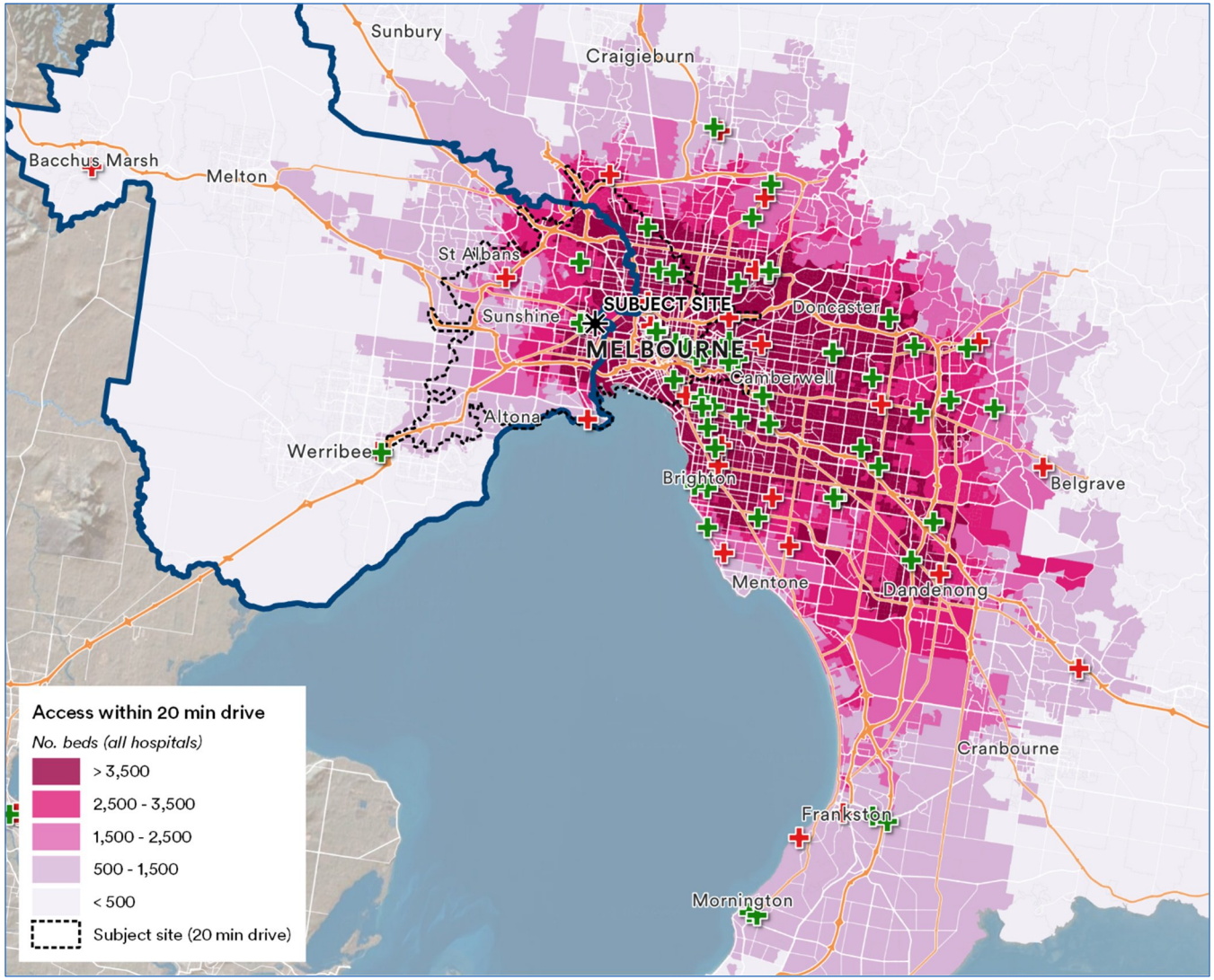
Access to hospital beds can be measured by using drive-time analysis that captures the number of hospital beds (excluding day procedure centres) that can be accessed within a 20-minute travel time via private vehicles.

This analysis is shown in Figure 20 which thematically shades the number of beds within 20-minutes' drive from the centroid of individual SA1 geographies across metropolitan Melbourne.

The map demonstrates that residents within the inner, eastern and south-eastern suburbs have far better access to hospital facilities compared to residents living in the study region.

Improvements in hospital provision at the NFH and at the proposed FCH would help to address the lack of hospital provision in the region.

Figure 20—Melbourne hospital accessibility



Source: Deep End Services; QGIS

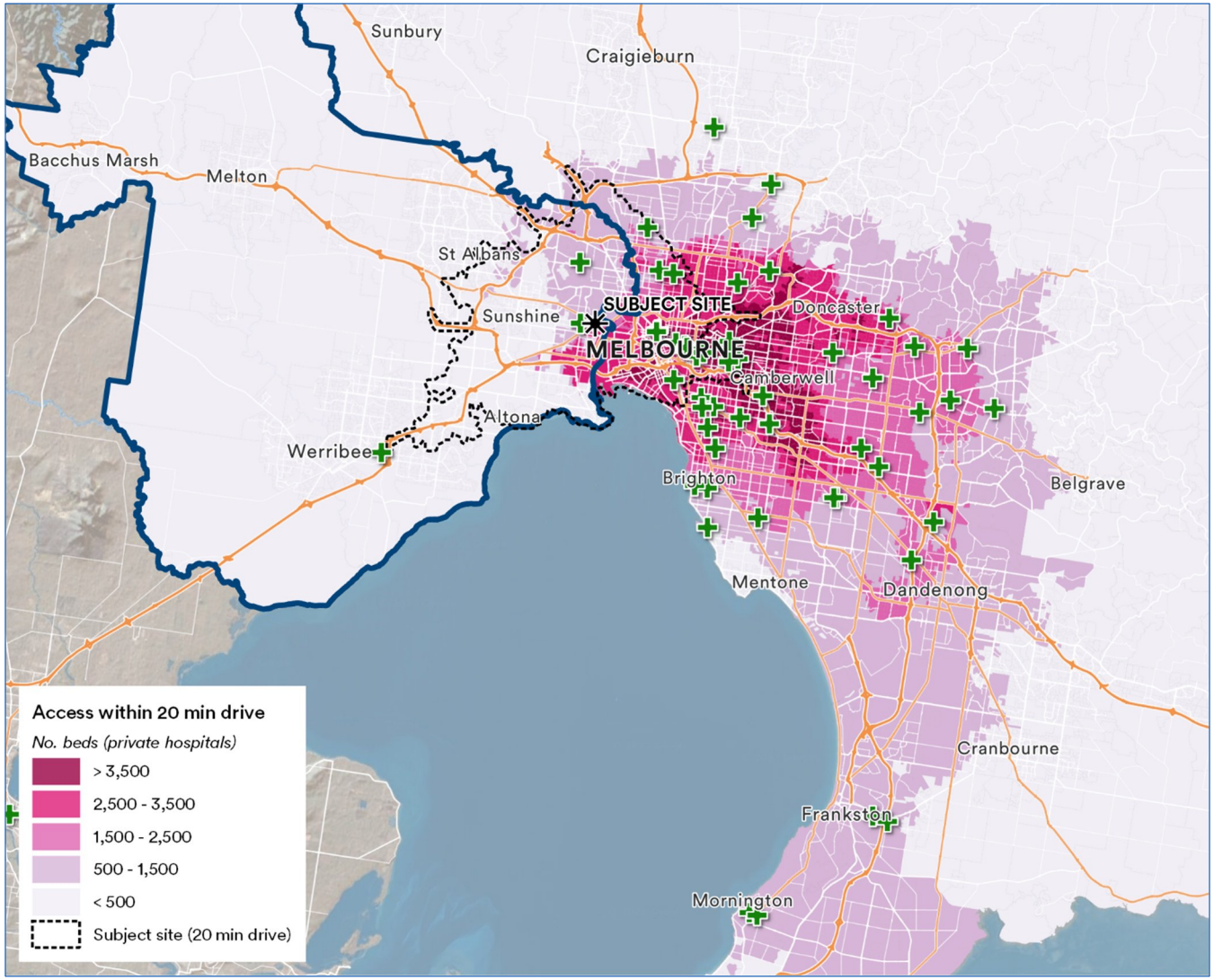
Private hospitals

Accessibility analysis is presented in Figure 21 to show how many private hospital beds are accessibility within a 20-minute drive.

The skew towards the inner eastern and south-eastern suburbs is even more pronounced, as is the lack of access to services for people living in Melbourne's west.

Most of the study region has very low levels of private hospital access, with potential for this to be improved with the proposed FCH, particularly for inner and middle ring suburbs in the Melbourne West region.

Figure 21—Melbourne private hospital accessibility



Source: Deep End Services; QGIS

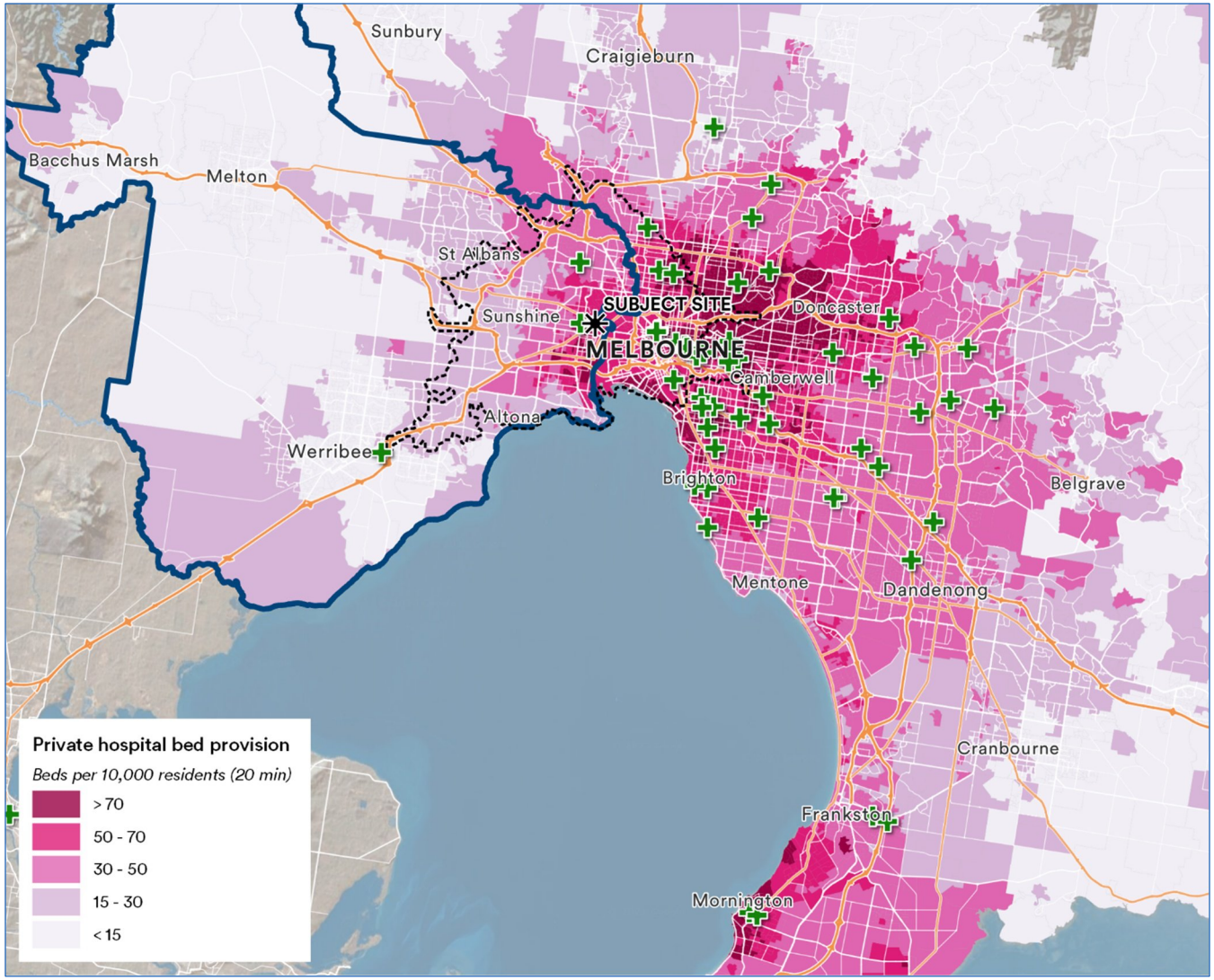
7.5 Bed provision rates

Private hospital bed to population provision rate

Figure 22 provides further analysis of the distribution of private hospital facilities by comparing the number of private hospital beds within 20-minutes' drive against the resident population within that region (i.e. within 20 minutes' drive).

The map shows that, when adjusted for local population levels, the lack of provision of hospital beds in the study region is even more pronounced.

Figure 22—Private hospital beds : population ratios



Source: Deep End Services; QGIS

Private hospital bed to PHI holders provision rate

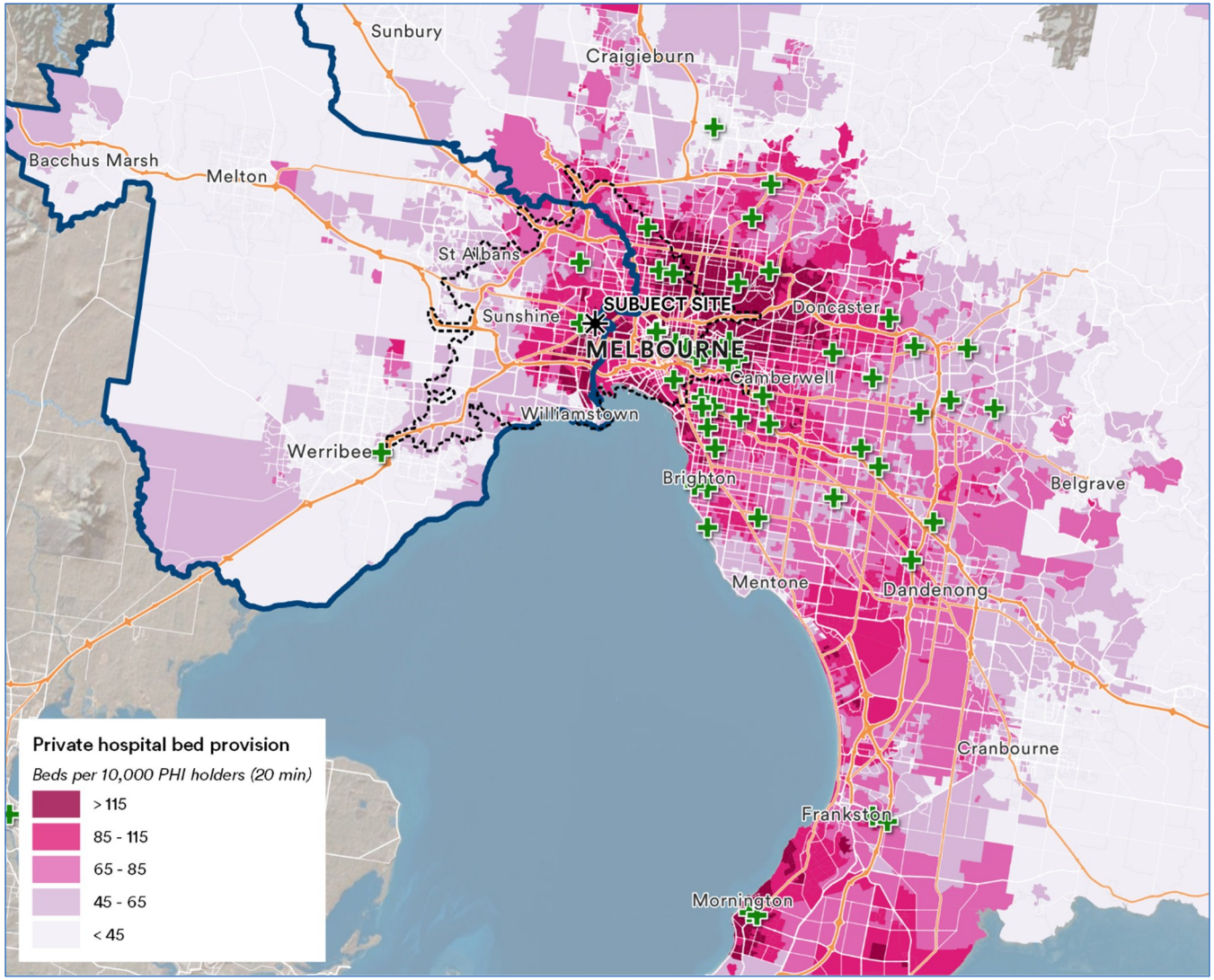
A similar analysis in Figure 23 compares the number of beds within 20 minutes' drive against the number of PHI holders in the same region.

By allowing for geographic variations in health insurance the analysis in Figure 23 provides the most appropriate method by which to determine if a local region has sufficient access to private hospital beds.

As shown in the map, hospital bed provision rates remain very low in the study region, even when allowing for differences in PHI coverage.

This can be contrasted against the situation in the outer eastern and south-eastern suburbs, where allowing for PHI coverage evens out relative provision rates (i.e. by comparing the maps at Figure 23 and Figure 22 on the previous page).

Figure 23—Private hospital beds : PHI holder ratios



Source: Deep End Services; QGIS

7.6 Private hospitals in study region

A summary of the existing private hospital network within the study region is presented in Table 19, showing that the existing five private multi-day hospitals located in the region have a total bed capacity of 269 beds.

Of these existing hospitals, three (St Vincent's Werribee, Western Private and Sunshine Private) offer the same or similar range of acute services to that proposed for the FCH.

Importantly, all of the existing facilities in the study region are significantly smaller and provide a narrower range of services than the largest hospitals in other regions of Melbourne (refer Table 20).

This information implies that not only does Melbourne's west have an undersupplied private hospital system, it also lacks sophistication when compared against other parts of Melbourne.

Table 19—Existing private hospitals in study region

Name	Type	Suburb	Beds	Theatres	Procedure rooms	Endoscopy suites	Cath labs
Northwest Day Hospital	Endoscopy	Ascot Vale				1	
Essendon Day Procedure Centre	Day Surgery	Moonee Ponds			1		
Keilor Private	Endoscopy	Keilor				1	
Essendon Private Clinic	Mental Health	Niddrie - Essendon West	33				
St Albans Endoscopy Centre	Endoscopy	St Albans - South				1	
Sunshine Dialysis Clinic	Dialysis	St Albans - South					
Sunshine Private Hospital	Private Hospital	St Albans - South	51	4		1	
Dr Scope	Endoscopy	Sunshine				2	
Sydenham Day Surgery	Endoscopy	Sydenham				2	
Altona Endoscopy Centre	Endoscopy	Altona				1	
Footscray Day Surgery	Ophthalmology	Footscray			1		
Western Gastroenterology Services	Endoscopy	Footscray				2	
Western Private Hospital	Private Hospital	Footscray	68	3		1	1
St Vincents Private Hospital Werribee	Private Hospital	Werribee - South	67	3			1
Werribee Endoscopy Centre	Endoscopy	Werribee - South				1	
Wyndham Clinic	Day Surgery/Mental Health	Werribee - South	50		2		
Westpoint Endoscopy Day Hospital	Endoscopy	Werribee - East				1	
Total			**269**	**10**	**4**	**14**	**2**

Source: EHCP

Table 20—Regional comparisons of largest private hospitals

Region (SA4)	Largest Private Hospital	Beds	OR's	ED	ICU
Melbourne - Inner	Epworth Richmond	700	32	Yes	Yes
Melbourne - Inner East	Epworth Eastern	223	15	Yes	Yes
Melbourne - Inner South	Cabrini Malvern	508	19	Yes	Yes
Melbourne - North East	Warringal Private	290	16	No	Yes
Melbourne - North West	John Fawkner Private	186	6	Yes	Yes
Melbourne - Outer East	Knox Private	295	18	Yes	Yes
Melbourne - South East	St John of God Berwick	205	9	No	Yes
Melbourne - West	Western Private	68	4	No	No
Mornington Peninsula	Peninsula Private	344	12	Yes	Yes

Source: EHCP

7.7 Hospital developments

While several new hospitals are proposed for the western region, all are public hospitals. There are no further private hospitals under development or announced after Sunshine Private.

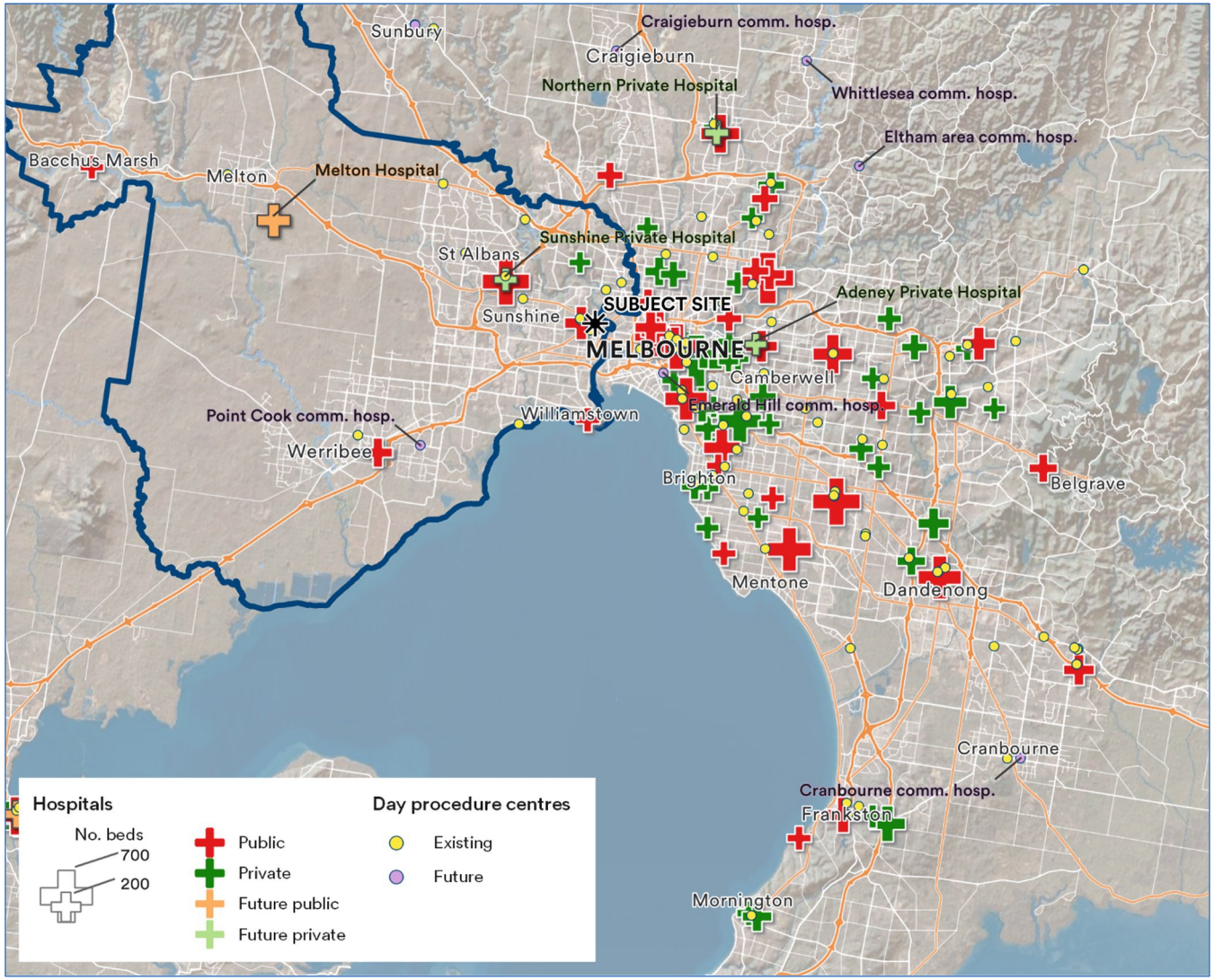
The pipeline of facilities includes:

- Point Cook community hospital, opening in 2024
- NFH (590 beds) opening in 2024
- New Melton Hospital, Cobblebank (274 beds) opening in 2029.

Emergency department upgrades are also planned at Mercy Hospital Werribee.

The State government has also announced its support for new campuses of Royal Women's and Royal Melbourne hospitals within the Arden Street precinct, to handle less acute hospital procedures such as elective surgery and rehabilitation.

Figure 24—Proposed new hospitals



Source: Deep End Services; QGIS

7.8 Summary

The analysis of the existing hospital network serving residents in the study region shows:

- Melbourne's private hospital supply is strongly skewed towards the inner eastern and south-eastern suburbs where the majority of major hospital investment has been traditionally directed.
- This results in inequitable access to private hospital beds within a reasonable travel time for people living within Melbourne's western suburbs, especially when compared to those living in Melbourne's east.
- Melbourne's western suburbs exhibit a significant under provision in hospital beds when measured in terms of the number of private hospital beds provided within 20 minutes' drive, compared against the residential population within that region.
- Even more relevant is an examination of bed provision when compared against the number of PHI holders. When normalised for lower PHI coverage, this analysis demonstrates that the study region is very poorly provided with private hospital beds.
- New hospital developments are underway or proposed, and these will help to improve access to higher standards of health care. However, the major developments (such as NFH and the New Melton Hospital) are in the public sector, with no additional private hospital bed supply other than the development at Sunshine Private Hospital (2023) and previously the St Vincent's hospital at Werribee (in 2018).

8

Summary of need

8.1 Hospital capacity demand and supply summary

Bed demand

Demand for private hospital bed capacity is forecast to increase strongly due to underlying population growth, prevalence of existing conditions and likely increases in the proportion of the population with PHI.

These factors have been examined in admissions modelling by HardesData, which concludes that the underlying demand for private hospital services is likely to increase by +520 beds over the period 2023 to 2032, as summarised in Table 21.

Table 21—Study region private hospital bed demand summary

	2023	2032
Private hospital bed demand (85% occupancy)	**1,499**	**2,019**

Source: HardesData

Bed supply

Within the study region there are just 269 rooms within private hospitals (Table 22), representing less than 20% of modelled bed demand.

With private sector hospitals heavily skewed towards inner Melbourne and the eastern and south-eastern suburbs, study region residents are obliged to travel outside the region to access private hospital services, creating additional time and cost penalties for these people.

Table 22—Study region private hospital bed supply

Facility	Total beds
St Vincent's Werribee	67
Sunshine Private	51
Western Private	68
Essendon Clinic	33
Wyndham Clinic	50
Total beds	**269**

Source: Erica; Deep End Services

Need for additional beds

The analysis of private hospital bed demand and supply shows that there is a very significant shortfall in the number of beds located within the study region (269 beds) compared against modelled bed demand (1,499 beds).

With a large forecast increase in demand for private hospital beds (+520 beds by 2032), there is an overwhelming and urgent need for additional private bed capacity within the region.

8.2 Perioperative and interventional services

Perioperative services are responsible for operating theatres and procedure rooms, while interventional cardiology services encompass cardiac catheter laboratories.

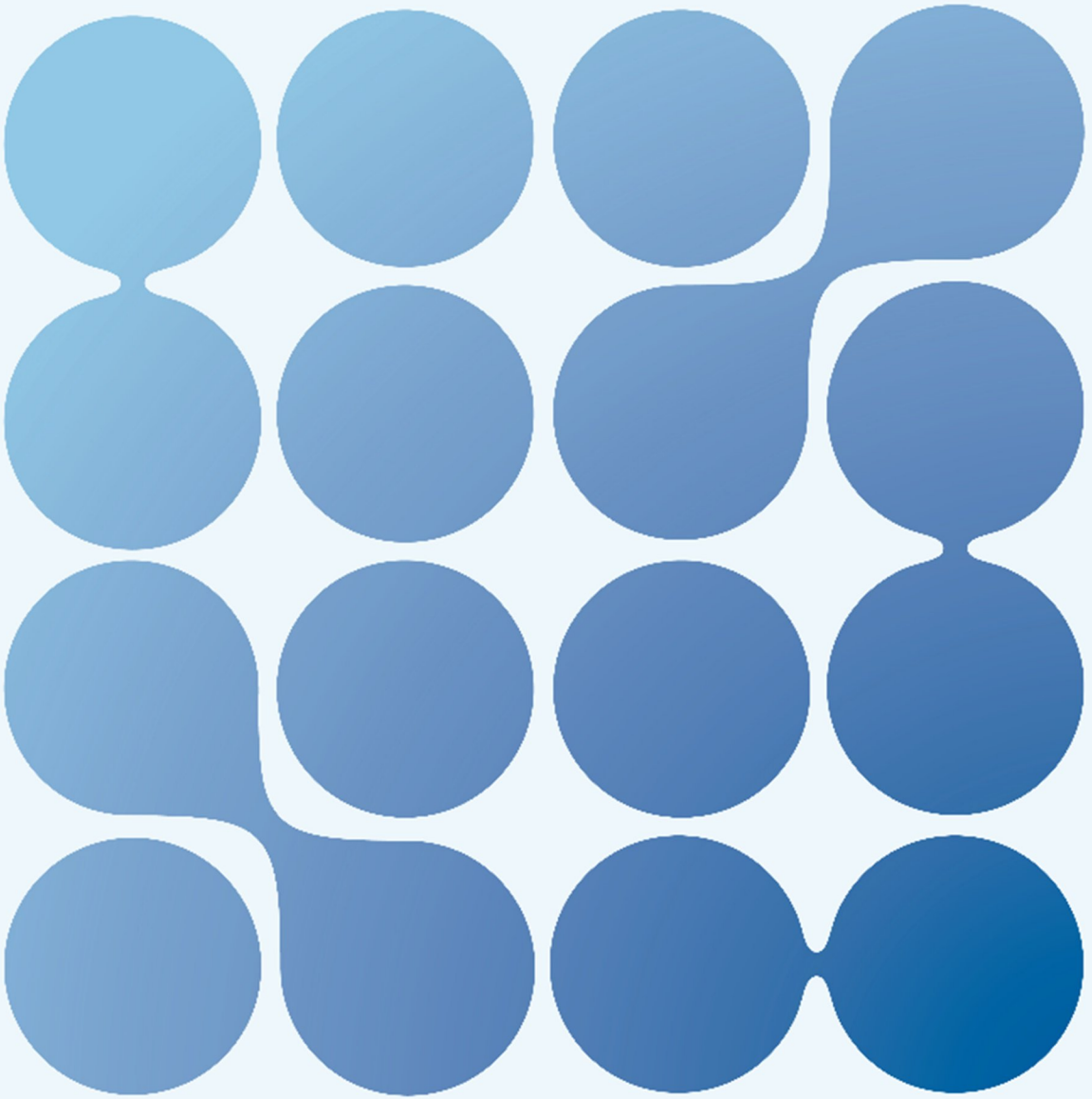
As is the case with inpatient beds, the modelling presented in this report demonstrates that there is a significant shortage of perioperative service capacity and to a lesser extent cardiac catheter laboratories in the study area.

In terms of perioperative services, the demand analysis (refer section 6.10) indicates current demand for 47 operating theatres and procedure rooms to serve study region residents, increasing to 61 theatres/rooms in 2032. The existing supply of 14 theatres/rooms within the study region (refer Table 19) represents a significant shortage of capacity, representing just 30% of current requirements.

The modelling presented in section 6.10 identifies demand for 4 cardiac catheter laboratories in 2023, increasing to 5 in 2032.

With just 2 cardiac catheter laboratories within the study region at present, there is a demonstrable need for additional facilities.

PART C: ECONOMIC EFFECTS



9

Introduction

9.1 Examination of economic outcomes

Development of a new private hospital at the subject site will help to meet the existing and future health demand needs of residents living in Melbourne's western suburbs, as examined in Section B of this report.

In addition to serving existing and future need for healthcare services, the FCH will generate a range of economic outcomes associated with construction and operation of the facility.

This section examines economic outcomes in terms of:

- Health system outcomes (Chapter 10), including better integration of public and private health sectors, increased supplementary capacity to cover public service shortfalls, improved likelihood of attracting doctors, specialists and other staff, and catalytic effects on investment in other health services in the region; and
- Other economic effects (Chapter 11) such as increased local employment during construction and operation, travel savings and other potential benefits.

10

Health system effects

10.1 Introduction

The introduction of a new private hospital adjacent to the NFH has potential to generate a range of positive outcomes for the health system in Melbourne's western region, due to potential operational and workforce efficiencies, creation of a new health cluster and potential for additional capital investment into new services.

10.2 Supporting the public health system

Construction of the proposed FCH will support the operation of the NFH by enabling additional surgical capacity in the region.

Private hospitals, especially those co-located or in close proximity to major public hospitals, have an important role in providing supplementary capacity to cover periods of shortfall, to help reduce waiting lists for elective surgery, and to assist during public health emergencies such as the COVID-19 pandemic.

According to information from the AIHW and the Private Hospital Association, the number of hospitalisations contracted from the public system to private hospitals increased from 33,500 admissions in 2007-8 to more than 87,000 in 2017-18. Even more significant contracting of resources occurred over the period 2020-22, associated with Private Hospital Funding Agreements between the Victorian Government and the private hospital sector to cope with pandemic hospitalisation requirements.

Other benefits associated with co-location of public and private health facilities include:

- Reduction in service duplication, allowing for specialisation between different facilities
- Efficiencies through sharing of facilities, staff and equipment
- Increased flexibility in operational service provision through potential to contract out during times when bed shortfalls occur
- Opportunities for public hospital revenue through contracting facilities for use by private patients
- Backup specialist care available, especially when smaller private hospitals are located close to major public tertiary hospitals and therefore can rely on quality emergency care.

10.3 Workforce efficiencies

The proposed FCH has potential to raise the quality of medical specialist staff working in the regional health system in western Melbourne. The presence of a private hospital is important because a large proportion of medical specialists (around 70% according to research conducted by the Melbourne Institute) do some private practise consulting even while they work predominately in the public health system. A nearby private hospital enables these staff to serve private clients locally in an efficient manner rather than having to travel between the NFH and, say, specialist rooms in Parkville, East Melbourne, etc.

This has potential to improve patient care outcomes as well as increase the viability of teaching services.

10.4 Filling specialist gaps

By creating a cluster of health services across public and private sectors, the proposed FCH has potential to attract staff into specialisations that have been defined by the Federal Department of Health and Aged Care as Districts of Workforce Shortage (DWS).

The DWS classifications for specialists are identified across the following 8 key specialist fields:

- Anaesthetics
- Cardiology
- Diagnostic radiology
- General surgery
- Medical oncology
- Obstetrics and gynaecology
- Ophthalmology
- Psychiatry.

In 2022 shortages were identified across most of the fields within the SA3 regions comprising the study region, as shown in Table 23.

Of the 7 SA3 regions, only Banyule meets national framework requirements across most specialisations, while Hobsons Bay, Melton-Bacchus March and Wyndham have shortages across all categories.

Table 23—Study region DWS classifications

Sub-region (SA3)	Anaesthetics	Cardiology	Diagnostic Radiology	General Surgery	Medical Oncology	Obstetrics & Gynaecology	Ophthalmology	Psychiatry
Essendon	🚩	⚑	🚩	🚩	🚩	🚩	⚑	⚑
Banyule	⚑	⚑	⚑	⚑	⚑	⚑	⚑	🚩
Keilor	🚩	🚩	🚩	🚩	🚩	🚩	🚩	⚑
Hobsons Bay	🚩	🚩	🚩	🚩	🚩	🚩	🚩	🚩
Maribyrnong	🚩	🚩	🚩	🚩	⚑	⚑	⚑	🚩
Melton - Bacchus Marsh	🚩	🚩	🚩	🚩	🚩	🚩	🚩	🚩
Wyndham	🚩	🚩	🚩	🚩	🚩	🚩	🚩	🚩

Source: District of Workforce Shortage, Specialists, 2022 (Dept Health & Aged Care)
Note: red flag = shortage identified

10.5 Catalysing additional investment

The proposed addition of a new private hospital at the subject site has potential to catalyse development within the wider Footscray MeAC precinct and establish a new health and innovation cluster alongside the NFH and its partners such as Victoria University.

Healthcare and innovation precincts have emerged throughout Australia, either organically or as part of an explicit strategy, as an important model for the provision of care and economic development. These precincts typically incorporate:

- A tertiary public hospital, sufficient in size and service complexity to anchor the precinct
- Partner institutions such as a university or private healthcare provider, creating scaled opportunities for clinical research
- A network of clustered health services and activities serving a whole of community approach such as sub-acute facilities, primary care, specialist centres, aged care and medi-hotels
- Auxiliary uses such as education, research, retail and residential.

This critical mass of investment into property, infrastructure and people helps foster innovation and creates centres of excellence, thereby generating healthcare benefits for local communities as well as other economic outcomes associated with capital investment, business establishment, job creation, amenity improvements, and opportunities to capture additional benefits from students, patients and other visitors.

Several examples of the evolution of some significant health clusters around Australia are summarised below.

Gold Coast health and knowledge precinct

This is a significant health precinct still under development, which was established as a knowledge precinct and commenced with the construction of a major teaching hospital (Gold Coast University Hospital) and a research and education facility associated with the adjacent Griffith University (Griffith Health Centre) in 2013.

Development since then has expanded onto adjacent land and incorporated a range of medical services.

Of principal relevance is the opening of the Gold Coast Private Hospital in 2016 with 284 beds and 13 operating theatres. This hospital was then expanded in 2018 with additional inpatient wards, new operating theatres and a day surgery unit.

Additional major expansions are also planned by Queensland Health including a new modular 70-bed expansion.

Berwick health precinct

The Berwick health precinct comprises a range of public and private health services centred on the Casey Hospital which was constructed in 2004 but has since been expanded numerous times, most recently in 2020.

The St John of God Private Hospital opened in 2018 and includes a maternity unit, 8 operating theatres, endoscopy theatres, a cardiac unit and intensive care unit.

Federation University – Berwick provides courses in public health research and nursing.

Campbelltown health precinct

Campbelltown Hospital was first established in 1977 to serve the local catchment in Sydney's south-west fringe. Since then, rapid urban development in the surrounding area has led to significant upgrades to the precinct across numerous expansions.

The Campbelltown Private Hospital was built in 2007 and then expanded in 2009 and again in 2014.

The Macarthur Clinical Services building was added in 2017 to accommodate the inaugural clinical school of Western Sydney University's School of Medicine.

Future redevelopment stages are currently underway and will include a new multi-level clinical services building providing new inpatient wards, operating theatres, intensive care unit, birthing suites, mental health units and expanded emergency department.

Nepean Hospital precinct

Stage 1 of the redevelopment of the Nepean Hospital near Penrith was completed in 2022, with Stage 2 under construction and due for completion in 2026. The project has a total investment value of $1bn.

A significant number of other private sector health sector and supporting projects have also proceeded or are planned in the surrounding area, including:

- Somerset Specialist Centre (Stage 1 completed, Stage 2 application submitted)
- Nepean Health Hub (completed 2021)
- Nepean Private Hospital (under construction)
- Matilda Private Rehabilitation Hospital (completed 2023)
- Hilton Garden Inn Hotel.

These projects that were catalysed by the initial public hospital investment will realise more than $180m in investment create over 210 new jobs in the precinct.

11

Economic impact assessment

11.1 Introduction

This section of the report examines the potential economic benefits that would be realised if the development were to take place.

These benefits are expressed in terms of both measurable and non-measured factors.

The measurable economic benefits include:

- The capital investment brought into the region
- The construction employment generated as a result of this investment
- The ongoing jobs that will be created once the facility is operational.

A range of other benefits are also identified, including opportunities for improved health care outcomes, travel time savings and providing local employment opportunities for study region residents working in the health sector.

11.2 Construction period

According to EHCP based on cost estimates by Slattery, the proposed new hospital has a total capital investment value of approximately $164.5 million, which would be spread over a construction timeframe of approximately 20 months.

This estimate excludes the cost of land purchase and planning levies.

The construction of the hospital would involve a total estimated 390 full-time equivalent (FTE) jobs directly created on-site.

Another 685 jobs (FTE) would be created elsewhere in the economy through up-stream and downstream industry linkages and consumption of wages income. Most of these indirect (or multiplier effect) jobs would be retained within Victoria.

The actual number of people working on the project would be much higher, given the involvement of construction teams for particular components of the project.

With a 20-month construction program, this represents an average of 235 direct (FTE) jobs created each year, with another 410 indirect FTE jobs created per year throughout the wider economy.

Table 24—Construction employment effects

Item	Measure
Construction cost	$164.5m
Labour component	25%
Labour cost	$41.1m
Average construction wage (FTE)	$105,000
Direct employment (FTE – total job years)	**390**
Multiplier (Type 2B)	1.752
Indirect employment (FTE – total job years)	**685**
Construction period	20 months
Direct employment (FTE – jobs per year)	235
Indirect employment (FTE – jobs per year)	410

Source: EHCP; Slattery; Deep End Services; ABS

11.3 Ongoing employment

An estimate of ongoing employment generation is presented in Table 25, based on analysis by EHCP of staffing (headcounts) in other similar hospitals and their knowledge of health sector operations.

As shown in the table, the proposed hospital is expected to have a total staffing requirement of around 380 positions.

This has then been converted to FTE employment creation based on typical health sector profiles between full-time, part-time and casuals.

In summary, the FCH is expected to generate an estimated 340 full-time equivalent (FTE) jobs within the facility, with another 470 FTE jobs created indirectly as incomes and expenditures flow through the wider economy.

A large share of the indirect jobs would be created outside the study region, although the majority would be retained within Victoria.

Table 25—Estimated ongoing employment

Use	Total staff (headcount)	Estimated direct FTE	Estimated indirect FTE
Hospital staff	224	201	279
Doctors	86	77	107
Consulting suites	18	16	22
Allied health	17	16	22
Cardiology unit	5	5	7
Medical imaging	20	18	25
Café	5	3	6
Building services	3	2	3
Total (rounded)	**380**	**340**	**470**

Source: EHCP; Deep End Services; ABS

11.4 Other non-measured effects

Several other economic and community benefits would be realised with the construction of the proposed hospital on the subject site:

Health outcomes

The establishment of a modern new private hospital within Melbourne's western region will improve access to appropriate health services within a geographic region that currently has poor accessibility to hospitals generally, and to private hospitals in particular.

To the extent that improved access would lead to more timely health care, this has potential to lead to better health outcomes for the local community.

Travel savings

Access to a more convenient private hospital would generate travel time savings for people otherwise required to visit a more distant facility.

Cost savings associated with travel represent a private benefit for people living in the western region of Melbourne.

There would also be positive 'externalities' associated with reduced travel times leading to reductions in emissions of greenhouse gases and particulates. Moreover, the subject site's position close to the confluence of various public transport modes has potential to generate other positive societal benefits to the extent that public transport usage is maximised.

Local employment matching

According to data from the ABS Census, more than 32,000 employed people living within the study region worked within the 'Hospital' and 'Medical and other healthcare services' sectors in 2021.

The number of study region jobs within these industry sectors was 22,470, meaning that there was a net outflow of more than 9,000 residents travelling outside the study region for work within their industry of employment.

Importantly, most of the employment imbalance is associated with people working in Hospitals, with a net outflow of more than 7,200 study region workers required to travel outside the region for work.

The creation of additional hospital and other medical and healthcare service jobs at the FCH will help to provide opportunities for residents working in these industries to obtain local jobs.

Table 26—Hospital and healthcare employment flows, study region

Sector	Employed residents	Local jobs	Inflow (+ve) /outflow (-ve)
Hospitals	17,189	9,966	-7,223
Medical & other healthcare	14,910	12,504	-2,406
Total	**32,099**	**22,470**	**-9,629**

Source: ABS Census 2021

11.5 Summary

In summary, the proposed FCH has potential to generate a range of positive economic and community benefits:

- Significant capital investment amounting to approximately $164.5 million when land purchase costs are excluded.
- Employment generated during construction, estimated at approximately 390 direct FTE jobs over the life of the project, with indirect employment of 685 FTE jobs spread across the wider economy.
- A requirement for an estimated 380 staff positions, equivalent to approximately 340 FTE jobs, with around 470 FTE jobs generated indirectly across the wider economy.
- Creation of other economic and social benefits including:
  - Better health outcomes achieved by having more convenient access to local hospital facilities
  - Personal community benefits associated with reduced cost to access health services
  - Reduced emissions and opportunities to improve usage of public transport
  - Opportunities for local residents working in hospital and other healthcare fields to find jobs within the local area.