Parkville Precinct Strategic Cancer Service Plan

2025-2035

Peter Mac
Peter MacCallum Cancer Centre
Victoria Australia

The Royal Melbourne Hospital

the women's
the royal women's hospital
victoria australia

Contents

Glossary of terms

Term	Definition
Advanced Care Planning	A process of planning for future health and personal care where the person's values, beliefs and preferences are made known to guide decision making at a time when that person cannot make or communicate their decisions.
Cancer pathway	Describes the stages of the cancer experience from prevention through to end-of-life care. The cancer pathway is unique to a person affected by cancer. It is not linear, and people may move in and out of the pathway and cancer system at different stages of their journey.
Clinical trial	A research study that assigns participants to one or more health-related interventions to test new ways to diagnose, treat and manage cancer. This can include trials to test a new drug, device, surgical method, radiation therapy, exercise or behaviour.
Equity	A state of fairness in which all people have the same opportunity to attain their full health potential, regardless of their background, characteristics or beliefs.
Integration	Integration is the action or process of combining two or more things in an effective way. In the context of this Plan, it refers to clinical and operational resources, systems and processes.
Multidisciplinary care	A team approach where health professionals work together to plan treatment and care for individual people affected by cancer.
Networked service model	Formalised, evidence-based and documented relationships between health services ensuring seamless access to sustainable, safe and quality care for the community.
Optimal Care Pathways	These are frameworks for delivering consistent, safe, high-quality and evidence-based care for people affected by cancer. They identify the key points along the cancer care pathway and optimal model of care required. They are intended to improve patient outcomes by enabling consistent care based on evidence and best practice across the state. The principles underpinning the Optimal Care Pathways focus on the patient.
Palliative Care	Care that improves the quality of life of both people facing life-threatening or life-limiting illness and those involved in their care. Palliative care prevents and relieves suffering through early identification and high-quality assessment and treatment of pain and other needs.
Parkville Precinct (the Precinct)	In the context of the Plan, this refers to the Peter MacCallum Cancer Centre (incl. all campuses), the Royal Melbourne Hospital and the Royal Women's Hospital and the commitment to work together. Note that Royal Children's Hospital is also part of the Parkville Precinct more broadly, but not in the context of this Plan.
Prevention	Action to reduce or eliminate the onset, causes, complications or recurrence of disease or ill health. Prevention includes modifying certain cancer-causing risk factors to reduce the likelihood of developing cancer.
Priority populations	Groups of people who have distinct and varying needs in cancer prevention, screening and care due to factors such as ethnicity, cultural background, geographic location, age, gender, sex, sexual orientation, socioeconomic status, family violence or disability.

Term	Definition
Separation	The term used to refer to the episode of care, which can be a total hospital stay (from admission to discharge, transfer or death), or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute to rehabilitation).
Supportive care	Services used by patients to assist with needs beyond treatment, including self-help, information, psychological support, symptom control, social support, prehabilitation, rehabilitation, spiritual support, palliative care and bereavement care.
Survivor	A person who has been diagnosed with cancer, from the time of diagnosis.
Survivorship	A phase of care that follows primary treatment for cancer. Survivorship can include support for rehabilitation, help to detect and prevent new or recurrent cancers, psychosocial support and community-based support.
The Department	The 'Department' refers to the Victorian Department of Health.

Executive summary

Introduction

The Parkville Precinct consists of Peter MacCallum Cancer Centre (Peter Mac), Royal Melbourne Hospital (RMH), Royal Women's Hospital (the Women's) and the Royal Children's Hospital (RCH). Together, the Precinct provides the most comprehensive and complex mix of adult and paediatric cancer services and cancer research in Victoria.

This Strategic Cancer Service Plan is focused on adult cancer clinical services provided by the Precinct partners Peter Mac, RMH and the Women's within the context of the broader Victorian health system. This includes the paediatric radiation oncology services provided by Peter Mac; however, the Plan does not cover paediatric services provided by RCH. Radiation oncology services delivered at other Peter Mac campuses are in-scope. Given its importance and linkages with cancer service delivery, key information relating to research and clinical trials is also included at a high level, but this does not aim to be a research plan.

One of the key strengths of the Precinct is the tertiary service mix across the sites that provides an unrivalled depth of expertise. Cancer services are distributed across the Precinct, along with many supporting clinical and non-clinical services. Cancer research is also Precinct-wide and includes academic partners such as universities and research institutes, working to ensure cancer services are research led. This unique breadth of health services and research means that the Precinct is an excellent location for the management of people with the most complex presentations of cancer.

This Plan articulates an ambition built on these strengths to further embed and formalise the specialised role of the Precinct in the context of Victoria. It is recognised that the Precinct will need to continue to provide comprehensive cancer services to the local population. Cancer services will also need to be provided to a broader statewide and interstate catchment for rare and complex cancers and interventions. The Precinct will also need to provide enhanced leadership and support for cancer research and service provision across Victoria.

Planning context

Key contextual factors impacting the development of the Plan included:

- The Australian and Victorian cancer plans and their focus on equity of access and outcomes, personalised screening strategies, networked services, and partnerships.
- Increasing cancer prevalence (impacted by decreasing mortality, ageing) and disparities in access and outcomes in priority populations such as Aboriginal people and those who reside in rural and remote areas.
- Significant recent and continuing advancements in cutting edge therapies, many of which are already provided by the Precinct such as immunotherapy, theranostics and robotic surgery as well as therapies that aren't yet available in Australia such as Proton Therapy.
- The continued need for all Precinct Partners to collaborate to provide the broad range of cancer services at the Precinct, supported clinically by the 13 Precinct-wide cancer streams. There are high volumes of cancer services provided across the Precinct, and specialised services and supports provided by each partner.
- The importance of the statewide role of the Parkville Precinct for cancer services, particularly for rare and complex cancers and complex interventions. Around 17% of all public cancer-flagged inpatient activity in Victoria is provided from the Parkville Precinct (more than twice the volume as the second largest provider). Furthermore, over 50% of cancer activity at the Precinct is by patients residing more than 20km away.
- The systemic issues identified through analysis and consultation are important to address into the future. This includes increasing demand and complexity, a lack of connected services and clarity for referrers across Victoria, lack of consistency in the provision of patient-focused models, funding challenges, workforce shortages and barriers to optimal integration across the Parkville Precinct (systems and processes).

Strategic clinical service directions, strategies and vision

In alignment with Precinct partner strategic directions, the Precinct will:

Provide the world's best cancer care, cancer discovery and translation, and leadership for all people affected by cancer in Victoria.

The diagram on the following page articulates the overall strategic clinical service directions and strategies to meet this vision and address the systematic challenges identified. The following page articulates the 2035 service model vision for the Parkville Precinct.

There is a unique opportunity to raise the standard of cancer care and equalise access to specialist cancer services for Victorians through the Victorian Health Services Plan and the unique suite of services, expertise and partnerships in the Parkville Precinct.

1. Provide world leading, research led, person centred, specialised cancer services.	• Attract and retain **the best clinicians, thought leaders and researchers**. • Be **creators and early adopters of new technologies, novel therapies, models of care and digital health** to pursue innovation and lead change across the health system. • Develop technology to identify and record **patient reported outcome measures** (PROMs) and **patient reported experience measures** (PREMs) to directly influence improvements to patient care. • Continue to **strengthen research and clinical trials** to ensure innovation in cancer care is prioritised and ensure access to emerging therapies for Victorians. • Further pursue **private and commercial opportunities** in clinical practice for the Victorian community and to enhance equity. • Continue to **strengthen strategic partnerships** with other world leading cancer centres and academic universities.
2. Work with other urban, regional and rural health services to strengthen cancer care across Victoria.	• Strengthen the role of the Precinct as the **centre for the most complex cancer services and patients** in Victoria. • Provide **statewide leadership and support for cancer service delivery, research, training and education** to uplift statewide service capability. • Support the development of **networked service models** for cancer tumour streams and specialised interventions in Victoria in collaboration with the Department of Health and other health services. • Work with PHNs, primary care providers and health service partners to **improve referral and discharge pathways** (right service, right place, right time). • Prioritise **equity of access**, particularly for remote and priority populations. • Pursue and help design **new funding streams** to support service delivery and sustainability. • Invest in **infrastructure** to meet increasing demand.
3. Better integrate and coordinate cancer services across the Precinct.	• Further **leverage the clinical and research enterprise across the Precinct** to set the standard for the management of cancer in Victoria and beyond. • Develop **Precinct-wide models of care** and clinical pathways in partnership with consumers to optimise patient access and clinical outcomes. • Further **integrate systems, data and processes** that enable clinical service delivery for our people. • Establish **Peter Mac as the Precinct lead for adult clinical cancer services** to focus on the patient pathway and reduce barriers to efficient, quality care. • Configure clinical services to be **sustainable** and to optimise resource allocation.

It is recognised that different services require different focus areas and models of care. Although these will evolve over time (impacted by statewide planning, new research and technology etc.) the service model in 2035 will include the following.

Location 	The Parkville Precinct will: • Continue to provide comprehensive cancer services to a local, immediate catchment (i.e. geographical areas directly around the Precinct). This will also help provide a service mix with some lower complexity work to ensure service sustainability and support training programs. • Service a broader statewide and interstate catchment for a wide range of specialised services. Where patients need to come from to receive care will be dependent on the type of cancer and/or complexity of intervention.
Statewide leadership 	The Parkville Precinct will: • Set the standard for the management of cancer across the care continuum for the State. This will include reforming models of care related to follow-up and surviorship. • Provide secondary consultation services, enabling cancer service providers to obtain specialist advice to guide treatment planning to support delivery of care close to home, with escalation and rapid re-entry pathways. • Establish partnerships with other metro, regional and rural health services to ensure cancer services and clinical trials can be accessed closer to home where safe and sustainable. • Formally establish partnerships with other organisations to enable Parkville to provide education, materials and advice.
Specialisation 	The Parkville Precinct will: • Continue to lead Australia in cancer research and clinical trials. • Deliver value-based healthcare; the right care, at the right place, at the right time. • Place patient experience at the forefront of care delivery, informed by co-designed patient reported experience measures, enabling patients to navigate their care in a personalised way, underpinned by supportive care principles, recognising the importance of wellbeing and social determinants, and ensuring coordination with all care providers. • Ensure that care is accessible to priority populations, recognise the impact of socioeconomic vulnerabilities on individuals and their families, and ensure appropriate psychosocial supports are in place. • Provide specialised diagnosis and treatment planning for rare and complex cancers utilising the high level clinical and diagnostic capability (incl. molecular pathology, genetic testing, imaging). For example, this would include haematology and sarcoma services. • Strengthen and formalise its statewide role for rare and complex cancers (e.g. neuro oncology, testicular cancer) including cancers of an unknown primary. • Provide the most cutting-edge therapies and interventions including immunotherapy, CAR-T cell therapies, theranostics, specialised PET/CT, radiation therapy (including proton therapy), complex surgical interventions. • Provide a statewide role in specialist areas that cut across cancer streams e.g. Adolescent and Young Adult services, cancer in pregnancy, Familial Cancer Centre. • Continue to provide a role in surveillance/screening, including breast screening, surveillance endoscopies and specialised genetic screening. • Take the lead in the development of, advocacy for, and dissemination of precision prevention models informed by genetic testing. • Provide data informed and enabled care with digitally capable, trained workforce.

1. Introduction

The Parkville Precinct includes Peter MacCallum Cancer Centre (Peter Mac), Royal Melbourne Hospital (RMH), Royal Women's Hospital (the Women's) and Royal Children's Hospital (RCH). Together, the Precinct provides a comprehensive range of cancer services and research for adults and children, alongside academic partners. The Precinct services patients in Victoria, as well as interstate and internationally for complex treatments.

In 2024, Parkville Precinct partners Peter Mac, RMH and the Women's agreed to collaborate to develop a Strategic Cancer Service Plan. Although RCH is also within the Precinct, the focus for this Plan was agreed to be on adults. The rapidly changing cancer models and treatments, capacity and funding pressures, and increasing demand indicated a need to review the clinical service priorities for the Precinct.

Peter MacCallum Cancer Centre, Royal Melbourne Hospital and Royal Women's Hospital have collaborated to develop the **Parkville Precinct Strategic Cancer Service Plan**

The key objectives were to:

- Understand and document **the profile of cancer services** provided at the Precinct.
- Develop a shared vision for **what cancer services should be provided** at the Precinct.
- Articulate **key long-term planning priorities** to guide further work and investment.

The scope of the plan is focused on cancer clinical services provided by the Precinct partners (Peter Mac, RMH and the Women's) within the context of the broader Victorian health system. This includes the paediatric radiation oncology services provided by Peter Mac; however, the Plan does not cover paediatric services provided by RCH. Radiation oncology services delivered at other Peter Mac campuses are in-scope. Given its importance and linkages with cancer service delivery, key information relating to research and clinical trials is also included at a high level, but this does not aim to be a research plan.

This Plan is primarily targeted at the Precinct organisations to inform future strategy, inclusive of Executives and all staff. The communication of the Plan (through developing targeted documents and information) will also consider broader audiences including the Department of Health, other health organisations and patients and carers.

This is an overarching long-term strategic clinical service plan to articulate overall cancer service needs and strategies. The changes proposed are not yet confirmed or funded. Further enabler planning will be required to ensure the strategies articulated can be realised.

It is also noted that the focus of the Plan is on public cancer services. The current and future landscape in terms of private healthcare for cancer patients is dynamic and influenced by economic and commercial factors which go beyond the scope of the Plan.

The Plan development was informed by a broad engagement process including consumers, clinicians, leaders and service partners. This included a cancer service-wide survey and over 50 group consultations involving over 500 people. This included patients and consumer groups, cancer streams, clinical, clinical support and patient support services.

The Plan is strategic in nature and aims to articulate the key high-level priorities across the Precinct and for individual clinical and related clinical support services. It is not a detailed workforce, infrastructure or information and communications technology plan, nor is it a detailed operational plan. Further work will be required on enabler planning and to prioritise and execute the Plan over the next decade.

2. Planning context

Summary of key findings and planning implications

- The Parkville Precinct is in northern Melbourne and includes Peter MacCallum Cancer Centre, Royal Melbourne Hospital, Royal Women's Hospital, Royal Children's Hospital as well as private hospitals, university and research partners who are integral to providing quality cancer care.
- The implementation of the Health Services Plan will have a significant impact on all health services in Victoria, leading to impacts on how public health services are governed and network. The services at the Parkville Precinct will have a continuing role in servicing the local population and will also need to continue to have a leadership role as a provider of highly specialised tertiary services.
- Recently released Australian and Victorian cancer plans articulate a range of strategies that the Parkville Precinct will have a key role in progressing, including:
  - Ensuring equity of access to cancer services and cancer clinical trials, as well as equitable outcomes. This relates to priority populations, and regional and rural areas. The Parkville Precinct, in particular Peter Mac, conducts significant volumes of clinical trials and it will be important to ensure these are accessible across the State to all populations. Enabling more accessible cancer services will require service networking and leadership from Parkville Precinct partners.
  - Introducing targeted or personalised screening strategies. This requires specialised providers of tertiary services including genetic testing expertise to progress initiatives. The Parkville Precinct has the greatest concentration of this expertise in the State and is well positioned to work with partners to progress initiatives.
  - Development of a national framework for networked, distributed comprehensive cancer care, including Comprehensive Cancer Centres. Parkville would be established as one of these Centres in Australia and be positioned to provide a formalised leadership role.
  - Designing and embedding patient reported experience and outcome measures to inform improvements in the management of cancer. This is currently limited and will require significant change to embed across Peter Mac, RMH and the Women's.
  - Enhance partnerships and strengthen capability to ensure the workforce of the future. The Precinct can continue to provide a leadership role in relation to education and training to support this.
- Precinct Partner strategies are broadly aligned in articulating concepts of focusing on providing evidence-based world leading care, research and innovation, collaboration, workforce development and leadership. The patient experience is also at the forefront and key initiatives to ensure patients can navigate cancer services will remain of the utmost importance. Aboriginal health and reconciliation are also important, including the provision of culturally safe and equitable care. These strategies will need to be reflected in clinical service planning priorities.
- The National Optimal Care Pathways Framework standardises the development, update, evaluation and uptake of these Pathways. The Precinct will need to implement these evidence-based pathways as they continue to be developed as part of the Australian Comprehensive Cancer Network.
- In Victoria, almost 100 people are diagnosed with cancer every day. Cancer prevalence is increasing due to improved treatments and decreasing mortality rates. Disparities remain between groups, in particular Aboriginal and/or Torres Strait Islander Victorians, people of lower socioeconomic status and people who reside in rural and regional areas have lower 5-year survival rates. As the population increases and ages, incidence rates are projected to increase and as more people survive, the focus on survivorship care will continue to increase in importance. Demand for services at the Parkville Precinct will continue to increase, and new models of care to deal with changing patterns of cancer incidence and prevalence will be required.
- The Parkville Precinct is at the cutting edge of emerging therapies and models of care that are expected to continue to have an increasing role in cancer care. The Precinct will need to continue to lead research and translation in cancer care for all Victorians.

2.1. The Parkville Precinct

The Parkville Precinct is located 1.5km north of Melbourne CBD and is home to Victoria's world-leading biomedical sector, including health, education, research and commercial facilities. The Precinct includes Peter Mac, RMH and the Women's. RMH and Peter Mac are connected via walkways. Royal Children's Hospital is also located a short distance away in Parkville.

All public hospitals within the Parkville Precinct provide highly specialised, tertiary level care and support patients from across Victoria, interstate and internationally. Furthermore, all hospitals provide different aspects of cancer care (further outlined in Chapter 4).

A high-level summary of each hospital is outlined below:

- **Peter MacCallum Cancer Centre** provides highly specialised cancer care, research and education. Peter Mac is also the provider of radiation oncology services at other campuses located in Bendigo, Box Hill, Moorabbin and Sunshine. Outpatient imaging services are also currently provided from East Melbourne.
- **Royal Melbourne Hospital** is a tertiary referral hospital located to the north of Peter Mac. It provides adult acute, specialist clinical services including cancer, emergency, intensive care and coronary care, surgical, and medical services, including being one of two state trauma services. RMH has several other campuses and sites including Royal Park (subacute) and Elizabeth St (dialysis, specialist clinics and administration).
- **Royal Women's Hospital** and provides specialist maternity, neonatal, gynaecology, oncology, reproductive and sexual health services to women, babies and families.

Figure 1. The Parkville Precinct in Melbourne

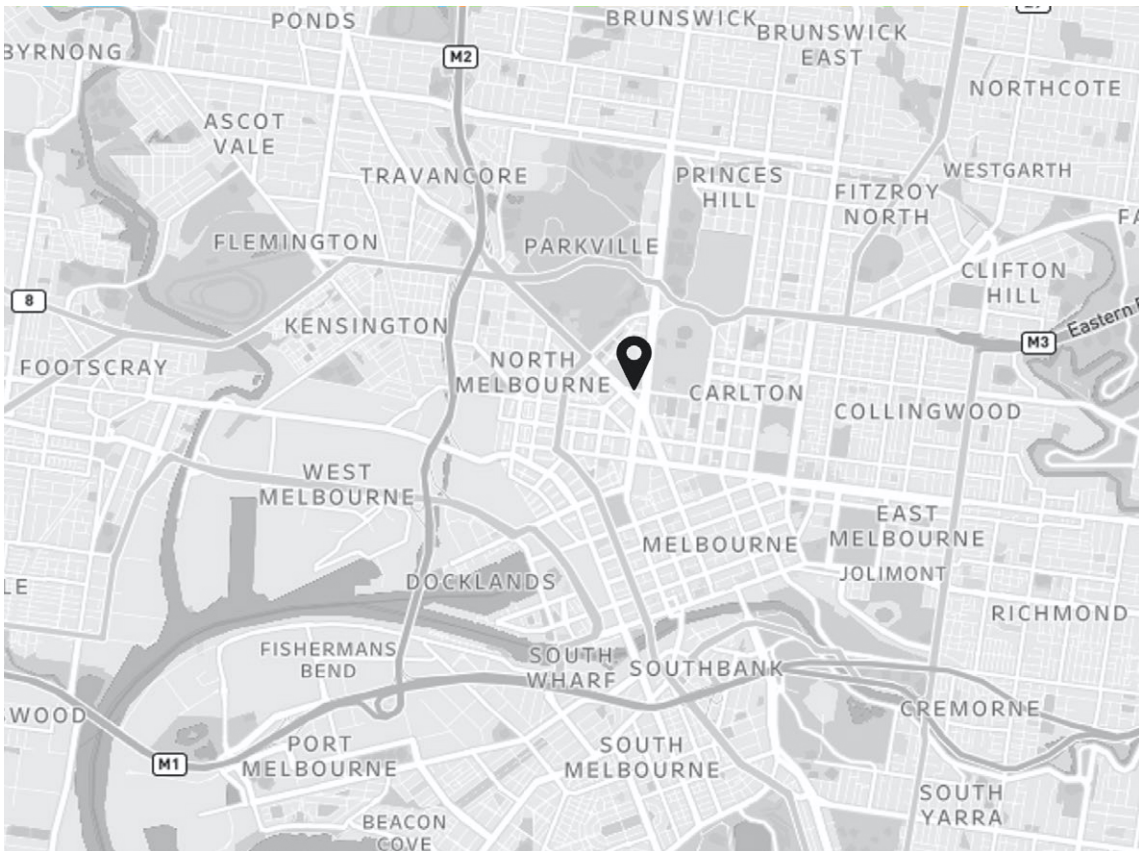
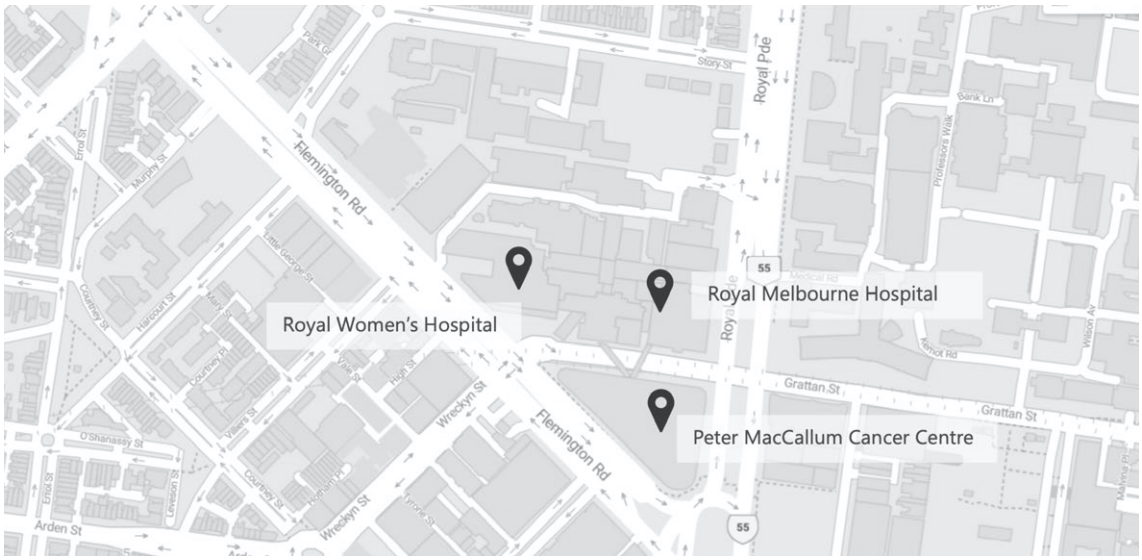


Figure 2. Proximity of Peter Mac, RMH and the Women's



Private hospitals are collocated in the Precinct – Melbourne Private Hospital and Francis Perry House.

The RMH, Peter Mac and the Women's are part of the broader Melbourne Biomedical Precinct (MBP) an internationally recognised hub for health and biomedical research in the heart of Melbourne. The MBP is one of seven National Employment and Innovation Clusters (NEICs) in Victoria which aim to drive economic growth, employment and innovation through improved infrastructure, industry partnerships and the commercialisation of research. The MBP hosts the greatest concentration of biomedical researchers and clinicians in Australia and is a major economic asset for Victoria.

Other key partners and organisations include:

- The University of Melbourne: One of Australia's leading University, with strong affiliations with all hospitals in the precinct
- Peter Doherty Institute for Infection and Immunity (PDI): The PDI, a joint venture between the University of Melbourne and the RMH, is focused on research, education and public health initiatives related to infectious diseases and immunity.
- Victorian Infectious Diseases Reference Laboratory (VIDRL): A leading public health laboratory, VIDRL specialises in the diagnosis, monitoring and research of infectious diseases, with critical services including diagnostic testing, outbreak responses and research on emerging infectious diseases.
- The Florey Institute of Neuroscience and Mental Health (Florey Institute): The Florey Institute is a leading brain research centre which is dedicated to discovering treatments for neurological and mental health disorders.
- The Royal Children's Hospital (RCH): The RCH is a leading paediatric hospital renowned for its comprehensive healthcare services for children and adolescents, which provides medical, surgical and mental health services.

2.2. Strategic and policy context

Australian Cancer Plan

The Australian Cancer Plan 2023-2033 articulates a national plan to improve prevention, screening, treatment and management of all cancers across Australia. Its priorities have informed and align with this Precinct Plan.

Strategic objectives articulated in the Plan are:

1. Maximising cancer prevention and early detection
2. Enhanced consumer experience
3. World class health systems for optimal care
4. Strong and dynamic foundations
5. Workforce to transform the delivery of cancer care
6. Achieving equity in cancer outcomes for Aboriginal and Torres Strait Islander people.

The Plan articulates key actions that align with these objectives such as:

- The introduction of targeted or personalised screening strategies.
- Development of a national framework for networked, distributed comprehensive cancer care, including the role of Comprehensive Cancer Centres to enhance patient outcomes, strengthen transparency and accountability, and drive continuous improvements for all patients across the network regardless of where care is provided. This will be as part of an Australian Comprehensive Cancer Network (ACCN).
- Implement innovative, evidence-based and cost-effective models of care for people living with and beyond cancer.
- Ensure targeted and innovative research investment into areas of unmet and emerging need; and improve clinical trial design and equitable access.
- Design and embed patient reported experience and patient reported outcomes into national performance monitoring and reporting for all providers, to assess services for all population groups and establish an evidence base.

Victorian Plans

In 2023, the Victorian Department of Health commissioned an Expert Advisory Committee who developed the *Health Services Plan*. The plan provides recommendations for a more connected system that delivers the right care, at the right time, in the right place, for all Victorians. The Precinct will include the most complex services within this framework and the government will proceed with many recommendations in the report including the expansion of Victorian capability frameworks to include cancer services. Parkville is also recommended to be established as part of a metropolitan Melbourne and statewide service network, within a broader governance arrangement of LHSNs across Victoria.

This document acknowledges that there may also be future impacts on governance and operations based on the recommendations, activities and decision making because of the plan.

The activities resulting from the Health Services Plan will have a significant impact on the implementation of the Parkville Precinct Strategic Cancer Service Plan. Parkville is expected to have multiple roles including servicing the local population, supporting other LHSNs as a specialist provider, and being the provider of highly specialised services.

The Victorian Cancer Plan 2024-2028 has also recently been published. The Plan articulates a number of key priorities and actions. Of particular note, priority next steps include:

- The need to drive **greater equity** in access to cancer prevention, treatment and supportive care.
- The need for a renewed focus on cancer screening and early detection.

There are five pillars articulated in the Plan that have actions associated with them. Those of most relevance to this Precinct Plan are summarised below.

Pillar	Select priority goals	Select actions
1. **Consumers are active partners in their health and wellbeing.**	• Ensure Victorians have the best possible experience of the cancer treatment and care system.	• Improve access to appropriate services and care for priority populations.
2. **Empowering Victorians to prevent cancer.**	• Halve the proportion of Victorians diagnosed with potentially preventable cancers.	• Prevent cancers related to viral infections.
3. **Optimal access and care across the cancer pathway.**	• Achieve equitable outcomes for all Victorians.	• Improve timely and equitable access to screening and diagnostic services, focusing on priority populations • Ensure Victorians have access to the latest cancer treatments and clinical trials
4. **A workforce that can deliver now and into the future.**	-	• Strengthen capability within the healthcare workforce to improve linkages across the cancer pathway • Enhance partnerships between clinical, academic and research institutions to support innovation and the workforce of the future.
5. **System design and delivery driven by research, data and intelligence.**	• Increase the overall number of new clinical trial enrolments in rural and regional areas in Victoria by 30%	• Improve access to clinical trials in regional and rural areas

Although it is not yet available, a capability framework for cancer services in Victoria is expected to be released by the Department in 2025. This will articulate minimum standards and requirements for workforce, equipment, infrastructure and clinical support services for different levels of cancer services. This will impact how services are planned and arranged across Victoria.

The Peter MacCallum Cancer Centre is housed within the **Victorian Comprehensive Cancer Centre (VCCC)** which opened in 2016. The VCCC also houses cancer research and education facilities for Melbourne Health and the University of Melbourne, and a range of other cancer-related organisations.

The **VCCC Alliance** is also housed within the VCCC. It is a partnership of 10 leading research, academic and clinical institutions working together to expedite and amplify leading-edge cancer research, knowledge and expertise. Alliance members include Peter Mac, RMH, the Women's and a range of other health services and research institutions.

It is noted that the Parkville Precinct delivers care within a wider system of cancer care in Victoria, including other key groups such as the **Western and Central Melbourne Integrated Cancer Service** and **Monash Partners Comprehensive Cancer Consortium**. Monash Partners is a network of eight large hospitals working together with Monash University to provide advanced cancer care. The VICS Service is funded by the Victorian Government to work together with health services across the system to implement priorities in the Victorian Cancer Plan with quality improvement, support, project management and data analytics.

The Integrated Cancer Services and Monash Partners will be key partners in aspects of implementation of the Victorian Cancer Plan and the Parkville Precinct Strategic Cancer Service Plan over the next decade.

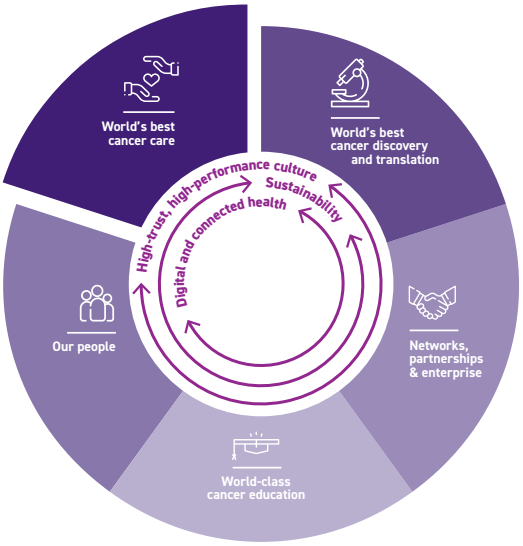
VCCC Alliance
Overcoming cancer together

MP CCC Monash Partners Comprehensive Cancer Consortium

VICS WESTERN & CENTRAL MELBOURNE INTEGRATED CANCER SERVICE

Precinct partner strategies

The **Peter MacCallum Cancer Centre** *Strategic Directions for 2020-2025* aim to improve standards of, and access to, cancer care for all Australians through (1) delivering innovative care, (2) generating scientific knowledge and translation, (3) cultivating networks and partnerships, (4) providing high quality education, and (5) attracting and retaining a highly skilled workforce.



In alignment with the strategic directions, the *Research Strategic Plan 2020-2025* aims for patient-centred research to be simultaneously considered and agile, outwardly facing, truly collaborative and able to demonstrate impact. The plan notes that research support must be internationally world-leading, with the best cancer workforce across research and professional staff.

Peter Mac also has a major focus on patient experience and wellbeing. *The Peter Mac Patient Experience Strategic Plan 2023-2025* articulates top consumer priorities based on broad engagement summarised below.

Navigating

1. Orientation information improved
2. Support services – information and access
3. Patient Navigator services improved
4. Greater staff sensitivity
5. Peer support expanded

Personalising Information / Communication

1. Greater staff sensitivity
2. Health Hub refinements
3. Appointment systems improved
4. Patient Navigator services improved
5. Test results made easier and quicker

Building Capability

1. Treatment planning and choice
2. Greater staff sensitivity
3. Support services – better information and access
4. Mental health service access
5. More support needed at end of treatment

Building Support Networks

1. Peer support expanded
2. Support services – information and access
3. Carer and family support
4. Inter-clinician, department and hospital communications
5. Allied Health access

The *Peter Mac Supporting Carers Strategy 2022-2026* articulates 5 priorities to guide service provision, prioritise new initiatives and facilitate a coordinated approach to supporting Peter Mac Carers. These are focused on areas such as carer health and wellbeing, access to supports and services, and acknowledging and respecting carers.

The Royal Melbourne Hospital *Towards 2025: Advancing health for every one, every day* articulates an agenda to build on strengths in care, research and learning while also meeting the digital transformation and environmental sustainability demands of the future.

The Plan outlines the key goals of:

1. Be a great place to work and a great place to receive care.
2. Grow our Home First approach
3. Realise the potential of the Melbourne Biomedical Precinct.
4. Become a digital health service
5. Strive for sustainability
6. Build for the future

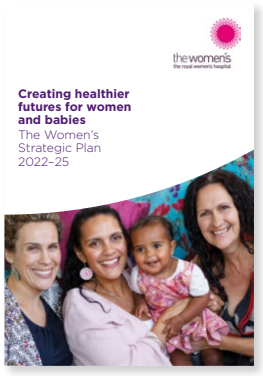
RMH is striving to strengthen collaboration with Precinct partners to improve services and reduce duplication.

Research and education priorities

As an internationally recognised leading health service, RMH collaborates with research, teaching and training partners to shape the future of healthcare. Its strong partnerships with academic and research institutions, particularly The University of Melbourne, Eliza Walter Hall Institute (WEHI) and the Peter Doherty Institute for infectious and immunity enhances its role in clinical teaching, training and research. RMH and its partners plays a vital role in delivering leading health services and supporting biomedical research breakthroughs.

The RMH excellence in clinical care is underpinned by an embedded culture of research engagement. The current research priorities are to:

- Foster the development and retention of academic clinicians to drive clinical research and practice innovation
- Drive translational research through engagement and alignment with precinct partners
- Grow clinical trials capacity and participation
- Employ developments in digital health and bioinformatics to improve care and drive health services and implementation research
- Support Aboriginal and/or Torres Strait Islander peoples' health.

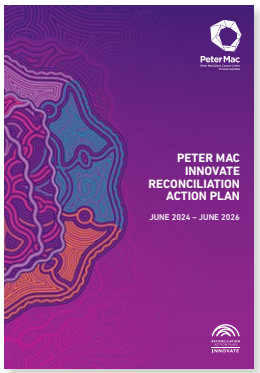


The **Royal Women's Hospital** Strategic Plan 2022-25: *Creating healthier futures for women and babies* articulates strategic directions as below:

- We provide leading care for women and newborns
- We partner to create exceptional experiences every day
- We are the best place to work, learn and contribute
- We lead and partner to influence change

The plan notes the need to strengthen evidence-based, person-centred models of care, strengthen leadership role and collaborations, and accelerate the role as experts and translate research, knowledge and evidence. It also notes the need to partner with other health services at the precinct and build capacity and expertise across the system more broadly.

It should be noted that all partner's strategies are due for updating in 2025 and each organisation is currently planning on producing new strategic documents. This Plan will inform some of the priority areas articulated in these broader documents.



The Precinct partners also have a significant focus on **Aboriginal health and reconciliation**. Each partner organisation has a Reconciliation Action Plan that focuses on various areas, including the provision of culturally safe and equitable care. Given the inequitable health outcomes that exist in Australia, this will remain a priority for Precinct-wide cancer services.

Parkville redevelopment

In October 2022, the Victorian Government announced its commitment to the staged redevelopment and expansion of the RMH and the Women's as part of the biggest health infrastructure project in Australia to date. In May 2024, the Victorian Government announced that it would no longer pursue the proposed Arden precinct as the site for new campuses of the RMH and the Women's. This has redirected scope delivery towards developing the master plan and the redevelopment of a single Parkville site.

Future work is underway to assess suitable options for the delivery strategy for the services delivered at the Royal Park campus as these were previously intended to move to Arden as part of Stage 2. The Parkville site redevelopment has been master planned over multiple stages with the first stage being approved and funded by Government.

2.3. Cancer incidence, prevalence and mortality

Cancer is the leading cause of death and a leading cause of disease burden in Victoria. While cancer mortality rates have been decreasing since 1995, on average 98 people are diagnosed with cancer every day, 32 people die from cancer every day and there are disparities between survival rates by gender and Aboriginality. As the population ages, cancer incidence is projected to rise, however as interventions improve the mortality rate is projected to decrease.

Cancer incidence in Victoria

Prostate, breast, bowel, lung, and melanoma cancers account for of all diagnoses in Victoria **56%**

One in three males and one in four females will develop cancer by the age of 75

In 2022, 35,656 Victorians were diagnosed with cancer – an average of 98 people diagnosed every day.

Most common cancers

People aged 60 and over
Prostate, lung and breast cancer

People under 25
Blood cancer

Males aged 25-59
Prostate cancer

Females aged 25-59
Breast cancer

Cancer prevalence in Victoria

~ 1.9% of the Victorian population is living with a cancer diagnosed in the previous 5 years (7.6% of those aged over 70) **1.9%**

The proportion of Victorians alive after a cancer diagnosis in the previous 5 years has doubled in the last 35 years

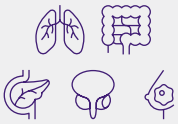
An estimated **129,454 Victorians** are alive after a cancer diagnosis in the past 5 years

Cancer becomes increasingly prevalent with age, and is also increasing due to survivorship (improved treatments)

Age group	Prevalence <5 years, 1988	Prevalence <5 years, 2023
Under 50	0.5%	0.7%
60-69	2.7%	4.8%
70-79	4.1%	7.6%
80+	4.8%	7.6%

Cancer mortality in Victoria

32 people die from cancer every day **32**



The leading causes of cancer death are **lung, bowel, pancreas, prostate and breast cancers**, which account for just over 50% of all deaths

Since 1995 the cancer mortality rate has decreased **2.2% per year in men** and **1.6% per year in women**.

5-year survival rates

Males
70% survival rate

Females
73% survival rate

Aboriginal Victorians have a **12% lower 5-year survival rate** (60%) compared to non-Aboriginal Victorians

Source: Victorian Cancer Registry, Cancer in Victoria 2022

A comparison of cancer incidence, prevalence and survival by Integrated Cancer Service from 2020-2022 indicates significant variation across Victoria. Of particular note, incidence rates, mortality and five-year survival rates are worse in regional areas. It is noted that this also aligns with socio-economic status; people in the most disadvantaged quintile in Victoria are 26% more likely to die of cancer compared to those in the middle quintile.

Table 1. Variation in cancer incidence, prevalence and survival by Integrated Cancer Service, 2020-2022

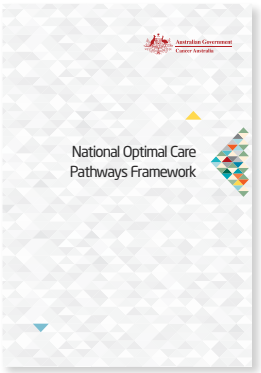
Integrated cancer service	Variation in cancer incidence*	Variation in cancer mortality rate*	Five-year relative survival
North Eastern Melbourne	-5%	-7%	73%
Southern Melbourne	0%	-9%	74%
Western and Central Melbourne	-5%	2%	71%
Barwon South Western Regional	6%	7%	70%
Gippsland Regional	7%	19%	68%
Grampians Regional	9%	18%	68%
Hume Regional	8%	3%	70%
Loddon Mallee Regional	7%	12%	69%

Source: Victorian Cancer Registry

* A positive number indicates that residents of the ICS were more likely to be diagnosed or die of cancer compared to the average across Victoria (a negative number indicates a lower likelihood). For example, 5% indicates that residents were 5% more likely to be diagnosed or die.

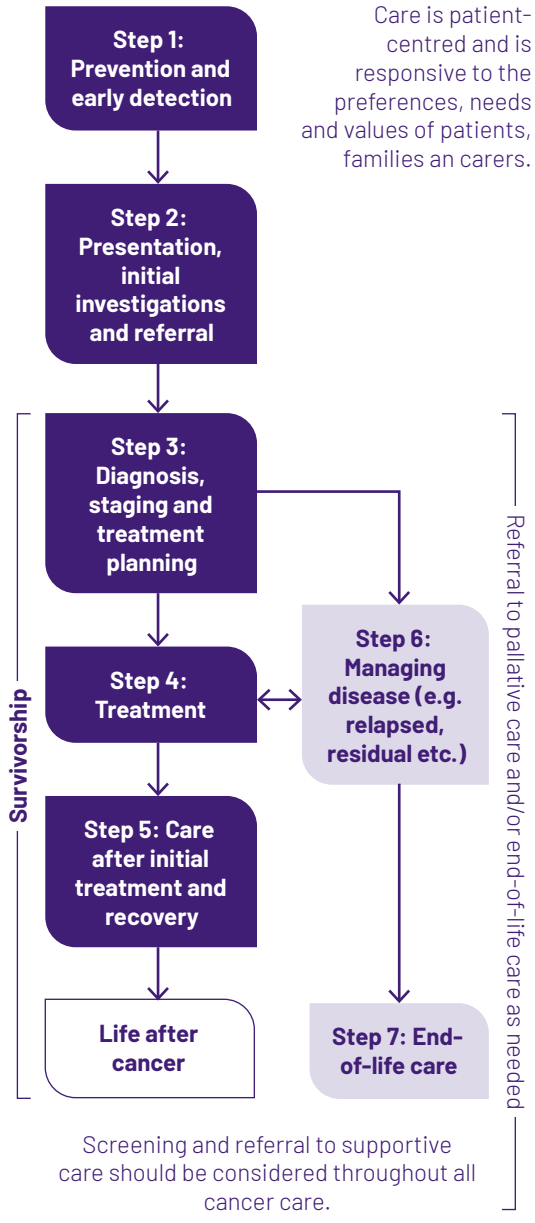
2.4. Cancer patient pathway (optimal care pathway)

Every cancer patient's pathway is different but generally covers prevention and early detection through to end of life care. Optimal Care Pathways (OCPs), developed by the Cancer Council Victoria, provide best practice guidance for a range of cancer types. They provide a way of understanding what should happen at each step of the patient pathway. The optimal care pathway is summarised below.



The **National Optimal Care Pathways Framework** aims to standardise the approach to developing, updating, adapting, evaluating, and embedding OCPs into cancer care. It notes that this is a shared responsibility, and one vehicle into uptake of OCPs will be the Australian Comprehensive Cancer Network (ACCN), anchored by Comprehensive Cancer Centres (CCCs) as centres of excellence. Peter Mac, and the Precinct more broadly will be a CCC and have a responsibility to provide strategic leadership and drive excellence in cancer care across the sector.

Figure 3. Optimal cancer care pathway



Source: Cancer Council Victoria Optimal Care Pathways (cancervic.org.au/get-support/for-health-professionals/optimal-care-pathways)

2.5. Trends in cancer service delivery

Immunotherapy

Treatment that uses the body's own immune system to fight cancer. Drugs are given to patients that may remove barriers (checkpoint inhibitors) or stimulate the immune system.

Immunotherapy better targets cancer cells compared to traditional chemotherapy treatments and is provided at Peter Mac (and other sites in Victoria).

Immunotherapy is usually provided via an infusion in a day medical setting.

Service provision is increasing as research is translated into practice. New types of immunotherapy such as CAR-T cell therapy (essentially retraining the immune system to target cancer cells) are increasing.

Personalised medicine

Personalised medicine tailors prevention and treatment to an individual's needs. This is enabled with new technologies and understanding a person's genetic profile.

Cancer is a genetic disease caused by mutations, and genomic discoveries are changing how treatment options are personalised. For example, better selecting and targeting drug treatments to cancers identified through genomic analysis.

Peter Mac provides a genetic testing service primarily for people with indicated familial risk factors. Theranostics are also utilised.

Utilisation of molecular pathology in cancer risk profiling, cancer identification and treatment is expected to increase.

Virtual care

Virtual care involves any interaction between a consumer and clinician(s), or between clinicians, that occurs remotely using technology. It is a mode of service delivery that supports different models of care.

Virtual care is utilised in many areas at Parkville including outpatient care, allied health, case conferencing, inpatient care, emergency care, telechemotherapy, staff education / training and in supporting clinical trials in regional areas.

Virtual care is already utilised extensively by cancer services across the Parkville Precinct, including for telehealth outpatient appointments and teletrials.

New virtual technologies such as augmented reality are already being trialled in clinical settings and are expected to be increasingly utilised in the future.

Theranostics

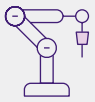
Theranostics is a treatment combining diagnostics and therapies to detect and treat cancers. Due to its ability to better target and customise the treatments, it can be thought of as personalised medicine.

Theranostics is already utilised at the Parkville Precinct and continues to grow as new medicines are discovered and approved. Theranostics utilises radiotracers and PET scanning to locate a cancer followed by an infusion of medicine to destroy it. Treatments are often given regularly and multiple times to the same patient. Due to the complexity of the treatment and radiation considerations, it can only be provided in suitable care settings.

Theranostics is expected to expand due to the continued research efforts and benefits e.g. targeting cancers and reducing side effects.

Robotic surgery

Surgical robots support complex laprascopic procedures. Surgeons use an advanced remote-control system to perform robotic surgery with the support of three-dimensional imaging systems.



Evidence of positive outcomes comparative to traditional techniques for robotic surgery is still emerging. High quality evidence is already established for certain procedures however little high-quality evidence of positive outcomes exists for many other procedures.

Peter Mac and RMH are already world leaders in robotic surgery and Peter Mac is the highest volume public centre in Australia. Various surgeries are performed utilising robotics, with urological procedures (e.g. radical prostatectomies) of particularly high volume.

Robotics continues to develop across the world via research and development of new devices.

Proton therapy

Proton therapy is a type of radiation therapy. Whereas traditional radiation therapy utilises x-rays (photons), proton therapy delivers protons to target cancer cells.

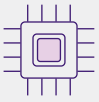
Proton beams can be precisely aimed and controlled to deliver radiation to a tumour while sparing surrounding healthy tissue, which is important for tumours that are located near critical structures.

Further high quality evidence is still required, however there is already good evidence for specific areas, e.g. brain, central nervous system and head and neck.

Proton therapy is not yet available in Australia.

Artificial intelligence

Artificial intelligence is a set of technologies that enable computers to perform advanced functions such as understanding language, analysing data and making recommendations.



Artificial intelligence is already integrated into many medical technologies in some way. However, widespread usage in day-to-day models of care remains limited.

Many opportunities exist to expand its utilisation in areas such as home monitoring, diagnostics, optimising care planning, providing virtual assistance for patients and clinicians, improving education and more.

3. Population profile

Summary of key findings and planning implications

- Given the statewide role of the Parkville Precinct, a specific catchment area is hard to determine. There are different considerations for different services.
- Areas immediately around the Precinct will 'naturally' flow to the Precinct to receive all types of cancer services regardless of complexity. This 'immediate catchment' will continue to primarily flow to Parkville to receive cancer services.
- The immediate catchment for the Parkville Precinct has over 350,000 people. It is broadly characterised by a younger, more advantaged population compared to Victoria. It is projected to increase by 38% from 2021-2036 (a faster overall rate than Victoria) which will lead to continued increases in demand for cancer services.
- Victoria has a diverse population, with around 40% of the population in Greater Melbourne and 20% of the population in the rest of Victoria born overseas. Over 5% of the population in Greater Melbourne speaks English not well or not at all. Ensuring that services reach and are appropriately designed for culturally and linguistically diverse populations will continue to be an important consideration into the future.
- Areas further than 40km from Melbourne are (on average) older, more disadvantaged and have higher proportions of Aboriginal and/or Torres Strait Islander people compared to the rest of Victoria. Furthermore, people aged over 65 are projected to increase by higher rates in areas further than 40km from Melbourne (high users of cancer services). Population health indicators also identify higher rates of risk factors such as obesity and harmful alcohol use in areas outside of Melbourne. This further increases the importance of equity of access to priority populations as indicated in the Australian and Victorian cancer plans, and the important role that the Parkville Precinct will need to have to enable this.

3.1. Catchment definition

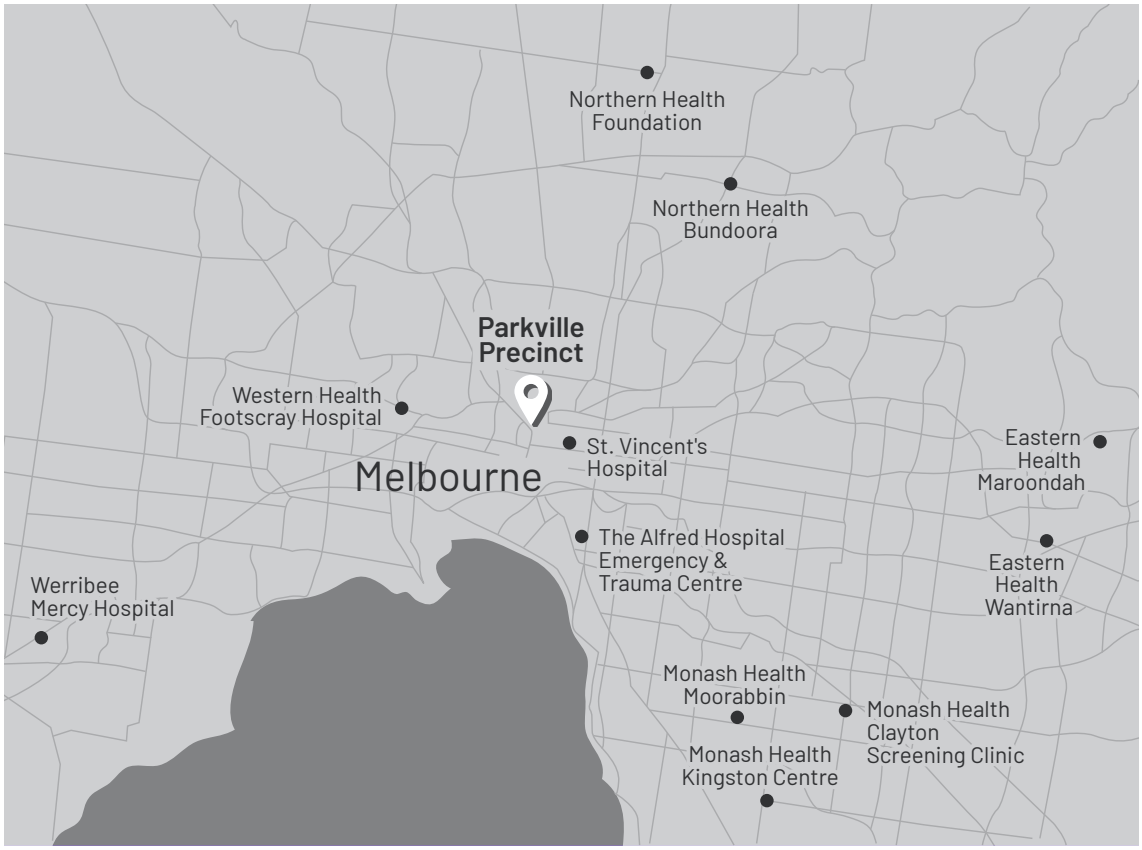
Patients who reside in many areas of Victoria (and some from interstate) receive care for cancer at Parkville. There are different patient flows for different services for example, more patients come from further away for more complex services.

An **'immediate catchment'** has been defined for the lower complexity, high volume services that would be provided at the Precinct. In other words, where patients would 'naturally' travel from to receive care.

Patients who require a broad range of cancer services should be referred to services within the Parkville Precinct when these services are the closest appropriate cancer care service, based on their home address. This aligns with the Victorian Government's aspiration to provide Victorians with greater access to healthcare services, closer to home.

This immediate catchment concept is aligned with the Victorian Government's Health Services Plan and Department of Health definition of the primary catchment for Parkville.

Figure 4. The Parkville Precinct immediate catchment



For broader statewide analysis, LGAs within approximately 20km, 20-40km and over 40km away have informed this population analysis and patient flow analysis in **Chapter 5**. These LGAs are defined in **Appendix A.2.1**.

Figure 5. LGAs within ~20km and 40km of the Parkville Precinct

3.2. Immediate catchment population

A summary of the population of the immediate catchment is outlined below. The immediate catchment is equivalent to approximately 5.4% of Victoria's total population. Compared to the rest of Victoria, it is broadly characterised by:

- A lower % of the population aged over 65.
- A lower Aboriginal population.
- A higher projected overall growth rate to 2036, but a lower projected growth rate in older populations aged over 65.
- A more advantaged population. It is noted that there are pockets of greater disadvantage, for example in areas such as Fawkner, Glenroy and Hadfield.

Table 2. Immediate catchment summary population statistics

Region	2021 population	2021 65+ % population	% Aboriginal	Projected population growth 21-36 (%)	Projected population growth 65+ 21-36 (%)	Average SA2 SEIFA IRSAD^ percentile in Vic
Immediate catchment	356,434	13%	0.7%	38%	25%	72
Rest of Victoria	6,191,388	17%	1.0%	28%	45%	49
Total Victoria	**6,547,822**	**16%**	**1.0%**	**29%**	**44%**	**51**

Source: VIF2023 (Release 2), Victoria Department of Transport and Planning and the Australian Bureau of Statistics

^ Socio-Economic Indexes for Areas (SEIFA) is a product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) within SEIFA summarises information about the economic and social conditions of people and households within an area. A high percentile indicates a more advantaged population compared to the average across Victoria. More disadvantaged populations generally have worse health than those from more advantaged populations. A lower average percentile indicates a more disadvantaged population.

Further detail regarding population projections for the immediate catchment is outlined below by age group. It demonstrates a significantly higher projected growth rate in the age groups 15-44 and 45-64 comparative to the rest of Victoria.

Table 3. Immediate catchment population projections by age group

Age group	2021	2026	2031	2036	Growth	% Growth 21-36	% Growth Rest of Victoria 21-36
0-14	52,314	52,274	55,026	60,255	7,941	15%	16%
15-44	179,514	212,175	241,168	264,015	84,501	47%	31%
45-64	76,582	83,690	92,965	106,575	29,993	39%	22%
65+	48,024	53,000	55,923	60,165	12,141	25%	45%
Total	**356,434**	**401,138**	**445,083**	**491,009**	**134,575**	**38%**	**28%**

Source: VIF2023 (Release 2), Victoria Department of Transport and Planning

3.3. Broader Victorian population

This chapter provides a broader statewide perspective of the population in Victoria, given the tertiary and specialised role of the hospitals at the Parkville Precinct and the patient inflows from many different regions.

As demonstrated in the table below, the population of Victoria is broadly distributed across the State with only just over a quarter of the population residing within 20km of Parkville. The regions within 20km of the Parkville Precinct generally have a lower percentage of Aboriginal people and higher average socioeconomic status compared to other areas of Victoria. All regions are projected to increase in population, with areas in more regional areas more than 40km from Parkville to have the highest growth rate in people aged over 65.

Table 4. Victorian summary population statistics by approximate distance from Parkville

Region	2021 population	65+ % population	% Aboriginal	Projected population growth 21-36 (%)	Projected population growth 65+ 21-36 (%)	Average LGA SEIFA IRSAD percentile in Vic
LGAs within ~ 20km	1,724,085	15%	0.5%	27%	31%	82
LGAs ~ 20-40km	2,208,198	14%	0.6%	34%	41%	67
Rest of Victoria	2,615,539	19%	1.6%	25%	52%	39
Total Victoria	**6,547,822**	**16%**	**1.0%**	**29%**	**44%**	**51**

Source: VIF2023 (Release 2), Victoria Department of Transport and Planning and the Australian Bureau of Statistics

^ Socio-Economic Indexes for Areas (SEIFA) is a product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) within SEIFA summarises information about the economic and social conditions of people and households within an area. A high percentile indicates a more advantaged population compared to the average across Victoria. More disadvantaged populations generally have worse health than those from more advantaged populations. A lower average percentile indicates a more disadvantaged population.

This analysis underpins the importance of the statewide role of the Parkville Precinct, given the distributed nature of the population and the higher proportions of disadvantaged groups including Aboriginal people in areas significant distances away from Melbourne.

3.4. Culturally and linguistically diverse populations

Victoria has a diverse population that has changed and developed over many years. This is particularly evident in Greater Melbourne where 40% of the population was born overseas and over 5% (1 in 20) speak English not well or not at all. Ensuring these communities can access and navigate appropriate cancer services will remain a key consideration.

Table 5. Summary statistics regarding CALD communities in Victoria

Region	% of population born overseas	% of population speak English not well or not at all	Most used languages other than English in those who speak English not well or not at all
Greater Melbourne	40%	5.4%	Mandarin, Vietnamese, Cantonese, Greek and Arabic.
Rest of Victoria	19%	1.1%	Mandarin, Vietnamese, Italian, Punjabi and Arabic.

Source: Australian Bureau of Statistics, 2021 Census

3.5. Population health indicators

Population health indicators are available at different levels of detail to foundational population and demographic statistics. These are therefore summarised in this section as relevant to cancer services, with a focus on a Statewide level (Melbourne vs. the rest of Victoria). Although screening participation rates are generally higher outside Greater Melbourne, other indicators demonstrate poorer outcomes (years of life lost) and higher rates of risk factors for some cancers such as obesity and alcohol intake. Pre-existing mental health conditions can also significantly impact cancer patients, risks during treatment and the psychosocial supports they require.

Table 6. Summary of relevant population health indicators across Victoria

Greater Capital City Statistical Area	Participation in the NBCSP, persons, 2020 and 2021*	Breast screening participation, women aged 50-74 years, 2019 and 2020	Potential years of life lost from cancer before 75 years (ASR per 1,000), 2018-2022	Overweight persons (ASR per 100), 2017–18	Obese persons (ASR per 100), 2017-18	Current smokers aged over 18 (ASR per 100), 2017-18	Harmful use of alcohol (greater than two per day) (ASR per 100), 2017-18	People who reported they had a mental health condition (ASR per 100) 2021)
Greater Melbourne	42.9%	44.5%	10.2	36.5	29.5	14.5	13	8.0
Rest of Victoria	46.7%	51.4%	13.2	36.2	37.2	19.2	19	11.0
Total Victoria	**43.9%**	**46.5%**	**11.1**	**36.4**	**31.3**	**15.5**	**14.4**	**8.7**

Source: PHIDU. NBCSP = National Bowel Cancer Screening Program. ASR = age standardised rate.

4. Current service overview

Summary of key findings and planning implications

- The Parkville Precinct provides the most comprehensive and complex mix of cancer services and cancer research in the State. One of the key strengths of the Precinct is the tertiary service mix across the three sites that provides an unrivalled depth of expertise for people affected by cancer. This means that the Precinct is an excellent location for the management of some of the most complex people affected by cancer.
- Cancer services are provided across Peter Mac, RMH and the Women's, with different services provided from different locations. Medical oncology and radiation oncology services are provided by Peter Mac, haematology services are provided across Peter Mac and RMH and surgical oncology services are provided by all Precinct partners with different arrangements for different services.
- There are 13 Precinct-wide cancer streams that have a clinical focus to ensure that different disciplines and hospitals formally collaborate to coordinate care, conduct research and education and provide statewide leadership.
- The service focuses, capacity and relative strengths of each Precinct partner means that cancer services will need to continue to be delivered by all hospitals. Together, collaboration across the campus to ensure coordinated and quality care is provided will be of the utmost importance.

4.1. Overview

The Parkville Precinct provides the most comprehensive and complex mix of cancer services and cancer research in the State. One of the key strengths of the Precinct is the tertiary service mix across the three sites that provides an unrivalled depth of expertise. Cancer services are distributed across the Precinct, but there are also many services that support people affected by cancer that are primarily provided to non-cancer patients. This includes many specialist services (e.g. cardiology, endocrinology, nephrology), obstetrics, intensive care, emergency, trauma, subacute and home-based services. This unique breadth of health services means that the Precinct is an excellent location for the management of some of the most complex people affected by cancer.

> The Parkville Precinct provides the most comprehensive and complex mix of cancer services and cancer research in Victoria

The way cancer services are arranged across the Precinct is complex, and some different arrangements are in place for different services (as further articulated under Service Profiles in **Chapter 9**). Patients often move between hospitals at the Precinct depending on their needs and where the relevant services are provided.

Broadly speaking:

- Medical oncology and radiation oncology services are provided by Peter Mac (multiple campuses), with consults to other sites as required (e.g., in clinics, inpatient settings).
- Surgical services are distributed across Peter Mac, RMH and the Women's (different arrangements for different services with the Women's focused on gynae oncology and breast cancer (noting services for these cancers are also provided at RMH/Peter Mac) and most other services distributed primarily between RMH and Peter Mac). Although there are combined oncology tumour streams there is some specialist surgery that is only performed at RMH including neurosurgery, thoracic surgery and specialist head and neck surgery.
- Haematology services are provided across Peter Mac and RMH, including malignant, classical and consultative services.
- The Royal Melbourne Hospital has an emergency department and intensive care unit that supports the whole Precinct. The Women's also has an emergency service specifically for women.
- Subspecialty services supporting people affected by cancer are provided across all sites with different focuses at each.

4.2. Precinct-wide cancer streams

Cancer services at the Parkville Precinct are delivered to align with the patient pathway through cancer streams, most of which are related to tumour types. The cancer streams have a clinical focus (separate from professional reporting and governance) and is a way of ensuring that different disciplines and hospitals involved in a patient's care pathway across the Precinct formally collaborate through this structure. This includes:

- Coordinated referral and appointment processes
- Oversight of the whole cancer pathway for patients
- Multidisciplinary team meetings
- Multidisciplinary clinics
- Quality and audit programs
- Research and education programs
- Leadership and support for cancer care delivered throughout Victoria

Different services and interventions are available across all cancer streams in the Precinct as summarised below. There are a total of 13 cancer streams at the Parkville Precinct. Clinical services such as medical oncology and different subspecialist surgical services are also integrated through governance, education and training, clinical practice etc. Paediatric patients receive radiation oncology at Peter Mac; no other clinical services are provided by the adult focused hospitals at the Precinct.

		Services and interventions (across inpatient, ambulatory, home/community settings)						
		Medical Oncology	Radiation Oncology	Surgery, Anaesthetics, Periop, Pain	Day infusion therapies	Other services and treatments (e.g. psychoonc, allied health, specialist support)	Diagnostic services	Patient experience and wellbeing
Cancer Streams	Breast cancer	✓	✓	✓	✓	✓	✓	✓
	Cancer of Unknown Primary	✓	✓	✓	✓	✓	✓	✓
	Clinical Haematology	✓	✓	✓	✓	✓	✓	✓
	Genitourinary Oncology	✓	✓	✓	✓	✓	✓	✓
	Gynae Oncology	✓	✓	✓	✓	✓	✓	✓
	Head and Neck Cancer	✓	✓	✓	✓	✓	✓	✓
	Lower Gastrointestinal cancer	✓	✓	✓	✓	✓	✓	✓
	Lung Cancer	✓	✓	✓	✓	✓	✓	✓
	Melanoma and skin cancer	✓	✓	✓	✓	✓	✓	✓
	Neuro Oncology	✓	✓	✓	✓	✓	✓	✓
	Paediatric cancer		✓	Anaesthetics only			PET services	✓
	Sarcoma	✓	✓	✓	✓	✓	✓	✓
	Upper Gastrointestinal Cancer	✓	✓	✓	✓	✓	✓	✓

Further detail on each cancer stream can be found within Chapter 9 (service profiles).

4.3. Precinct partner profiles

Summary partner profiles are outlined below. Further detail is available in **Chapter 9** (service profiles) and appendices.

Peter MacCallum Cancer Centre

Peter MacCallum Cancer Centre is an exemplar in cancer care that is backed by ground-breaking research and discovery. It is the only publicly funded comprehensive cancer centre in Australasia and the largest provider of cancer services in Victoria. It is Australia's leading hospital for treating and caring for those with cancer, inclusive of the most rare and complex cases.

Research has a significant role at Peter Mac, including clinical trials. Peter Mac is the largest cancer research site in Australia, with 40 laboratories and more than 700 staff working in research on-site. There are dedicated day and overnight spaces for clinical trials and the integration of research with clinical services is a foundational aspect of care delivery. Peter Mac contributes to over 600 active clinical trials and over 1900 research publications per year. There is a broad spectrum of research, including in highly specialised areas such as cellular immunotherapy, theranostics and genomics.

Peter Mac delivers comprehensive cancer services for adults from diagnosis and treatment planning through to end-of-life care. There are four main overnight inpatient wards (plus an Enhanced Care Unit), a range of day infusion / therapy spaces, operating / procedure rooms, radiotherapy spaces, outpatient rooms and clinical support services. Treatment is often across multiple hospitals e.g. at both RMH and Peter Mac) for individual patients which requires services to work together in an integrated way.

Clinical services on-site at Peter Mac include:

- Medical oncology
- Haematology (Parkville-wide)
- Surgery (various specialties), anaesthetics, perioperative medicine including high acuity service, and pain medicine.
- Radiation oncology (delivered from the Parkville Precinct and Moorabbin, Box Hill, Sunshine and Bendigo and noting paediatric patients requiring radiation oncology from across the State are treated at the Parkville Precinct).
- Day infusion and transfusion services (chemotherapy, day medical, transfusion, apheresis and ambulatory cell therapies)
- Specialist outpatients
- Home-based care
- Psychosocial
- Allied health
- Familial cancer services (Parkville Familial Cancer Centre – Parkville-wide service).
- Dental oncology
- Enhanced Care Unit (inpatient services for higher acuity patients)
- Internal medicine and specialty services (e.g. general medicine, respiratory etc. as consultative services)
- Palliative care (Parkville-wide)
- Specialised clinics and supports (e.g. adolescent and young adult cancer care, patient experience and wellbeing).

Peter Mac is the home for the Victorian Adolescent and Young Adult Cancer Service, and the Australian Cancer Survivorship Centre (who work with healthcare providers to ensure that survivors receive the best possible care).

Business ventures

Peter Mac also has commercial ventures located on-site, such as Cell Therapies Pty Ltd. There is a Business Ventures team at Peter Mac, a pioneering initiative within Australian Health Services.

The team's purpose is to:

- Cultivate networks, develop partnerships, and invest in enterprises that uphold excellence in cancer care, education, and research.
- Pursue commercial activities that supplement Peter Mac's operating budget through cost recovery and the establishment of short- and long-term diversified revenue streams.
- Leverage commercial enterprises to enhance financial capacity, enabling future growth, innovation, and transformation in clinical care, research, and education.

In the context of the current economic environment in Victoria addressing financial sustainability is critical. Strategic opportunities exist for Peter Mac to harness its expertise and renowned brand to drive positive outcomes for the Victorian community.

Royal Melbourne Hospital

Royal Melbourne Hospital is a tertiary provider of a broad range of highly specialised services. RMH is vital to the provision of holistic, quality cancer services at the Precinct and provides a significant volume of services which directly and indirectly provide cancer care. RMH's key specialised areas of expertise in cancer services provision, include haematology (allogeneic transplantation, acute leukemia, myelodysplasia), complex surgery (neurosurgery, urology surgery, upper and lower gastrointestinal surgery, head and neck surgery and thoracic surgery), critical and emergency care and palliative care.

RMH conducts a significant volume of cancer research in close collaboration with partner institutes such as the University of Melbourne, WEHI, Peter Doherty and clinicians and researchers at Peter Mac, the Women's.

As RMH is one of the major tertiary hospitals in Victoria which provides all generalist services and high complex specialities service to the local community and a much broader catchment across the state. Both the generalist and highly specialised services enable the provision of optimal cancer care in the Precinct. Some of these services which support cancer care include cardiology, general medicine, gerontology, infectious diseases, renal services (incl. dialysis), respiratory, endocrinology and rehabilitation services. These services are extremely important to enabling the Precinct to treat the most complex people affected by cancer. Furthermore, many cancer patients will be referred to RMH or be identified in the emergency department prior to receiving cancer treatment. This treatment is often across multiple hospitals e.g. at both RMH and Peter Mac) for individual patients which requires services to work together in an integrated way.

Clinical services provided for people affected by cancer on-site include:

- Haematology (dedicated ward, classical and consulting, Parkville-wide)
- Surgery and anaesthetics (various specialties, including head and neck, neurosurgery, gastrointestinal surgery, thoracic surgery and urology)
- Medical specialists (various specialties, including general medicine, infectious diseases, endocrinology, cardiology, respiratory, rheumatology etc.)
- Specialist outpatients (medical, surgical, haematology)
- Specialist imaging services including nuclear medicine
- Dental and facial prosthetics
- Home-based care – acute and subacute
- Psychosocial
- Allied health
- Familial cancer services (Parkville-wide)
- Rehabilitation
- Palliative care (Parkville-wide)
- Intensive Care Unit (Precinct-wide, there is no ICU at Peter Mac or the Women's)
- Emergency Department (there is no ED at Peter Mac).

RMH offers a wide range of state-wide or specialised tertiary services which are accessible to cancer patients as required including (but not limited to):

- One of two state-wide trauma providers with the Alfred hospital being the other service provider.
- Victorian Infectious Diseases Service (VIDS), including the Victorian Infectious Diseases Reference Laboratory (VIDRL) and the WHO Influenza Centre
- Highly specialised neurology and stroke services - developing Australia's first Mobile Stroke Ambulance and state-wide endovascular clot retrieval service
- One of the largest renal transplantation and dialysis services – Servicing the Inner, North, West Victorian regions and Tasmania.
- One of three State Eating Disorder Service, including the Centre for Excellence in Eating Disorder Care
- State-wide Adult Metabolic Diseases Service
- Victorian Congenital Heart Disease Service and lead pacemaker extraction service
- Designated Tier 2 Extracorporeal Membrane Oxygenation (ECMO) Service
- Large mental health service including Australia's leading Neuropsychiatry service.

the women's
the royal women's hospital
victoria australia

Royal Women's Hospital

Royal Women's Hospital specialises tertiary care of women and newborns. Cancer services are focused on women with gynaecological cancer, breast cancer and for pregnant women with cancer. The Women's is also active in cancer research, in particularly in areas related to gynaecology oncology and breast cancer.

The Women's also provides reproductive health and fertility preservation services which are particularly important for younger cancer patients.

Clinical services provided on-site for people affected by cancer include:

- Surgery (gynae and breast) and anaesthetics
- Specialist outpatients
- Psychosocial
- Reproductive health
- Fertility preservation
- Allied health.

5. Historical activity analysis

Summary of key findings and planning implications

- The Parkville Precinct sees 17% of all public cancer-flagged inpatient activity across Victoria. Around 2/3 of this activity is provided by Peter Mac and 1/3 by RMH. This makes the Precinct by far the largest provider of public cancer services in the state (the next largest provider accounts for 7% of cancer-flagged activity across Victoria).
- The 'immediate catchment' for the Parkville Precinct has a self-sufficiency of approximately 66% for cancer services. This is impacted by the shape of the catchment and the density of services available in inner Melbourne. The Precinct will need to continue to provide cancer services for the local population.
- There are significant volumes of inflows from many areas of Victoria. Only 19% of cancer inpatient activity at the Precinct is by residents of the immediate catchment. Over 50% of cancer activity is by patients residing more than 20km from the Precinct. This underlines the broader statewide role of the specialised cancer services provided at Parkville.
- There are higher proportions of inflows from outer areas for tumour streams with higher complexity such as bone / tissue and central nervous system tumours (less availability of services locally). This confirms the continued importance of Precinct services in the context of Victoria, particularly in relation to complex and rare cancers and interventions.
- The volume of cancer activity at the Precinct has increased from 2018/19 to 2022/23, in particular at Peter Mac. This has been at least partly impacted by increases in inflows from areas outside the immediate catchment. It will be important to reduce future inflows of activity that can safely be provided closer to where people live.
- The highest volume of tumour streams provided from the Precinct are haematological tumours, breast tumours and skin tumours.
- In terms of cancer flagged bed days, around 64% of activity is at Peter Mac, 33% at RMH and 3% at RWH. This is reflective of the shared cancer service profile and the importance of integration across the Precinct. There were 1,359 ICU flagged bed days at RMH in 2022-23 (equivalent to an average of 4 patients in ICU each day).
- The tumour streams with the highest volume of separations are:
  - Haematological, colorectal, breast and skin at Peter Mac
  - Colorectal, genitourinary, haematological and lung at RMH
  - Gynaecological and breast at the Women's.
- The average age of patients with cancer at the Precinct is approximately 60 years old. 56% of cancer-flagged activity is by patients over 60 (compared to 41% of non-cancer flagged activity). This is reflective of the fact that cancer incidence increases with age, and the likelihood of comorbidities related with age in many people with cancer. As the population ages, this will continue to increase demand for cancer services.
- Radiation oncology services are provided in high volumes across all Peter Mac Campuses.
- There are strong linkages between Peter Mac and RMH in relation to emergency care (over 1,000 patients were transferred from RMH ED to Peter Mac in 2023/24) and intensive care (there were 244 contracted Peter Mac patients in RMH ICU in 2023/24). These service relationships will be important to continue and strengthening the management of unplanned and acutely unwell people affected by cancer to reduce unnecessary transfers and admissions.
- There were almost 270,000 outpatient occasions of service (excluding did not attends) at Peter Mac in 2022/23, almost 40% of which were telehealth (and many outpatient services at RMH and the Women's that are mixed across many clinics). There were high volumes of medical oncology, oncology (nurse-led), radiation oncology and haematology appointments alongside many others such as surgical and allied health related services. Ensuring the right outpatient services are provided in the right location at the right time will be of the utmost importance in the future.

5.1. Immediate catchment resident demand

The immediate catchment for the Parkville Precinct has been defined in Section 3.1. The table below summarises the public cancer-flagged demand (adult focus) from the immediate catchment and the catchment self-sufficiency (i.e., the proportion of catchment cancer-flagged separations that were seen at a facility within the catchment). In 2022-23 there were 12,659 cancer-flagged inpatient separations for residents of the immediate catchment, of which 8,416 (66%) attended in-catchment facilities. Due to the concentrated nature of services in Melbourne, patients accessed other nearby hospitals as these are often the closest option (e.g. St Vincent's).

Table 7. **Cancer-flagged public inpatient activity for residents of the immediate catchment, 2018-19 to 2022-23**

Catchment	2018-19 Seps	2019-20 Seps	2020-21 Seps	2021-22 Seps	2022-23 Seps
Immediate catchment cancer-flagged separations	12,307	12,118	12,130	12,623	12,659
Immediate catchment cancer-flagged separations seen in catchment facilities (i.e., the Precinct)	7,977	8,113	8,280	8,742	8,416
Self-sufficiency*	**65%**	**67%**	**68%**	**69%**	**66%**

Source: Victorian Admitted Episodes Dataset (VAED)

The following table summarises the historical inpatient activity flowing to the Precinct from 2018-19 to 2022-23 for immediate catchment residents. In 2022-23 the total activity at Peter Mac, and the cancer-flagged activity at the Women's and RMH accounted for around 55,000 separations and 122,000 bed days. Immediate catchment residents accounted for approximately 19% of these separations. From 2018-19 to 2022-23, separations to the Precinct have increased at an annual growth rate (AGR) of 2.4%. The impact of COVID-19 on trends should also be recognised.

Table 8. Cancer-flagged inpatient activity at RMH and the Women's, and total inpatient activity at Peter Mac by Catchment Type, 2018-19 to 2022-23

Catchment	2018-19 Seps	2019-20 Seps	2020-21 Seps	2021-22 Seps	2022-23 Seps	2018-19 Beddays	2019-20 Beddays	2020-21 Beddays	2021-22 Beddays	2022-23 Beddays	Seps AGR
Immediate catchment resident attending the Precinct	9,092	9,109	9,302	9,759	9,529	22,405	23,836	23,405	22,945	23,585	1.2%
Peter Mac	6,504	6,624	7,015	7,359	6,960	11,203	11,274	12,043	12,602	12,368	1.7%
RMH	2,176	2,097	1,966	2,064	2,158	10,481	11,639	10,713	9,751	10,520	-0.2%
the Women's	412	388	321	336	411	721	923	649	592	697	-0.1%
Out of catchment resident	40,900	40,536	40,312	42,514	45,408	93,181	93,242	90,559	89,743	98,547	2.6%
Total	**49,992**	**49,645**	**49,614**	**52,273**	**54,937**	**115,586**	**117,078**	**113,964**	**112,688**	**122,132**	**2.4%**

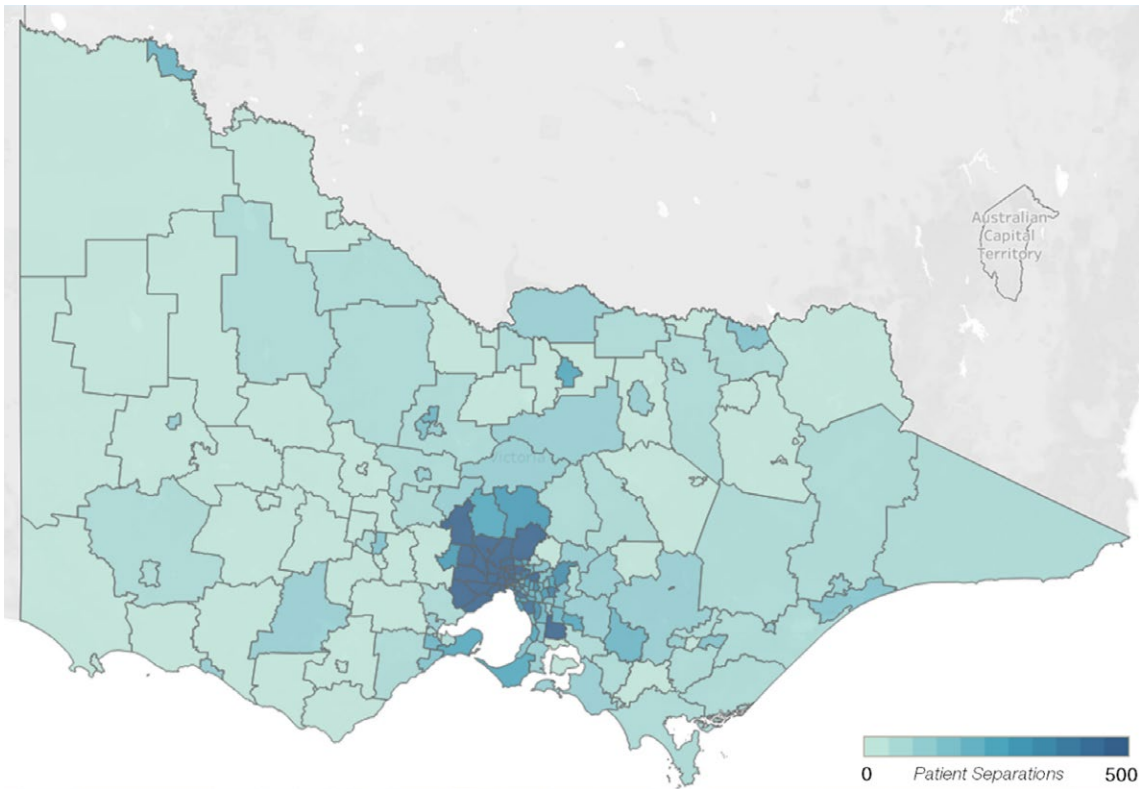
Source: Victorian Admitted Episodes Dataset (VAED)

5.2. Precinct inflows

In 2022/23, the Precinct provided 17% of all public cancer-flagged adult inpatient activity across Victoria. This was 14% of all multi-day cancer-flagged activity (i.e., excluding chemotherapy) and 21% of ambulatory cancer-flagged activity (i.e., primarily chemotherapy). Of note, the next largest provider of public cancer services accounted for 7% of activity across Victoria, meaning that the Parkville Precinct is more than twice as large as the second biggest public cancer precinct.

The figure below shows cancer-flagged adult inpatient separations flowing to the Precinct from all Victoria in 2022/23. While the highest volume of activity is within the immediate vicinity of Melbourne (also where most people live), patients from across the State attend the Precinct for care.

Figure 6. Total cancer-flagged adult inpatient separations flowing to the Precinct, 2022/23



For patients residing outside of the immediate catchment, the majority attended facilities close to home. In 2022-23 around 15% of patients residing out of the immediate catchment attended the Precinct, with 85% being cared for at other hospitals. Of this 15%, the majority (12%) was for same day services, with 3% of patients residing out of the catchment attending the Precinct for overnight services. The proportion of people travelling to the Precinct from outside the immediate catchment has risen slightly in recent years, indicating an increase in inflows to the Precinct from other areas. This is summarised in the table below.

Table 9. **Public cancer-flagged separations for residents from outside the immediate catchment by place of treatment (Precinct vs non-Precinct facilities), 2018-19 to 2022-23.**

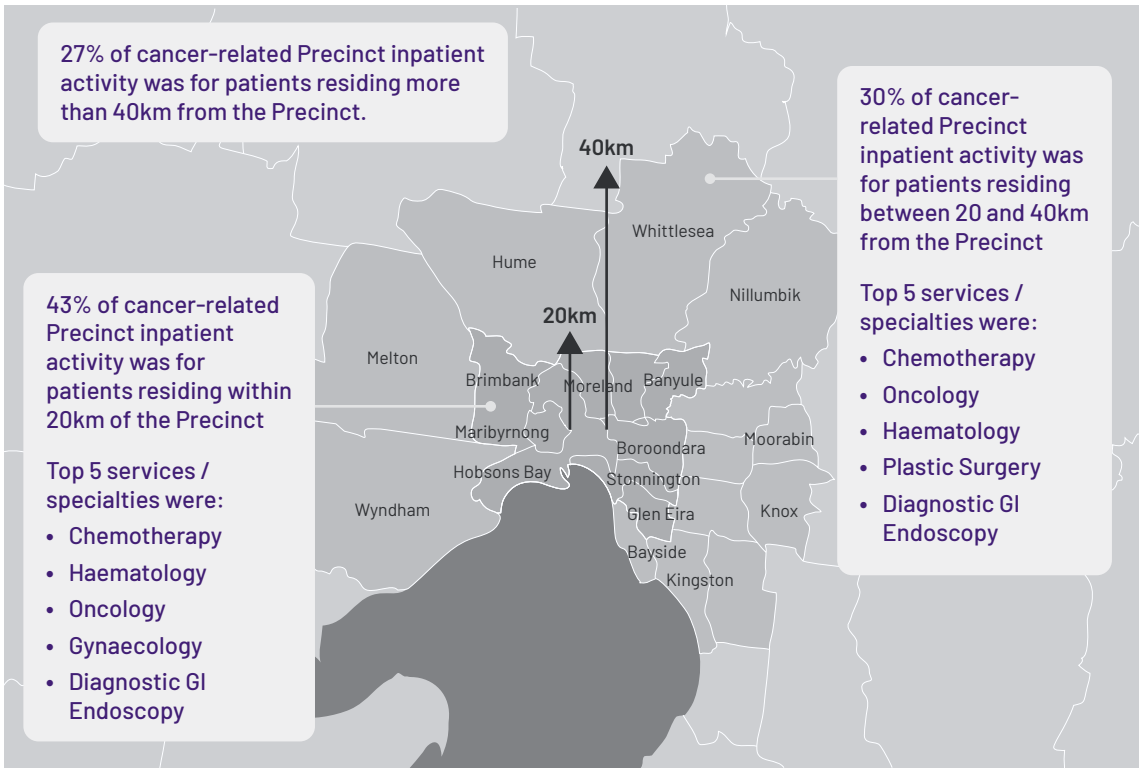
Facility	2018-19 Seps	2019-20 Seps	2020-21 Seps	2021-22 Seps	2022-23 Seps
Precinct	**34,406**	**35,082**	**34,883**	**37,084**	**38,877**
Same day	26,201	26,670	26,901	29,519	30,736
Overnight	8,205	8,412	7,982	7,565	8,141
Not Precinct	**217,102**	**213,420**	**215,677**	**214,620**	**227,147**
Same day	155,799	152,201	153,950	155,861	167,356
Overnight	61,303	61,219	61,727	58,759	59,791
Grand total	**251,508**	**248,502**	**250,560**	**251,704**	**266,024**
% Total to Precinct	**13.7%**	**14.1%**	**13.9%**	**14.7%**	**14.6%**
% Same day to Precinct	14.4%	14.9%	14.9%	15.9%	15.5%
% Overnight to Precinct	11.8%	12.1%	11.5%	11.4%	12.0%

Source: Victorian Admitted Episodes Dataset (VAED)

The figure below highlights the proportion of cancer-flagged inpatient activity flowing to the Precinct by distance from the Precinct. In 2022-23, approximately 27% of Precinct activity was for patients who resided more than 40km from the Precinct, while 43% of Precinct activity was for patients who resided within 20km from the Precinct. This underpins the statewide nature of the services provided from the Precinct; however, it is noted that lower complexity services such as some chemotherapies are being provided to patients who live a large distance from Parkville.

Of note, for RMH 22% of cancer-flagged activity came from patients residing more than 20km away compared to 13% for non-cancer flagged activity. This indicates that on average, patients travel from longer distances away to receive cancer-related care compared to non-cancer related care at RMH.

Figure 7. Total cancer-flagged adult inpatient separations flowing to the Precinct by patient's distance from the Precinct, 2022/23



For **multi-day activity** (i.e., excluding chemotherapy and day admissions), within 20km of the Precinct, around 83% residents attended a facility within the 20km area (this includes the Precinct itself, as well as Austin Hospital, The Alfred Hospital, Sunshine Hospital, St Vincent's Hospital, Footscray Hospital, and Heidelberg Repatriation Hospital). This 'local self-sufficiency' saw a high proportion of residents accessing care locally, with around 1 in 3 patients (30%) attending the Precinct itself for multi-day cancer care.

Similarly, for those residing more than 20km from the Precinct, approximately 73% received cancer care (for multi-day services) at a hospital outside the 20km radius of the Precinct (i.e. generally a local facility). Of the 27% that did receive care within the 20km area, around 11% attended the Precinct itself.

Overall, the Precinct saw 15% of total statewide multi-day cancer-flagged activity in 2022/23.

Table 10. **Multi-day public cancer-flagged adult inpatient separations (excluding Chemotherapy) flowing to the Precinct by patient's distance from the Precinct, 2022/23**

Facility attended	Residing within 20km of Precinct	Residing >20km from Precinct	Total Separations
Precinct (Peter Mac, the Women's, RMH)	8,506	11,253	19,759
Other hospitals with 20km of Precinct*	15,203	17,367	32,570
All other hospitals (outside 20km)	4,867	77,695	82,562
Total multi-day cancer separations	**28,576**	**106,315**	**134,891**
Local self-sufficiency for region	83%	73%	-
% activity coming to the Precinct	30%	11%	15%

* Austin Hospital, The Alfred Hospital, Sunshine Hospital, St Vincent's Hospital, Footscray Hospital, Heidelberg Repatriation Hospital

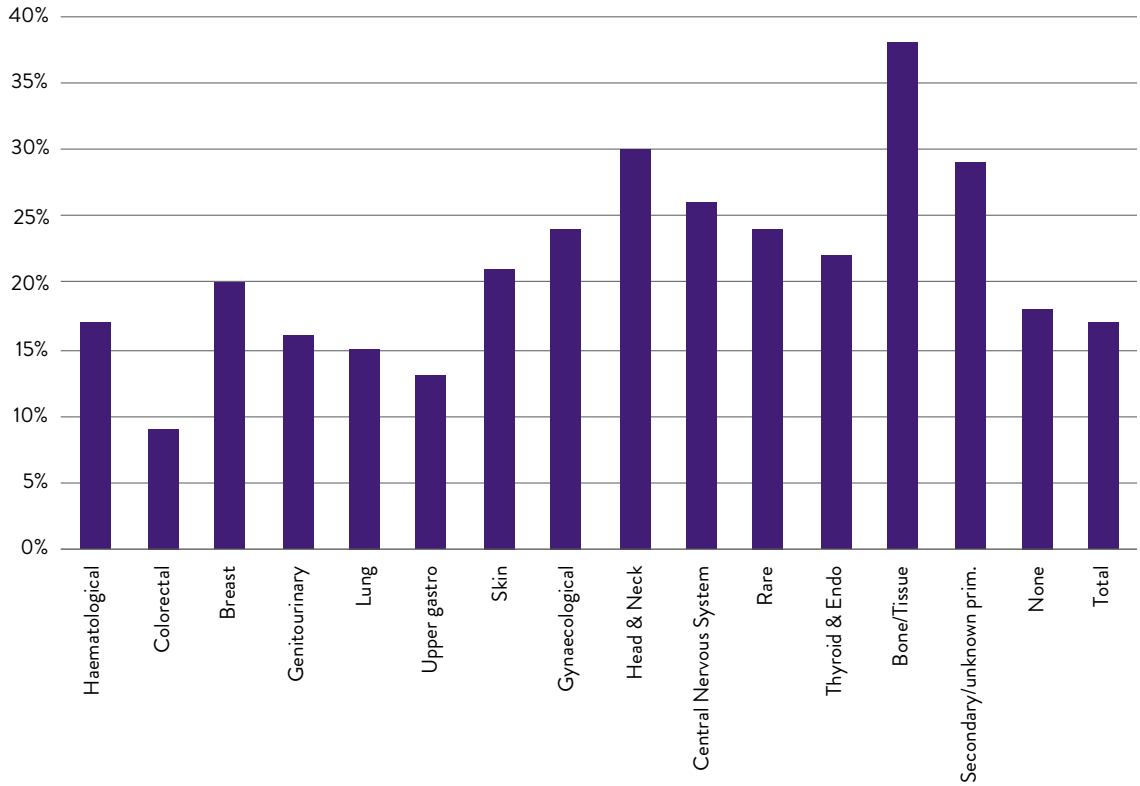
In 2022-23, the Precinct saw over 47,000 cancer-flagged inpatient separations from across Victoria (as well as some interstate activity). This accounted for 17% of total statewide cancer-flagged inpatient separations. The highest proportion of activity was for Bone/Tissue tumours, where the Precinct saw 38% of statewide separations, followed by Head and Neck tumours (30% of statewide separations), aligning with some of the rarest cancers and those that require complex interventions.

Table 11. **Proportion of statewide cancer-flagged inpatient activity by tumour streams (first tumour by ICD-10) flowing to the Precinct, 2022-23**

Tumour stream	Seps at Precinct	Seps at other hospital	Total Seps	% at Precinct
Haematological	9,759	47,302	57,061	17%
Colorectal	4,264	45,402	49,666	9%
Breast	6,669	26,634	33,303	20%
Genitourinary	4,263	22,442	26,705	16%
Lung	3,619	20,807	24,426	15%
Upper gastro	2,997	20,186	23,183	13%
Skin	4,911	18,093	23,004	21%
Gynaecological	3,977	12,856	16,833	24%
Head & Neck	2,002	4,706	6,708	30%
Central Nervous System	1,580	4,393	5,973	26%
Rare	748	2,425	3,173	24%
Thyroid & Endo	642	2,261	2,903	22%
Bone/Tissue	1,100	1,771	2,871	38%
Secondary/unknown prim.	639	1,533	2,172	29%
None	123	579	702	18%
Total	**47,293**	**231,390**	**278,683**	**17%**

Source: Victorian Admitted Episodes Dataset (VAED). The tumour stream is based on the first cancer-related ICD-10 code.

Figure 8. % of state seen at Precinct



Of the approximately 47,000 cancer-flagged adult inpatient separations at the Precinct in 2022-23, approximately 18% were for patients residing in the immediate catchment while 27% was for patients residing more than 40km away. The highest volume tumour streams at the Precinct were for haematological tumours (9,759 separations), followed by breast tumours (6,669 separations) and skin tumours (4,911 separations). These three accounted for 45% of total Precinct activity in 2022-23.

Table 12. **Proportion of Tumour stream* adult inpatient activity flowing to the Precinct by region of residence, 2022-23**

Tumour stream	Immediate catchment	Within 20km	In 20-40km	40km+	Total	% from immediate catchment
None	19	24	43	37	123	15%
Bone/Tissue	96	252	425	327	1,100	9%
Breast	1,122	2,011	2,495	1,041	6,669	17%
Central Nervous System	144	446	474	516	1,580	9%
Colorectal	1,244	888	1,258	874	4,264	29%
Genitourinary	933	867	1,191	1,272	4,263	22%
Gynaecological	760	1,230	1,034	953	3,977	19%
Haematological	1,587	2,711	2,359	3,102	9,759	16%
Head & Neck	191	530	618	663	2,002	10%
Lung	738	835	1,366	680	3,619	20%
Rare	74	178	273	223	748	10%
Sec/unknown prim	93	153	216	177	639	15%
Skin	683	876	1,316	2,036	4,911	14%
Thyroid & Endo	121	166	170	185	642	19%
Upper gastro	611	702	995	689	2,997	20%
Total	**8,416**	**11,869**	**14,233**	**12,775**	**47,293**	**18%**
Proportion by Region	18%	25%	30%	27%	100%	

Source: Victorian Admitted Episodes Dataset (VAED). The tumour stream is based on the first cancer-related ICD-10 code.

5.3. Supply by facility

5.3.1. Precinct summary - inpatient

The table below summarises the total activity at each facility and shows the proportion of cancer-flagged activity by facility for 2022-23. Approximately 47,000 separations (25%) were for cancer-flagged activity, out of a total of approximately 188,000 separations. However, at Peter Mac, 86% of total inpatient activity was cancer-flagged, whereas at RMH this was 6% (11% of bed days), and 5% at the Women's. Although cancer-flagged activity is only 11% of the total bed days at RMH, it accounts for a large proportion (1/3) of the total cancer flagged activity at the Precinct.

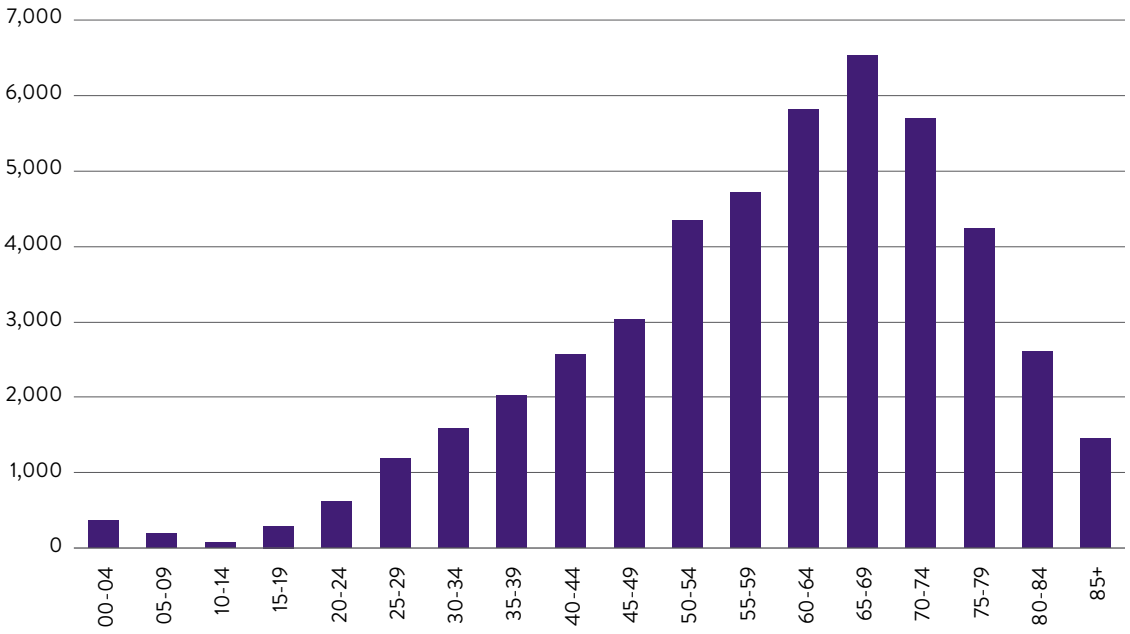
Table 13. Cancer vs non-cancer flagged inpatient activity at the Precinct, 2022-23

Cancer flag	Facility	2022-23 Seps	2022-23 Beddays	% of Precinct Seps	% of Precinct Beddays
Cancer-flagged	Peter Mac	38,969	72,816	82%	64%
	RMH	6,800	37,505	14%	33%
	the Women's	1,524	3,398	3%	3%
Cancer-flagged total		**47,293**	**113,719**	**100%**	**100%**
Non-Cancer flagged	Peter Mac	7,644	8,413		
	RMH	106,490	314,607		
	the Women's	26,646	72,178		
Non-cancer total		**140,780**	**395,198**		
Grand total		**188,073**	**508,917**		

Source: Victorian Admitted Episodes Dataset (VAED)

The diagram below shows the total activity at the Precinct by age. The average age of patients with cancer at the Precinct is approximately 60 years old; 56% of the cancer-flagged activity is by patients over 60. Of note, this is a significantly higher percentage than the non-cancer flagged activity (excl. neonates) which is 41%. This is reflective of the fact that cancer incidence increases with age, and the likelihood of comorbidities related with age in many people with cancer.

Figure 9. Age (5-year groups) of cancer-flagged patients at the Precinct



The table below summarises the cancer-flagged activity at each facility by stay type. In 2022-23, there were 47,000 cancer-flagged separations at the Precinct, with around 82% of these occurring at Peter Mac. Overall growth has been at around 2.8% per year, with the highest growth rate demonstrated in same day activity (much of this are day medical services at Peter Mac). RMH has experienced growth in overnight services, noting their complexity and accounting for approximately 1/3 of all Precinct bed days.

Table 14. Cancer-flagged inpatient activity at the Precinct by Facility and Stay Type, 2018-19 to 2022-23

Facility	Stay type	2018-19 Seps	2019-20 Seps	2020-21 Seps	2021-22 Seps	2022-23 Seps	2018-19 Beddays	2019-20 Beddays	2020-21 Beddays	2021-22 Beddays	2022-23 Beddays	Average LOS	Seps AGR
Peter Mac	Overnight	5,508	5,706	5,413	5,427	5,390	37,461	38,818	37,394	36,924	39,237	6.9	-0.5%
	Same Day	28,353	29,282	30,097	32,906	33,579	28,353	29,282	30,097	32,906	33,579	1.0	4.3%
Peter Mac total		**33,861**	**34,988**	**35,510**	**38,333**	**38,969**	**65,814**	**68,100**	**67,491**	**69,830**	**72,816**	**1.9**	**3.6%**
RMH	Overnight	3,935	4,127	4,013	3,583	4,053	33,896	35,982	33,348	29,778	34,758	8.5	0.7%
	Same Day	2,895	2,610	2,343	2,577	2,747	2,895	2,610	2,343	2,577	2,747	1.0	-1.3%
RMH total		**6,830**	**6,737**	**6,356**	**6,160**	**6,800**	**36,791**	**38,592**	**35,691**	**32,355**	**37,505**	**5.5**	**-0.1%**
the Women's	Overnight	764	704	653	672	762	2,903	2,544	2,690	2,612	2,636	3.8	-0.1%
	Same Day	928	766	643	661	762	928	766	643	661	762	1.0	-4.8%
the Women's total		**1,692**	**1,470**	**1,296**	**1,333**	**1,524**	**3,831**	**3,310**	**3,333**	**3,273**	**3,398**	**2.3**	**-2.6%**
Grand total		**42,383**	**43,195**	**43,162**	**45,826**	**47,293**	**106,436**	**110,002**	**106,515**	**105,458**	**113,719**	**2.4**	**2.8%**

Source: Victorian Admitted Episodes Dataset (VAED)

AGR = Cumulative Annual Growth Rate

The following table summarises the cancer-flagged separations by Tumour Stream across the whole Precinct for 2022-23. Note that Chemotherapy accounts for 58% of separations across the Precinct and as such is displayed separately from all other cancer-flagged activity.

Table 15. Cancer-flagged inpatient activity at the Precinct by Tumour Stream, 2022-23

Tumour stream	Cancer-flagged Seps (excl. Chemo)	Cancer-flagged Beddays (excl. Chemo)	% Cancer-flagged Seps (excl. Chemo)	Chemotherapy Seps	% Seps for Chemotherapy
None	80	410	0%	43	0%
Bone/Tissue	648	3,232	3%	452	2%
Breast	1,316	4,916	7%	5,353	19%
Central Nervous System	663	4,179	3%	917	3%
Colorectal	2,187	10,069	11%	2,077	8%
Genitourinary	1,586	5,837	8%	2,677	10%
Gynaecological	2,093	6,061	11%	1,884	7%
Haematological	4,972	19,538	25%	4,787	17%
Head & Neck	719	4,491	4%	1,283	5%
Lung	1,061	5,847	5%	2,558	9%
Rare	438	2,274	2%	310	1%
Sec/unknown prim	201	1,111	1%	438	2%
Skin	2,483	6,959	13%	2,428	9%
Thyroid & Endo	359	1,623	2%	283	1%
Upper gastro	1,026	6,458	5%	1,971	7%
Grand total	**19,832**	**83,005**	**100%**	**27,461**	**100%**

Source: Victorian Admitted Episodes Dataset (VAED). Cancer-flagged activity is that which contains a cancer related ICD-10 code and the tumour stream is based on the first cancer-related ICD-10 code

5.3.2. Peter MacCallum Cancer Centre – inpatient

There were 46,613 separations and 81,229 bed days at Peter Mac in 2022-23. Same day activity accounted for a significant proportion of separations, given the site's role in providing day infusion services and the volumes of day surgery.

Although Peter Mac has a cancer focus, some patients are admitted who do not have a cancer diagnosis recorded (mainly same day). This includes patients who may be readmitted with complications (e.g., for IV antibiotics) without a cancer diagnosis recorded. It also includes some non-cancer haematology infusions and surveillance work (e.g., endoscopies).

Table 16. Total inpatient activity at Peter Mac (inc. non-cancer component) by Stay Type and Cancer Flag, 2022-23

Cancer flag	Stay type	Seps	Beddays
Cancer	Overnight	5,390	39,237
	Same day	33,579	33,579
Cancer total		**38,969**	**72,816**
Non-cancer	Overnight	265	1,034
	Same day	7,379	7,379
Non-cancer total		**7,644**	**8,413**
Grand total		**46,613**	**81,229**

Source: Victorian Admitted Episodes Dataset (VAED)

All Peter Mac activity by tumour stream is summarised below. Haematology, Breast, and Skin represent the highest volume of activity as indicated by the first cancer ICD-10 code. "None" refers primarily to non-cancer work as noted above.

Table 17. Total inpatient activity at Peter Mac (inc. non-cancer component) by Tumour Stream, 2022-23

Tumour stream	Seps	Beddays	% Seps	% Beddays
Haematological	9,031	15,371	19%	19%
None	7,727	8,762	17%	11%
Colorectal	2,956	8,356	6%	10%
Breast	6,071	8,164	13%	10%
Skin	4,482	7,482	10%	9%
Genitourinary	3,206	5,497	7%	7%
Lung	2,952	5,463	6%	7%
Upper gastro	2,371	4,980	5%	6%
Gynaecological	2,570	4,925	6%	6%
Head & Neck	1,672	3,791	4%	5%
Bone/Tissue	993	3,039	2%	4%
Central Nervous System	1,108	1,851	2%	2%
Rare	559	1,488	1%	2%
Thyroid & Endo	370	1,085	1%	1%
Sec/unknown prim	545	975	1%	1%
Grand total	**46,613**	**81,229**	**100%**	**100%**

Source: Victorian Admitted Episodes Dataset (VAED). Cancer-flagged activity is that which contains a cancer related ICD-10 code and the tumour stream is based on the first cancer-related ICD-10 code.

The table below summarises activity by treatment category. The average length of stay for multi-day services is long at 6.1 days for medical and 8.3 days for surgical services, demonstrating the complexity of many admissions. As a comparison, the average length of stay for non-cancer flagged activity at RMH (i.e., for overnight activity at a large tertiary hospital) was 4.7 days for medical services, and 7.3 for surgical services.

Table 18. Total inpatient activity at Peter Mac (inc. non-cancer component) by Treatment Category, 2022-23

Treatment category	Seps	Beddays	% Seps	% Beddays	ALOS
01-Multi-day Medical	3,321	20,123	7%	25%	6.1
02-Multi-day Surgery	2,100	17,493	5%	22%	8.3
03-Ambulatory Same-day	30,722	30,722	66%	38%	1.0
04-Same-day Medical	5,126	5,126	11%	6%	1.0
05-Same-day Surgery	4,464	4,464	10%	5%	1.0
08-Subacute & NHT	246	2,665	1%	3%	10.8
09-Paediatrics (0-14yrs)	634	636	1%	1%	1.0
Grand total	**46,613**	**81,229**	**100%**	**100%**	**1.7**

Source: Victorian Admitted Episodes Dataset (VAED)

The table below presents activity by local admitting unit at Peter Mac. Medical Haematology, Medical Breast, Surgical Colorectal and Medical Lung account for the highest volumes of bed days.

Table 19. Peter Mac inpatient activity by Admitting Unit, 2022-23

Unit	Same Day Seps	Overnight Seps	Total Seps	Same Day Beddays	Overnight Beddays	Total Beddays
Haematology	**12,723**	**906**	**13,629**	**12,723**	**6,961**	**19,684**
Medical Haematology	12,723	906	13,629	12,723	6,961	19,684
Medical Oncology	**22,685**	**1,963**	**24,648**	**22,685**	**13,431**	**36,116**
Medical Breast	5,556	154	5,710	5,556	956	6,512
Medical Genitourinary	2,198	165	2,363	2,198	1,342	3,540
Medical Gynaecology	2,198	159	2,357	2,198	1,169	3,367
Medical Head & Neck	2,217	192	2,409	2,217	1,463	3,680
Medical Lower Gastrointestinal	2,310	156	2,466	2,310	1,292	3,602
Medical Lung	2,755	296	3,051	2,755	2,151	4,906
Medical Melanoma & Skin	2,122	170	2,292	2,122	1,256	3,378
Medical Neuro-Oncology	406	45	451	406	368	774
Medical Sarcoma	843	448	1,291	843	2,075	2,918
Medical Upper Gastrointestinal	2,080	178	2,258	2,080	1,358	3,438
Other Oncology	**80**	**488**	**568**	**80**	**5,205**	**5,285**
Pain Management	43	0	43	43	0	43
Palliative Care	37	488	525	37	5,205	5,242
Radiation Oncology	**574**	**0**	**574**	**574**	**0**	**574**
Radiotherapy Paediatrics & Late Effects	574	0	574	574	0	574
Surgical Oncology	**5,163**	**2,035**	**7,198**	**5,163**	**14,248**	**19,411**
Surgical Breast	314	153	467	314	924	1,238
Surgical Colorectal	583	347	930	583	4,495	5,078
Surgical Genitourinary	844	421	1,265	844	1,195	2,039
Surgical Gynaecology	298	43	341	298	217	515
Surgical Head & Neck	772	258	1,030	772	1,743	2,515
Surgical Hepatobiliary	18	51	69	18	379	397
Surgical Melanoma & Skin	1,579	471	2,050	1,579	2,597	4,176
Surgical Sarcoma	371	127	498	371	1,468	1,839
Surgical Upper Gastrointestinal	384	164	548	384	1,230	1,614
Total	**41,225**	**5,392**	**46,617**	**41,225**	**39,846**	**81,071**

Source: Inpatient data provided by Peter Mac. Note – day patients have been assigned a 1 day ALOS in line with VAED. Overnight patients bed days is based on actuals

5.3.3. Royal Melbourne Hospital – inpatient

There was a total of 6,800 cancer-flagged separations (6% of total RMH activity) and 37,505 bed days (11% of total RMH activity) in 2022-23.

Table 20. Total inpatient activity at RMH by cancer flag, 2022-23

Cancer flag	Seps	Beddays
Cancer	6,800	37,505
Non-cancer	106,490	314,607
Total	**113,290**	**352,112**
% Cancer	**6%**	**11%**

Source: Victorian Admitted Episodes Dataset (VAED)

Cancer-flagged RMH activity by tumour stream is summarised below. Haematological, colorectal, upper gastro, CNS and lung tumour streams account for the highest proportion of activity.

Table 21. Cancer-flagged inpatient activity at RMH by tumour stream, 2022-23

Tumour stream	Seps	Beddays	% Seps	% Beddays
Colorectal	1,306	3,898	19%	10%
Genitourinary	1,056	3,239	16%	9%
Haematological	716	9,265	11%	25%
Lung	667	3,486	10%	9%
Upper gastro	621	3,621	9%	10%
Central Nervous System	468	3,349	7%	9%
Breast	432	2,002	6%	5%
Skin	416	1,999	6%	5%
Head & Neck	330	2,529	5%	7%
Thyroid & Endo	272	1,154	4%	3%
Rare	167	705	2%	2%
Gynaecological	115	723	2%	2%
Bone/Tissue	104	785	2%	2%
Sec/unknown prim	93	647	1%	2%
None	37	103	1%	0%
Grand total	**6,800**	**37,505**	**100%**	**100%**

Source: Victorian Admitted Episodes Dataset (VAED)

The table below summarises cancer-flagged by treatment category at RMH. The ALOS for multi-day surgical services is 9 days, demonstrating the patient complexity. Subacute & NHT includes primarily palliative care and rehabilitation patients requiring extended stays in hospital.

Table 22. Cancer-flagged inpatient activity at RMH by Treatment Category, 2022-23

Treatment category	Seps	Beddays	% Seps	% Beddays	ALOS
01-Multi-day Medical	1,527	10,738	22%	29%	7.0
02-Multi-day Surgery	2,108	18,896	31%	50%	9.0
03-Ambulatory Same-day	535	535	8%	1%	1.0
04-Same-day Medical	473	473	7%	1%	1.0
05-Same-day Surgery	1,690	1,690	25%	5%	1.0
06-Maternity Services	2	16	0%	0%	8.0
07-Mental Health	2	92	0%	0%	46.0
08-Subacute & NHT	388	4,988	6%	13%	12.9
09-Paediatrics (0-14yrs)	2	4	0%	0%	2.0
13-Emergency Dept	73	73	1%	0%	1.0
Grand total	**6,800**	**37,505**	**100%**	**100%**	**5.5**

Source: Victorian Admitted Episodes Dataset (VAED)

Note: Emergency only includes admissions (does not cover cancer related ED presentations)

Of note, from 2021-22 to 2023-24 there were an average of 400 separations and around 1,600 bed days within RMH by Peter Mac patients. These are patients who are admitted at RMH, often due to capacity issues at Peter Mac or clinical needs (such as needing ICU care). Most of these patients are admitted from the emergency department. This is an average of over 4 patients at RMH every day of the year.

5.3.4. Royal Women's Hospital - inpatient

There were a total of 1,524 cancer-flagged separations (5% of total RMH activity) and 3,398 bed days (4% of total RMH activity) in 2022-23.

Table 23. Total inpatient activity at the Women's by cancer flag, 2022-23

Cancer flag	Seps	Beddays
Cancer	1,524	3,398
Non-Cancer	26,646	72,178
Total	**28,170**	**75,576**
% Cancer	5%	4%

Source: Victorian Admitted Episodes Dataset (VAED)

Cancer-flagged the Women's activity by tumour stream is summarised below. The majority of services at the Women's relate to gynaecology oncology and breast cancer.

Table 24. Cancer-flagged inpatient activity at the Women's by tumour stream, 2022-23

Tumour stream	Seps	Beddays	% Seps
Gynaecological	1,292	2,466	85%
Breast	166	246	11%
Rare	22	491	1%
Skin	13	36	1%
Haematological	12	84	1%
Upper gastro	5	16	0%
Central Nervous System	4	11	0%
None	3	17	0%
Bone/Tissue	3	4	0%
Colorectal	2	5	0%
Sec/unknown prim	1	21	0%
Genitourinary	1	1	0%
Head & Neck	0	0	0%
Lung	0	0	0%
Thyroid & Endo	0	0	0%
Grand total	**1,524**	**3,398**	**100%**

Source: Victorian Admitted Episodes Dataset (VAED). Cancer-flagged activity is that which contains a cancer related ICD-10 code and the tumour stream is based on the first cancer-related ICD-10 code.

The table below summarises cancer-flagged by treatment category at the Women's. Approximately 90% of separations at the Women's relates to surgical services, demonstrating the focus for admitted services on gynaecology and breast surgery.

Table 25. Cancer-flagged inpatient activity at the Women's by Treatment Category, 2022-23

Treatment category	Seps	Beddays	% Seps	% Beddays	ALOS
01-Multi-day Medical	53	164	3%	5%	3.1
02-Multi-day Surgery	622	1,694	41%	50%	2.7
03-Ambulatory Same-day	2	2	0%	0%	1.0
04-Same-day Medical	12	12	1%	0%	1.0
05-Same-day Surgery	742	742	49%	22%	1.0
06-Maternity Services	67	206	4%	6%	3.1
09-Paediatrics (0-14yrs)	2	2	0%	0%	1.0
10-Neonate - Qualified	15	556	1%	16%	37.1
Grand total	**1,524**	**3,398**	**100%**	**100%**	**2.2**

Source: Victorian Admitted Episodes Dataset (VAED)

5.3.5. Radiation Oncology

The table below summarises the historical radiation oncology activity provided by Peter Mac. Services are provided across several campus. In 2022-23 there were over 91,000 radiation oncology occasions of service, of which around one third were delivered at the Parkville campus. Of note, despite a reduction in activity from 2019-20 (which was a particularly busy year), the complexity of patients has increased since this time including more stereotactic radiosurgery and surface guided radiation therapy.

Table 26. Radiation Oncology occasions of service by Campus, 2019-20 to 2022-23

Campus	2019-20	2020-21	2021-22	2022-23	AGR
Parkville	**33,906**	**29,635**	**30,573**	**32,102**	**-1.8%**
Moorabbin	26,183	25,630	24,309	23,303	-3.8%
Bendigo	15,544	13,480	12,038	12,804	-6.3%
Sunshine	13,691	11,415	11,643	11,678	-5.2%
Box Hill	13,432	11,495	11,362	11,154	-6.0%
Total	**102,756**	**91,655**	**89,925**	**91,041**	**-4.0%**

Source: Local dataset provided by Peter Mac. AGR = annual growth rate

5.3.6. Other services

Emergency Department

The table below summarises the historical emergency department activity at the precinct. In 2022-23 there were over 114,000 ED presentations, of which around 77% were at RMH. Of note, the Women's service is focused on women (primarily with gynaecology and obstetrics).

Table 27. Emergency Department presentations to the Precinct, 2018-19 to 2022-23

Facility	2018-19	2019-20	2020-21	2021-22	2022-23
RMH	79,792	78,486	77,454	83,992	87,424
the Women's	26,093	25,553	25,470	26,280	26,781
Precinct total	**105,885**	**104,039**	**102,924**	**110,272**	**114,205**

Source: Victorian Emergency Minimum Dataset (VEMD)

The table below summarises patients that presented to RMH ED and were then transferred to Peter Mac. Note this does not include patients who presented to RMH ED but were not admitted, or had all their treatment within ED. There were over 1,000 patients transferred from RMH ED to Peter Mac in 2023-24 (approximately 3 per day over the year).

Table 28. RMH ED patients by transfer to or from Peter Mac, 2021-22 to 2023-24

Values	2021-2022	2022-2023	2023-2024
Patient Transferred from Peter Mac to RMH ED	39	51	33
Patient Transferred from RMH ED to Peter Mac	738	848	1,006

Source: Victorian Emergency Minimum Dataset (VEMD)

Intensive Care

The table below summarises historical admissions to the RMH ICU by Peter Mac patients. In 2023-24 there were 244 Peter Mac patients that were admitted to the RMH ICU which accounted for 674 bed days. It is noted that Peter Mac introduced an Enhanced Care Unit in 2023 which contributed to the demonstrated reduction in admissions from 2022-23 to 2023-24.

Table 29. Peter Mac Admissions (Contract Care) to RMH ICU

Values	2019-20	2020-21	2021-22	2022-23	2023-24
Peter Mac admissions to RMH ICU	207	231	203	337	244
Peter Mac bed days to RMH ICU	500	530	468	637	674

Source: Local dataset provided by RMH

Another, broader measure of ICU utilisation at RMH is to utilise cancer-flagged activity (as per previous inpatient analysis). This indicates that historically, around 10-15% of total ICU activity was related to people affected by cancer. On an average day, this would be equivalent to approximately 4 patients with cancer in ICU. In terms of ICU days, two-thirds of activity was related to surgery.

Table 30. Cancer-flagged ICU inpatient activity at RMH, 2022-23

Measure	Patient Type	2018-19	2019-20	2020-21	2021-22	2022-23
Seps	Medical	175	162	219	179	255
	Surgical	143	193	197	157	181
	Total	**318**	**355**	**416**	**336**	**436**
ICU Days	Medical	374	430	473	328	453
	Surgical	878	1,030	896	708	906
	Total	**1,252**	**1,460**	**1,369**	**1,035**	**1,359**
Cancer flagged % total ICU days		**13%**	**15%**	**14%**	**10%**	**12%**

Source: Victorian Admitted Episodes Dataset (VAED)

Peter Mac Operating Theatres

The table below summarises the historical operating theatre activity, including number of cases and duration (Wheels in to Wheels out). In 2022-23 there were 4,925 cases, with an average duration of 115 minutes. Around 6% of cases were classified as emergency surgery.

Table 31. Peter Mac operating theatre activity, 2022-23

Specialty unit	Cases	Average Duration Minutes (Wheels in to Wheels out)	% Emergency
Surgical Melanoma & Skin	1,482	89	4%
Surgical Colorectal	890	143	8%
Oncology	642	120	7%
Surgical Genitourinary	548	133	5%
Surgical Breast	432	98	2%
Surgical Head & Neck	313	184	6%
Surgical Upper Gastrointestinal	310	132	9%
Gastroenterology	223	38	10%
Anaesthetic	35	45	3%
Surgical Gynaecology	31	166	39%
Haematology	8	32	0%
Surgical Lung	5	33	100%
Cardiac Surgery	3	91	67%
OMFS	2	85	0%
Pain Management	1	125	100%
Grand total	**4,925**	**115**	**6%**

Source: Theatre data provided by Peter Mac

It is noted that it was not possible to accurately identify all cancer-related theatre activity at RMH and the Women's, so this is not shown within this Plan. Inpatient activity analysis is the best indicator of overall surgical workload for these hospitals and future service planning for these organisations will articulate surgical activity further detail.

The table below summarises the historical outpatient activity by Tier 2 Clinic type, including the proportion of patients seen face to face or via telehealth / virtual means. In 2022-23 there were approximately 268,000 occasions of service, of which 60% were seen face-to-face and around 93% were follow-up or review sessions.

Table 32. Peter Mac total outpatient activity (VINAH)[1] by Delivery Mode and Tier 2 Clinic, 2022-23

Code	Tier 2	Face-to-face	Telehealth	Total	Approx. total per day (5 days)	% Face-to-face	% follow-up / review
10.04	Dental	4,090	353	4,443	18	92%	93%
10.11	Medical Oncology (Treatment)	1,857	0	1,857	7	100%	100%
20.02	Anaesthetics	669	963	1,632	7	41%	47%
20.03	Pain Management	323	823	1,146	5	28%	97%
20.07	General Surgery	3,283	3,182	6,465	26	51%	90%
20.08	Genetics	485	3,052	3,537	14	14%	70%
20.10	Haematology	13,984	6,005	19,989	80	70%	94%
20.13	Palliative Care	2,162	3,561	5,723	23	38%	95%
20.15	Neurology	293	98	391	2	75%	95%
20.16	Neurosurgery	77	128	205	1	38%	80%
20.19	Respiratory	1,023	788	1,811	7	56%	86%
20.22	Cardiology	507	226	733	3	69%	97%
20.23	Cardiothoracic	388	289	677	3	57%	79%
20.25	Gastroenterology	188	857	1,045	4	18%	98%
20.26	Hepatobiliary	981	752	1,733	7	57%	88%
20.29	Orthopaedics	1,326	1,034	2,360	9	56%	83%
20.32	Breast	2,983	1,132	4,115	16	72%	90%
20.33	Dermatology	4,144	536	4,680	19	89%	85%
20.34	Endocrinology	342	1,075	1,417	6	24%	99%
20.36	Urology	723	2,696	3,419	14	21%	87%
20.39	Gynaecology Oncology	2,675	803	3,478	14	77%	95%
20.42	Medical Oncology (Consultation)	29,466	12,727	42,193	169	70%	96%
20.43	Radiation Oncology (Consultation)	32,465	18,038	50,503	202	64%	90%
20.44	Infectious Diseases	934	1,294	2,228	9	42%	96%

1 Victorian Integrated Non-Admitted Health (VINAH) dataset

Code	Tier 2	Face-to-face	Telehealth	Total	Approx. total per day (5 days)	% Face-to-face	% follow-up / review
20.45	Psychiatry	471	1,107	1,578	6	30%	96%
20.46	Plastic and Reconstructive Surgery	9,165	3,317	12,482	50	73%	84%
40.04	Clinical Pharmacology	1,317	1,422	2,739	11	48%	99%
40.06	Occupational Therapy	507	410	917	4	55%	58%
40.09	Physiotherapy	2,568	1,555	4,123	16	62%	83%
40.11	Social Work	1,743	2,389	4,132	17	42%	76%
40.18	Speech Pathology	2,128	554	2,682	11	79%	94%
40.22	Stomal Therapy	434	324	758	3	57%	98%
40.23	Nutrition / Dietetics	5,445	4,471	9,916	40	55%	93%
40.29	Psychology	1,055	4,692	5,747	23	18%	95%
40.30	Alcohol and Other Drugs	17	1,743	1,760	7	1%	96%
40.39	Neurology	119	303	422	2	28%	100%
40.40	Respiratory	74	597	671	3	11%	96%
40.41	Gastroenterology	82	1,251	1,333	5	6%	100%
40.43	Hepatobiliary	68	22	90	0	76%	99%
40.49	Gynaecology	301	1,409	1,710	7	18%	90%
40.51	Breast	1,054	2,125	3,179	0	33%	100%
40.52	Oncology	31,818	10,298	42,116	13	76%	94%
NA	NA	4,908	1,400	6,308	25	78%	93%
Total		**168,642**	**99,801**	**268,443**	**1,074**	**60%**	**93%**

Source: Victorian Integrated Non-Admitted Health (VINAH) dataset. Excludes Did Not Attend.

Identifiable cancer appointments by Tier 2 code (note this would not include all patients with cancer e.g. in general gynaecology and breast clinics).

Table 33. the Women's Cancer-related outpatient activity (VINAH) by Delivery Mode and Tier 2 Clinic, 2022-23

Code	Tier 2	Face-to-face	Telehealth	Total
10.11	Medical Oncology (Treatment)	88	0	88
20.10	Haematology	295	480	775
20.39	Gynaecology Oncology	4,281	2,350	6,631
Total	**Cancer-related clinics**	**4,664**	**2,830**	**7,494**

Source: Victorian Integrated Non-Admitted Health (VINAH) dataset

Due to the significant volume of patients within general clinics (e.g. surgical), it was not possible to identify cancer-related outpatient appointments at RMH. Future service planning for RMH will articulate outpatient activity further detail.

6. Key issues impacting cancer services

Patients receive high quality cancer care at the Parkville Precinct provided by many dedicated health professionals. However, systematic issues impact the ability of clinicians to provide this care as efficiently and effectively provide this care as they would like.

A patient who resides 2 hours from the city is referred to the Parkville Precinct for suspected cancer. Diagnostics are performed and cancer is confirmed. She receives surgery at RMH and radiation oncology at Peter Mac. Multiple appointments are required with surgeons and radiation oncologists over different days during her treatment and follow-up. This is challenging to coordinate due to the different bookings systems and processes at Peter Mac and RMH. Although some aspects of her care were available at a hospital less than 1 hour away, all her care is provided from the Precinct. The care she received was excellent, however the travel required impacted her and her family significantly.

A patient is referred to a metro hospital in Melbourne with suspected cancer, however its origin is unclear and there is a reluctance of some clinicians to accept responsibility for his care. The patient receives multiple outpatient appointments and pathology tests prior to being referred to Peter Mac which took many weeks. Peter Mac cannot access the patient's medical records as the original treating hospital was on a different medical records system. Scans were not provided and cannot be viewed due to system integration issues. Furthermore, the delays and multiple appointments caused stress for the patient and his family as well as a delay in his diagnosis and treatment.

A patient with a rare cancer transferred her care to Peter Mac after a negative experience at another health service. She is from a regional area and a culturally diverse background. After some issues transferring medical records, her care is shared between RMH and Peter Mac. She is also experiencing significant financial distress. With no family support and treatment impacting her ability to work, she is no longer able to cover her mortgage. Her culture approaches financial discussions carefully, and with care teams split across two health services she doesn't feel safe to tell her story multiple times. She therefore doesn't raise her financial distress with her care teams and subsequently experiences housing insecurity and homelessness, couch surfing and living in her car during treatment. Although she is experienced in advocacy and navigating government services, she faces very significant barriers in accessing public housing and the NDIS.

The stories above are based on real case studies, with details changed and generalised to maintain confidentiality.

The stories above highlight just some of the issues facing patients who access cancer services at the Parkville Precinct and staff who provide their care. Fundamentally, many of the current issues are around sharing of information, communication and ensuring patients receive quality care and appropriate support in the right place at the right time. A summary of key issues is outlined on the following page that have informed the future focused strategic clinical service directions.

	Cancer **incidence is increasing**, and **improved and novel therapies** are supporting people to live longer with cancer (survivorship). The **average person affected by cancer is requiring greater support over time**, often with multiple comorbidities, complex psychosocial needs, and toxicities and complications from treatment. The result is increasing demand for cancer services. Furthermore, there is a **lack of equity of access and outcomes**, in particular for Aboriginal and/or Torres Strait Islander people and those who reside in rural and regional areas. There are also increasing psychosocial risk factors in the population, including in specific groups such as culturally and linguistically diverse and LGBTQI+ populations that require greater focus.
	Patients find it **difficult to navigate** the Victorian health system to get the correct diagnosis and treatment plan. Patients who are treated at the Parkville Precinct can also find navigation challenging when they need to be treated by different hospitals. At the end of treatment, the **information and support during the survivorship phase** of care can be lacking, leading to a feeling of abandonment despite continuing concerns and health issues.
	There is **increasing demand for public cancer services at the Parkville Precinct** as demonstrated by historical growth rates. Many patients are referred to the Precinct for cancer services that are available closer to their home. Outpatient services have grown significantly in recent years and are at capacity.
	**Private health insurance rates** have also generally **decreased** in recent years, leading to pressure on the public system (hospital cover rates in Victoria decreased from 45.5% in 2014 to 40.9% of the population in 2023). Furthermore, many patients use private insurance in public hospitals.
	There are many **highly complex cancer services** and interventions that are provided at **multiple locations in Victoria**. These are **not always connected** and there is a lack of clarity regarding what services should be delivered where and how they should relate to each other. **Referrals** aren't always directed to the **most appropriate hospital in a timely manner** based on a patient's condition and where they live.
	The Precinct has a **lack of physical capacity** for growth, in particular in overnight beds and outpatient spaces. Patients are sometimes admitted to RMH or the Women's due to lack of bed availability at Peter Mac.
	There is a **lack of consistency** in the provision of **patient-focused, evidence-based models of care**. This includes consideration of holistic and consistent care planning, use of technology to support care closer to home, improved management of unplanned care for people affected by cancer, need-based follow-up care and integration with community-based providers.
	The broader health **funding environment** remains a challenge due to limitations in government budgets. Novel therapies can take time to properly resolve funding models and can be very expensive to deliver.
	There are **workforce shortages across Australia** in the health sector and competition to recruit and retain staff across discipline areas. The demands on the existing highly skilled workforce are increasing.
	There are **barriers to optimal integration** across the Parkville Precinct, and within the broader health system in Victoria. This relates to clinical, clinical support and non-clinical systems and processes.

7. Service directions, strategies and vision

This section articulates the overall 10-year vision for the Parkville Precinct in alignment with the patient pathway and the overarching strategic clinical service directions and strategies required to meet this vision.

It is noted that this chapter articulates service-wide priorities. Service specific detail in alignment with the service directions is articulated in Chapter 9.

7.1. Vision and strategic clinical service directions

In alignment with Precinct partner strategic directions, the Precinct will:

Provide the world's best cancer care, cancer discovery and translation, and leadership for all people affected by cancer in Victoria.

The diagram below articulates the strategic clinical service directions and strategies that are to be progressed to achieve the vision articulated. This is followed by the Precinct vision (in line with optimal care pathways) and service model for the Precinct. This has been informed by, and aligns with the Victorian Cancer Plan to help to progress optimal and equitable cancer outcomes for all Victorians.

Three strategic clinical service directions with overarching strategies are proposed under each to meet the overall 10-year vision articulated.

1. Provide world leading, research led, person centred, specialised cancer services.	• Attract and retain **the best clinicians, thought leaders and researchers**. • Be **creators and early adopters of new technologies, novel therapies, models of care and digital health** to pursue innovation and lead change across the health system. • Develop technology to identify and record **patient reported outcome measures** (PROMs) and **patient reported experience measures** (PREMs) to directly influence improvements to patient care. • Continue to **strengthen research and clinical trials** to ensure innovation in cancer care is prioritised and ensure access to emerging therapies for Victorians. • Further pursue **private and commercial opportunities** in clinical practice for the Victorian community and to enhance equity. • Continue to **strengthen strategic partnerships** with other world leading cancer centres and academic universities.
2. Work with other urban, regional and rural health services to strengthen cancer care across Victoria.	• Strengthen the role of the Precinct as the **centre for the most complex cancer services and patients** in Victoria. • Provide **statewide leadership and support for cancer service delivery, research, training and education** to uplift statewide service capability. • Support the development of **networked service models** for cancer tumour streams and specialised interventions in Victoria in collaboration with the Department of Health and other health services. • Work with PHNs, primary care providers and health service partners to **improve referral and discharge pathways** (right service, right place, right time). • Prioritise **equity of access**, particularly for remote and priority populations. • Pursue and help design **new funding streams** to support service delivery and sustainability. • Invest in **infrastructure** to meet increasing demand.
3. Better integrate and coordinate cancer services across the Precinct.	• Further **leverage the clinical and research enterprise across the Precinct** to set the standard for the management of cancer in Victoria and beyond. • Develop **Precinct-wide models of care** and clinical pathways in partnership with consumers to optimise patient access and clinical outcomes. • Further **integrate systems, data and processes** that enable clinical service delivery for our people. • Establish **Peter Mac as the Precinct lead for adult clinical cancer services** to focus on the patient pathway and reduce barriers to efficient, quality care. • Configure clinical services to be **sustainable** and to optimise resource allocation.

Further narrative and key actions for the proposed strategies is provided below.

Strategic clinical service direction	Strategy	Issues this strategy aims to address	Actions
1. Provide world leading, research led, person centred, specialised cancer services.	Attract and retain the best clinicians, thought leaders and researchers.	• Workforce shortages. • Increasing demand. • Improved and novel therapies.	• The Precinct will continue to position itself as an innovator and a leading place to work in Australia and globally. The Precinct will: • Conduct integrated strategic workforce planning to ensure the attraction and retention of the best people from across Australia. • Market the unique Precinct-wide offering in relation to specialised and cutting-edge cancer care and research.
	Be creators and early adopters of new technologies, novel therapies, models of care and digital health to pursue innovation and lead change across the health system.	• Increasing demand. • Improved and novel therapies. • Lack of connected statewide services. • Lack of consistency in the provision of patient-focused models of care	The Precinct has led the innovation and implementation of new therapies such as CAR-T cell therapies, theranostics, gamma knife interventions and robotic surgery. The Precinct will continue to be creators, early adopters and leaders in this space. The Precinct will: • Seek investment in proton therapy as a priority to enable access to the best possible care for Victorians. • Continue to strengthen research into genomics and clinical translation to support new models of prevention, diagnosis and management. • Continue to lead the research and development of cutting-edge cancer therapies including CAR-T cell therapy and theranostics. • Review the model of care for patient follow-up and survivorship care across all cancer streams, identifying opportunities to reduce reliance on traditional follow-up through technology and shared care. • Implement earlier discharge planning supported by remote monitoring and virtual clinical back-up. • Lead the implementation of new digital technologies and artificial intelligence for cancer services.
	Develop technology to identify and record patient reported outcome measures (PROMs) and patient reported experience measures (PREMS) to directly influence improvements to patient care.	• Lack of consistency in the provision of patient-focused, evidence-based models of care. • Difficulty of health system navigation for patients. • Increasing demand and cancer incidence. • Lack of equity in health outcomes.	PROMs and PREMS are identified as a national priority in the Australian Cancer Plan. They are seen as critical to a national system that establishes and evidence base to drive improvement, address unmet needs, and improve equity. The Precinct will: • Develop technology to identify and record patient reported outcome measures (PROMs) and patient reported experience measures (PREMs) for people affected by cancer in alignment with the Australian Cancer Plan, ensuring co-designed and evidence-based approaches. • Embed the use of PROMs and PREMs to inform improvements in service delivery models.

Strategic clinical service direction	Strategy	Issues this strategy aims to address	Actions
1. Provide world leading, research led, person centred, specialised cancer services.	Continue to strengthen research and clinical trials to ensure innovation in cancer care is prioritised and ensure access to emerging therapies for Victorians.	• Lack of equity in health outcomes. • Improved and novel therapies. • Lack of consistency in the provision of evidence-based models of care. • Increasing demand and cancer incidence.	Research and associated clinical trials are key differentiators of the Parkville Precinct compared to other centres in Victoria and interstate. The Precinct will: • Continue to broaden and strengthen research across the Precinct, providing the most complex research led care in Victoria. • Improve the implementation of evidence-based clinical care. • Establish and strengthen partnerships across the health system to improve access to clinical trials and improve equity (in line with the Victorian Cancer Plan), including with government to ensure travel for clinical trials is affordable for patients.
	Further pursue private and commercial opportunities in clinical practice for the Victorian community and to enhance equity.	• Lack of equity in access and health outcomes. • Broader funding environment challenges.	A key feature of Peter Mac are the commercial ventures that diversify revenue streams to support cancer care delivery and research initiatives. The Precinct will: • Pursue opportunities to leverage Peter Mac's brand to enhance Victoria-wide leadership, align with public service delivery and support investment in research. • Continue to identify commercial opportunities in emerging areas of need and opportunity.
	Continue to strengthen strategic partnerships with other world leading cancer centres and academic universities.	• Lack of consistency in the provision of patient-centred, evidence-based models of care. • Lack of equity in access and outcomes. • Improved and novel therapies.	Strategic partnerships are essential for success in translational research and to ensure the latest therapies and models of care are identified and implemented. The Precinct will: • Continue to establish links with other world leading cancer centres, further embedding the Precinct as the national leader and one of the best cancer centres globally. • Formalise linkages with other Comprehensive Cancer Centres in Australia, in line with the Australian Cancer Plan. • Strengthen partnerships with academic universities to further advance research, ensure appropriate education and training for the workforce.

Strategic clinical service direction	Strategy	Issues this strategy aims to address	Actions
2. Work with other urban, regional and rural health services to strengthen cancer care across Victoria.	Strengthen the role of the Precinct as the centre for the most complex cancer services and patients in Victoria.	• Lack of consistency in the provision of patient-centred, evidence-based models of care. • Difficulty of health system navigation for patients. • Lack of equity in access and outcomes. • Workforce shortages. • Lack of connected services across Victoria.	The Precinct already provides services to many of the most complex patients in Victoria. The Precinct will: • Work with the Department of Health to identify its role in alignment with the future cancer role delineation and implications for scope and funding. • Establish the role of the Precinct as leaders in diagnosis and treatment planning for rare and complex cancers to ensure patients receive an early and accurate diagnosis. • Further formalise the role of the Precinct in treating rare and complex tumours and providing the most complex and cutting-edge interventions. • Develop a Victoria-wide cancer in pregnancy service to support all women in Victoria with cancer during their pregnancy in collaboration with Precinct cancer services.
	Provide statewide leadership and support for cancer service delivery, research, training and education to uplift statewide service capability.	• Lack of consistency in the provision of patient-centred, evidence-based models of care. • Lack of equity in access and outcomes. • Difficulty of health system navigation for patients. • Workforce shortages. • Lack of connected services across Victoria.	The Precinct already provides a leadership role across many services, with opportunities to further strengthen this in the future. The Precinct will: • Set the standard for the management of cancer in Victoria and support capacity building for other health services to meet these standards. • Provide training and education to clinicians in identified areas of need. • Develop shared care models with primary care to reduce reliance on hospital care where appropriate. • Establish a secondary consultation service, enabling cancer service providers to obtain specialist advice to guide treatment planning to support delivery of care close to home, with escalation and rapid re-entry pathways.
	Support the development of networked service models for cancer tumour streams and specialised interventions in Victoria in collaboration with the Department of Health and other health services.	• Lack of connected services across Victoria and clarity regarding roles. • Difficulty of health system navigation for patients. • Lack of equity in access and outcomes.	There are opportunities to better define what cancer services are provided where and how they will relate to each other across Victoria to ensure optimal clinical outcomes. This is particularly important for complex tumours or interventions where there are a limited number of sites where they are provided. The Department provides a statewide leadership role in this space. The Precinct will: • Further establish the preferred role of the Precinct for different tumour streams and complex interventions. • Contribute to the development of the prioritised networked service models in close collaboration with the Department and service partners, ensuring they are evidence-based, sustainable and safe.

Strategic clinical service direction	Strategy	Issues this strategy aims to address	Actions
2. Work with other urban, regional and rural health services to strengthen cancer care across Victoria.	Work with PHNs, primary care providers and health service partners to improve referral and discharge pathways (right service, right place, right time).	• Lack of connected services across Victoria and clarity regarding roles. • Difficulty of health system navigation for patients. • Lack of equity in access and outcomes.	The Precinct will: • Work with referrers and other key organisations such as the PHNs to consider better guidance, systems and processes for cancer referrals. This will include consideration of existing tools such as HealthPathways and centralised referral pathways in the Precinct. • Establish improved discharge pathways to enable primary care and other community services to better meet the needs of patients, particularly in the follow-up and survivorship stages of their care.
	Prioritise equity of access, particularly for remote and priority populations.	• Lack of connected services across Victoria and clarity regarding roles. • Lack of equity in access and outcomes.	Priority populations such as socio-economically disadvantaged people, Aboriginal and/or Torres Strait Islander people, LGBTQI+ people, culturally and linguistically diverse people, and those living in regional and rural areas with cancer have poorer health outcomes. The Precinct will: • Establish models of care (e.g., using technology, outreach) to better reach populations that can find accessing health services challenging due to factors such as distance. • Review all future proposed initiatives with an equity lens, ensuring this is considered in the design of new models with particular consideration of First Nations people. • Work with service partners to improve accessibility to clinical trials for priority populations across Victoria (as previously outlined under the research strategy). • Work across the Precinct to better coordinate and share resources for priority populations.
	Pursue and help design new funding streams to support service delivery and sustainability.	• Lack of connected services across Victoria and clarity regarding roles. • Broader funding environment challenges.	The Precinct will work with the Department of Health to: • Identify how specialised services can be appropriately and sustainably funded into the future. • Establish funding to formalise and enable the future statewide leadership and support role of the Parkville Precinct.
	Invest in infrastructure to meet increasing demand.	• Lack of physical capacity for growth. • Lack of equity in access and outcomes.	As evidenced in **Chapter 8** of this Plan, there is a need for infrastructure investment for cancer services in the coming years. The Precinct will: • Work with the Department to ensure infrastructure planning can further progress at the Precinct to meet increasing demand. • Pursue a collaborative strategy to increase the provision of ambulatory services in community settings closer to home and reduce reliance on travel to the busy Parkville site.

Strategic clinical service direction	Strategy	Issues this strategy aims to address	Actions
3. Better integrate and coordinate cancer services across the Precinct.	Further leverage the clinical and research expertise across the Precinct to set the standard for the management of cancer in Victoria and beyond.	• Barriers to integration across the Precinct. • Difficulty of Precinct navigation for patients. • Lack of consistency in the provision of patient-centred, evidence-based models of care. • Lack of equity in access and outcomes.	Clinical care integration is important for patients to ensure a seamless pathway. Noting there are different considerations for different clinical services, the Precinct will: • Improve the consistency of care coordination for patients across the Precinct. • Establish more equitable access to specialised allied health, patient wellbeing and psychosocial services for all people affected by cancer in the Precinct. • Ensure a sufficient and increased array of integrated and coordinated specialty services is available to patients with cancer to meet their needs, and Royal Melbourne Hospital will lead this transformation. • Better integrate research and clinical trials across the Precinct to ensure quality research is coordinated, efficient, accessible and leads to further advancements in cancer care. • Explore the feasibility of a rapid advisory panel relating to Advanced Care and futile care to better manage complex decision-making and planning with patients and clinicians.
	Develop Precinct-wide models of care and clinical pathways in partnership with consumers to optimise patient access and clinical outcomes.	• Barriers to integration across the Precinct. • Difficulty of Precinct navigation for patients. • Lack of consistency in the provision of patient-centred, evidence-based models of care. • Lack of equity in access and outcomes.	Models of care articulate how care is to be managed and organised around patients, supporting integrated, safe, quality and efficient care. The Precinct will: • Develop Precinct-wide models of care for all cancer streams, identifying service arrangements leveraging partner expertise, articulating streamlined referral pathways and ensuring clarity for clinicians and patients (ensuring alignment with other strategies identified).
	Further integrate systems, data and processes that enable clinical service delivery for our people.	• Barriers to integration across the Precinct.	The Precinct will work to enable clinical services to operate efficiently and effectively between hospitals. The Precinct will: • Map patient pathways to identify barriers to care. • Identify and implement administrative solutions to enable more efficient care and reduce duplication of processes for staff. • Integrate clinical support systems to enable viewing of reports and images across sites (such as radiology). • Integrate non-clinical support functions that could be shared to improve knowledge sharing and reduce duplication.

Strategic clinical service direction	Strategy	Issues this strategy aims to address	Actions
3. Better integrate and coordinate cancer services across the Precinct.	Establish Peter Mac as the Precinct lead for adult clinical cancer services to focus on the patient pathway and reduce barriers to efficient, quality care.	• Barriers to integration across the Precinct. • Lack of consistency in the provision of patient-centred, evidence-based models of care.	The Precinct will: • Collaboratively work to establish Peter Mac as the Precinct lead for adult clinical cancer services to ensure a Precinct-wide approach to further cancer planning and service delivery.
	Configure clinical services to be sustainable and to optimise resource allocation.	• Barriers to integration across the Precinct. • Constrained funding environment. • Lack of consistency in the provision of patient-centred, evidence-based models of care.	There is a need to ensure sustainability of services into the future. The Precinct will: • Review current services to ensure they are evidence and value-based and identify priorities for service redesign. • Improve the translation of evidence-based health services research such as models of care into sustainable clinical practice. • Develop Precinct-wide models of care to reduce inefficiencies and duplication.

7.2. Parkville Precinct service model and vision in 2035

It is recognised that different services require different focus areas and models of care. Although these will evolve over time (impacted by statewide planning, new research and technology etc.) the service model in 2035 will include the following. Building on this, the 2035 Precinct vision follows in alignment with Optimal Care Pathways. Please note that this is a summary and service profiles will contain additional service level information.

Location 	The Parkville Precinct will: • Continue to provide comprehensive cancer services to a local, immediate catchment (i.e. geographical areas directly around the Precinct). This will also help provide a service mix with some lower complexity work to ensure service sustainability and support training programs. • Service a broader statewide and interstate catchment for a wide range of specialised services. Where patients need to come from to receive care will be dependent on the type of cancer and/or complexity of intervention.
Statewide leadership 	The Parkville Precinct will: • Set the standard for the management of cancer across the care continuum for the State. This will include reforming models of care related to follow-up and surviorship. • Provide secondary consultation services, enabling cancer service providers to obtain specialist advice to guide treatment planning to support delivery of care close to home, with escalation and rapid re-entry pathways. • Establish partnerships with other metro, regional and rural health services to ensure cancer services and clinical trials can be accessed closer to home where safe and sustainable. • Formally establish partnerships with other organisations to enable Parkville to provide education, materials and advice.
Specialisation 	The Parkville Precinct will: • Continue to lead Australia in cancer research and clinical trials. • Deliver value-based healthcare; the right care, at the right place, at the right time. • Place patient experience at the forefront of care delivery, informed by co-designed patient reported experience measures, enabling patients to navigate their care in a personalised way, underpinned by supportive care principles, recognising the importance of wellbeing and social determinants, and ensuring coordination with all care providers. • Ensure that care is accessible to priority populations, recognise the impact of socioeconomic vulnerabilities on individuals and their families, and ensure appropriate psychosocial supports are in place. • Provide specialised diagnosis and treatment planning for rare and complex cancers utilising the high level clinical and diagnostic capability (incl. molecular pathology, genetic testing, imaging). For example, this would include haematology and sarcoma services. • Strengthen and formalise its statewide role for rare and complex cancers (e.g. neuro oncology, testicular cancer) including cancers of an unknown primary. • Provide the most cutting-edge therapies and interventions including immunotherapy, CAR-T cell therapies, theranostics, specialised PET/CT, radiation therapy (including proton therapy), complex surgical interventions. • Provide a statewide role in specialist areas that cut across cancer streams e.g. Adolescent and Young Adult services, cancer in pregnancy, Familial Cancer Centre. • Continue to provide a role in surveillance/screening, including breast screening, surveillance endoscopies and specialised genetic screening. • Take the lead in the development of, advocacy for, and dissemination of precision prevention models informed by genetic testing. • Provide data informed and enabled care with digitally capable, trained workforce.

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7
Prevention and early detection	**Presentation, initial investigations and referral**	**Diagnosis, staging and treatment planning**	**Treatment**	**Care after initial treatment and recovery**	**Managing disease (e.g. relapsed, residual etc.)**	**End-of-life care**
• The Precinct has a leadership role in developing precision prevention models in relevant cancer streams (risk-based, personalised prevention). • Strengthened secondary prevention is provided.	• Expedited referrals of patients are made to the Precinct where diagnosis needs to be refined (including molecular profiling). • Referrals are made to the right place, close to home where safe and suitable. • Referrals for the most complex and rare cancers are made to the Precinct.	• Continued and strengthened role in diagnosis, molecular profiling, staging and treatment planning of complex and rare cancers. • Leadership in diagnosis and treatment planning across Victoria. • A proactive and holistic approach to care planning for all patients (e.g. consider psychosocial determinants, age related, end of life needs (incl. advanced care planning), prehabilitation programs).	• The newest, cutting-edge therapies and clinical trials are available at the Parkville Precinct, informed by on-site translational research. • Comprehensive, end-to-end cancer care for catchment residents. • Additional specialised services established in areas of need. • Psychosocial impacts of care are screened and addressed. • Leadership and support is provided for health services through education, training, secondary consultation.	• All patients have survivorship plans in place. • Hospital-based follow-up is delivered based on needs. • Follow-up reduces reliance on doctors, increased nurse-led / allied health-led, shared care models and reduced need for in person visits. • Technology supports patients to manage their recovery (PROMs, PREMs, home monitoring, virtual care, patient portal) and prevent avoidable hospital attendances and readmissions.	• Individualised survivorship or symptom management / end of life planning for patients based on need with technology and home monitoring to manage suitable patients in the community in shared care arrangements. • Improved management of known patients requiring unplanned care through predictive models and virtual supports. • Clear escalation and re-entry pathways to support management.	• Earlier palliative care planning for all patients. • Improved coordination with community-based providers. • The Precinct has a leadership and support role in best practice palliative care. • Bereavement supports are available to families and carers.

ENABLERS

Research and clinical trials · *Contemporary infrastructure* · *Right culture* · *Our people* · *Education*

New technology · *Appropriate funding models* · *Data systems* · *Precinct integration* · *Patient experience initiatives*

8. Projections

8.1. Overview

This section presents an analysis of what the scope and scale should be for services at Peter Mac and cancer-related services at the Women's and RMH, in terms of projected clinical service activity and capacity/space (presented as points of care).

Critical to interpretation of this section are the planning assumptions underpinning future service activity projections, particularly in the context of the unknown impacts of changes to service networks across Victoria as result of implementation of Department of Health initiatives such as Health Service Partnerships, reconfiguration of health services into Local Health Service Networks (LHSNs), and the development of clinical capability frameworks.

There are expected to be some future *'push'* factors away from the Precinct (e.g. care closer to home) and some *'pull'* factors into the Precinct (e.g. rare cancers, higher complexity interventions). Given the unknowns and the 'push' and 'pull' factors, the 'Base Case' projection from the latest available Department of Health projection tools is a reasonable indicator of future growth required at the Precinct. The 'Base Case' assumes that the Precinct continues to deliver a similar casemix with the same patient flow patterns into the future. This provides an indication of the service activity and required points of care required to meet a population's future need for health services. Please note that there are limitations to these projections as they are based on historical data that does not reflect more recent changes in service mix and patient access patterns. Decisions around service and bed mix in any future infrastructure planning will need to consider these recent changes and trends.

Data to inform projections have been sourced from the following:

- Department of Health IPM2021C inpatient data set (19-20 base year, including adjustments made for COVID impacts).
- Outpatient dataset (Victorian Integrated Non-Admitted Health (VINAH) dataset) provided by the Victorian Agency for Health Information (VAHI)
- Local datasets provided by the Precinct for operating theatre, radiotherapy and critical care services.

The scope of the projection model is as follows:

- For cancer inpatient activity across the Precinct (Peter Mac, RMH, the Women's).
- Peter Mac inpatient projections includes both cancer-flagged and non-cancer flagged activity.
- Outpatient activity at Peter Mac is modelled in broad alignment with the inpatient modelling (this is not provided for RMH and the Women's given data limitations, and the need for holistic ambulatory planning at these sites).
- Radiation oncology projections are excluded as these are centrally planned by the Department of Health.
- Activity and points of care are projected out to 2036/37. Hospital in the Home (HITH) discounts are included.

8.2. Base case activity

The following tables provide the Base Case activity projections for all activity at Peter Mac, and cancer-flagged activity at RMH and at the Women's.

8.2.1. Peter Mac

Base Case inpatient projections for Peter Mac indicate that by 2036/37, the facility demand will account for around 67,000 separations (44% increase on 2022/23), and around 119,000 bed days (47% increase on 2022/23). Of interest, overnight services are projected to grow at a high rate, in particular multi-day medical (almost doubling of separations projected over this 14-year timeframe).

Table 34. Peter Mac Base Case activity projections by Stay Type and Treatment Category, 2022-23 to 2036-37

Peter Mac total	2022-23 Seps	2026-27 Seps	2031-32 Seps	2036-37 Seps	2022-23 Beddays	2026-27 Beddays	2031-32 Beddays	2036-37 Beddays	% Growth (Seps)	% Growth (Beddays)
Overnight	**5,655**	**7,714**	**9,141**	**10,505**	**40,271**	**51,399**	**57,266**	**62,846**	**86%**	**56%**
01-Multi-day Medical	3,555	5,035	6,040	7,040	22,778	32,174	36,602	40,811	98%	79%
02-Multi-day Surgery	2,100	2,679	3,101	3,465	17,493	19,225	20,664	22,035	65%	26%
Same day	**40,958**	**41,367**	**49,325**	**56,436**	**40,958**	**41,367**	**49,325**	**56,436**	**38%**	**38%**
03-Ambulatory Same-day	30,722	31,850	37,991	43,718	30,722	31,850	37,991	43,718	42%	42%
04-Same-day Medical	5,142	4,366	5,327	5,957	5,142	4,366	5,327	5,957	16%	16%
05-Same-day Surgery	4,464	4,266	5,044	5,659	4,464	4,266	5,044	5,659	27%	27%
09-Paediatrics (0-14yrs)	630	885	963	1,102	630	885	963	1,102	75%	75%
Grand total	**46,613**	**49,081**	**58,466**	**66,941**	**81,229**	**92,766**	**106,591**	**119,282**	**44%**	**47%**
HITH Activity (15% of Overnight)	848	1,157	1,371	1,576	6,041	7,710	8,590	9,427	4.5%	3.2%

Source: Department of Health IPM2021C inpatient data set. Excludes unqualified neonates (where applicable).

The table below provides a summary of Peter Mac activity projections by Unit / Division. The projections should be interpreted with some caution (e.g. unusual trend in paediatrics); however it is noted that:

- Medical oncology services are provided to grow at a higher rate than surgical services (61% vs. 32%). This is in line with consultation and trends around the increases in medical interventions into the future.
- There is a similar growth rate projected for medical oncology services across divisions (approximately 60%).
- There is some variation in projected surgical growth rates with Breast and Melanoma and Skin projected to demonstrate the highest growth rates followed by sarcoma, genitourinary and colorectal.

Table 35. Peter Mac Base Case activity projections by Unit, 2022-23 to 2036-37

Peter Mac division / unit	2022-23 Seps	2026-27 Seps	2031-32 Seps	2036-37 Seps	2022-23 Beddays	2026-27 Beddays	2031-32 Beddays	2036-37 Beddays	% Growth (Seps)	% Growth (Beddays)
Haematology	**13,646**	**12,635**	**15,038**	**17,070**	**17,993**	**19,512**	**22,403**	**24,938**	**25%**	**39%**
Medical Haematology	13,646	12,635	15,038	17,070	17,993	19,512	22,403	24,938	25%	39%
Medical Oncology	**24,648**	**28,108**	**33,555**	**38,700**	**37,773**	**44,523**	**51,986**	**59,033**	**57%**	**56%**
Medical Breast	5,710	6,595	7,848	9,049	7,751	8,638	10,025	11,367	58%	47%
Medical Genitourinary	2,363	2,661	3,202	3,705	4,746	5,896	7,021	8,058	57%	70%
Medical Gynaecology	2,357	2,679	3,196	3,686	3,708	4,314	5,010	5,671	56%	53%
Medical Head & Neck	2,409	2,703	3,228	3,722	3,386	3,832	4,460	5,052	55%	49%
Medical Lower Gastrointestinal	2,466	2,865	3,411	3,931	3,588	4,145	4,815	5,454	59%	52%
Medical Lung	3,051	3,485	4,165	4,802	4,536	5,266	6,121	6,922	57%	53%
Medical Melanoma & Skin	2,292	2,534	3,019	3,480	3,251	3,627	4,198	4,750	52%	46%
Medical Neuro-Oncology	451	510	609	702	650	755	879	996	56%	53%
Medical Sarcoma	1,291	1,530	1,840	2,123	2,582	3,544	4,179	4,761	64%	84%
Medical Upper Gastrointestinal	2,258	2,546	3,036	3,500	3,576	4,506	5,278	6,003	55%	68%

Peter Mac division / unit	2022-23 Seps	2026-27 Seps	2031-32 Seps	2036-37 Seps	2022-23 Beddays	2026-27 Beddays	2031-32 Beddays	2036-37 Beddays	% Growth (Seps)	% Growth (Beddays)
Other Oncology	**568**	**664**	**800**	**916**	**2,141**	**2,625**	**3,043**	**3,412**	**61%**	**59%**
Pain Management	43	31	38	43	118	126	144	160	0%	36%
Palliative Care	525	633	763	873	2,023	2,499	2,899	3,252	66%	61%
Radiation Oncology	**553**	**540**	**663**	**777**	**1,247**	**2,319**	**2,837**	**3,307**	**41%**	**165%**
Radiotherapy Paediatrics	553	540	663	777	1,247	2,319	2,837	3,307	41%	165%
Surgical Oncology	**7,198**	**7,134**	**8,410**	**9,477**	**22,076**	**23,788**	**26,322**	**28,593**	**32%**	**30%**
Surgical Breast	468	556	628	690	1,408	1,869	2,024	2,182	47%	55%
Surgical Colorectal	930	948	1,073	1,193	5,702	6,283	6,664	7,005	28%	23%
Surgical Genitourinary	1,265	1,261	1,495	1,695	3,178	3,426	3,891	4,324	34%	36%
Surgical Gynaecology	341	249	290	321	518	575	626	670	-6%	29%
Surgical Head & Neck	1,029	917	1,054	1,160	2,519	2,041	2,278	2,468	13%	-2%
Surgical Hepatobiliary	69	64	73	82	386	406	440	470	19%	22%
Surgical Melanoma & Skin	2,050	2,199	2,686	3,073	4,749	5,422	6,195	6,869	50%	45%
Surgical Sarcoma	498	491	585	668	1,867	1,941	2,176	2,397	34%	28%
Surgical Upper Gastrointestinal	548	449	524	593	1,749	1,825	2,027	2,207	8%	26%
Total	**46,613**	**49,081**	**58,466**	**66,941**	**81,229**	**92,766**	**106,591**	**119,282**	**44%**	**47%**

Source: Department of Health IPM2021C inpatient data set,, and Peter Mac Unit-level data. Excludes unqualified neonates (where applicable).

Note – given projections are not available at a unit level, this is based on Diagnostic Related Group (DRG) to Major Clinical Related Group (MCRG) allocation to local Peter Mac divisional data.

The table below provides the non-admitted activity projections for Peter Mac. These have been developed utilising the Victorian Integrated Non-Admitted Health (VINAH) dataset with the application of inpatient growth rates for specific services (where appropriate) to provide broad alignment with the inpatient modelling. By 2036-37 it is projected that Peter Mac will provide almost 434,000 occasions of services, of which 277,000 (64%) are expected to be delivered face-to-face at the facility (assuming current trends).

Table 36. Peter Mac Base Case outpatient activity projections, 2022-23 to 2036-37

Peter Mac total	2022-23 Seps	2026-27 Seps	2031-32 Seps	2036-37 Seps	% Growth
Face to face occasions	168,642	193,664	231,167	277,180	64%
Telehealth occasions	99,805	113,215	132,982	156,793	57%
Grand total	**268,447**	**306,879**	**364,148**	**433,974**	**62%**

Source: Department of Health Outpatient dataset (VINAH). Excludes patients who did not attend appointments.

8.2.2. RMH

Base case projections for cancer-flagged activity at RMH indicate that by 2036/37, the facility demand will account for around 10,000 cancer-flagged separations (a 51% increase on 2022/23 activity), and around 52,000 cancer-flagged bed days (a 37% increase on 2022/23 activity). The highest growth rates are demonstrated in same day services. Multi-day subacute services (incl. rehabilitation and palliative care) are projected to increase significantly due to length of stay.

Table 37. RMH Base Case cancer-flagged activity projections by Stay Type and Treatment Category, 2022-23 to 2036-37

RMH Cancer-flagged	2022-23 Seps	2026-27 Seps	2031-32 Seps	2036-37 Seps	2022-23 Beddays	2026-27 Beddays	2031-32 Beddays	2036-37 Beddays	% Growth (Seps)	% Growth (Beddays)
Overnight (acute & subacute)	**4,053**	**4,441**	**5,011**	**5,676**	**34,758**	**39,782**	**43,142**	**46,983**	**40%**	**35%**
01-Multi-day Medical	1,559	1,815	2,007	2,248	10,876	12,085	12,909	13,928	44%	28%
02-Multi-day Surgery	2,108	2,256	2,579	2,909	18,896	21,150	22,862	24,653	38%	30%
08-Subacute & NHT	386	370	425	519	4,986	6,547	7,371	8,402	34%	69%
Same Day	**2,747**	**3,227**	**3,855**	**4,575**	**2,747**	**3,227**	**3,855**	**4,575**	**67%**	**67%**
03-Ambulatory Same-day	535	807	988	1,224	535	807	988	1,224	129%	129%
04-Same-day Medical	522	736	845	940	522	736	845	940	80%	80%
05-Same-day Surgery	1,690	1,684	2,022	2,411	1,690	1,684	2,022	2,411	43%	43%
Grand total	**6,800**	**7,668**	**8,866**	**10,251**	**37,505**	**43,009**	**46,997**	**51,558**	**51%**	**37%**

Source: Department of Health IPM2021C inpatient data set. Excludes unqualified neonates (where applicable).

It should be noted that by 2036-37, it is estimated that 1,286 patients will be transferred from the RMH ED to Peter Mac (see section below), and as such, a reasonable proportion of RMH cancer flagged same day episodes are likely to be patients admitted to ED awaiting transfer to Peter Mac.

Emergency department

The table below summarises the total projected emergency department activity at the precinct (noting that this includes cancer, and non-cancer flagged activity). This provides an indication of total growth for the service, and identifies the cohort that is Peter Mac patients transferred from RMH ED. In 2022-23 there were over 114,000 ED presentations, and by 2036-37, it is projected that there will be almost 149,000 emergency presentations at the precinct (a 30% increase on 2022-23). Around 81% of presentations will be at the RMH ED. By 2036-37, around 1,286 patients are projected to be transferred from the RMH ED to Peter Mac, a 30% increase from 2022-23.

Table 38. Base Case emergency department activity projections at the Precinct, 2022-23 to 2036-37

Facility	2022-23	2026-27	2031-32	2036-37	AGR	% increase
RMH	87,424	95,786	107,372	120,359	2.3%	38%
the Women's	26,781	27,487	28,396	29,335	0.7%	10%
Precinct total	**114,205**	**123,179**	**135,394**	**148,820**	**1.9%**	**30%**
Estimated patients transferred from RMH ED to Peter Mac	848	1,065	1,170	1,286	1.9%	30%

Source: Victorian Emergency Minimum Dataset (VEMD). AGR = annual growth rate.

Intensive care

The table below summarises projected admissions to the RMH ICU by Peter Mac patients. In 2022-23 there were 337 Peter Mac patients that were admitted to the RMH ICU (and accounting for 674 bed days). Peter Mac introduced an Enhanced Care Unit in 2023 which contributed to 28% reduction in admissions from 2022-23 to 2023-24. Projected demand indicates an increase of 51% on 2023-24 activity, to around 369 Peter Mac admissions to RMH ICU in 2036-37, accounting for over 1,000 bed days.

Note that demand for ICU services is not projected to be sufficiently high enough to warrant a standalone ICU at Peter Mac (this is generally a unit of at least 6 to 8 spaces). As such, it is expected that RMH will continue to provide ICU services to Peter Mac patients into the future.

Table 39. Base Case projected Peter Mac Admissions (Contract Care) to RMH ICU, 2022-23 to 2036-37

Values	2022-23	2023-24	2026-27	2031-32	2036-37	AGR*	% increase
Peter Mac admissions to RMH ICU	337	244	268	315	369	3.2%	51%
Peter Mac bed days to RMH ICU	637	674	741	869	1,019	3.2%	51%

*Source: Local dataset provided by RMH. *Annual growth rate (AGR) as per projected overnight bed days growth rate.*

8.2.3. the Women's

Base case projections for cancer-flagged activity at the Women's indicate that by 2036/37, the facility demand will account for around 2,000 cancer-flagged separations (a 32% increase on 2022/23 activity), and around 4,000 cancer-flagged bed days (a 28% increase on 2022/23 activity). The projected growth in services at the Women's is lower than those at RMH and Peter Mac.

Table 40. the Women's Base Case cancer-flagged activity projections by Stay Type and Treatment Category, 2022-23 to 2036-37

the Women's Cancer-flagged	2022-23 Seps	2026-27 Seps	2031-32 Seps	2036-37 Seps	2022-23 Beddays	2026-27 Beddays	2031-32 Beddays	2036-37 Beddays	% Growth (Seps)	% Growth (Beddays)
Overnight	**765**	**852**	**941**	**1,002**	**2,639**	**3,069**	**3,197**	**3,326**	**31%**	**26%**
01-Multi-day Medical	53	88	86	90	164	240	245	259	70%	58%
02-Multi-day Surgery	622	676	762	816	1,694	1,744	1,831	1,909	31%	13%
10-Neonate - Qualified	23	28	30	32	575	814	833	856	39%	49%
06-Maternity Services	67	60	63	64	206	271	288	302	-4%	47%
Same Day	**758**	**895**	**949**	**1,009**	**758**	**895**	**949**	**1,009**	**33%**	**33%**
03-Ambulatory Same-day	2	3	3	4	2	3	3	4	100%	100%
04-Same-day Medical	14	27	29	30	14	27	29	30	114%	114%
05-Same-day Surgery	742	865	917	975	742	865	917	975	31%	31%
Grand total	**1,524**	**1,747**	**1,890**	**2,011**	**3,398**	**3,964**	**4,146**	**4,335**	**32%**	**28%**

Source: Department of Health IPM2021C inpatient data set. Excludes unqualified neonates (where applicable).

8.3. Point of care projections

Points of care have been derived directly from projected Base Case activity (see previous tables in Section 8.2), with the application of Department of Health planning benchmarks but with some minor differences for Peter Mac to account for its unique role, the level of complexity of services, and the operational models in place. This includes:

- Peter Mac is a specialised hospital with no emergency department and little unplanned activity. Bed occupancy rates are adjusted to 90% occupancy for acute overnight beds (instead of 85%).
- Hospital in the Home rates are calculated at 15% of overnight activity and discounted from inpatient beds.
- Chemotherapy rates are adjusted to reflect the preferred future model – 6 days per week (instead of 5 days).
- Given palliative care was not operational in the base year data for the projections, a point of care adjustment has been applied to cater for this service in the outyears.
- Peter Mac outpatient projections include activity for clinic-based (i.e. delivered on-site and in-person) outpatient / allied health / community health services, and assume services operate 250 days per year, 7 hours per day, seeing approximately 9.3 patients per day (45 minutes average appointment time). It is assumed that approximately 33% of telehealth activity will utilise clinic rooms to deliver services.
- Projections for clinical trials and ambulatory cellular therapies spaces have been developed separately using higher estimated growth rates (5% year on year growth) from the baseline utilised points of care. As these are emerging and expanding novel services, significant growth in these areas is expected beyond Base Case indications and assumptions. Furthermore, the demand is not reflected in historical data (e.g. ambulatory cell therapies was opened in 2023). Further work will be required in future to understand demand (and related infrastructure requirements) for these services in the future, also considering broader networks and Department of Health directions.

The following tables provide the projected total infrastructure requirements for Peter Mac, and estimated infrastructure projections for cancer-related activity at RMH and the Women's, through to 2036-37. The projected points of care are calculated based on the Victorian Entity Service Planning Guideline, with changes to occupancy rates as noted above.

At 2036-37, it is projected the Peter Mac will require 248 points of care and 177 outpatient clinic rooms to meet projected demand (this is assuming a HITH target of 15%). Compared to current available infrastructure, these projections indicate a gap of 41 points of care, with this being mostly for overnight spaces, and a gap of 61 outpatient clinic rooms. It is noted that longer operating hours / days for outpatients reduces growth requirements.

As physical theatre capacity is not a significant issue at this stage (there is capacity to expand into the existing spaces) these requirements were not projected. Overnight bed capacity is a key barrier to expanding theatre utilisation. Future changes to casemix and complexity may have impacts on theatre requirements. Furthermore, Precinct-wide opportunities to utilise theatre capacity is an opportunity.

Table 41. Peter Mac Base Case infrastructure projections, Current (Built) POC to 2036-37

Service	Current built POC	2026-27 POC	2031-32 POC	2036-37 POC	Change from current to 2036-37
Overnight Acute Medical		98	111	124	
Overnight Acute Surgical		58	63	67	
Overnight Palliative Care		9	11	12	
Total Acute and Subacute Overnight (inc. ECU, subacute, estimated HITH bed component)	**126**	**165**	**185**	**203**	**+77**
HITH portion (inc. in beds) assuming 15% HITH rate target in outyears	12	24	27	29	-
Total Acute and Subacute Overnight (inc. ECU, less HITH bed equivalents)	**114**	**141**	**158**	**174**	**+60**
Same Day Surgical	16	12	14	14	-2
Same Day Medical	15	12	14	16	+1
Chemotherapy/Haematology	62	41	49	56	-6
Total POC	**207**	**206**	**235**	**260**	**+53**
Total POC inc. HITH portion	**219**	**230**	**262**	**289**	**-**
Outpatient Clinic Rooms	116	124	148	177	+61
Ambulatory Cellular Therapies	15 (6 in use)	7	9	11	-4
Clinical Trials	16 (12 in use)	13	17	22	+6
Peter Mac Patient Admissions at RMH ICU*	3	3	4	4	+1

Note: Current POC at Peter Mac includes inpatient wards, ECU, same day beds, chemotherapy chairs, apheresis, short stay. POC = Point of Care.

* Peter Mac patients but located in the RMH ICU – projections are indicative only to provide an estimate of the bed equivalent demand at RMH.

Increases in clinical support areas such as pathology, pharmacy, allied health and medical imaging and non-clinical support must also be considered to enable growth in activity in any future detailed planning.

The table below provides an allocation of the projected points of care by clinical unit based on projected activity (based by DRG to MCRG allocation). Note that this is indicative only and requires further review and alignment with operating conditions and service delivery models.

Table 42. Peter Mac Base Case infrastructure projections, Current (Built) POC to 2036-37 allocated by Clinical Unit

Peter Mac Clinical Unit	2026-27 POC*	2031-32 POC*	2036-37 POC*
Haematology	**43**	**51**	**58**
Medical Oncology	**113**	**130**	**146**
Medical Breast	20	23	26
Medical Genitourinary	15	17	19
Medical Gynaecology	10	11	13
Medical Head & Neck	9	10	11
Medical Lower Gastrointestinal	10	11	13
Medical Lung	12	15	17
Medical Melanoma & Skin	8	9	10
Medical Neuro-Oncology	2	2	2
Medical Sarcoma	8	10	11
Medical Upper Gastrointestinal	9	11	14
Pain Management	1	1	1
Palliative Care	7	8	9
Surgical Oncology	**74**	**80**	**85**
Surgical Breast	6	6	7
Surgical Colorectal	19	20	21
Surgical Genitourinary	10	11	13
Surgical Gynaecology	2	2	2
Surgical Head & Neck	6	7	7
Surgical Hepatobiliary	1	1	1
Surgical Melanoma & Skin	18	19	20
Surgical Sarcoma	6	7	7
Surgical Upper Gastrointestinal	5	6	6
Total	**230**	**262**	**289**
HITH discount component	24	27	29

Source: Department of Health IPM2021C inpatient data set,, and Peter Mac Unit-level data. Excludes unqualified neonates (where applicable).

Note – given projections are not available at a unit level, this based on Diagnostic Related Group (DRG) to Major Clinical Related Group (MCRG) allocation to local Peter Mac divisional data. * POC = Point of Care. These are inclusive of HITH bed equivalents and denote the total bed demand allocated by unit. Services / units will have varying amounts of HITH activity.

At 2036-37, it is projected that RMH will require 165 points of care to meet projected cancer-related demand, while the Women's will require 12 points of care. Growth is primarily projected in acute overnight spaces.

These projections are related to cancer-flagged activity only; they are calculations of a **subset** of the activity profiles of both RMH and the Women's that are already considered in broader service and infrastructure planning for these organisations.

Importantly, the RMH activity includes some patients who would have been admitted to Peter Mac if there was capacity. If Peter Mac does not increase in built bed capacity there will be increased pressure on RMH to admit additional cancer patients over time beyond what these baseline RMH projections indicate.

Table 43. RMH Base Case cancer-flagged infrastructure projections, 2022-23 to 2036-37

Service	2022-23 POC	2026-27 POC	2031-32 POC	2036-37 POC
Acute Overnight	96	107	115	125
Subacute and NHT	15	20	23	26
Peter Mac ICU Admissions (subset of total acute ON)*	3	3	4	4
All Cancer-Flagged ICU (subset of total acute ON)	5	6	7	8
Same Day Surgical	8	8	10	10
Same Day Medical	1	1	2	2
Chemotherapy/Haematology	1	2	2	2
Total POC	**121**	**138**	**152**	**165**

* These are Peter Mac patients but located in the RMH ICU – projections are indicative only to provide an estimate of the bed equivalent demand at RMH.

Table 44. the Women's Base Case cancer-flagged infrastructure projections, 2022-23 to 2036-37

Service	2022-23 POC	2026-27 POC	2031-32 POC	2036-37 POC
Acute Overnight	7	7	8	8
Same Day Surgical	4	4	4	4
Same Day Medical	0	0	0	0
Total POC	**11**	**11**	**12**	**12**

POC = Point of Care

8.4. Projections summary

The table below provides a high-level overview of the projected hospital activity (separations and bed days) and infrastructure requirements (acute, subacute, same day spaces) for Peter Mac, RMH, and RWH.

Table 45. Summary of activity and infrastructure projections for the Precinct

	Facility	2022-23	2026-27	2031-32	2036-37	Increase 2022-23 to 2036-37
Separations	Peter Mac separations (inc. HITH)	46,613	49,081	58,466	66,941	20,328
	RMH cancer-flagged separations	6,800	7,668	8,866	10,251	3,451
	RWH cancer-flagged separations	1,524	1,747	1,890	2,011	487
	Sum of Separations	**54,937**	**58,496**	**69,222**	**79,203**	**24,266**
Bed days	Peter Mac bed days (inc. HITH)	81,229	92,766	106,591	119,282	38,053
	RMH cancer-flagged bed days	37,505	43,009	46,997	51,558	14,053
	RWH cancer-flagged bed days	3,398	3,964	4,146	4,335	937
	Sum of Bed days	**122,132**	**139,739**	**157,734**	**175,175**	**53,043**
Points of Care	Peter Mac POC (inc. HITH)*	207	196	223	248	+41
	RMH cancer-flagged POC	121	138	152	165	+44
	RWH cancer-flagged POC	11	11	12	12	+1
	Sum of Spaces	**339**	**345**	**387**	**425**	**+86**
	Peter Mac outpatient spaces	116	124	148	177	+61

POC = points of care. * includes acute, subacute and NHT (less 15% HITH rate bed equivalent), ECU, same day, chemotherapy. Excludes outpatient clinics, Ambulatory Cellular Therapies and clinical trials spaces.

9. Strategic service profiles

This section provides further detail regarding the cancer services provided at the Parkville Precinct. This includes:

- A **summary description** of the cancer stream / service.
- A **summary vision statement** for the cancer stream / service.
- Key future focused **strategies** for each service that align with the overall strategic clinical service directions and strategies articulated in Chapter 7. Please note that this is **focused on strategies that are not cancer service-wide** and documented in Chapter 7. This includes aligned strategies that have more specific service level information. Therefore, the strategies must be interpreted in this context and alongside those in Chapter 7.

The strategic profiles in this chapter are summarised below and have been organised into broad groupings below (see **Chapter 4** for current service overview that articulates the relationship between cancer streams and clinical services).

Cancer streams	Clinical services	Research and clinical trials	Patient support
• Breast cancer • Cancer of Unknown Primary • Clinical Haematology • Genitourinary Oncology • Gynae Oncology • Head and Neck Cancer • Lower Gastrointestinal Cancer • Lung Cancer • Melanoma and Skin Cancer • Neuro Oncology • Paediatric cancer • Sarcoma • Upper Gastrointestinal Cancer	• Allied Health • Ambulatory, rehab and home-based services • Familial Cancer Centre • Imaging • Internal Medicine / Specialty Services • Late Effects • Medical Oncology • Palliative Care • Pathology • Pharmacy • Psychosocial Oncology • Radiation Oncology • Specialist Nursing • Surgery, Anaesthetics, Perioperative, and Pain Medicine • The unplanned unwell - SURC, Enhanced and Critical Care Services • Victorian Adolescent and Young Adult Cancer Service	• Research and clinical trials	• Aboriginal Health • Patient experience, wellbeing and supports

Cancer streams

9.1. Breast Cancer

Cancer stream summary description

Breast cancer is a very common cancer, diagnosed in approximately 5,000 women and 50 men in Victoria per annum.

The breast cancer service operates across all sites – Peter Mac, RMH and the Women's as a joint service. Clinics, diagnostic services and surgery are conducted across all sites, with Peter Mac the centre for chemotherapy and radiation oncology services. At the development of this Plan, a Breast Review was ongoing and had identified opportunities for improvement that will have some impact on how the service operates across the Parkville Precinct.

Breast cancer services are available in many hospitals across Victoria. The Parkville Precinct is known for providing high quality screening via NorthWestern BreastScreen and multidisciplinary treatment, including world leading clinical trials. There is a large breast program in the Familial Cancer Centre, with integrated Risk Management clinics, a precision prevention service at Peter Mac and a comprehensive breast reconstruction service. The breast service has a leading Survivorship system involving the generation of individualised survivorship care plans. Fertility services and menopause services are provided at the Women's.

The clinical service has close affiliation with basic scientists at Peter Mac, the University of Melbourne and the Walter and Eliza Hall Institute of Medical Research (WEHI) providing opportunities to facilitate translational research.

Service vision

To be an innovative global leader in setting the standards in patient-centred care, value-based health care, underscored by effective teamwork and evidence-based treatment with measurably world-class outcomes.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Further focus the role of the Precinct as the provider of the most specialised breast cancer services in Victoria including further strengthening clinical trials and translational research across the spectrum of breast cancer, providing the most innovative and complex interventions (e.g. reconstructive services) and precision prevention.
2. Work with other health services	Develop a leadership role to support other health services to provide more care locally through secondary consultation supports, combined multidisciplinary meetings, education initiatives, and enabling clinical trials closer to home in collaboration with partners.
	Work with service partners to develop an agreed approach to risk management services for breast cancer considering the best locations and providers of risk assessment and surveillance services.
	Further develop the survivorship program (in line with the Breast Review) to link with primary care and reduce reliance on services at the Precinct.
3. Better integrate Precinct services	Implement the endorsed recommendations of the Breast Review across the Parkville Precinct which include integrating care across the Precinct into a single cohesive service, streamlining service provision, creating optimal care pathways, supporting the workforce and strengthening the impact and quality of data.

9.2. Cancer of Unknown Primary

Cancer stream summary description

Cancer of unknown primary (CUP) is a cancer whose original location is unclear. These patients have diagnoses that can take time due to their complexity. Their symptoms are often complex, both clinically related to the cancer and in terms of psychosocial needs.

The service operates from Peter Mac and accepts referrals for patients from around Victoria. The service is multidisciplinary, involving medical, nursing, allied health and various diagnostic experts. The focus of the clinic is on diagnosis, with specialised pathology (e.g. anatomical, molecular testing), genetic testing and medical imaging playing a highly important role alongside medical oncology and nursing expertise. The clinic also conducts research on CUP diagnosis and patient assessment. The service collaborates with other cancer streams and services at the Parkville Precinct.

The CUP service is highly specialised, there are no other clinics like it within Australia. Patients are referred to the service from many different parts of Australia and telehealth is utilised where appropriate. Furthermore, support and advice for clinicians from around Australia is provided.

Service vision

The statewide reference centre and provider of specialised diagnostic services for cancers of an unknown primary and rare cancers in Victoria.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Be a central referral site for patients with complex Cancer of Unknown Primary, in whom a more specific diagnosis can not be made by a local health service.
2. Work with other health services	Work with other health services to establish pathways to ensure timely referral to Peter Mac for indicated patients (e.g. where diagnosis cannot be made based on initial pathology).
	Work with other oncology units to streamline diagnosis and care for patients with Cancer of Unknown Primary nationally in line with the Optimal Care Pathway.
	Lead and grow a national program of research to improve diagnostic success – to lead our national network of Solving Unknown Primary (SUPER) sites and collaboration with genomics researchers to reduce the number of patients diagnosed with Cancer of Unknown Primary.
	Maintain service integration with pathology services to ensure leadership in cancer of unknown primary is maintained and seamless.

9.3. Clinical Haematology

Cancer stream summary description

Haematological cancer is that which begins in blood-forming tissues. Haematological cancers can be highly complex and require novel treatments and interventions. Haematology also includes care for patients with non-malignant bloods disorders and consultative support for hematologic complications / co-morbidities in patients treated for solid organ cancers.

The haematology service operates as an integrated service across the Parkville Precinct, with services located at Peter Mac and RMH across malignant, non-malignant and consultative services. There are dedicated inpatient wards at Peter Mac (focus on autologous transplantation, CAR-T, myeloma/ plasma cell disorders, lymphomas, chronic leukemias and MPN (myeloproliferative neoplasms) and RMH (focus on allogeneic transplantation, acute leukemia, myelodysplasia). Specialist clinics are provided from both locations. The haematology service also governs the apheresis unit (6 chairs) and ambulatory cellular therapies service (15 spaces). Referrals are managed in an integrated manner and patients are treated by the service and the location that meets their needs. Referrals are accepted from many locations in Victoria, as well as interstate. The service is very active in research and conducts many clinical trials.

Specialist domains in the context of Victoria include allogeneic bone transplants (one of only two centres) and CAR-T cell therapies (one of only two centres).

Service vision

A designated provider of haematology services, including diagnosis and multidisciplinary treatment planning, treatment, management of treatment related toxicities and the most specialised novel therapies and services available in Victoria (e.g. allogeneic bone transplants, CAR-T cell therapies, clinical trials).

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to Chapter 7 for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Work with the Department of Health to achieve the vision articulated from a statewide perspective, recognising the expertise and access to molecular pathology services at the Precinct and the importance of patients commencing on the right treatment pathway.
	Implement models of care that reduce reliance on inpatient services, for example increased ambulatory focused care for autologous stem cell transplant patients, CAR-T, bispecific therapies.
2. Work with other health services	Provide statewide leadership and support in haematology services to improve capability across Victoria, including education and training and the provision of secondary consultation services (for all haematology disciplines).
	Ensure continued alignment of haematology services and pathology services to improve diagnostics of haematological conditions across the state over time.
3. Better integrate Precinct services	Better integrate the haematology service across the Precinct, including consideration of reporting, bed management, care processes and patient care across two services to ensure staff can work seamlessly across care settings and facilities.

9.4. Genitourinary Oncology

Cancer stream summary description

Genitourinary oncology services affect the prostate, kidney, ureter, bladder, penis and/or testes. Prostate cancer is the most common cancer in Victoria and therefore is a significant workload for the cancer stream.

At the Parkville Precinct, the cancer stream operates across all sites with a multidisciplinary approach, in particular Peter Mac and RMH. Peter Mac conducts a high volume of robotic prostatectomy and is the centre for medical oncology and radiation oncology. RMH also conducts robotic prostactectomy and is the Parkville Precinct centre for certain interventions such as bladder cancer surgery and ureteroscopy.

Within Victoria, the genitourinary oncology services are provided from a variety of locations. The more complex cases are often referred to Peter Mac, for example treatment of testicular cancer, to access clinical trials or requiring specialised interventions such as theranostics or brachytherapy.

Service vision

The recognised provider of the most specialised genitourinary cancer treatments in Victoria, including the most complex surgeries (e.g. penile, testes, robotic), and theranostics.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
2. Work with other health services	Support the development of a networked service model for genitourinary cancer services across Victoria (articulate what services will be provided where and how they will relate to each other in Victoria) in collaboration with the Department and other health services, with a focus on quality and safety.
	Expand shared care approaches with other health services to enable lower complexity care (e.g. specific interventions, parts of the patient pathway) to be provided closer to home.

9.5. Gynae Oncology

Cancer stream summary description

Gynaecological cancer affects women's reproductive organs including the vulva, vagina, cervix, uterus, ovaries and fallopian tubes. It can affect women of all ages, particularly women aged 60 years or older. It is often caused by infections, lifestyle factors and/or genetic factors. Treatments such as HPV vaccination and societal trends are changing the casemix of women with gynaecology cancer over time (e.g. increasing endometrial cancers, less cervical cancers).

At the Parkville Precinct, gynae oncology services are provided across all sites at the Precinct. Surgery is primarily conducted at the Women's (few complex cases at Peter Mac e.g. with colorectal and RMH when there are comorbidities such as cardiac) and medical oncology and radiation oncology services are provided at Peter Mac. There is also a large dysplasia service provided from the Women's (i.e. specialist care for precancerous abnormalities). Gynae oncology services are also very active with clinical trials.

The Precinct is one of 3 major public sites that provide public gynaecology oncology services across the state. Patients requiring 2nd and 3rd line treatments, clinical trials and rare tumours (e.g. germ cell tumours) are often referred to the Precinct compared to other public services.

The Precinct provides advice within the social model of care for the State, Primary Care and Media.

Service vision

The most specialised, recognised provider of gynae oncology services in Victoria, including rare cancers (gestational trophoblastic disease, germ cell tumours) and complex interventions (e.g. pelvic exenteration, intraperitoneal chemotherapy, brachytherapy).

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
2. Work with other health services	Support the development of a networked service model for gynaecology oncology cancer services across Victoria (articulate what services will be provided where and how they will relate to each other in Victoria) in collaboration with the Department and other health services, with a focus on quality and safety.
3. Better integrate Precinct services	Implement a holistic approach across the Precinct to managing women with complex psychosocial and behavioural issues (e.g. social histories, obesity etc.) to ensure their needs are met and access to specialised support for all patients regardless of where they are treated in the Precinct is equitable.

9.6. Head and Neck Cancer

Cancer stream summary description

Head and neck cancers can develop in the mouth and lips, throat and larynx, nose, sinuses, thyroid and salivary glands. These cancers can be highly complex in management and treatment.

The Parkville Precinct provides a multidisciplinary service that operates primarily between Peter Mac and RMH. Head and neck surgery is conducted across both sites which can involve one or more of ENT, plastics, skin and maxillofacial clinicians (complex skin cancers are a significant part of the workload). Skull based surgery is conducted at RMH. Medical oncology and radiation oncology services are based at Peter Mac but operates across the Precinct. A significant volume of research is conducted by the cancer stream. There are two allied health and nurse consultant teams across Peter Mac and RMH who are critical to the multidisciplinary approach. Dental oncology is also an important part of the services provided.

The Precinct accepts referrals from many parts of Victoria. Complex surgical cases, rare tumours and clinical trials patients are often referred in for assessment and treatment.

It is noted that a head and neck review is ongoing which may influence the future service model.

Service vision

To continue to be a nationally and internationally recognised leader in the provision of specialised head and neck cancer services, particularly to be creators and early adopters of new technologies, novel therapies, models of care to lead change across the health system, through ongoing strengthening of research and clinical trials and attraction/retention of the best clinicians/thought leaders/researchers.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Continue to strengthen research and clinical trials through investment in the right infrastructure and personnel.
2. Work with other health services	Provide support for other cancer services across Victoria for the management of complex cases or rare cancers.
3. Better integrate Precinct services	Further integrate and strengthen clinical services across the Precinct to provide a seamless cancer care pathway, to ensure optimal treatment is received wherever the patient receives care.

9.7. Lower Gastrointestinal Cancer

Cancer stream summary description

Lower gastrointestinal cancer develops in the large intestine of the digestive system. Most forms from polyps which can become abnormal, grow into cancer and potentially spread into the nearby tissues and organs. People are at increased risk based on their diet (e.g. high red meat, high alcohol consumption), family history, and risk also increases with age (noting there have been recent increases in younger cohorts under 40). The National Bowel Cancer Screening Program is an important national pathway into cancer services at the Precinct.

At the Parkville Precinct services are provided primarily between Peter Mac and RMH in a multidisciplinary approach. Specialists (e.g. colorectal surgeons, gastroenterologists, radiation oncologists, medical oncologists) and specialised nurses provide care to patients with lower gastrointestinal cancers and often work across both campuses. RMH manages a significant volume of gastrointestinal surgery (including both malignant and benign surgery), surveillance and interventional endoscopies, a large number of related outpatient clinics, as well as a strong research unit focused on genetic conditions associated with colorectal cancer. Peter Mac has a focus on colorectal cases, colonoscopies and reconstruction alongside the plastics service. A specialised, multidisciplinary pelvic dysfunction clinic is also available (not just for lower gastrointestinal patients). Patients requiring infusions such as chemotherapy and radiation oncology are treated at Peter Mac.

The Precinct conducts the most complex lower gastrointestinal surgery for people with cancer, for example where the cancer has spread to multiple regions and requires a multidisciplinary approach. Robotic surgery is also provided across the Precinct. The lower GI service provides the only peritoneal malignancy service in Victoria. Peter Mac also receives many requests for second opinions from interstate to inform complex multi-disciplinary decision-making and clinical trial options. There is also an important role in precision prevention, for example relating to high-risk patients identified through the Familial Cancer Centre and continued surveillance (high endoscopy requirements) and preventative measures.

Service vision

The recognised provider of the most specialised lower gastrointestinal cancer services in Victoria, including rare cancers (e.g. peritoneal malignancy), young onset colorectal cancer and specialised interventions (e.g. pelvic exenteration, novel therapies via clinical trials, complex radiotherapy, surgery requiring MDT approaches such as for advanced rectal cancers, robotics).

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Reform patient follow-up and strengthen specialised supports such as the pelvic dysfunction and prehabilitation service to avoid reliance on specialists and improve the patient experience and service sustainability.
	Develop a Precinct-wide model for providing surveillance services (incl. clinics, endoscopies) and complex endoscopic services ensuring appropriate access as the requirements increase as a result of broader genetic testing measures in the population.
2. Work with other health services	Work with other health services to reduce inflows of appropriate lower gastrointestinal surgery and procedures from areas with capable local health services and provide leadership and support through provision of education and secondary consultations.
3. Better integrate Precinct services	Develop an integrated Precinct-wide colorectal surgical service to reduce unnecessary patient transfers, enhance the patient experience, reduce duplication, standardise processes and improve efficiency. This will need to consider linkages between standard and specialised oncology, and benign colorectal services such as inflammatory bowel disease at RMH.

9.8. Lung Cancer

Cancer stream summary description

Lung cancer starts when cells in the lung grow and multiply in an uncontrolled way. Lifestyle factors such as smoking can cause lung cancer, as can exposure to other substances. Family history can also play a significant role. Lung cancer is the leading cause of cancer death in Australia. Of note, the National Lung Cancer Screening Program will commence in July 2025 which will begin screening services (scans) for high-risk people without any symptoms.

Lung cancer services at the Precinct are integrated between Peter Mac and RMH. Services and clinics are run across both centres, with Peter Mac the centre for medical oncology and radiation oncology services and RMH the centre for thoracic surgery. Specialist respiratory services are available at both centres, and some specialised respiratory investigations are at RMH. Referrals come from all over Victoria, as well as interstate.

Lung cancer services have an international profile and is the centre in Victoria for complex cases. For example, complex thoracic surgery and CAR-T cell therapies.

Service vision

The recognised provider of the most complex and novel treatments for lung cancer in Victoria (e.g. complex thoracic surgery, CAR-T cell therapies).

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
2. Work with other health services	Prepare for the implementation of the Lung Cancer Screening Program which is expected to lead to a significant increase in demand in the period of time after it is first implemented (resource implications) and support statewide planning.
	Work with other health services through provision of education and training, providing secondary consultation services and support.
3. Better integrate Precinct services	Create a more consistent and streamlined experience for patients, for example ensuring availability of care navigation and ease of transition between care settings.

9.9. Melanoma and Skin Cancer

Cancer stream summary description

Skin cancer occurs when any of the cells in the skin begin to see abnormal and out of control growth. Melanomas are the most aggressive and deadly type of skin cancer (forming in the melanocytes). There are also many common non-melanoma skin cancers forming in other skin cells (e.g. basal, squamous, and rarer subtypes such as Merkel cell carcinoma). Most deadly skin cancer is caused by the sun / tanning, and risk also increases depending on a person's genetics. Interventions primarily include surgery and infusions, with immunotherapy increasing significantly in recent years.

At the Parkville Precinct, melanoma and skin cancer services are primarily provided from Peter Mac. RMH provides some relevant services, in particular plastic surgery. A multidisciplinary team provides care and specialists include dermatologists, plastic surgeons, medical oncologists, radiation oncologists, specialist nurses and allied health. Other specialists may also be required depending on the location of the skin cancer. The unit conducts a significant volume of clinical trials.

Skin cancers are common, and many health services provide melanoma and skin cancer services. The Parkville Precinct's role in Victoria is providing second line (and beyond) therapies including access to clinical trials. Furthermore, it is the main referral centre for complex non-melanoma skin cancers.

Service vision

The main provider of services for people with melanoma and non-melanoma skin cancers, including rare and complex cases in Victoria. Nationally regarded expertise in the most complex interventions for advanced melanoma (e.g. cellular therapies, locoregional therapies such as isolated limb perfusion) and cutting-edge clinical trials. Progressive integration of clinical and translational research to achieve optimal personalised management.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to Chapter 7 for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Innovate and develop therapeutic paradigms across all stages of melanoma.
	Improve patient advocacy in all stages of disease management, supported by patient reported outcome measures.
2. Work with other health services	Provide statewide leadership and support to improve the capability of primary care and other health services to manage patients with melanoma and non-melanoma skin cancer, facilitating appropriate interventions close to home through our network, and strengthening opportunities for clinical trials and research.
3. Better integrate Precinct services	Improve integration of melanoma and skin services across the Precinct to leverage broader subspecialty expertise and technology (e.g. home monitoring supported by at home services) to manage toxicity impacts of treatments and reduce reliance on inpatient stays.

9.10. Neuro Oncology

Cancer stream summary description

The Neuro oncology stream treats cancers and related conditions of the nervous system, brain, spinal cord and peripheral nerves. These are rare and complex tumours impacting individuals of all ages. Although brain cancer accounts for approximately 1.3% of new cancer cases, it causes more deaths in people under 40 than any other cancer, with a 5-year survival rate of just 23%. Moreover, due to diffuse infiltration into normal brain, patients experience not only physically debilitating complications, but also may develop neurocognitive decline and personality changes which can alter personal relationships and daily functioning.

Multidisciplinary neuro oncology care is provided across the Parkville Precinct with all neurosurgery for oncology patients is performed at RMH, while medical oncology and radiation oncology services are based at Peter Mac, with units consulting across Precinct hospitals (including the Women's) as required. Due to a high incidence of diagnoses affecting younger patients, essential reproductive and fertility preservation services are accessed at the Women's. The Neuro oncology stream emphasises patient centred integrated care through multidisciplinary meetings (MDMs) and clinics.

Given the highly specialised nature of neuro oncology care, patients come from across Victoria and interstate. In particular, advanced treatments including awake neurosurgery, intraoperative MRI, gamma knife surgery and specialised management of rare conditions such as neurofibromatosis, adolescent young adult (AYA) brain tumours and other rare tumours that are generally not available outside the Parkville Precinct.

Service vision

The recognised provider of services for the most complex neuro oncology conditions (e.g. rare primary brain cancers, adolescent and young adult neuro oncology), novel treatments and interventions (e.g. cellular therapies, gamma knife surgery, advanced neurosurgery, peri-operative clinical trials) in Victoria.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to Chapter 7 for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
2. Work with other health services	Support the development of a networked service model for neuro oncology services across Victoria (articulate what services will be provided where and how they will relate to each other in Victoria) in collaboration with the Department and other health services, with a focus on quality and safety.
	Work with other health services through leadership, the provision of education, providing secondary consultation services, and participating in relevant multidisciplinary meetings to upskill other clinicians to have confidence to treat lower complexity tumours e.g. radiation oncology treatment for suitable primary brain tumours.
3. Better integrate Precinct services	Better integrate services across the Precinct to ensure appropriate clinical input to improve patient experience. This would include referral management, coordinated clinics and MDMs, improvement of imaging interoperability and provision of seamless care coordination.

9.11. Paediatric Cancer

Cancer stream summary description

Although most paediatric cancer services are provided from the Royal Children's Hospital in Victoria, all paediatric radiation oncology services in Victoria are provided by Peter Mac. The vast majority are managed at the Parkville campus, with some older patients (i.e. 15+) treated at the Moorabbin campus. Many of the tumours relate to neuro oncology and sarcoma and there are approximately 70-80 new patients per year. Services link with other centres such as RCH and Monash, including through multidisciplinary meetings.

The paediatric cancer service has a broader adolescent and young adult (15-25) focus given the broader youth cancer services provided (see Victorian Adolescent and Young Adult Cancer Service).

Note – radiation oncology-wide strategies are captured under the radiation oncology service profile.

Service vision

Provider of a specialised and broader suite of specialised paediatric cancer services for Victorians, including paediatric brachytherapy and additional radiation oncology for adolescents in campuses outside Parkville

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Establish a paediatric brachytherapy service for children in Victoria.
2. Work with other health services	Work with service partners to improve the transition paediatric and adult cancer services.
	Expand the availability of radiation oncology for adolescent patients to additional Peter Mac radiation oncology campuses in collaboration with the local health services.

9.12. Sarcoma

Cancer stream summary description

Sarcomas are a rare cancer arising from the supportive structures of the body (e.g. bone, fat, muscles, nerves, blood vessels etc.). Sarcomas are rare and complex cancers that are often difficult to diagnose and challenging to treat. Consequently, there is strong evidence that centralised multidisciplinary care is critical to enable better patient outcomes.

The sarcoma service is based at Peter Mac at the Parkville Precinct. Given the large number of sarcoma types (over 80), specialised diagnostics (pathology and imaging) play a very important role. Given sarcomas can happen in any part of the body, strong relationships across multiple cancer streams is required. St Vincent's orthopaedic surgeons conduct the bone surgery service for patients with bone sarcomas that require surgical intervention (historical arrangements from prior to when Peter Mac moved to the current site). Soft tissue surgery is primarily conducted at Peter Mac, as are all medical oncology and radiation oncology related services and treatments.

Within Victoria, Peter Mac is the main referral centre and only dedicated adult sarcoma service in the state. However, some sarcomas are treated at other public and private cancer centres with advice and support frequently sought but often referred after treatment as already been delivered which may compromise patient care. Shared-care models are also evolving as an additional mechanism to provide access to expertise and care.

Service vision

The formal referral centre for all sarcomas in Victoria, recognising the importance of early, specialised diagnosis and treatment planning with a comprehensive and integrated service informing quality care and positive patient outcomes.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Improve the management of toxicities due to increases in the volume medical interventions.
	Establish pre-habilitation models for sarcoma surgery.
2. Work with other health services	Work with St Vincent's, other health services and the Department of Health to develop and implement an agreed service model for sarcoma care in Victoria considering patient experience, efficiency, safety and quality and research advancement.
	Provide support including education and secondary consultation to other health services in Victoria and Tasmania, and shared care arrangements when aspects of a patient's care can be provided closer to home.

9.13. Upper Gastrointestinal Cancer

Cancer stream summary description

Upper gastrointestinal cancers occur in organs in the upper section of the digestive system. This includes the oesophagus, stomach, pancreas, liver, gall bladder and small intestine. People are at increased risk based on their diet (e.g. high salt, high alcohol consumption), smoking, family history and certain infections. Age also plays a significant role in increased risk.

The upper gastrointestinal cancer stream operates across Peter Mac and RMH at the Parkville Precinct. It is multidisciplinary, with teams working across the Precinct and surgery and relevant medical support available at both sites (e.g. upper GI, hepatobiliary, gastroenterology). Medical oncology, radiation oncology and specialised nurse consultants are based at Peter Mac.

The multidisciplinary neuroendocrine tumour (NET) service is recognised as a leading global centre of excellence for the treatment of these rare and complex tumours. This service manages tumours that develop in the neuroendocrine system (often, but not only in the gastro-intestinal tract, pancreas and lungs). It is the only standalone neuroendocrine service in Victoria, the largest in Australia, a certified Centre of Excellence by the European Neuroendocrine Tumour Society (ENETS) and some referrals are received from interstate and overseas.

Within Victoria, the upper gastrointestinal cancer stream provides highly specialised services (incl. NET) and interventions. Complex procedures (e.g. Whipple procedures, esophagectomies, extensive resections) are performed in higher volumes and complexity than other major centres. Specialised theranostics radionuclide therapy called peptide receptor radionuclide therapy (PRRT) is available at Peter Mac and is the only centre in Victoria. Specialised liver directed therapy (treatments targeting tumours in the liver) are also available. Clinical trials are also offered which is unique to the Precinct.

Service vision

The recognised provider of the most novel diagnostics and treatments (e.g. theranostics, personalised peritoneal directed therapy, hyperthermic intraperitoneal chemotherapy, pathology) and the most complex surgical services and interventions (e.g. Whipple procedures, esophagectomies, extensive resections) in Victoria.

The NET service is strengthened as the leader and main referral centre for neuroendocrine tumours requiring multidisciplinary care and complex interventions (e.g. radionuclide therapy) in Victoria.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to Chapter 7 for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Establish the NET service as a separate cancer stream at the Parkville Precinct.
2. Work with other health services	Support the development of a networked service model for upper gastrointestinal cancer services across Victoria (articulate what services will be provided where and how they will relate to each other in Victoria) in collaboration with the Department and other health services, with a focus on quality and safety.
3. Better integrate Precinct services	Develop an integrated Precinct-wide upper gastrointestinal cancer service to enhance the patient experience (e.g. ensuring consistent navigator support), reduce duplication, standardise processes and care and improve efficiency.

Clinical services

9.14. Allied Health

Service summary description

Allied health practitioners work in many different discipline areas and across all care settings. Allied health is a broad term that in this context includes social work, speech pathology, nutrition and dietetics, occupational therapy, physiotherapy and exercise physiology, podiatry, prosthetics and orthotics, audiology, art therapy and music therapy (noting different services are available at different sites).

From a governance perspective, spiritual care is also provided under allied health services at Peter Mac however is captured separately within this Plan. There are also differences in governance at RMH and the Women's.

At the Parkville Precinct, each organisation has separate allied health teams that provide care in inpatient and outpatient settings. There are also differences in what specialised services are available for people affected by cancer at different sites (e.g. an RMH patient isn't able to access Peter Mac specialist allied health service). There is some cross-Precinct work, for example after-hours social work support from RMH.

Service vision

The Precinct provides equitable access to quality, holistic allied health services for all patients with cancer in an integrated manner and leads the state in the provision of contemporary care models (e.g. virtual technologies supporting patients at home, education).

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to Chapter 7 for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Expand allied health involvement in research activities and translation into clinical practice.
	Increase the volume of home-based allied health services through home visits, telehealth services and technologies to support patients to manage their own care (such as utilising the patient portal), involvement in follow-up and survivorship, optimising pre-habilitation programs, and the intensity of therapy for inpatients.
	Increase the focus on specialist allied health services to prevent avoidable hospital admissions / readmissions and improve treatment completion rates and tolerance.
	Further integrate roles such as Advanced Practice practitioners and Allied Health Assistants into service delivery models over time to assist staff to work to top of scope. Retain existing services such as prehabilitation, HEN and lymphoedema services.
	Expand and coordinate specialised allied health involvement across the patient pathway steps from prevention through to end-of-life care, to support seamless transitions for patients.
2. Work with other health services	Provide statewide leadership and grow allied heath workforce capability for cancer service delivery research, training and education across Victoria.
3. Better integrate Precinct services	Improve equitable access to quality, holistic allied health services for people affected by cancer across the Precinct, regardless of which site is responsible for their overall care.
	Consider Precinct-wide roles (e.g. Advanced Practice) and support flexible working arrangements between sites.
	Further explore opportunities to integrate allied health services and supports across the Precinct (e.g. home enteral nutrition, equipment).

9.15. Ambulatory, rehab and home-based services

Service summary description

A broad range of ambulatory, rehabilitation and home based services are available at the Parkville Precinct. These include:

- Specialist clinics including multidisciplinary, medical, radiation oncology, surgical and allied health clinics involving various specialists at different sites, and via telehealth. In addition, there are diagnostic services (e.g. echo, lung function, outpatient pathology) and procedural clinics (e.g. head and neck, urology, dental oncology, see and treat for dermatology and plastics)
- Infusion services are provided at Peter Mac, specifically chemotherapy day unit (CDU), clinical trials unit (CTU), transfusion lounge and medical day unit (MDU) that operate 5 days per week. Note – information on the SURC and other infusion services is captured in other service profiles.
- Acute home-based services are provided, including PeterMac@Home (including telehealth consultations, 7 days per week), RMH@Home for people affected by cancer. These are supported by a 24hour 7/7 clinical City Hub service based at the RMH for admitted at home precinct patients.
- Rehabilitation and GEM services (inpatient and outpatient) are based at RMH with consultative service to Peter Mac (no subacute inpatient services are available at Peter Mac). RMH Subacute@home includes some dedicated capacity for Peter Mac patients.

It is noted that the Parkville Familial Cancer Service is an ambulatory service that is documented in a separate chapter.

Service vision

An increased volume and scope of ambulatory, rehabilitation and home based services are provided to meet the needs of patients with cancer, including increased utilisation of virtual care and building partnerships to meet patient needs across Victoria.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Increase the volume and scope of ambulatory and subacute services provided to patients in their homes through increased home monitoring and telehealth supports, including for patients in regional / remote locations and priority populations.
	Expand the operating hours timings and modalities (phone, virtual) for ambulatory services (including outpatients, MDU, CDU) to provide greater options for patients, considering opening on public holidays/weekends as appropriate.
2. Work with other health services	Explore and build partnerships beyond the Precinct, with other public and private health service providers, PHNs and the Victorian Virtual Emergency Department.
3. Better integrate Precinct services	Establish and streamline subacute service pathways across the Precinct to ensure timely access and appropriate supports are available for people affected by cancer, including consideration of the most appropriate models for prediction and management of complex, longer stay patients with acute needs and those with special needs (e.g. disability, CALD groups etc.).

9.16. Familial Cancer Centre

Service summary description

Familial cancer services are provided to people concerned about their risk of developing a cancer due to their family's history of cancer. These are different from many other cancer services at the Parkville Precinct which are primarily focused on post-diagnostic management.

The Parkville Familial Cancer Centre is the largest familial cancer centre in Australia, and one of four main public centres in Victoria. It is a Precinct-wide, coordinated service and provides a range of services including risk assessment, genetic counselling, diagnostics, risk management and advice to people and their families concerned about their risk of developing cancer. Referrals are accepted from GPs, specialists and individuals in the community. The Parkville centre focuses on servicing a local catchment, as well as rarer and complex cancers and cases requiring more involved multidisciplinary preventative interventions (e.g. surgery, MRI, medications, subspecialist support) from across Victoria. Genetic testing expertise is a key technology that helps assess an individual's need for precision (personalised) prevention measures.

The Centre provides an informal leadership role across Victoria, including across research, the development of innovative initiatives and models of care.

Service vision

The recognised leader in the identification and tertiary level management of people at risk of developing cancer in Victoria, including previously underserved populations.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Expand the scope and reach of genetic testing provided, including primary screening of families of individuals of cancer.
	Continue to develop and strengthen precision prevention initiatives in collaboration with clinicians and other health services.
2. Work with other health services	Further develop the service in a digital and learning health systems approach to better identify and service target populations across Victoria, including in rural and regional areas and marginalised groups.
	Provide a formal leadership role across Victoria in enabling advancements in familial cancer, including education, training, development of tools and mechanisms (e.g. artificial intelligence) for clinicians and patients.
3. Better integrate Precinct services	Work to integrate services across the Precinct supporting familial cancer services into service provision, particularly in areas of growth such as haematology.

9.17. Imaging

Service summary description

Imaging, interventional services, image-guided therapy and the emerging field of theranostics are essential for and encompass all parts of the oncology patient pathway including screening, diagnosis, staging, treatment, monitoring, research as well as being the ongoing source of many novel diagnostic and therapeutic options.

A comprehensive range of imaging modalities are currently provided across the Parkville Precinct including X-ray, MRI (Magnetic Resonance Imaging), CT (Computed Tomography), Ultrasound, Mammography (including contrast-enhanced mammography), Angiography (including vascular access and therapeutic interventions), Fluoroscopy, Ultrasound and CT guided biopsy/intervention, PET (Positron Emission Tomography) and SPECT (Single-photon emission computed tomography). Imaging services also govern mobile and theatre-based imaging. Currently outpatient Peter Mac MRI services have transitioned to East Melbourne and inpatient/urgent outpatient Peter Mac MRIs operate through the RMH; the results of ongoing assessment of the impact of the underground rail at Parkville are pending and will inform the final site of these services.

There are embedded differences between the imaging services provided at Peter Mac, RMH and the Women's which reflect the site casemix, capability and prior agreements. For example, vascular access and theranostics is predominantly performed by Peter Mac and the Women's, who are without a CT, rely on the precinct partners for CT (diagnostic and biopsy) services. The services largely operate independently but collaboratively.

Service vision

The Precinct provides the most advanced and novel imaging services and treatments in Victoria (e.g. theranostics, novel PET diagnostics, angiography interventions) in a coordinated manner via integrated Precinct-wide systems and processes.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Develop clinical decision support processes and technology to assist clinicians with appropriate referrals to imaging services.
	Continue to develop and provide advanced and novel diagnostics and treatments for Victorian people affected by cancer (e.g. theranostics for neuroendocrine and prostate cancer, angiographic interventions).
	Explore opportunities to expand our radiopharmaceutical presence including manufacture, research and development.
	Strengthen research and innovation in theranostics, diagnostics and interventional radiology including the use of AI and other novel techniques.
3. Better integrate Precinct services	Implement an integrated vendor neutral archive for image viewing (via PACS) across the Precinct (considering any potentially related statewide initiatives) and consider standardisation of other imaging software systems.
	Improve efficiency and effectiveness of imaging services across the Precinct by improving co-ordination of operational processes, investment in new imaging technology (e.g. new or replacement modalities, AI supported reporting) and workforce (e.g. better use of available expertise, on call services).
	Develop an approach to ensuring imaging involvement in cancer stream multidisciplinary meetings is sustainable.

9.18. Internal Medicine / Specialty Services

Service summary description

Although there are cancer specific specialists such as medical oncologists and radiation oncologists, people affected by cancer often require other specialists to help manage and inform their care. These are highly specialised clinicians who work across all surgical and medical cancer services.

Many clinicians work across the Parkville Precinct to provide internal medicine and specialty services. RMH, as a large tertiary centre, has a very broad range of specialists available to support people affected by cancer as required. Peter Mac has appointed specialists who provide dedicated internal medicine and specialty support to Peter Mac people affected by cancer. This includes general medicine, infectious diseases, neurology, cardiology, gastroenterology, respiratory and geriatrics to name a few. Lower demand specialty services such as rheumatology are provided by clinicians from RMH on a consultative basis.

Peter Mac has expertise in infectious diseases and infection prevention, including research activities and providing statewide leadership and guidance in care pathways and technologies. RMH has a significant expertise in infectious diseases that also includes cancer patients, and a statewide role including as Victoria's quarantine hospital.

Demand for internal medicine and specialty services and related diagnostics (e.g. cardiac and respiratory testing) is continuing to rise as the population ages and people live longer. This includes responding to comorbidities and immune toxicities from new medical oncology treatments.

Service vision

A sufficient and increased array of integrated and coordinated specialty services is available to patients with cancer to meet their needs (e.g. related to age, comorbidities, effects from cancer treatment) and manage risk, and Royal Melbourne Hospital will lead this transformation on behalf of the Precinct.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to Chapter 7 for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Strengthen the role of internal medicine / specialty services within the multidisciplinary teams to ensure a responsive and quality service is provided as the number of patients with complex needs continues to increase. In particular, this includes additional geriatric and rehabilitation specialists to service the ageing population and enhance prehab and rehab, as well as specialist areas to respond to increasing comorbidities and immunotoxicities.
	Improve risk stratification of patients at risk of infection and other complications (e.g. treatment toxicities) to enable reduction of this risk through targeted interventions. This should include digital approaches to proactive identification of at-risk patients and multidisciplinary team input where necessary.
	Introduce risk screening for older people to identify a need for comprehensive geriatric assessment, with geriatric input during care on an as needs basis to ensure better informed wholistic decision-making for patients and treating teams.
2. Work with other health services	Continue to work with other health services to improve expertise in medical management of people affected by cancer in other regions and enable care closer to home where it is appropriate and safe to do so.
3. Better integrate Precinct services	Better integrate specialty services across the Precinct to reduce duplication, improve and standardise patient care, improve efficiency and enable sharing of resources and learning.

9.19. Late Effects

Service summary description

Around 1 in 1,000 people aged 20 are survivors of childhood cancer. These patients face medical and social difficulties in their adult lives due to late effects of their cancer treatments.

The late effects clinic is a multidisciplinary service provided at Peter Mac with a predominant focus on long term survivors of adolescent and paediatric cancers who are now in adulthood. Many of these patients have been exposed to high dose chemotherapy and/or radiation therapy and require surveillance and management of potential complications (e.g. radiation induced malignancies, cardiac/stroke, fertility etc.). Patients attend the clinic on a continuing basis leading to increasing demand for services over time.

The service also runs satellite clinics at Bendigo, Hobart and Launceston.

Service vision

Enhance the late effects model of care to improve access through partnerships with community-based services and utilisation of virtual care.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Lead research activities on late effects services to inform evidence-based interventions and service models.
2. Work with other health services	Change the model of care for the late effects service towards a community-based consultative model for lower risk patients that provides secondary consultation, telehealth services and support for other service providers in the community such as GPs to manage more late effects patients and support people to receive care closer to home.

9.20. Medical Oncology

Service summary description

Medical oncology involves the use of medications to care for and treat patients with any type of cancer. Medical oncologists are specialists who manage treatment of chemotherapy, immunotherapy and other medications. Medical oncologists work across all the cancer streams and as part of multidisciplinary teams (e.g. with surgeons, radiation oncologists, specialist nurses and allied health).

At the Parkville Precinct, medical oncology services are Precinct-wide and based at Peter Mac (single department governed by Peter Mac). The workload is significantly ambulatory in focus (clinics, infusions etc.) but also includes inpatients admitted under medical oncology. Most patients are admitted at Peter Mac; however some patients are admitted at RMH as required when there are bed capacity pressures. Medical oncologists also attend relevant multidisciplinary clinics across the Precinct.

It is noted that cancer stream specific strategies and those relating to ambulatory services (e.g. CDU) are captured in separate chapters.

Service vision

The national leader in medical oncology, providing high quality cancer care across all settings from prevention to end of life care, integrated with world-leading clinical trials, complex diagnostic procedures and novel or complex therapeutic strategies.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Provide statewide medical oncology services for cancers requiring highly specialised care not available at other sites including sarcoma, head and neck cancer, cancer of unknown primary, neuro-endocrine tumours, brain cancers and melanoma.
	Develop nurse practitioner roles in medical oncology within the areas of medical cancer prevention, acute oncology and ambulatory care.
	Implement models of care to reduce the need for patients to regularly attend the hospital, including the use of shared-care with regional and rural services for complex cases, nurse-led clinics, use of PROMs to monitor patients between visits and shared-care follow-up pathways for survivors.
2. Work with other health services	Develop an agreed model for triaging and managing second opinion referrals to recognise the significant workload required and ensure the service remains sustainable.
	Establish a formal secondary consultation service to advise and support clinicians and enable suitable services to be safely provided closer to home in Victoria.
	Provide medical oncology support to other health services through education and training to improve capability across Victoria.
3. Better integrate Precinct services	Better integrate with speciality services across the Precinct to improve the multi-disciplinary care of medical oncology patients, particularly in relation to unplanned acute unwell patients, Cancer in Pregnancy, Survivorship care and Complex treatment-related adverse events.

9.21. Palliative Care

Service summary description

Palliative Care aims to optimise quality of life, manage physical symptoms, address psychospiritual care needs and provide practical support both inside and outside the hospital. An important part of palliative care is delivery of end of life care where possible in the venue of the patient's choice. Palliative Care is for people of any age, preferably delivered early in advanced cancer, however referrals are often made late.

The Parkville Integrated Palliative Care Service is provided as a partnership between Peter Mac, RMH and the Women's. An interdisciplinary team provides comprehensive and coordinated care across the Precinct. The service provides inpatient care from both Peter Mac and RMH and the units have identical admission criteria. Almost all patients admitted at the Peter Mac are people affected by cancer and around 50% of patients at RMH are people affected by cancer.

Palliative care outpatient services are also available. An outreach service operates to known patients in the community. Furthermore, some hospital in the home services are provided to suitable palliative care patients.

Important aspects of palliative care services at the Precinct include health services research, quality improvement initiatives, clinical trials and education services in collaboration with the University of Melbourne.

It is noted that RMH also provides the Victorian Palliative Care Advice Service.

Service vision

The leader in best practice palliative care across Victoria, with strengthened palliative care services provided from the Precinct (incl. earlier planning and access, more options for patients).

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Increase and advocate for investment in both in hospital and out of hospital palliative care services, including inpatient, outpatient and outreach/ community-based services.
	Advocate for and support further innovation and research in palliative care to improve care experience for recipients of palliative care.
	Ensure palliative care planning is integrated early in a patient's cancer pathway, ensuring sufficient structures are in place to enable routine access to palliative care when needed.
	Strengthen nursing and allied health involvement in palliative care service provision through senior and advanced practice roles.
2. Work with other health services	Improve coordination with community-based providers of community palliative care, NDIS and aged care services.

9.22. Pathology

Service summary description

The optimal clinical management of all people affected by cancer is reliant on rendering the correct diagnosis which now requires highly specialised expertise and techniques that integrates human tissue and blood-based pathology with complex molecular testing. The continual evolutionary and revolutionary advancements in pathology such as genomic diagnostics have profoundly impacted tumour classification, prognosis and therapeutics of patients diagnosed with cancer.

Currently independent pathology laboratories at Peter Mac, RMH and the Women's provide specialist pathology services for the Parkville Precinct. Peter Mac provides bespoke specialised cancer pathology with expertise in anatomical pathology, haematopathology and cancer genomics. RMH provides specialised expertise in neuro-pathology (brain cancer), head and neck, and lung cancers. RWH and RCH provide specialised expertise in gynaecological and paediatric cancers respectively. Outpatient and inpatient collections (e.g. bloods) are also performed at all sites.

It is noted that there may be governance changes relating to pathology services at Parkville (inclusive of RMH, the Women's, Peter Mac and the Royal Children's Hospital). It is critical that cancer pathology subspecialisation is retained to ensure multiple patient outcome measures are not adversely affected.

Service vision

The highest quality, research led and advanced pathology services in Victoria are provided across the Precinct with statewide leadership is provided for complex diagnoses and supporting the broader workforce.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to Chapter 7 for cancer service-wide strategies that also apply. Specific procedures are noted within cancer stream profiles.

Service Direction Alignment	Strategy
1. Provide specialised services	Ensure continuation of the highest quality subspecialist pathology is provided to people affected by cancer with access to cutting edge technologies for optimal outcomes.
	Innovate and implement advanced molecular pathology services to meet growing demand for research and clinical services.
	Continue to develop national second opinion service for complex cancer diagnoses, cancer of unknown primary and resolution of diagnostic dilemmas.
	Commit to supporting research as a central pillar for pathology services across the precinct.
	Continue to support clinical trials across the Precinct from early to late phase clinical trials including first in human studies that can be translated to clinical practice.
	Develop and expand training and education programs to support the workforce needed for cancer pathology subspecialisation, (noting dramatic shortages Australia wide for Anatomical Pathologists).
	Prioritise and advocate for investment in technologies such as digital pathology services, artificial intelligence algorithms, cancer 'omics, and spatial methodologies.
2. Work with other health services	Provide leadership in pathology cancer diagnosis across Victoria and develop referral pathways for complex diagnoses and tests to ensure the correct diagnosis is made with an appropriate turnaround time for all people affected by cancer.

9.23. Pharmacy

Service summary description

Pharmacy services are vital to ensure the right medications are manufactured and dispensed for patients with cancer across different care settings.

Pharmacy services are provided at the Women's, RMH and Peter Mac by separate pharmacy services. Each service has outpatient and inpatient dispensing services. Clinical pharmacists across the sites routinely make interventions to optimise medicines used for patients and prevent medication errors reaching patients. Services provide advice and support in different clinical areas and care settings. The Peter Mac service manufactures tens of thousands of doses of chemotherapy and immunotherapy each year. The pharmacy teams are also at the forefront of research including clinical trials and improving patient safety.

The pharmacy services are leaders in areas of cancer care such as patient safety, toxicity management, and training in specialised areas such as sterile compounding of cytotoxic medicines.

Service vision

To be the provider of the best medication management service in Victoria for patient experience and outcomes in cancer care through multidisciplinary and consumer collaboration, advancement of practice through research and continuous quality-assessment, and new technology and workforce development including leadership across the state (education, consultation, virtual care).

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Expand the role of pharmacists over time to conduct appropriate treatments, in collaboration with medical specialists and clear escalation and support processes and adapt to the growing complexity of cancer treatment and the ageing population.
	Provide the best cancer medication management service and related research in Victoria and Australia, including integrating new technologies, translating emerging research (e.g. pharmacogenomics) and implementing new models (e.g. pharmacist charting, pharmacist authorisation of systemic anti-cancer treatments, pharmacist oversight of medicines management through hospital-community provider partnership and novel models of cancer care).
	Enable a skilled cancer care pharmacy workforce through development and implementation of high-quality skills training and development programs, and in partnership with academic/professional institutions.
2. Work with other health services	Provide and formalise statewide leadership and support in cancer related pharmacy services through education, secondary consultation support, telehealth, clinical trials and teletrials support.
	Continue to advocate for appropriate funding models for novel medications and new technologies that improve access, equity, value and thus outcomes for people affected by cancer.
	Explore the feasibility of a hub and spoke model to deliver less complex therapies in the community.
3. Better integrate Precinct services	Share education, training, research opportunities across pharmacy departments and develop shared systems and resources for pharmacy services across the Precinct to reduce medication errors at transitions of care, develop our workforce and enhance sustainability.

9.24. Psychosocial Oncology

Service summary description

Addressing mental-ill health is a national priority. Every year, one in five Australians experience some form of mental illness or disorder. Unfortunately, those with cancer are at a significantly higher risk. Approximately 70% of people with cancer report significant psychological distress, and 30% have a diagnosable mental health problem – usually anxiety, trauma, alcohol misuse or depression.

The Parkville Precinct sites operate as separate units across Peter Mac, RMH and the Women's. Each service has teams of psychiatrists, psychologists and nurses that provide services in inpatient and outpatient settings. The Peter Mac service is the only one that operates as a holistic multidisciplinary psychosocial oncology program. Of note, the Women's psychosocial services have a primary focus on obstetrics (given the casemix). The RMH psycho-oncology service provides psychiatric input for neuro-oncology and limited hematology-oncology patients.

The Peter Mac service is the largest and most specialised psychosocial oncology service in Victoria and Australia and there is little specialised expertise across the State.

Service vision

The recognised statewide leader in the provision of psychosocial services for patients with cancer, with strengthened psychosocial supports provided across the Precinct (e.g. improved holistic assessment, utilisation of technology).

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to Chapter 7 for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Improve the identification of mental health concerns by introducing digital routine psychosocial screening across the cancer pathway, linked to evidence-based stepped care models (i.e. interventions dependent on a person's identified needs).
	Expand research and embed psychosocial research into clinical trials to better identify best practice interventions and translate these into clinical practice.
	Expand the utilisation of technology and digital models into practice, including improved mental health data, telehealth services, applications for self-care and to aid connections to other community-based services.
	Improve access to drug and alcohol services for people affected by cancer and addiction to improve health outcomes.
	Embed psychosocial education into programs for all clinical staff so there is an improved recognition, understanding and clinical practice approaches to psychosocial care.
2. Work with other health services	Establish Peter Mac as the statewide leader in psychosocial oncology services, providing support through education and secondary consultation services to improve access to quality psychosocial supports at the Precinct, satellite sites and across Victoria. This includes a leadership role in priority populations such as people with severe mental illness, neurodiversity, intellectual disability, Aboriginal and/or Torres Strait Islander people and culturally and linguistically diverse populations.
3. Better integrate Precinct services	Centralise psychosocial oncology services across the Parkville Precinct to ensure more equitable access to specialised support for people affected by cancer regardless of which site at which they are treated.

9.25. Radiation Oncology

Service summary description

Radiation oncology involves the use of x-rays to destroy or injure cancer cells so they cannot multiply. It can also be used to reduce the size of cancer and relieve pain. It is often used alongside other treatments such as surgery and medications. Radiation oncologists specialise in the provision of radiation therapy and work as part of multidisciplinary teams.

At the Parkville Precinct all radiation therapy is provided by Peter Mac. There is a main campus (at Parkville), and 4 other campuses (Bendigo, Box Hill, Moorabbin and Sunshine) which are located with other health services. Each campus operates differently depending on their location and work with other health services where they are located. There are varying levels of allied health and patient supports available at different campuses. The most complex procedures are conducted at Parkville. Peter Mac is a significant provider of public radiation oncology services (over half the public services in Victoria). Services provided include external beam radiation therapy using linear accelerators and specialised therapies such as stereotactic radiotherapy (inc. gamma knife) and brachytherapy.

In Victoria, the Parkville Precinct is the provider of all paediatric radiation oncology services (as noted under the paediatric cancer stream).

Service vision

An expanded array of world class radiation oncology services is provided by Peter Mac across a broader geographical footprint utilising the latest available technologies (including Proton Therapy, AI driven planning and delivery).

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service direction alignment	Strategy
1. Provide specialised services	Develop a proton therapy service at the Peter MacCallum Cancer Centre to ensure the best possible cancer care is available for all Victorians.
	Increase the volume and breadth of research activities conducted by the radiation oncology service.
	Further plan and bid for investment in the latest technologies, including new linear accelerators (improved targeting and throughput), adaptive radiotherapy, MRI simulation, and supporting the expertise of our multidisciplinary people by exploring AI opportunities that improve care quality and efficiency.
	Continue to grow the leadership role of the service in radiation emergency response in Australia and internationally.
2. Work with other health services	Plan and implement a growth strategy for Peter Mac radiation oncology services in collaboration with the Department of Health, considering needs of communities in high growth outer urban areas and which services should be available where (e.g. expansion of stereotactic ablative therapy).
3. Better integrate Precinct services	Integrate radiation oncology systems across the campuses, with infrastructure to meet growing complexity and demand.

9.26. Specialist Nursing

Service summary description

Specialist nurses are expert healthcare professionals who play a crucial role in the care of patients with cancer. They provide comprehensive care and support to patients and their carers, and work across all tumour and non-tumour groups from prevention and diagnosis, to treatment and in long term follow up. Specialist nurses include Nurse Practitioners, Clinical Nurses Consultants, and Clinical Nurses Specialists.

At the Parkville Precinct (in particular Peter Mac) specialist nurses predominantly work in ambulatory services providing care in nurse-led clinics and in parallel with medical led clinics and allied health. Specialist nurses provide clinical support to inpatient teams and review patients when receiving care in hospital. Specialist nurses lead and participate in research, facilitate education in house and externally, and hold important leadership and advisory portfolios both in and outside of Peter Mac.

Specialist nurses are embedded in non-tumour stream roles including stomal therapy, diabetes, infection prevention, infectious diseases and palliative care. Many specialist nurses at Peter Mac hold a Precinct portfolio working with patients to ensure they are receiving the care and support they need in the location of their current management.

Service vision

Further develop and embed specialist nursing within cancer care across the Precinct, enabling staff to work to full scope, contribute to innovation and research, and implementing new models of care that take advantage of the specialised skills of the nursing workforce.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to Chapter 7 for cancer service-wide strategies that also apply.

Service direction alignment	Strategy
1. Provide specialised services	Ensure there are specialist nursing roles in streams that meet the needs of the cancer patient population e.g.: cardio-oncology, acute oncology care, SURC, geronto-oncology.
	Support the most experienced workforce to remain in the roles through opportunities to undertake nurse-led research as part of their day-to-day work.
	Ensure all specialist nursing roles have adequate orientation and support, educational opportunities and research accessibility to advance within roles.
2. Work with other health services	Support systems that enable specialist nurses to work with regional and remote providers to provide care in a location most suitable for patients and carers.
3. Better integrate Precinct services	Ensure all specialist nurses who work across the Precinct have the ability to provide efficient, patient-centred care through integrated systems and processes.

9.27. Surgery, Anaesthetics, Perioperative, and Pain Medicine

Service summary description

Surgery is a commonly utilised intervention for people affected by cancer to remove cancer. This can be targeted at removing the cancer cells only, or removing parts of or whole organs with cancer. There are many types of surgeons who are involved in the provision of surgical oncology services across all cancer streams, and they work as part of broader multidisciplinary teams.

At the Parkville Precinct, surgery is provided across all sites; Peter Mac, RMH and the Women's. The Women's has a focus on gynaecological and breast surgery, and many other services are provided at Peter Mac and RMH. The casemix between the sites is dependent on the cancer stream and specialty arrangements with most services having a mixed model. For example, Peter Mac provides a range of surgery in high volumes such as plastics, urology, breast surgery, and colorectal surgery (all are also provided at RMH in some capacity). As RMH has an ICU on-site, it provides many of the surgeries that require planned ICU admission such as for patients with comorbidities, complex anaesthetic cases, neurosurgery, complex head and neck and multi-specialty surgery.

Anaesthetic, Perioperative Medicine, and Pain Medicine services are provided separately across all sites. These services provide preanaesthetic assessment clinics for risk assessment and optimisation, prehabilitation services, anaesthetic services, and postoperative care through services such as perioperative medicine rounds, high acuity service, including MET call response, and supporting the postoperative enhanced care unit. Pain services are also provided for people affected by cancer at each site, with a cancer specific chronic pain clinic operating from Peter Mac.

Service vision

The most complex surgical interventions for patients with cancer in Victoria are provided from the Precinct, supported by holistic contemporary models of care (e.g. strengthened pre-habilitation, 23 hour models).

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply. Specific procedures are noted within cancer stream profiles.

Service Direction Alignment	Strategy
1. Provide specialised services	Strengthen evidence-based pre-habilitation services for people affected by cancer across the Precinct to ensure they are optimised for surgery and to improve surgical outcomes, including utilisation of telehealth.
	Educate and train ward-based nursing staff to manage more complex patients over time and reduce overreliance on Intensive Care Unit and Enhanced Care Unit.
	Implement a 23-hour / short stay recovery model at Peter Mac.
2. Work with other health services	Implement strategies to enable more complex surgical people affected by cancer to be treated in other health services, including through staff rotations and education activities.
	As part of a broader cancer service-wide strategy, work with other health services and primary care to enable appropriate surgery to be directed and performed closer to home with the support of Precinct services where required.
3. Better integrate Precinct services	Develop integrated Precinct-wide surgical and anaesthetic services to reduce unnecessary patient transfers, provide holistic care, enhance the patient experience, reduce duplication (e.g. cross matching blood, paperwork for short term transfers), broaden skill bases, standardise processes and improve efficiency.
	Develop and embed a Precinct-wide Goals of Care (GOC) framework as an illness phase assessment tool.

9.28. The unplanned unwell – SURC, Enhanced and Critical Care Services

Service summary description

Cancer care is typically planned; however, unexpected health declines often lead patients to seek urgent or emergency care. The Royal Melbourne Hospital (RMH) supports the Parkville Precinct, including patients from Peter Mac through a 24/7 adult emergency department (ED). Many patients with cancer initially present to the ED with symptoms which leads to their initial diagnosis. Due to their complexity and immunocompromised status, cancer patients require specialised management, making a general adult ED less suited to address their complex care needs.

In late 2021, Peter Mac introduced the Symptom & Urgent Review Clinic (SURC), a consultant-led service offering weekday and telehealth care for patients with symptoms related to their cancer or treatment. SURC enables patients to receive urgent care from specialists and oncology-trained nurses. It is an alternative to the emergency department and discharges over half of its patients with only necessary cases directly admitted to Peter Mac.

Some patients require the highest acuity care available only in intensive care units. RMH's ICU serves the adult medical precinct by providing HDU and ICU critical care and consultation / support for complex cases needing advanced multiorgan support, such as mechanical ventilation.

Peter Mac's six-bed Enhanced Care Unit (ECU) focuses on surgical patients requiring short-term, high-acuity cardiovascular support, access to advanced monitoring and higher nursing ratios. A service that sits between ward and HDU level care. The ECU has reduced ICU admissions, prevented on-day surgical cancellations related to ICU access, and lowered Medical Emergency Team (MET) activations.

Service vision

Unplanned and highly acute patients with cancer are treated in the most appropriate care settings to improve the patient experience and service sustainability (e.g. enhanced SURC and ECU models) supported by integrated Precinct-wide services.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to Chapter 7 for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Evolve the Symptom & Urgent Review Clinic (SURC) at Peter Mac into a 24/7 Acute Cancer Service to enhance clinical outcomes, prevent deterioration, and reduce emergency department visits / hospital admissions. This includes expanding capacity, adding an after-hours clinical call hub, remote monitoring for urgent care needs, and streamlined pathways with virtual and face-to-face emergency services.
	Expand the Enhanced Care Unit to provide benefit to a wider surgical cohort of patients, accommodate more oncology and hematology admissions, potentially adding a specialised High Dependency Unit (HDU) with advanced cardiorespiratory monitoring and support. Implement Early Warning Scoring Systems and remote monitoring to enhance specialised ward care while providing centralised access to advanced hemodynamic monitoring in Enhanced Care and ICU.
3. Better integrate Precinct services	Integrate unplanned care pathways, data, education and research across the Precinct and beyond to enable more responsive operations and the development of better-informed and innovative service models.
	Link high acuity services across the Precinct (e.g. staffing, education, technology incl. potential for centralised monitoring).

9.29. Victorian Adolescent and Young Adult Cancer Service

Service summary description

Adolescents and young adults have unique challenges in dealing with cancer diagnosis and treatment. The Victorian Adolescent and Young Adult (AYA) Cancer Service specialises in the care and support of Victorians experiencing cancer aged 15 to 25 years. The Service is based at Peter Mac but has a statewide remit and is the largest provider of AYA cancer care in the country. Of note, the service is the lead site for Victoria and Tasmania as part of the federal government funded Youth Cancer Initiative. The volume of AYA patients has increased in recent years as the profile of the service at Peter Mac has been recognised by patients and referrers.

The Victorian AYA Cancer Service includes the Youth Cancer Centre at Peter Mac (lounge, kitchen, multipurpose space etc.). It also provides education and resources, secondary consultation (advice / guidance to other cancer services), education and training and conducts research. It also provides multidisciplinary clinical services, leading the care for AYA patients in collaboration with relevant cancer streams. This includes supporting young people with transition from the Royal Children's Hospital, clinical trial access, medical considerations, assisting with fertility preservation etc.

Service vision

The Victorian Adolescent and Young Adult Cancer Service is the formal statewide centre for adolescent and young adult cancer care, specifically in diagnosis and treatment planning for all AYA patients.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Position Peter Mac and the AYA Cancer Service as the formal statewide centre for adolescent and young adult cancer care, specifically with involvement in diagnosis and treatment planning for all AYA patients to ensure their specific needs are considered.
2. Work with other health services	Provide statewide leadership and support for AYA cancer care including education and secondary consultation to other health services to enable care to be provided close to home and for specific needs to be met.

Research and clinical trials

9.30. Research and clinical trials

Summary description

Evidence-based, research-led clinical care is a necessity for the delivery of the most advanced and impactful clinical care. New diagnostic and prognostic modalities, medications, interventions and models of care (including cancer prevention, prehabilitation and rehabilitation programs) cannot be developed without quality research activities.

The Parkville Precinct partners are Victorian, national and international leaders in cancer research. Research activities are closely integrated with clinical services to ensure translation into practice. Research includes discovery science, translational research, clinical research including all phases of clinical trials (dedicated chairs and beds at Peter Mac), health services research, and translational research. These research activities are multi-disciplinary and in many instances cross-institutional, and leverage the talent, resources and expertise across the different partner organisations and Centres of Excellence.

It is noted that there is a research strategy being developed at Peter Mac which will influence further detail regarding cancer research priority areas.

Service vision

The Precinct is the statewide leader in cancer research, providing the most complex and integrated research led clinical care, with strengthened partnerships to improve equity of access across Victoria.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to **Chapter 7** for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Continue to strengthen research across the Precinct in alignment with the ongoing strategic research review, to support the overall vision of the Precinct as providing the most complex research led and sustainable clinical care.
	Improve the implementation of evidence-based clinical care in collaboration with healthcare practitioners.
	Better integrate care delivery and research through ensuring it is incorporated as core business within different cancer streams and service areas.
2. Work with other health services	Establish and strengthen partnerships across the health system to improve access to clinical trials and translating research into practice across Victoria, including in regional and rural settings (in line with the Victorian Cancer Plan).
3. Better integrate Precinct services	Further pursue opportunities to integrate research related systems (e.g. clinical data collection), governance and processes (e.g. approvals) across the Parkville Precinct to improve efficiency and reduce barriers to starting new research projects.

Patient support

9.31. Aboriginal Health

Summary description

Cancer is the leading cause of death for Aboriginal and/or Torres Strait Islander people and the gap in cancer mortality persists. Across the precinct, our Aboriginal Health teams work in partnership with our communities to improve cancer outcomes at all stages of life through:

- Prioritising equity of access
- Maximising support for cancer prevention and early detection
- Supporting the delivery of culturally safe and responsive cancer services (&treatment)
- Shared decision making
- Providing Aboriginal leadership and expertise in cancer service delivery, research, training and education
- Indigenous best practice in policy design and health system performance
- Delivering patient experiences free from racism

Collectively, we will provide comprehensive services to our local catchment that will continue to set the standard for how mainstream services measure and respond to Aboriginal and/or Torres Strait Islander peoples affected by cancer.

Aboriginal hospital liaison services are provided at each Parkville Precinct site separately.

Service vision

Achieve equity in cancer treatment, care and support.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to Chapter 7 for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Increase the representation and retention of Aboriginal and/or Torres Strait Islander employees particularly patient cancer navigators in response to an otherwise complicated and fragmented healthcare system.
	Focus on the translation of Indigenous cancer research into practice.
2. Work with other health services	An improved & integrated electronic medical record (EMR) that allows Aboriginal and/or Torres Strait Islander staff to simultaneously access and update patient information and improve referral and discharge pathways.
	Prioritise equity of access and reduce structural barriers to accessing cancer care across services.
	Combine Indigenous led health (research) programmes with Western approaches to respond to the unique needs of Aboriginal and/or Torres Strait Islander communities across our catchment.
3. Better integrate Precinct services	Explore options for shared health service availability and optimise resource allocation through better access to coordinated and multidisciplinary care.
	Further integrate Aboriginal patient services by overcoming barriers between primary and tertiary healthcare.

9.32. Patient experience, wellbeing and supports

Summary description

A cancer diagnosis results in unique psychosocial, spiritual, cultural, and physical needs that require a system response that adapts to individual need as treatment and experiences evolve. The individual may live with ongoing effects such as fatigue, pain, cognitive dysfunction, depression, anxiety, and reduced ability to work. A cancer diagnosis is often 'all encompassing' impacting families, other comorbid health conditions, relationships, productivity, and finances. There is growing demand for supportive care services for people living with cancer to enhance not only their clinical outcomes but to provide capacity to live better throughout their cancer experience. Furthermore, groups such as Aboriginal and/or Torres Strait Islander people, people from culturally and linguistically diverse backgrounds, people with disabilities and LGBTIQA+ people have specific needs for supports.

At Peter Mac, the Patient Experience and Wellbeing Department leads three streams of work focussing specifically on people with cancer:

- wellbeing, which addresses the social determinants of health. This includes education sessions, social connection programs, peer support groups, oncology massage, system navigation and the wellbeing centre programs and services.
- patient and carer experience, which improves the sum of all interactions with the health service. This includes the patient and carer support service, a peer mentoring & navigation program, and Cancer School an online cancer education program.
- consumer engagement, which focusses on co-design and ensuring consumers are at the centre of decision-making. This includes a register of 300+ consumers who apply their lived experience to improve clinical care, research, and governance.

RMH and the Women's have patient support services, however these are these are not dedicated to people affected by cancer.

Language services are also available across the Parkville Precinct to support people from culturally and linguistically diverse backgrounds. Some materials are also available (but not in all languages).

Diversity and inclusion for patients and staff is also a priority across the Precinct. This includes LGBTIQA+ patient liaison services at RMH and other supports (e.g. from social work services).

Spiritual care services are also available at the Parkville Precinct sites, each providing reflection spaces and in person spiritual support.

Service vision

Holistic and collaborative patient experience and wellbeing services are provided across the Precinct alongside strengthened statewide leadership in best practice initiatives.

Key future strategies

In addition to achieving the vision above, service specific strategies are outlined below. Please refer to Chapter 7 for cancer service-wide strategies that also apply.

Service Direction Alignment	Strategy
1. Provide specialised services	Better integrate patient wellbeing into assessment and treatment planning to ensure the social determinants of health are considered alongside clinical needs.
	Develop a program that integrates active consideration of equity when designing and delivering services to improve experience and accessibility of care for priority populations. Partner with external agencies providing expertise in cultural diversity focussing on supporting broader staff competency in understanding and advocating for patients experiencing cultural and diversity issues.
	Explore the establishment of a statewide "Maggies Centre" in the Parkville Precinct that integrates a Centre of Excellence for Cancer Health Literacy, a personalised cancer information service, patient accommodation for the Precinct. This physical service will be based in the Parkville precinct and will include targeted programs that enable patients to access personalised information, navigation and support through a suite of psychosocial and wellbeing services
2. Work with other health services	Provide statewide leadership and support across Victoria, interstate and internationally regarding best practice patient wellbeing initiatives.
3. Better integrate Precinct services	Formalise Parkville Precinct-wide collaboration for the wellbeing for people affected by cancer to ensure equity of access and collaboration on key initiatives.
	Formalise Precinct-wide collaborations across diversity and inclusion services to reduce duplication and enable sharing of resources (e.g. shared teams, projects).

10. Implementation

Implementation of this Strategic Cancer Service Plan will require significant effort and collaboration over time. The broader Health Services Plan implementation in Victoria and potential impacts on organisational governance in 2025 may have an influence on how this Plan is implemented. Despite these unknowns, it is clear that implementation requires a structured and cross-Precinct approach.

A **Strategic Cancer Service Plan Implementation Steering Committee** will be established to lead the implementation of all the strategies articulated. This group will identify strategic priorities requiring dedicated resourcing and/or a project-based approach to implementation vs. those that can be implemented within existing governance and resourcing. The Committee will also assign responsibilities for the overall actions articulated. It is also noted that implementation of many key priorities also strongly relies on partnerships with the Department of Health and other health services.

Key success factors for implementation will include:

- Active engagement with the Department of Health and other health services regarding initiatives that impact the broader health system, working collaboratively as trusted advisors on matters related to cancer services.
- Reform of funding models for specialised services and statewide initiatives.
- The application of change management principles and processes.
- Continued and concerted efforts to ensure the right workforce is recruited, trained and retained.
- A focus on equity in the implementation of key initiatives to ensure priority populations needs are met.

Further planning for **key enablers**, particularly workforce, information and communications technology (ICT) and infrastructure will be important to ensure the strategies can be implemented.

- Given the workforce limitations and potential future changes to models of care, **strategic workforce planning** across the Precinct will be required. This will need to consider what workforce is required, how they will be appropriately trained and recruitment and retention strategies. Many themes identified in this Plan must also be considered including ensuring specialist roles across disciplines to meet the needs of cancer patients, ensuring staff can work to full scope, supporting staff to undertake research, ensuring training and professional development opportunities, better integrating and enabling staff to successfully work across the Precinct and expanding roles such as in advanced practice.
- **Information and communications technology (ICT)** will continue to increase its importance in cancer service provision over time. ICT planning must consider the need for PROMs and PREMS, enabling increases in home-based care, enabling patients to have better information and more control over their care, and developing new digital technologies incorporating artificial intelligence.
- **Infrastructure planning** must continue to be progressed to ensure that the projected growth in cancer services can be catered for. It is noted that RMH and the Women's are currently working with the Department to complete a master planning process (considering all services, not just cancer), with a staged redevelopment proposed for the Parkville Precinct. However, this Plan evidences the need for growth at Peter Mac, as well as the need to consider community-based options for expansion of ambulatory and day cancer services provided across the Precinct.

Appendices

A.1. Peter Mac current points of care

Current physical points of care at Peter MacCallum Cancer Centre are summarised below. This excludes areas such as Stage 1 recovery, radiology rooms, and dental chairs which are considered specialised and additional.

Type	Parkville	Radiation Therapy Campuses			
	Points of care	Moorabbin Hospital	Box Hill	Sunshine Hospital	Bendigo Hospital
Same-day beds					
Chemotherapy	48				
Medical	15				
Transfusion	8				
Clinical Trials	16				
Apheresis	6				
Ambulatory Cellular Therapies	15				
23 hour Short Stay	16				
Total Same Day Beds	**124**				
Multi-stay/Overnight beds					
Ward 1A	12				
Ward 3A	32				
Ward 5A	32 (incl. 2 clinical trials beds)				
Ward 6A	32				
Enhanced Care Unit	6				
Total Overnight Beds	**114**				
Perioperative Services					
Operating Rooms	8 (1 shell)				
Endoscopy Procedure Room	1				
Total Operating Rooms	**9**				
Radiotherapy					
Bunkers	9	4	3	3	3
Linear Accelerators (within bunkers)	6	4	2	2	2
Gamma knife (within bunker)	1				
Superficial Machine	1	1		1	1
Specialist Clinics					
Radiation Oncology Consulting Rooms	10				
Outpatient Pathology 2B	5				
Specialist Clinics 2C	45				
Specialist Clinics 2D	42				
Specialist Clinics 3B	14				
Total	**116**				

A.2. Technical detail

A.2.1. Catchment definitions

Broader Victorian catchment

LGA	Approx. distance from Parkville Precinct
Banyule	Within 20km
Boroondara	Within 20km
Brimbank	Within 20km
Darebin	Within 20km
Glen Eira	Within 20km
Hobsons Bay	Within 20km
Maribyrnong	Within 20km
Melbourne	Within 20km
Merri-bek / Moreland	Within 20km
Moonee Valley	Within 20km
Port Phillip	Within 20km
Stonnington	Within 20km
Yarra	Within 20km
Bayside	20-40km
Greater Dandenong	20-40km
Hume	20-40km
Kingston	20-40km
Knox	20-40km
Manningham	20-40km
Maroondah	20-40km
Melton	20-40km
Monash	20-40km
Nillumbik	20-40km
Whitehorse	20-40km
Whittlesea	20-40km

LGA	Approx. distance from Parkville Precinct
Wyndham	20-40km
Albury	More than 40km
Alpine	More than 40km
Ararat	More than 40km
Ballarat	More than 40km
Balranald	More than 40km
Bass Coast	More than 40km
Baw Baw	More than 40km
Benalla	More than 40km
Berrigan	More than 40km
Buloke	More than 40km
Campaspe	More than 40km
Cardinia	More than 40km
Casey	More than 40km
Central Goldfields	More than 40km
Colac Otway	More than 40km
Corangamite	More than 40km
East Gippsland	More than 40km
Edward River	More than 40km
Federation	More than 40km
Frankston	More than 40km
Gannawarra	More than 40km
Glenelg	More than 40km
Golden Plains	More than 40km
Greater Bendigo	More than 40km

LGA	Approx. distance from Parkville Precinct
Greater Geelong	More than 40km
Greater Hume	More than 40km
Greater Shepparton	More than 40km
Hepburn	More than 40km
Hindmarsh	More than 40km
Horsham	More than 40km
Indigo	More than 40km
Latrobe	More than 40km
Loddon	More than 40km
Macedon Ranges	More than 40km
Mansfield	More than 40km
Mildura	More than 40km
Mitchell	More than 40km
Moira	More than 40km
Moorabool	More than 40km
Mornington Peninsula	More than 40km
Mount Alexander	More than 40km
Moyne	More than 40km
Murray River	More than 40km
Murrindindi	More than 40km

LGA	Approx. distance from Parkville Precinct
Murrumbidgee	More than 40km
Northern Grampians	More than 40km
Pyrenees	More than 40km
Queenscliffe	More than 40km
Snowy Valleys	More than 40km
South Gippsland	More than 40km
Southern Grampians	More than 40km
Strathbogie	More than 40km
Surf Coast	More than 40km
Swan Hill	More than 40km
Towong	More than 40km
Unincorporated Vic	More than 40km
Wangaratta	More than 40km
Warrnambool	More than 40km
Wellington	More than 40km
Wentworth	More than 40km
West Wimmera	More than 40km
Wodonga	More than 40km
Yarra Ranges	More than 40km
Yarriambiack	More than 40km

A.2.2. Methodological notes

Data is sourced primarily from the Department of Health. This includes:

- Inpatient data (historical Victorian Admitted Episodes Dataset (VAED) and projected data based on the Inpatient Projection Model 2021c)
- ED data (historical Victorian Emergency Minimum Dataset (VEMD) and projected data based on the ED forecasts)
- Non-admitted data (historical Victorian Integrated Non-Admitted Health (VINAH) dataset.
- VAED and VEMD projections are underpinned by (unpublished) population projections developed by the DTP in 2021 that include consideration for the estimated impact of COVID-19.

A.2.3. Infrastructure conversion benchmarks

The following section provides a summary of the planning benchmarks that were applied to calculate projected activity and points of care (POC), as per the Victorian Entity Service Plan Guidelines (March 2023).

Adult acute medical and surgical beds

Multi-day

Functional benchmark:

- 365 days per year
- 90% occupancy rate for Peter Mac, 85% for RMH/the Women's.

Projected overnight beds are shown medical and surgical (based on MCRG type and in alignment with treatment category within the inpatient planning tool). It is noted that this may not reflect preferred admission practice across inpatient wards and the split of medical / surgical should be interpreted with caution. Relevant adjustments applied for HITH, ICU, CCU to avoid double counting / avoiding counting of virtual beds as planned spaces.

Same day

- Functional benchmark:
- 240 days per year
- 200% occupancy rate.

Surgical / procedural same day POC calculations will define Stage 2 recovery spaces required.

Subacute multi-day beds

Includes rehabilitation, palliative care and Geriatric Evaluation Management (GEM).

- Functional benchmark:
- 365 days per year
- 95% occupancy rate.

Critical Care (ECU / ICU)

- Functional benchmark:
- 365 days per year (24 hrs per day)
- 75% occupancy rate.

Projected adult acute medical / surgical overnight beds will be adjusted to avoid double counting (as ICU hrs are a subset of total admitted activity).

Chemotherapy

- Functional benchmark:
- 312 days per year (6 days per week)
- 2.5 sessions per day.

Non-admitted services

Clinic-based (i.e. delivered on-site and in-person, excluding telephone and off the campus delivery settings) outpatient / allied health / community health services.

- Functional benchmark:
- 250 days per year, 7 hours available per day
- 9.3 patients per day (approximately 45 minutes average appointment time)
- 33% of telehealth activity utilising clinic rooms to deliver services.
- 80% occupancy rate.

A.2.4. Cancer definition in inpatient data

Cancer-flagged activity is based on the Department of Health definition of cancer tumour streams. These are based on ICD-10 codes, derived using ICD Edition 6 and updated to Edition 11. The ICD code can be present in any diagnosis field. Within analysis, the first ICD code in the diagnosis code fields has been used to define the tumour stream.

Cancer flagged activity includes the following admissions:

- ICD10 diagnosis chapters C00-D48.
- DRGs R63Z (Chemotherapy) and R64Z (Radiotherapy)
- Procedures which use a chemotherapy unit, such as administration of platelets.

The tumour streams are based on the ICD codes under the above diagnosis chapters (over 800 codes are included). For example, malignant neoplasm of the external upper lip is mapped to the Head and Neck tumour stream. Rare cancers within the Department of Health definition includes cancers such as neoplasms of the heart, Kaposi sarcomas and neoplasms of the peripheral nerves.

A.2.5. Additional data tables

The table below shows the cancer-flagged inpatient activity that flowed to the Precinct from 2018-19 to 2022-23 by region of residence (i.e. residing in the immediate catchment as defined above, 20km away from the Precinct, 20km-40km away from the Precinct, and more than 40km away from the Precinct). In 2022-23, approximately 19% of Precinct inpatient cancer-flagged activity was for patients residing in the immediate catchment, while 27% was for patients residing more than 40km away.

Table 46. Statewide cancer-flagged inpatient activity flowing to the Precinct by region of residence and facility, 2018-19 to 2022-23

Region	Hospital	2018-19 Seps	2019-20 Seps	2020-21 Seps	2021-22 Seps	2022-23 Seps	2018-19 Beddays	2019-20 Beddays	2020-21 Beddays	2021-22 Beddays	2022-23 Beddays
Immediate catchment	Peter Mac	5,389	5,628	5,993	6,342	5,847	9,896	10,263	10,948	11,465	11,144
	RMH	2,176	2,097	1,966	2,064	2,158	10,481	11,639	10,713	9,751	10,520
	the Women's	412	388	321	336	411	721	923	649	592	697
Immediate total		**7,977**	**8,113**	**8,280**	**8,742**	**8,416**	**21,098**	**22,825**	**22,310**	**21,808**	**22,361**
Within 20km	Peter Mac	8,276	9,018	9,580	10,222	9,811	15,510	17,209	17,681	18,057	17,638
	RMH	1,486	1,463	1,370	1,305	1,452	7,903	7,754	7,842	6,844	7,871
	the Women's	712	576	475	527	606	1,478	1,183	1,228	990	1,465
Within 20km total		**10,474**	**11,057**	**11,425**	**12,054**	**11,869**	**24,891**	**26,146**	**26,751**	**25,891**	**26,974**
In 20-40km	Peter Mac	9,830	10,023	10,775	11,622	12,288	18,307	18,797	20,217	20,094	23,093
	RMH	1,678	1,770	1,638	1,544	1,692	7,982	9,485	8,016	7,728	9,469
	the Women's	318	252	256	249	253	795	599	611	781	561
In 20-40km total		**11,826**	**12,045**	**12,669**	**13,415**	**14,233**	**27,084**	**28,881**	**28,844**	**28,603**	**33,123**
40km+	Peter Mac	10,366	10,319	9,162	10,147	11,023	22,101	21,831	18,645	20,214	20,941
	RMH	1,490	1,407	1,382	1,247	1,498	10,425	9,714	9,120	8,032	9,645
	the Women's	250	254	244	221	254	837	605	845	910	675
40km+ total		**12,106**	**11,980**	**10,788**	**11,615**	**12,775**	**33,363**	**32,150**	**28,610**	**29,156**	**31,261**
Grand total		**42,383**	**43,195**	**43,162**	**45,826**	**47,293**	**106,436**	**110,002**	**106,515**	**105,458**	**113,719**
% From immediate		19%	19%	19%	19%	19%	20%	21%	21%	21%	20%
% From within 20km		25%	26%	26%	26%	25%	23%	24%	25%	25%	24%
% From 20-40km		28%	28%	29%	29%	30%	25%	26%	27%	27%	29%
% From 40km+		29%	28%	25%	25%	27%	31%	29%	27%	28%	27%

The table below shows the proportion of cancer-flagged and non-cancer flagged activity by facility for 2018-19 to 2022-23. In 2022-23, approximately 46,000 separations (26% of precinct activity) were for cancer-flagged activity, out of a total of approximately 188,000 separations. However, at Peter Mac, 86% of total inpatient activity was cancer-flagged, whereas at RMH this was 6%, and 5% at the Women's.

Table 47. Cancer vs non-cancer flagged inpatient flows to the Precinct by facility, 2018-19 to 2022-23

Cancer flag	Facility	2019-20 Seps	2020-21 Seps	2021-22 Seps	2022-23 Seps	2018-19 Beddays	2019-20 Beddays	2020-21 Beddays	2021-22 Beddays	2022-23 Beddays	2019-20 Seps
Cancer-flagged	Peter Mac	33,861	34,988	35,510	38,333	38,969	65,814	68,100	67,491	69,830	72,816
	RMH	6,830	6,737	6,356	6,160	6,800	36,791	38,592	35,691	32,355	37,505
	the Women's	1,692	1,470	1,296	1,333	1,524	3,831	3,310	3,333	3,273	3,398
Cancer-flagged total		**42,383**	**43,195**	**43,162**	**45,826**	**47,293**	**106,436**	**110,002**	**106,515**	**105,458**	**113,719**
Non-Cancer flagged	Peter Mac	7,609	6,450	6,452	6,447	7,644	9,150	7,076	7,449	7,230	8,413
	RMH	97,646	97,549	93,428	99,850	106,490	282,859	276,382	263,356	289,027	314,607
	the Women's	28,837	28,990	26,955	25,908	26,646	80,120	78,261	74,206	71,427	72,178
Non-Cancer total		**134,092**	**132,989**	**126,835**	**132,205**	**140,780**	**372,129**	**361,719**	**345,011**	**367,684**	**395,198**
Grand total		**176,475**	**176,184**	**169,997**	**178,031**	**188,073**	**478,565**	**471,721**	**451,526**	**473,142**	**508,917**
% Cancer at Peter Mac		82%	84%	85%	86%	84%	88%	91%	90%	91%	90%
% Cancer at RMH		7%	6%	6%	6%	6%	12%	12%	12%	10%	11%
% Cancer at the Women's		6%	5%	5%	5%	5%	5%	4%	4%	4%	4%
% Cancer of total		**24%**	**25%**	**25%**	**26%**	**25%**	**22%**	**23%**	**24%**	**22%**	**22%**

The table below shows the proportion of statewide cancer-flagged inpatient activity coming to the Precinct compared to all other facilities across Victoria. In 2022-23 there were 278,683 cancer-flagged inpatient separations across the state, of which 47,293 (17%) were seen at the Precinct. Residents of LGAs in proximity to the Precinct (e.g. Melbourne, Merri-bek, Moonee Valley) naturally saw a higher proportion of patients attend the Precinct for cancer-related services (usually over 60%).

Table 48. Resident demand by Local Government Area (LGA) for statewide cancer-flagged inpatient activity, by facilities of attendance, 2022-23.

LGA of residence	Precinct	Other	Total	% of Precinct total	% at Precinct
Merri-bek	4,465	2,120	6,585	9%	68%
Moonee Valley	2,800	1,621	4,421	6%	63%
Melbourne	1,917	1,144	3,061	4%	63%
Maribyrnong	1,493	1,699	3,192	3%	47%
Hobsons Bay	1,697	2,407	4,104	4%	41%
Interstate / Overseas	898	1,291	2,189	2%	41%
Macedon Ranges	1,019	1,787	2,806	2%	36%
Melton	2,228	4,130	6,358	5%	35%
Yarra	911	1,704	2,615	2%	35%
Hume	3,267	7,091	10,358	7%	32%
Brimbank	2,505	5,762	8,267	5%	30%
Wyndham	2,531	6,378	8,909	5%	28%
Boroondara	908	2,608	3,516	2%	26%
Darebin	971	5,618	6,589	2%	15%
Whittlesea	1,152	9,576	10,728	2%	11%
Casey	836	11,017	11,853	2%	7%
All other	17,695	165,437	183,132	37%	10%
Total	**47,293**	**231,390**	**278,683**	**100%**	**17%**

The table below provides an analysis of the average length of stay at the Precinct for each tumour stream and by the region of residence of the patient.

Table 49. Average length of stay for tumour streams by region of residence, 2022-23

Tumour stream	Immediate Catchment Seps	Out of Catchment Seps	Immediate Catchment Beddays	Out of Catchment Beddays	Immediate Catchment ALOS	Out of Catchment ALOS
None	19	104	48	421	2.5	4.0
Bone/Tissue	96	1,004	226	3,602	2.4	3.6
Breast	1,122	5,547	1,931	8,481	1.7	1.5
Central Nervous System	144	1,436	650	4,561	4.5	3.2
Colorectal	1,244	3,020	3,430	8,829	2.8	2.9
Genitourinary	933	3,330	2,322	6,415	2.5	1.9
Gynaecological	760	3,217	1,697	6,417	2.2	2.0
Haematological	1,587	8,172	4,322	20,398	2.7	2.5
Head & Neck	191	1,811	708	5,612	3.7	3.1
Lung	738	2,881	2,372	6,577	3.2	2.3
Rare	74	674	325	2,359	4.4	3.5
Sec/unknown prim	93	546	425	1,218	4.6	2.2
Skin	683	4,228	1,627	7,890	2.4	1.9
Thyroid & Endo	121	521	248	1,991	2.0	3.8
Upper gastro	611	2,386	2,030	6,587	3.3	2.8
Total	**8,416**	**38,877**	**22,361**	**91,358**	**2.7**	**2.3**

Table 50. Cancer-flagged inpatient activity at the Precinct by Facility and Treatment Category, 2018-19 to 2022-23

Facility	Treatment Category	2018-19 Seps	2019-20 Seps	2020-21 Seps	2021-22 Seps	2022-23 Seps	2018-19 Beddays	2019-20 Beddays	2020-21 Beddays	2021-22 Beddays	2022-23 Beddays	Average LOS	Seps AGR
Peter Mac	01-Multi-day Medical	3,578	3,535	3,432	3,259	3,307	22,327	22,516	20,899	18,818	20,123	6.1	-1.9%
	02-Multiday Surgery	2,355	2,422	2,051	2,139	2,100	17,099	17,177	15,626	16,372	17,493	7.6	-2.8%
	03-Ambulatory Same-day	27,136	27,437	28,467	30,565	30,722	27,136	27,437	28,467	30,565	30,722	1.0	3.2%
	04-Sameday Medical	4,261	3,284	3,282	3,733	5,126	4,261	3,284	3,282	3,733	5,126	1.0	4.7%
	05-Sameday Surgery	3,757	3,896	3,979	4,238	4,464	3,757	3,896	3,979	4,238	4,464	1.0	4.4%
	08-Subacute & NHT			210	286	246			2,141	2,774	2,665	10.2	0.0%
	09-Paediatrics (0-14yrs)	383	864	541	560	634	384	866	546	560	636	1.0	13.4%
Peter Mac Total		**41,470**	**41,438**	**41,962**	**44,780**	**46,613**	**74,964**	**75,176**	**74,940**	**77,060**	**81,229**	**1.8**	**3.0%**
RMH	01-Multiday Medical	1,505	1,629	1,653	1,453	1,527	10,728	10,890	10,562	10,257	10,738	6.8	0.4%
	02-Multiday Surgery	2,041	2,056	1,991	1,766	2,108	18,002	19,130	17,769	14,694	18,896	8.9	0.8%
	03-Ambulatory Same-day	593	583	468	569	535	593	583	468	569	535	1.0	-2.5%
	04-Sameday Medical	578	585	528	476	473	578	585	528	476	473	1.0	-4.9%
	05-Sameday Surgery	1,647	1,388	1,280	1,480	1,690	1,647	1,388	1,280	1,480	1,690	1.0	0.6%

Facility	Treatment Category	2018-19 Seps	2019-20 Seps	2020-21 Seps	2021-22 Seps	2022-23 Seps	2018-19 Beddays	2019-20 Beddays	2020-21 Beddays	2021-22 Beddays	2022-23 Beddays	Average LOS	Seps AGR
RMH	06-Maternity Services	1	2	1	5	2	2	18	27	40	16	9.4	18.9%
	07-Mental Health	2	5	6	7	2	46	78	182	123	92	23.7	0.0%
	08-Subacute & NHT	362	413	327	324	388	5,094	5,844	4,766	4,636	4,988	14.0	1.7%
	09-Paediatrics (0-14yrs)			1		2			8		4	4.0	0.0%
	13-Emergency Dept	101	76	101	80	73	101	76	101	80	73	1.0	-7.8%
RMH total		**6,830**	**6,737**	**6,356**	**6,160**	**6,800**	**36,791**	**38,592**	**35,691**	**32,355**	**37,505**	**5.5**	**-0.1%**
the Women's	01-Multiday Medical	87	63	58	62	53	354	188	218	180	164	3.4	-11.7%
	02-Multiday Surgery	617	572	537	535	622	1,754	1,594	1,452	1,400	1,694	2.7	0.2%
	03-Ambulatory Same-day	2	2	2	1	2	2	2	2	1	2	1.0	0.0%
	04-Sameday Medical	37	23	29	20	12	37	23	29	20	12	1.0	-24.5%
	05-Sameday Surgery	885	740	609	634	742	885	740	609	634	742	1.0	-4.3%
	06-Maternity Services	42	49	40	49	67	217	203	140	186	206	3.9	12.4%
	09-Paediatrics (0-14yrs)		1	1		2		1	1		2	1.0	0.0%
	10-Neonate - Qualified	17	15	16	22	15	567	550	873	825	556	39.7	-3.1%
the Women's total		**1,692**	**1,470**	**1,296**	**1,333**	**1,524**	**3,831**	**3,310**	**3,333**	**3,273**	**3,398**	**2.3**	**-2.6%**
Grand total		**49,992**	**49,645**	**49,614**	**52,273**	**54,937**	**115,586**	**117,078**	**113,964**	**112,688**	**122,132**	**2.3**	**2.4%**

Table 51. Cancer-flagged inpatient activity at the Precinct by Facility and Age Group, 2018-19 to 2022-23

Facility	Age Group	2018-19 Seps	2019-20 Seps	2020-21 Seps	2021-22 Seps	2022-23 Seps	2018-19 Beddays	2019-20 Beddays	2020-21 Beddays	2021-22 Beddays	2022-23 Beddays	ALOS	Seps AGR
Peter Mac	0-14	382	864	541	560	606	383	866	546	560	608	1.0	12.2%
	15-44	5,067	5,156	6,316	6,577	6,476	10,086	9,641	10,626	11,041	11,768	1.8	6.3%
	45-69	19,466	19,513	19,145	20,510	20,607	36,320	37,399	36,639	36,885	38,243	1.9	1.4%
	70+	8,946	9,455	9,508	10,686	11,280	19,025	20,194	19,680	21,344	22,197	2.1	6.0%
Peter Mac total		**33,861**	**34,988**	**35,510**	**38,333**	**38,969**	**65,814**	**68,100**	**67,491**	**69,830**	**72,816**	**1.9**	**3.6%**
RMH	0-14			1		2			8		4	4.0	0.0%
	15-44	886	820	905	811	945	4,697	4,692	5,079	4,295	4,853	5.4	1.6%
	45-69	3,211	3,244	3,015	2,972	3,311	17,165	18,204	16,594	15,184	18,372	5.4	0.8%
	70+	2,733	2,673	2,435	2,377	2,542	14,929	15,696	14,010	12,876	14,276	5.6	-1.8%
RMH total		**6,830**	**6,737**	**6,356**	**6,160**	**6,800**	**36,791**	**38,592**	**35,691**	**32,355**	**37,505**	**5.5**	**-0.1%**
the Women's	0-14	22	21	21	32	26	582	560	883	852	578	28.3	4.3%
	15-44	916	776	638	690	835	1,357	1,219	998	1,089	1,295	1.5	-2.3%
	45-69	586	536	492	477	507	1,334	1,052	1,011	920	1,040	2.1	-3.6%
	70+	168	137	145	134	156	558	479	441	412	485	3.2	-1.8%
the Women's total		**1,692**	**1,470**	**1,296**	**1,333**	**1,524**	**3,831**	**3,310**	**3,333**	**3,273**	**3,398**	**2.3**	**-2.6%**
Grand total		**42,383**	**43,195**	**43,162**	**45,826**	**47,293**	**106,436**	**110,002**	**106,515**	**105,458**	**113,719**	**2.4**	**2.8%**

Peter Mac
Peter MacCallum Cancer Centre
Victoria Australia

The Royal
Melbourne
Hospital

the women's
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