

Grampians Regional Chemotherapy Service Plan

Service Plan report

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Commissioned by Grampians Integrated
Cancer Services (GICS)

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EXECUTIVE SUMMARY

Background

The Grampians Integrated Cancer Service (GICS) is a cancer service improvement organisation covering the Grampian Region. GICS facilitates system development and service improvement by supporting local and regional health service providers. This service plan was commissioned by GICS.

Regional chemotherapy services

Chemotherapy centres are provided across the region:

- Ballarat: there are public and private centres in Ballarat, provided by Ballarat Health Services, St John of God Ballarat and the Ballarat Oncology and Haematology Service
- Central Grampians: East Grampians Health Service provides a chemotherapy service in Ararat, and Stawell Regional Health provides a service in Stawell
- Western Grampians: Wimmera Health Care Group provides a chemotherapy service and other oncology services in Horsham
- Eastern Grampians: there is a newly-established small chemotherapy centre in Ballan, provided by Ballan District Health & Care.

All of the regional oncologists are based in Ballarat, providing visiting services across the region. Public consultation clinics are provided at Stawell, Ararat, Horsham and Ballarat, with private consultation clinics available at Stawell, Ararat, Horsham, Ballarat and Ballan. Public consultations are also provided at Hamilton, just outside the Grampians regional border with Barwon South West.

Findings

The following findings are based on consultations with service providers and consumers, data analysis and a planning workshop:

- Consumers value access to treatment locally and the opportunity to reduce the burden of travel. They also value the quality of interaction with staff and the quality of care provided
- Chemotherapy centres are well-distributed across the major population centres in the region, although over time it may be necessary to increase capacity in the rapidly-growing eastern part of the region. It would be difficult to establish any new centres with sufficient critical mass, and it is likely that growth in demand could be accommodated in the existing centres in the foreseeable future. It is noted however, that additional staffing and other resources would be needed to expand service delivery in any of the existing centres
- The region can improve coordination and standardisation mechanisms to ensure that all chemotherapy centres are working to the same standards and models of care
- Referral and care pathways between primary care, regional chemotherapy centres and metropolitan highly specialised chemotherapy centres can be improved and there may be opportunities for standardisation. Some enablers to this are a regional approach to portability of patient records, shared care arrangements, and the agreement of telehealth protocols
- Consumers would be better supported if there were better relationships between service providers across the region; between public-sector and private-sector providers; and between regional and metropolitan centres.

Each chemotherapy centre reviewed the Victorian Government's draft capability framework for chemotherapy and haematology services. According to the draft framework, none of the chemotherapy centres in Grampians region operates at the highest level (Level 6), although a number of Ballarat-based centres operate at the next-highest level (Level 5). The draft framework envisages a referral and support role for small rural health services and primary care providers (Level 1); while small health services advised they are keen to deliver this support role, some may need to increase their capabilities in some areas.

Recommendations

Regional service platform

While people can choose which centre they attend for chemotherapy services, it is important that they have options that are as close to home as possible. The large majority of people diagnosed with cancer will appropriately be cared for at their local chemotherapy service provider in Grampians region. Therefore, a regional service platform needs to provide:

- Access (if this is what they choose) by all patients to all chemotherapy centres across the region
- Regional communication about the capacity of each health service to provide chemotherapy services or support
- A regional approach to telehealth, to enable people to access consultations remotely with the support of their general practitioner and/or cancer coordination nurse.

In order to achieve a regional service platform that provides access by all patients to all chemotherapy centres across the region it is recommended that Grampians chemotherapy centres explore opportunities to:

- Develop and adopt an agreed set of chemotherapy nursing core competencies across the region, including a commitment that each chemotherapy-trained nurse will continue to have access to the training and support needed to meet a regional standard of competency
- Develop and adopt a nurse-exchange and allied health-exchange system, where nurses and allied health providers can work in different centres in order to teach and learn. While it is important to provide rotations to Ballarat Health Services for as many nurses and allied health providers as possible, it is also important for clinicians working at Ballarat Health Services to gain experience in the smaller centres if resources can be made available and a regional approach to clinical governance can be agreed
- Make sure that at point of diagnosis or surgery, patients receive information about their options, including capacity to receive copies of all their clinicians' letters, and a patient-held cancer record that will be used by all clinicians in the region
- Expand access to regional cancer coordination nursing roles, possibly jointly funded by participating health services
- Develop and maintain clinical communities of practice that can support clinicians working in smaller centres across the region and provide forums for discussion about models of care, networking and clinical support
- Enhance access to videoconferenced medical consultations, including the patient and their general practitioner and/or cancer coordination nurse
- Discuss regional protocols and pathways for shared care arrangements between consultants and general practitioners and/or physicians in the patient's local community. This could include community health and small rural health services as appropriate.

It is recommended that GICS:

- Create a regional profile of chemotherapy services, so that each health service has information about each others' responsibilities and capabilities.

Support for patients who need to travel to a Level 5 or Level 6 service

A small percentage of people diagnosed with cancer will need to travel for access to appropriate chemotherapy services, either to the regional referral services in Ballarat or to highly-specialised services in Melbourne. The patients' local health service should, with the patient's consent, be included in treatment planning for these people and should have capacity to provide primary health care, supportive care and if necessary palliative care in the patient's local community.

Grampians health services are recommended to explore opportunities to:

- Develop links with nurse managers in metropolitan cancer centres, to support cross-referral for patients to access supportive care services (as appropriate) in their local community
- Work with general practitioners who control the initial referral flows, to encourage them to refer to surgical and oncology services within Grampians region
- Discuss protocols with major metropolitan chemotherapy centres to improve communication about patients whose treatment needs cannot be met in Grampians region, with patients' consent.

Wrap-around services

While this service plan is focussed on chemotherapy services, people going through treatment often need other health and human services supports. Chemotherapy service providers recognise that many people, particularly the increasing numbers of older people in the service system, have co-morbidities and/or physical frailties and need tailored services to maintain their wellbeing as much as possible during treatment. Some people do not have carers, and may need to be linked with local support services to assist them during their treatment.

Grampians health services are recommended to explore opportunities to:

- Include vulnerable patients' primary care providers in multidisciplinary meetings where possible, to make sure that patients' wellbeing needs are met
- Expand the deployment of cancer care coordinators across Grampians region
- Expand access to wellness services across the region
- Build better models for caring for older people receiving chemotherapy treatment.

Changing technologies and treatments

While it is the responsibility of each clinician and centre to keep up to date with changing treatments, there needs to be a regional commitment to:

- Using forums including multi-disciplinary meetings and communities of practice to discuss and debate the implications of new treatments and technologies
- Adopting a regional approach to the training and development needed to upskill staff to deliver new treatments and use new technologies, aligned with the capabilities at each chemotherapy centre
- Ensure, where aligned with each chemotherapy centre's capability profile, that new treatments and technologies are rolled out across the region, so that all patients continue to have access as close to home as possible.

1 INTRODUCTION

Biruu.Health was engaged by Grampians Integrated Cancer Services (GICS) to develop the Grampians Region Chemotherapy Service Plan with the aim of providing GICS and its member organisations with a detailed picture of the current state of the regional chemotherapy service system and its future requirements.

The Chemotherapy Service Plan will provide GICS and its member organisations with a clear picture of how the cancer service system currently operates in the Grampians region, highlight useful intelligence, emphasise key insights, and provide a roadmap of critical enabling factors to ensure the regional chemotherapy service system is maximising its resources and appropriately configured to continue to improve the outcomes for cancer patients in our region.

1.1 Methodology

The service plan recommendations are based on the outcomes of:

- Consultation with service providers, consumers and stakeholders within Grampians region. We are grateful to all the participants for their time and input (Appendix 1). During the consultations, chemotherapy centres were invited to self-assess against the Australian Government's draft chemotherapy capability framework (see Section 1.1.1 below)
- Detailed discussions with the Project Control Group
- A survey of consumers about their knowledge of chemotherapy service locations in their region, and their reasons for attending at their current location (Appendix 3)
- Analysis of data provided by the Victorian Government (Victorian Admitted Episodes Dataset) and the Australian Government (Medicare data)
- A planning workshop attended by consumers and health service providers across Grampians region. Notes of the meeting are provided at Appendix 6.

1.1.1 Draft Capability framework

Department of Health and Human Services authorised GICS to pilot the application of the chemotherapy module of the Australian Government's draft cancer services capability framework. Health service providers were asked to review the draft capability framework, and to advise where their capability lies within the framework. Note that we did not validate health services' self assessments, so cannot advise on the accuracy of their self-assessments.

The draft framework is summarised in Table 1, and is provided in full at Appendix 2. Note that this framework exists only in draft and may be subject to changes that could impact these self-assessments.

Table 1 Draft chemotherapy capability framework, and self-assessment of current chemotherapy centres

Level	Summary of services Provided	Grampians region health service
Six	All high-risk and/or complex protocols. Intensive systemic therapies. Reference centre for all levels of medical oncology and haematological malignancy services	No Level 6 services in Grampians
Five	Diagnosis and treatment for all common malignancies. 24-hour emergency admissions. Relatively high-risk systemic therapies. Can administer initial courses and supervise maintenance courses at Level 3 and 4 medical oncology services. May treat people with low-incidence cancers with Level 6 provider. Provide autologous transplants.	Ballarat Health Services St John of God Hospital Ballarat
Four	Conventional doses of systemic therapy; manage low to medium risk therapy for patients with common conditions and/or low risk of neutropenic sepsis. Can administer first cycle for a limited number of protocols. Visiting oncology clinics. After care for people receiving autologous transplants.	Wimmera Health Care Group

Level	Summary of services Provided	Grampians region health service
Three	Low risk diagnostic, consultation and treatment; common tumour streams; palliative management; referral and management; specialist consultation available via visiting and/or telehealth	East Grampians Health Service Stawell Regional Health Ballan District Health & Care
Two	Supportive care; low risk non-chemotherapy treatments such as mono-clonal antibodies for stable patients	Djerriwarrh Health Service: note this service is likely to join the Western Melbourne Integrated Cancer Service
One	Community-based primary health care service; assessment, management and referral; shared care; local health plan for palliative patients	Small rural health services General practitioners
<i>Part C: Module Medical Oncology / Haematology Cancer Service Capability Framework, Australian Government 2015 (Draft)</i>		
<i>Note: Ballarat Oncology and Haematology Service did not participate in this assessment.</i>		

1.1.2 Project governance

The service plan was managed by a Project Control Group with representatives of Grampians Integrated Cancer Service, Department of Health and Human Services, and Grampians health services.

Table 2 Project control group members

Organisation	Representative name and title
Grampians Integrated Cancer Service	Joanne Gell Strategic Director
	Glenn Reeves Cancer Service Improvement Coordinator
Health Services	Don McRae, Clinical Services Director Wimmera Health Care Group
	Steve Medwell, BRICC Director, Ballarat Health Services
DHHS	Jenny Tunbridge, Manager, Health Service Operations
Contractor	Alison Hallahan, Biruu Health

1.1.3 Notes on the data

The description of demographic and socioeconomic factors in the Grampians Region is derived from publicly available sources including the Australia Bureau of Statistics and the Victorian Department of Health and Human Services, as well as information prepared by Grampians Integrated Cancer Services. Additional data for this document were obtained from several sources, including:

- Publicly available information from the Australian Bureau of Statistics, Victorian Cancer Registry, Department of Health and Human Services, Cancer Council Victoria and BreastScreen
- Victorian Admitted Episodes Dataset (VAED) provided by the Grampians Integrated Cancer Services and Department of Health and Human Services
- Victorian Emergency Minimum Dataset (VEMD) provided by the Department of Health and Human Services
- Victorian Department of Health and Human Services, Modelling, GIS & Planning Products website.

Data analysis in this service plan has been prepared using the following data sets.

Table 3 Data sources

Data type	Data source
Inpatient data	Chemotherapy separations were provided by the Grampians Integrated Cancer Services from the Victorian Admitted Episodes Dataset (VAED) for the years 2011/2012 to 2014/2015, and by the Department of Health and Human Services from the Victorian Admitted Episodes Dataset (VAED) for the years 2011/2012 to 2014/2015 and forecast to 2026/2027.

Data type	Data source
Emergency department data	Data from the Victorian Emergency Minimum Dataset (VEMD) for the years 2011/2012 to 2014/2015 and forecast to 2026/2027 was provided by the Department of Health and Human Services.
Medicare data	Medicare Benefits Schedule data which included claims for MBS items 13915, 13918, 13921, 13924, 13927, 13930, 13933, 13936, 13939, 13942, 13945, 13948, 34521, 34524, 34527, 34528, 34530, 34533, 35404, 35406, 35408, 37610 between 1 July 2012 and 30 June 2015 for Grampians residents was provided by the Department of Human Services, Information Gateway and Governance Branch.
Population	Population projections were sourced from Victoria in Future 2015, developed by the Department of Environment Land Water and Planning, and the Australian Bureau of Statistics.
Health status	Data on the health status of the Grampians Region population was accessed through several sources, including: Victorian Cancer Registry 2014; Victorian Government Health Information, Regional Victoria; Grampians Integrated Cancer Service; Cancer Council Victoria; National Bowel Cancer Screening Program; BreastScreen.

1.2 Policy and planning context

The policy context for this service plan is set by the Victorian Government. The Victorian Government has now developed a legislative framework in the *Improving Cancer Outcomes Act 2014*, which requires the development of a statewide cancer plan every four years. Additional information about the policy and planning context is provided at Appendix 5.

1.2.1 Improving Cancer Outcomes Act 2014 and four-year cancer plan

During 2016/2017 the Victorian Department of Health and Human Services will implement Victoria's new Cancer plan 2016–2020, the first cancer plan developed under the *Improving Cancer Outcomes Act*. The plan articulates objectives and policy priorities for cancer in collaboration with the sector.

1.2.2 Grampians Integrated Cancer Service

The Grampians Integrated Cancer Service was established under *Victoria's cancer action plan 2008-2011*, with a mandate to improve cancer care systems and services in the Grampians region by working in partnership with the community and public and private health service providers. Its mission is to improve patient experiences and outcomes by connecting cancer care and driving best practice.

1.2.3 Roles of Victoria's Regional Cancer Centres

Regional cancer centres have been established across Victoria, under *Victoria's Cancer Action Plan*. Their roles include a maintenance of focus on the delivery of quality cancer care within their own region, while engaging in statewide cancer care improvement initiatives. The regional centres provide the highest level of care within their region, and support other health services to improve access by regional residents to high quality care.

1.2.4 Review of hospital safety and quality assurance in Victoria 2015

Following some clinical governance failures in Victorian public health services, the Victorian Government commissioned a review of hospital safety and quality assurance. The review has not yet been released, but is looking at strengthening clinical governance including a focus on continuous improvement, the role for Government, and increased transparency.

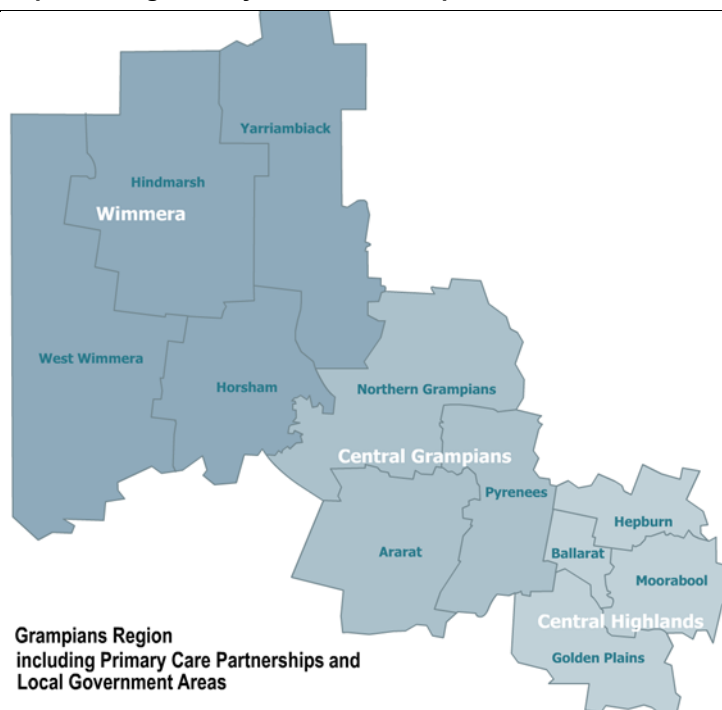
1.2.5 Victorian health services performance monitoring framework 2016

The framework describes the Victorian Government's approach to organising, funding, monitoring and intervening in the provision of health services and programs that meet the needs of Victorian communities. The framework establishes a dialogue between the Department of Health and Human Services and health service providers, in order to align government priorities, plans and budget provisions with health services' delivery strategies and actions to support health service and system performance. This dialogue follows an annual business cycle which includes development of budgets, agreement to Statements of priorities, monitoring and assessment, review and evaluation.

2 ABOUT THE CATCHMENT

The Grampians region is located in the north-west of Victoria and covers 47,980 square kilometres, from the western outskirts of Melbourne to the South Australian border. It is composed of three Primary Care Partnerships: Wimmera, Grampians Pyrenees and Central Highlands.

Figure 1 Grampians map, showing Primary Care Partnerships and Local Government Areas



Source: Department of Health, Victorian Government Health Information, Regional Victoria

The Grampians region is composed of the following Local Government Areas (LGAs):

- Hindmarsh
- Yarriambiack
- West Wimmera
- Horsham
- Northern Grampians
- Ararat
- Pyrenees
- Ballarat
- Hepburn
- Moorabool
- Golden Plains

2.1 Demographic profile

At the 2011 census, the population of the Grampians was estimated at 213,104 people. The population is projected to increase by 1.76 per cent per annum during the period from 2011 to 2031, or 35.19 per cent in total (Table 4). In comparison, the Victorian population is projected to grow by 1.95 per cent per annum or 39 per cent in total during that period.

Table 4 Catchment population projections 2011 to 2031

Local government area	2011	2016	2026	2031	Difference 2011 to 2031	Percentage change 2011 to 2031	Percentage growth per annum
Ararat	11,326	11,299	11,744	11,913	587	5.18%	0.26%
Ballarat	95,192	104,344	127,265	139,650	44,458	46.70%	2.34%
Golden Plains	18,958	21,714	26,488	28,841	9,883	52.13%	2.61%
Hepburn	14,630	15,175	17,082	17,918	3,288	22.48%	1.12%

Local government area	2011	2016	2026	2031	Difference 2011 to 2031	Percentage change 2011 to 2031	Percentage growth per annum
Hindmarsh	5,858	5,497	5,125	4,932	-926	-15.81%	-0.79%
Horsham	19,523	19,886	21,371	22,223	2,701	13.83%	0.69%
Moorabool	28,664	32,420	40,930	45,414	16,749	58.43%	2.92%
Northern Grampians	12,054	11,657	11,410	11,542	-512	-4.25%	-0.21%
Pyrenees	6,757	6,902	7,461	7,739	982	14.53%	0.73%
West Wimmera	4,285	3,933	3,696	3,631	-654	-15.27%	-0.76%
Yarriambiack	7,183	6,674	6,264	6,208	-975	-13.57%	-0.68%
Total Catchment	213,104	228,203	267,092	288,098	74,995	35.19%	1.76%
Victoria	5,537,816	6,053,352	7,147,978	7,701,109	2,163,293	39.06%	1.95%

Source: Victorian population projections, Victoria in Future 2015, Department of Planning & Community Development

The south-eastern areas of the Grampians have growth rates above the state average, while the more rural areas of the region in the north-west (West Wimmera, Hindmarsh, Yarriambiack and Northern Grampians) will experience negative growth.

Three local government areas will experience strong growth:

- Ballarat with a 46.7 per cent increase from 2011 to 2031
- Golden Plains, 52.13 per cent increase, mostly in the Bannockburn area
- Moorabool, 58.43 per cent increase.

2.2 Cancer profile

The Grampians region has a high prevalence of chronic diseases, including mental health, diabetes, cancers, and respiratory system and musculoskeletal system diseases. Additional health obstacles facing the Grampians region include¹:

- Lower life expectancy rates for men compared with women
- High obesity and smoking rates
- High avoidable death rates from conditions including diabetes, cardiovascular disease, cancers and injuries
- High self reported rates of fair or poor health and disability
- High rates of pancreatic cancer
- The highest rates of colorectal cancer in Australia and high rates of prostate cancer
- In some areas including the LGAs of Horsham, Northern Grampians, West Wimmera and Yarriambiack, communities' health literacy² has been found to be low relative to other Victorian LGAs.

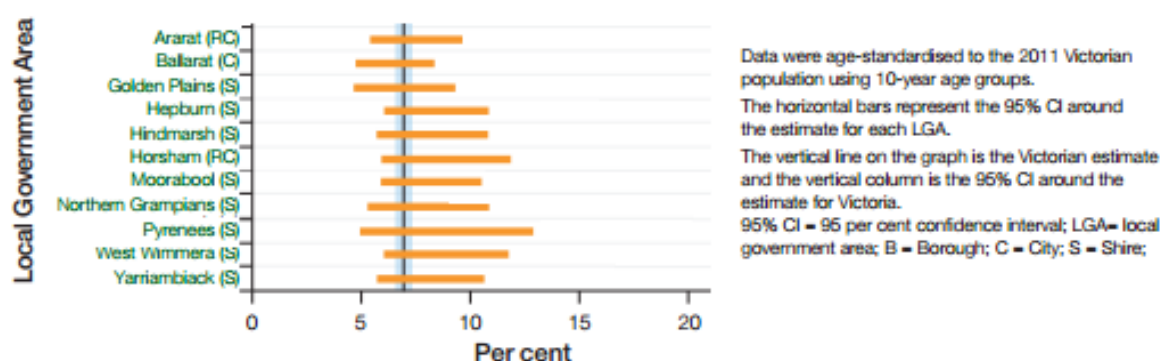
¹ Data on the health status of the Grampians Region population was accessed through several sources, including: Victorian Cancer Registry 2014; Victorian Government Health Information, Regional Victoria; Grampians Integrated Cancer Service; Cancer Council Victoria; National Bowel Cancer Screening Program; BreastScreen

² Ophelia Grampians – Optimising Health Literacy and Access to Cancer Care in the Grampians. Final Report. Deakin University, Melbourne 2016.

2.2.1 Prevalence

In the 2011-2012 period the Grampians had a cancer prevalence of 7.1 per cent³, while rural Victoria had a prevalence of 7.2 per cent and the Victorian average was seven per cent. Within the Grampians region, the south-eastern areas of Ballarat and Golden Plains had the lowest prevalence of cancer with 6.3 per cent and 6.6 per cent respectively. Figure 2 demonstrates that with the exceptions of Ballarat and Golden Plains, all Local Government Areas within the Grampians region have a higher prevalence of cancer than the Victorian average. West Wimmera and Horsham had the highest incidences at 8.5 per cent and 8.4 per cent respectively.

Figure 2 Prevalence of cancer by LGA, Victoria, 2011-2012

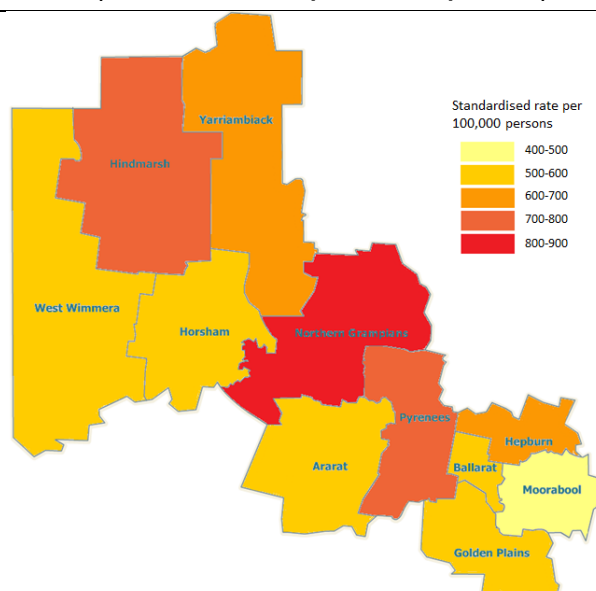


Source: Victorian population health survey 2011-12: Selected findings – 5. Self-reported health and selected chronic diseases, Department of Health

2.2.2 Incidence

The incidence of cancer in the Grampians varies across the region. Figure 3 shows the standardised rate of cancer incidence per 100,000 persons in a one year period. In 2014, there were 146 people in Moorabool newly diagnosed with cancer in a population of 30,926 (0.47 per cent) whilst in the Northern Grampians there were 102 people newly diagnosed with cancer in a population of 11,719 (0.87 per cent).

Figure 3 Map of Cancer Incidence (standardised rate per 100,000 persons) in the Grampians region in 2014

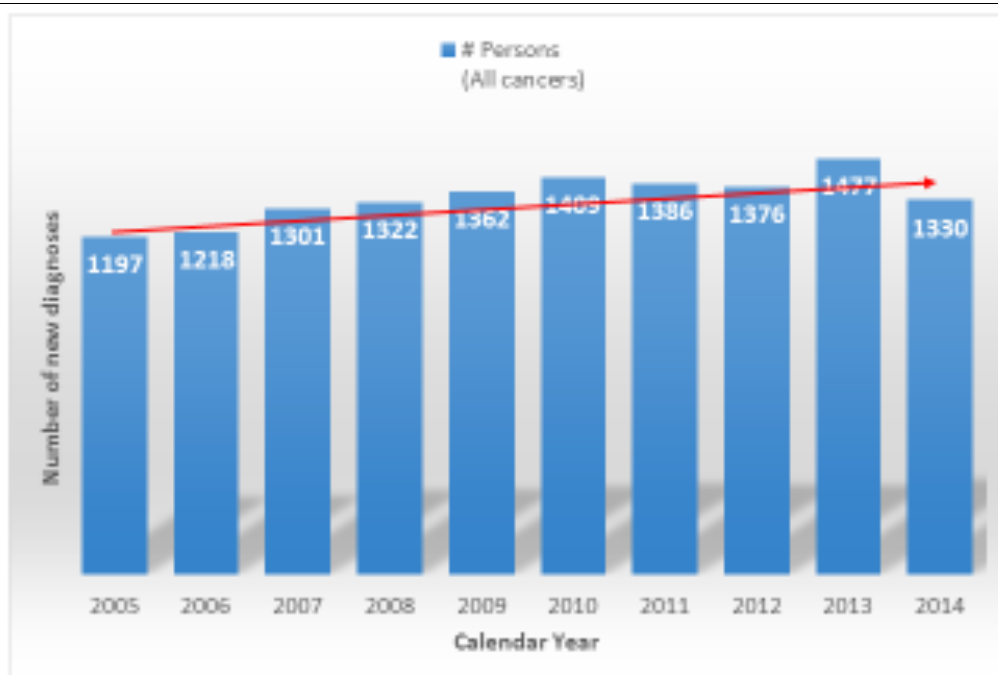


Source: Victorian Cancer Registry, 2014 and Department of Health, Victorian Government Health Information, Regional Victoria

³ Victorian population health survey 2011-12: Selected findings – 5. Self-reported health and selected chronic diseases, Department of Health. (Calculated by estimating a proportion of a population that experiences a specific event during a specified period of time (not specified), age standardised using 10-year age groups.)

Figure 4 below shows that the incidence of cancer in the Grampians region is increasing. The number of new diagnoses has risen from 1197 in 2005 to 1477 in 2013. While incidence dropped slightly in 2014, it is unclear if this decrease has been sustained.

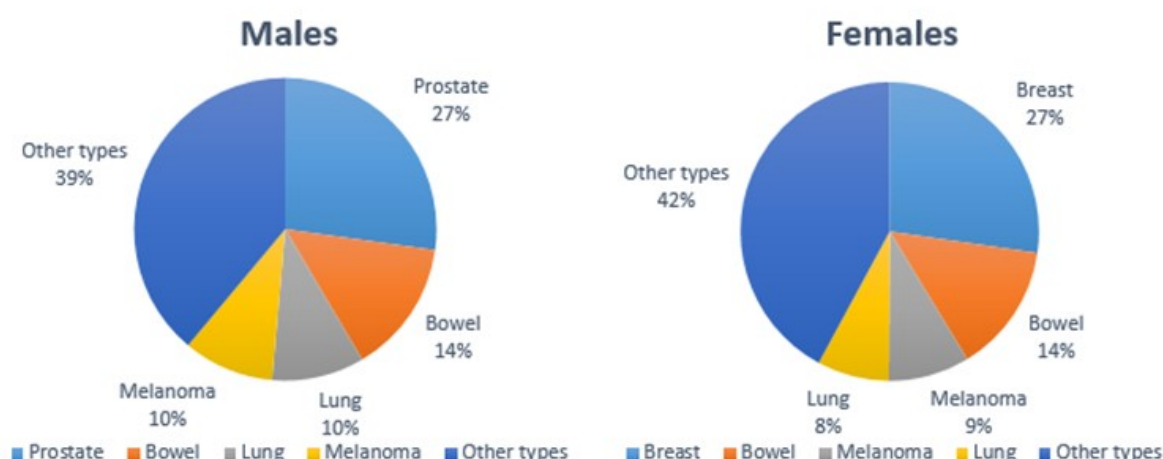
Figure 4 Incidence of all cancer types (except common skin, in situ and benign cancers) in the Grampians by year



Source: Grampians Integrated Cancer Service

The incidence of cancer is higher in males than females in the Grampians region, with men accounting for 55 per cent of annual new diagnoses. Men average 760 new diagnoses of cancer per year in the Grampians, with the most common cancer type being Prostate Cancer. Women average 612 new diagnoses of cancer per year, with Breast Cancer comprising 27 per cent of all cancer types.

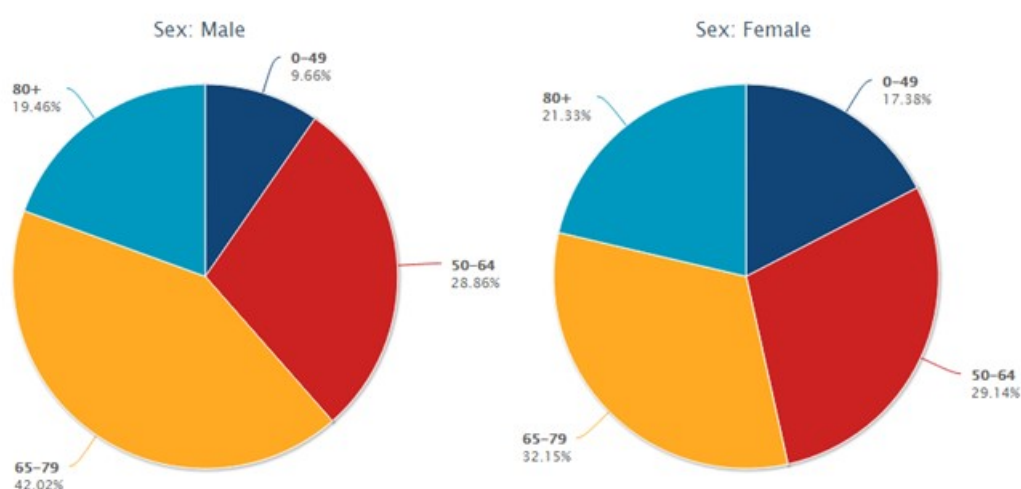
Figure 5 Proportion of cancers in males and females in the Grampians



Source: Cancer Council Victoria, Victorian Cancer Registry, Grampians region

Within the Grampians region, persons aged over 65 comprise 58 per cent of annual new diagnoses cancer. Figure 6 demonstrates that men are more likely to be diagnosed in this age group, with 61.48 per cent of men newly diagnosed after the age of 65 (versus 53.48 per cent in women). Women are more likely to be diagnosed earlier, with 17.38 per cent of cases diagnosed before the age of 50, as opposed to 9.66 per cent in men.

Figure 6 Annual cases of Cancer in the Grampians region by age group and sex from 2010-2015



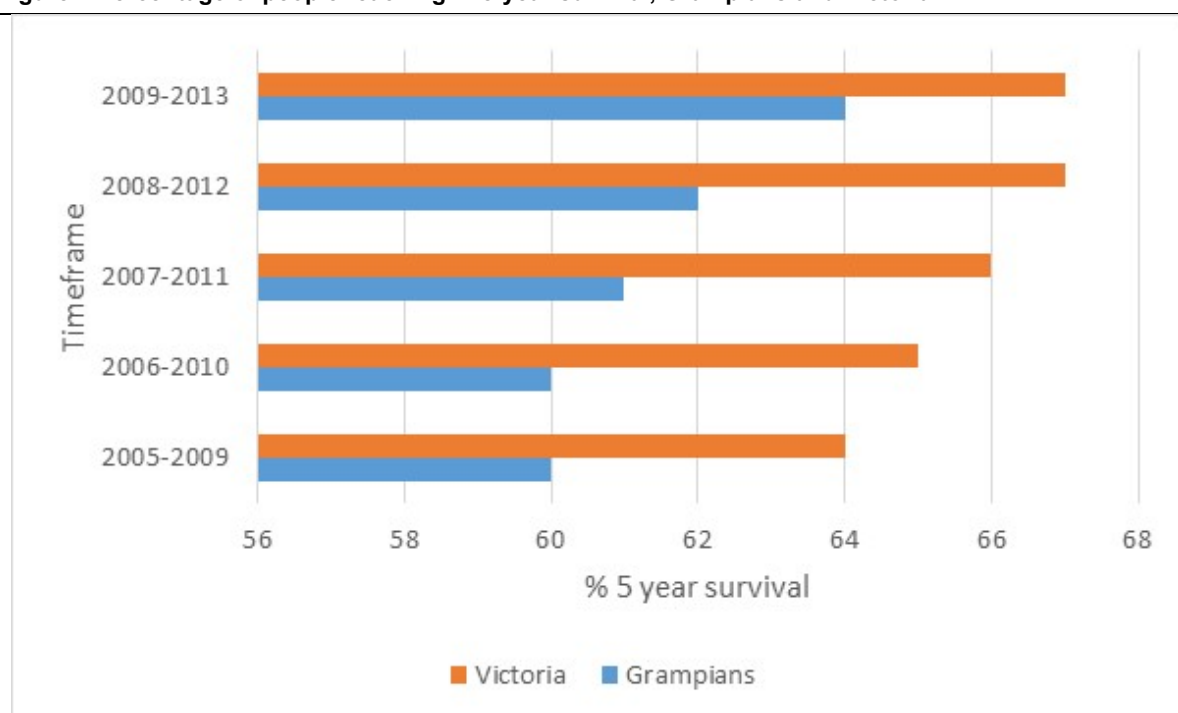
Source: Cancer Council Victoria, Victorian Cancer Registry, Grampians region

The most common form of cancer in the Grampians region is bowel cancer, with an average of 198 cases per year during the five year period 2010-2015, followed by prostate cancer (192 cases per annum) and breast cancer (170 cases per annum). The Grampians Medicare Local was ranked number one in Australia in 2013 for rates of avoidable death due to colorectal cancer: the Grampians has a rate of 13.9 deaths per 100,000 persons while the rates for Victoria and Australia are 11.3 and 10.9 respectively.

2.2.3 Five-year survival

While Grampians region five year survivorship rates are improving, they are still behind the state average (Figure 7).

Figure 7 Percentage of people reaching five-year survival, Grampians and Victoria



Source: Grampians Integrated Cancer Service

3 ACCESS TO CHEMOTHERAPY SERVICES ACROSS THE GRAMPIANS REGION

The largest and highest-level services are provided by Ballarat Health Services, St John of God Hospital Ballarat, Ballarat Oncology and Haematology Service and Wimmera Health Care Group, Horsham. Services are provided by Ballan District Health & Care, East Grampians Health Service and Stawell Regional Health. This network of services provides a platform for the delivery of public and private chemotherapy services across the region.

Figure 8 Current chemotherapy locations and levels

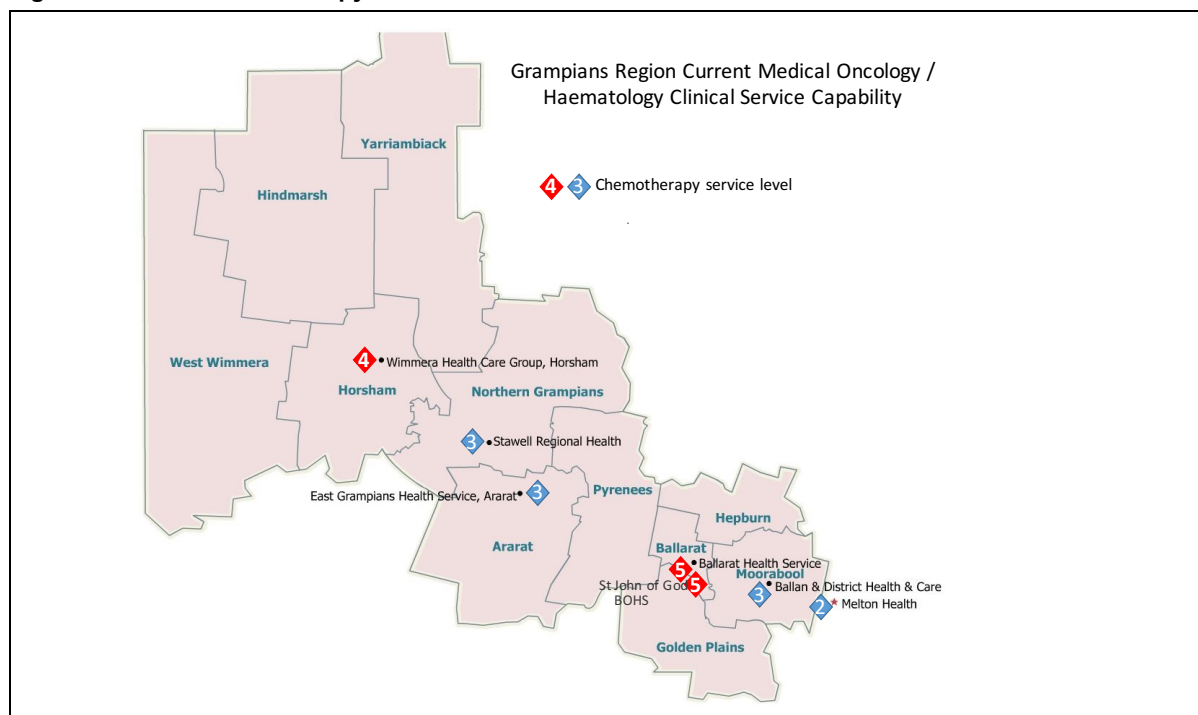


Table 5 provides a comparison of the seven chemotherapy centres located in Grampians region. We have treated as a “chemotherapy centre” any health service where there is an ongoing chemotherapy unit. Each of these centres is located within a hospital, apart from the Ballarat Oncology and Haematology Service which operates a stand-alone day medical service. Oncologists and haematologists from Ballarat Health Services, Ballarat Cancer Care and Ballarat Oncology and Haematology provide visiting consultations to chemotherapy centres across the region.

Note that while most of the chemotherapy centres are assigned a Level within the draft capability framework, this is based on high-level self-assessments by the health services, and these self-assessments have not been validated.

Table 5 Description of chemotherapy centres in Grampians region

Chemotherapy Centre / Level	Number of chairs / beds	Consultants	Medical trainees	Nursing	Allied health
Ballarat Health Services / Level 5	16 chairs 3 beds Monday to Friday	Four full-time oncologists Five visiting oncologists Five visiting haematologists	Advanced medical oncology trainee Basic medical trainee Oncology fellow Advanced palliative care registrar	Nurse Unit Manager Specialist oncology nurses Clinical Nurse Educator	Dietetics Occupational therapy Physiotherapy Exercise physiology Psychology Social work Speech therapy

Chemotherapy Centre / Level	Number of chairs / beds	Consultants	Medical trainees	Nursing	Allied health
St John of God Hospital Ballarat / Level 5	10 chairs 1 bed Monday to Friday	Six visiting		Nurse unit manager Specialist Oncology nurses Clinical Nurse Educator	Pastoral Care Cancer/Palliative Care Co-ordinator Wound Care and Stomal Therapy Dietitian Pharmacist Physiotherapy Continence Nurse Speech Pathology
Wimmera Health Care Group / Level 4	7 chairs 2 beds Monday to Friday	1 visiting from BHS 1 visiting from BOHS	Access to junior medical officers	Nurse Practitioner. 3 specialist oncology nurses	Dietitian Physiotherapy Physiotherapy Stomal therapy Social work
Stawell Regional Health / Level 3	11 chairs Tuesday to Thursday	1 visiting from BHS 2 visiting from BOHS		Nurse Practitioner Chemo-trained nurses	Oncology rehabilitation program
East Grampians Health Service / Level 3	8 chairs Wednesdays	1 visiting from BHS		Nurse practitioner Four chemo-trained nurses	Dietitian Exercise physiology Physiotherapy Stomal therapy Social work
Ballan District Health & Care / Level 3	3 chairs one day per week	1 visiting from BHS 1 visiting from Ballarat Cancer Care (private practice)		2 chemo-trained nurse positions (one vacant)	Dietitian Exercise physiology Occupational therapy Counselling
Ballarat Oncology and Haematology Services / Level not known	20 chairs Monday to Friday	Two full time Four visiting		Clinical Trials Research Nurse Others not known	Not known

Note that “chemotherapy-trained nurses” are registered nurses who have completed Antineoplastic Drug Administration Course modules 1 to 8, as administered by EviQ (Cancer Treatments Online). In Grampians region, they are working in Level 2 and Level 3 services where it is not possible to recruit specialist oncology nurses. The ADAC training framework is summarised in Appendix 7.

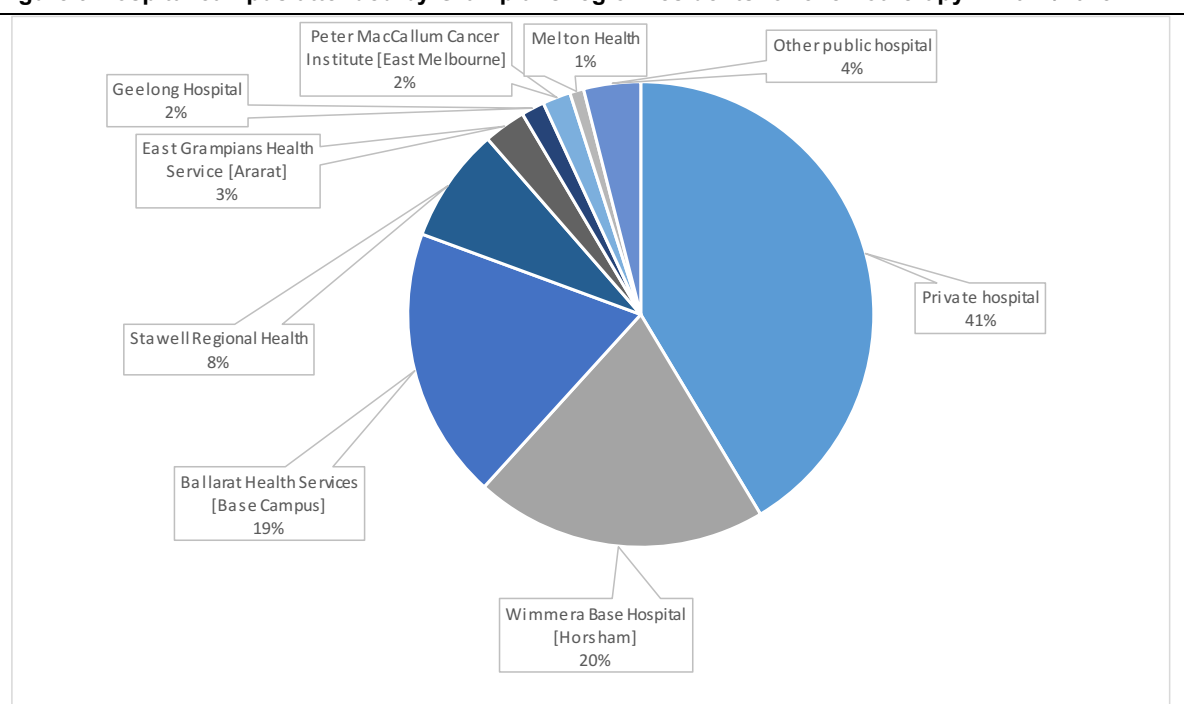
3.1 Access to services

In Appendix 4 we have provided a detailed analysis of chemotherapy service delivery in Grampians region. We have provided data on:

- Admitted episodes of chemotherapy care provided to Grampians residents in public hospitals and private hospitals. Public hospitals are named, but private hospitals are grouped and are not identifiable. Admitted episodes are counted as “separations”
- Non-admitted episodes of chemotherapy care provided to Grampians residents, which are funded by and reported to the Medicare Benefits Schedule. These may include episodes of care provided at non-hospital private medical centres, as well as non-admitted chemotherapy clinics operated in public and private hospitals.

Figure 9 shows where Grampians residents went for chemotherapy in 2014/2015, by hospital campus.

Figure 9 Hospital campus attended by Grampians region residents for chemotherapy in 2014/2015



Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

Note: we cannot separate different private hospitals in the VAED.

Last year 10,948 chemotherapy separations were provided to Grampians residents, of which 58.6 per cent were delivered in a public hospital and 41.4 per cent were delivered in a private hospital. Of the public hospitals, Wimmera Base Hospital [Horsham] provided 20.3 per cent of chemotherapy separations to Grampians residents followed by 18.9 per cent provided by Ballarat Health Services [Base Campus] (Table 6). Forecasts provided by the Department of Health and Human Services indicate there is likely to be a strong growth in demand for chemotherapy services.

Table 6 Hospital campus attended by Grampians residents for chemotherapy separations 2013/2014 to 2014/2015 historical (number and percentage of total) and forecast to 2026/2027

Campus name	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
Private hospital*	5,088 (45%)	4,534 (41%)	5,305	6,045	7,565	3,031	66.9%
Wimmera Base Hospital [Horsham]	2,000 (18%)	2,224 (20%)	2,576	2,848	3,346	1,122	50.4%
Ballarat Health Services [Base Campus]^	2,102 (18%)	2,067 (19%)	2,489	2,761	3,283	1,216	58.8%
Stawell Regional Health	870 (8%)	874 (8%)	1,000	1,125	1,300	426	48.8%
East Grampians Health Service [Ararat]	364 (3%)	321 (3%)	327	363	424	103	32.0%
Geelong Hospital	291 (3%)	176 (2%)	262	298	347	171	96.9%
Peter MacCallum Cancer Institute [East Melbourne]	145	213	196	213	250	37	17.2%
Melton Health	94	106	143	179	247	141	133.3%
Alfred, The [Pahran]	36	76	69	80	100	24	31.6%

Campus name	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
Western Hospital [Footscray]	76	46	55	63	81	35	75.4%
Royal Melbourne Hospital - City Campus	69	41	49	50	56	15	35.4%
Royal Children's Hospital [Parkville]	44	39	50	56	68	29	74.1%
Austin Hospital	21	47	46	50	54	7	15.9%
Other hospital campus	167	184	203	234	278	94	51.0%
Total	11,367	10,948	12,771	14,364	17,397	6,449	58.9%
<i>Total public</i>	<i>6,279 (55%)</i>	<i>6,414 (59%)</i>	<i>7,466</i>	<i>8,319</i>	<i>9,832</i>	<i>3,418</i>	<i>53.3%</i>
<i>Total private</i>	<i>5,088 (45%)</i>	<i>4,534 (41%)</i>	<i>5,305</i>	<i>6,045</i>	<i>7,565</i>	<i>3,031</i>	<i>66.9%</i>

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

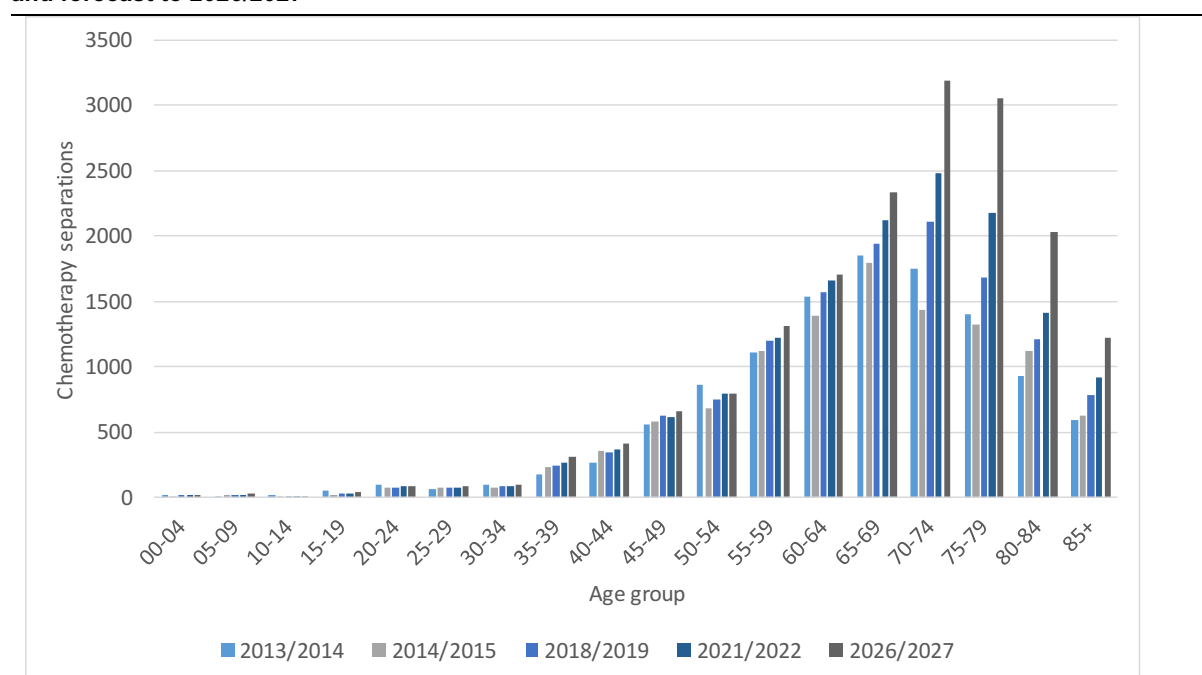
*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

^ Ballarat Health Services advises they provided 3,333 occasions of chemotherapy service during 2015/2016, 34% more than was forecast for 2018/2019

In 2014/2015, 57.6 per cent of chemotherapy separations were from people aged 65 years and older, 23.0 per cent were from people aged 55 to 64 years of age, 17.0 per cent from people aged 35 to 54 years of age and 2.4 per cent were from people aged 34 years and under.

By 2026/2027, 68.0 per cent of all chemotherapy separations are forecast to be provided to people aged 65 and over. Figure 10 shows how chemotherapy separations are forecast to increasingly be provided for older people, many of whom may be living in residential aged care services or receiving aged care at home.

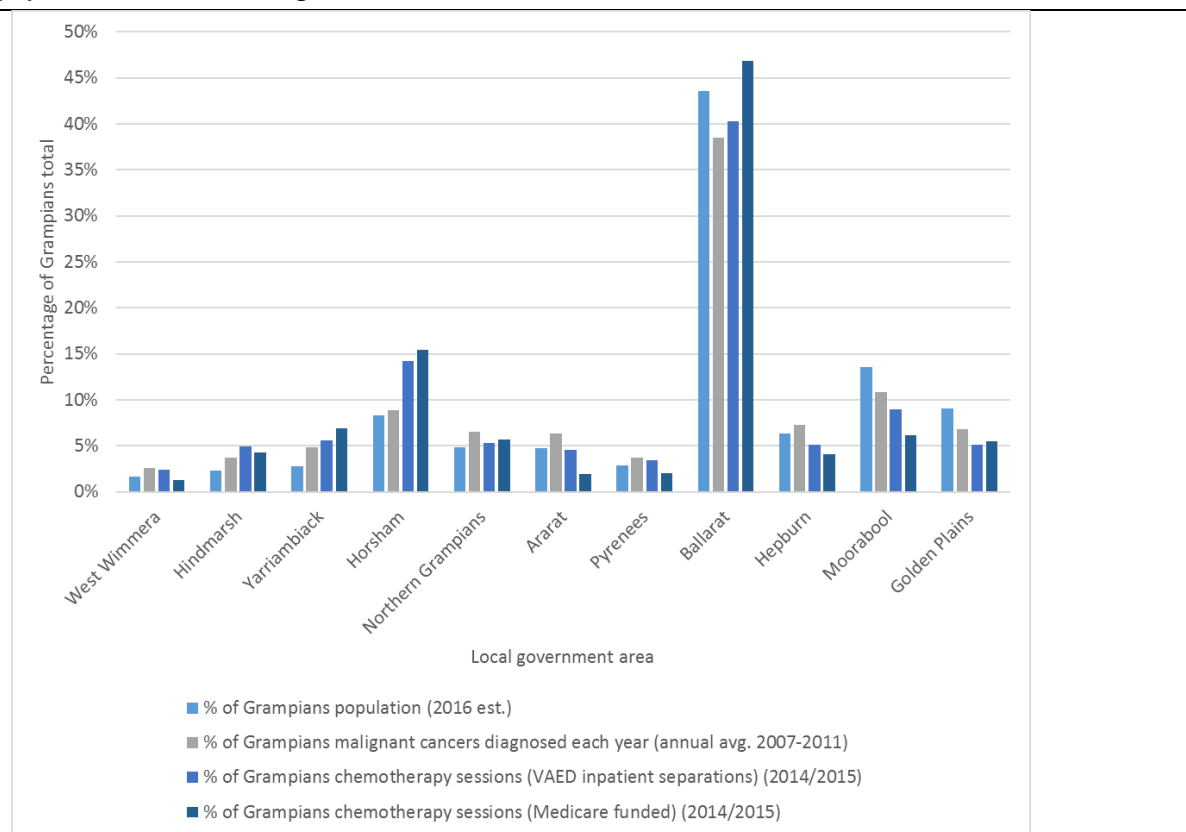
Figure 10 5-year age group of chemotherapy separations by Grampians region residents in 2014/2015 and forecast to 2026/2027



Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

In order to understand access to chemotherapy services across the Grampians region, we compared for each local government area the percentages of its population, cancer diagnoses, and publicly-funded and privately-funded chemotherapy services. Figure 11 demonstrates that residents in Horsham seem to have higher levels of access to chemotherapy services, while residents of Moorabool, Golden Plains and Ararat seem to have lower levels of access to chemotherapy services.

Figure 11 Proportion of chemotherapy sessions compared with percentage of Grampians Region population and cancer diagnoses



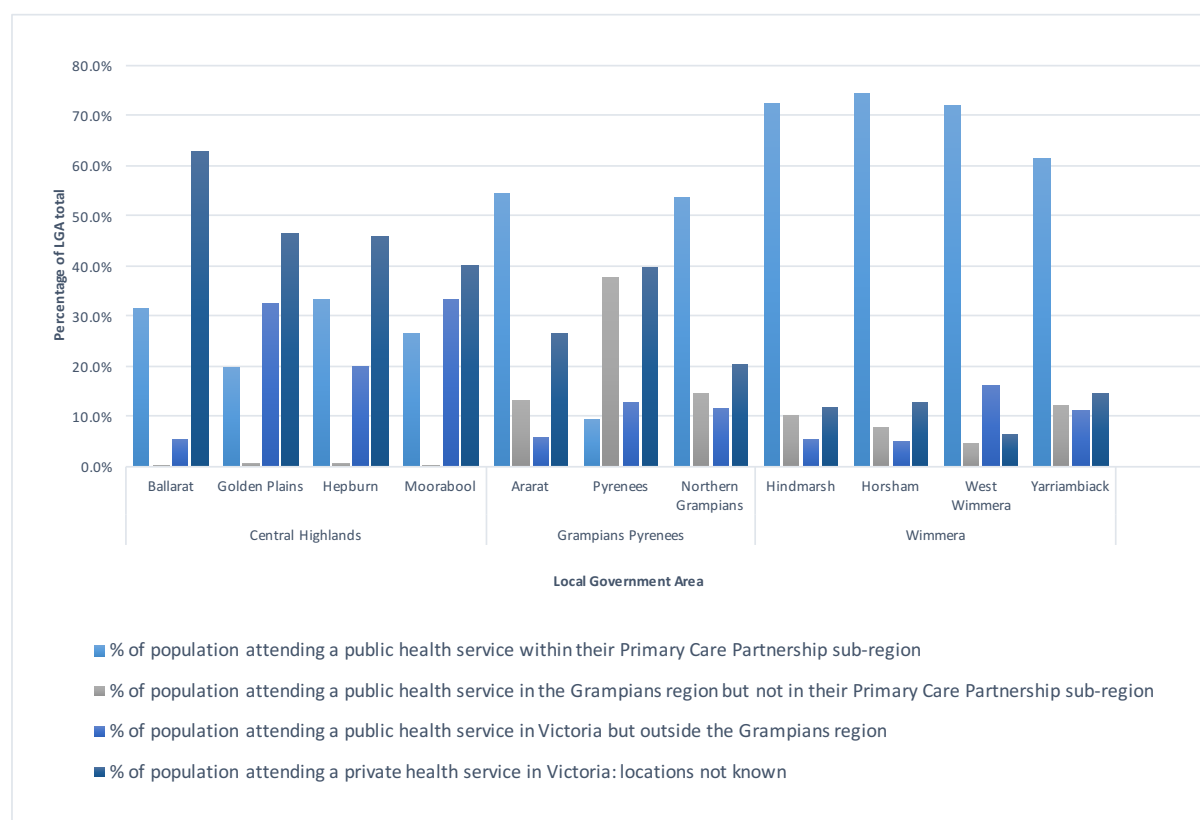
Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

Across the Grampians region, patterns of access to sub-regional, regional, extra-regional and private chemotherapy services are very different. Figure 12 demonstrates that:

- People living in the Central Highlands Primary Care Partnership catchment are much more likely than residents in other Primary Care Partnership catchments to access chemotherapy services in the private sector. People accessing public-sector chemotherapy services are likely to be admitted to a public health service within their Primary Care Partnership catchment, or outside Grampians region. This reflects the proximity of this catchment to the western Melbourne region
- People living in the Grampians Pyrenees Primary Care Partnership catchment have good access to private and public services, while they are the most likely to travel outside their Primary Care Partnership catchment to access public chemotherapy centres in other sub-regions within the Grampians region. This reflects the proximity particularly of Pyrenees Shire to Ballarat
- People living in the Wimmera Primary Care Partnership catchment are the most likely to access a public health service within their Primary Care Partnership catchment.

It is notable that more than ten per cent of chemotherapy separations provided to people living in the westernmost Shires of Northern Grampians, Pyrenees, West Wimmera and Yarriambiack were provided by health services outside Grampians region, mostly by tertiary hospitals in Melbourne.

Figure 12 Sub-regional access to chemotherapy services



Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

4 CONSULTATION

During interviews, consumers, clinicians and managers were asked about access to chemotherapy services across the region, existing pathways and services and opportunities for improvement. Existing chemotherapy service providers were also asked to review their level of service against the draft Medical Oncology/Haematology Cancer Service Capability Framework, which was released to us by the Victorian Department of Health and Human Services as a test of its effectiveness and relevance. This chapter summarises the themes and issues raised by interviewees.

4.1 Consumer perspectives

Consumers reported that services close to home are very important, for several compelling reasons:

- People can stay at home during their treatment, and don't need to relocate to a larger centre during treatment, losing contact with friends and family and jeopardising their employment
- Some people aren't prepared to relocate for treatment, and there is a risk they would refuse to start treatment or might terminate their treatment early
- It is much easier for patients to bring a family member or other support person (companions) if they are receiving treatment within their own community
- It is much easier for patients to take advantage of supportive care and wellness services if all of these services are available locally and in the same location as their oncology care
- Access to transport can be a real issue, and some people can't afford to pay for accommodation while they are accessing treatment.

The quality of the surroundings also matters. Consumers want space so that their companions can sit with them during treatment. They want a view outside the treatment room. They want a focus on them as a whole person (a "wellness" focus), recognising that they are at the chemotherapy service for lengthy periods and in many cases on many occasions. They want the surroundings to be relaxing, and designed so they can find some privacy within the centres. They are aware that their companions are also there for lengthy periods, and want them to be welcomed and supported as well. They want access to television, books, a kitchen and some space that is not associated with the treatment area.

Some people continue to work throughout their cancer treatment, and would appreciate access to a generic workspace while they are in the chemotherapy unit.

Consumers appreciate being treated as individuals, and wanted to recognise the commitment and quality of the medical and nursing workforce in the region. One person said, "I always feel that they put the patient first".

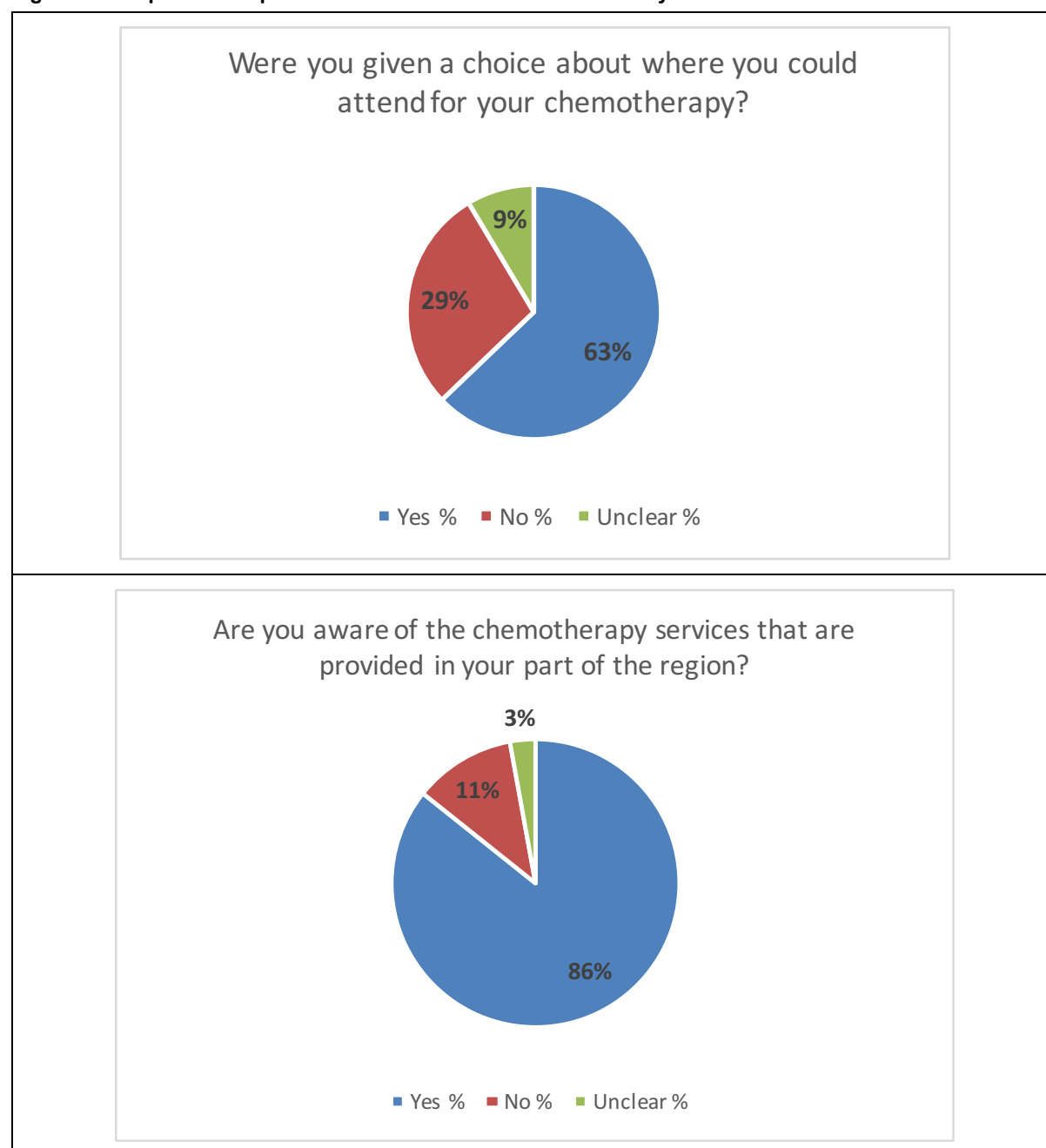
4.1.1 Consumer survey

In addition to direct consultation with consumers, during a one-week period the chemotherapy centres invited consumers to respond to a brief survey about their knowledge of chemotherapy services and the factors that influenced their choices. We received responses from Ballarat Health Service, East Grampians Health Service, Stawell Regional Health, and Wimmera Health Care Group.

The survey included the following three questions:

- Were you given a choice about where you could attend for your chemotherapy: 63 per cent of respondents answered yes to this question
- Are you aware of the chemotherapy services that are provided in your part of the region: 86 per cent of respondents answered yes to this question
- Why have you chosen to come to this service?

Figure 13 Responses to questions 1 and 2 in the consumer survey



In response to question 3, consumers provided responses that clustered into five major groups. Table 7 demonstrates that most consumers mentioned the convenience of location as at least one of the reasons why they attend the particular chemotherapy centre. All responses are provided in Appendix 3.

Table 7 Responses to question 3 in the consumer survey: “Why have you chosen to come to this service?”

	Best service	Location	Doctor	Staff	Staff/Service
Number of responses	18	42	13	20	30
Total number of responses	70	70	70	70	70
Percentage	26%	60%	19%	29%	43%

4.2 Draft capability framework

Service providers felt that the draft capability framework provided several advantages:

- It establishes a designated role for primary care service providers (Level 1) as part of the regional chemotherapy and haematology service system, and provides information for higher-level service providers about what primary care services should be expected to offer and how to work with them
- It clarifies expectations for health services providing chemotherapy and haematology services, so they can be confident they have the capability to provide a safe and appropriate service
- It will provide a reference point for health services to negotiate with visiting medical officers, pathology and pharmacy providers and staff about the level of service necessary to meet the hospital's capability requirements
- It establishes a role of Level 5 and Level 6 services at a regional level, in supporting other chemotherapy service providers with advice, consultancy and clinical supervision.

Each health service performed a rapid self-assessment against the relevant section within the framework, although it was noted that if the framework is to be formally adopted it would be useful for health services to confirm their status by undertaking an audit of their performance against each capability dimension.

Note that the capability framework exists only in draft and may be subject to changes in future.

4.3 Regional pathways and approaches

The first practice to provide services across the region was Ballarat Oncology and Haematology Services, which established chemotherapy centres at Wimmera Health Care Group Horsham, East Grampians Health Service and Stawell Regional Health. Since 2015 both public-sector and private-sector consultants have visited across the region, but each hospital has given admission rights to only a sub-set of the oncologists.

Almost all pharmacy services are provided by Slade Health, which manufactures and delivers chemotherapy agents across the region. Ballarat Health Services has the necessary infrastructure and space for a compounding facility, which is most valuable to prepare drugs with a very short half-life, however this is yet to be implemented within the region. Therefore, some procedures that require drugs with a short half-life cannot be provided in the Grampians region.

Each chemotherapy unit uses the treatment protocols and nurse training modules published by the Cancer Institute NSW⁴, called EviQ.

4.3.1 Regional information system

The different public and private health services use different information and communications technology systems. Some respondents felt that a uniform system would benefit the region, as health services could combine to provide multi-campus treatment regimens and patients would be spared the need to maintain their medical information in different locations. Several clinicians mentioned cases where patients' appointments were duplicated at different health services. Some health services are still using paper-based systems, and would like to upgrade to a region-wide electronic system if that is possible.

Bossnet is currently being rolled out across the region, and this will provide an interface into which information will flow from the different oncology management systems.

However, some respondents felt that the task of unifying systems across the region would be onerous, and may not deliver sufficient benefits to justify the time and expense. One issue would be whether a chosen region-wide oncology system would integrate with each health service's other systems. Note as well that the patient management system used by St John of God Hospital is linked with its Western Australian administrative base.

⁴ <<https://www.eviq.org.au/>>

4.4 Access to clinical trials

Grampians residents seeking local access to clinical trials currently have two main options:

- The Ballarat Oncology and Haematology Service operates a clinical trials unit which at time of writing is engaged in 21 clinical trials⁵, funded by Cancer Australia and the Victorian Cancer Council
- Ballarat Health Services currently provides support for eight clinical trials and small numbers of patients are enrolled locally. Over time Ballarat Health Services may seek to become a satellite site for clinical trials offered by other tertiary providers.

4.5 General practitioners

The capability framework and optimal care pathways envisage a “shared care” model for general practitioners within the chemotherapy service system.

General practitioners said they see themselves as coordinators of clinical care; particularly for people who have co-morbid conditions and who may experience poor outcomes if other treatment regimens are disrupted, and/or if treatments are in conflict. They believe patients would benefit from a general practice appointment early in their treatment process, to review other conditions and treatments, to discuss how to manage their co-morbidities and to establish processes for information flow and support. General practitioners commented that patients who were well-managing chronic conditions such as diabetes often experienced exacerbations during their chemotherapy treatment, and that an inappropriate clinical response could destabilise them in the long term. Feedback from consultants is important for continuity of care.

4.6 Small rural health services

Small health services not currently providing chemotherapy were invited to participate in the consultation process. The health services that participated in the consultation process agreed that they provided Level 1 services (according to the draft capability framework; their self-assessments have not been validated). They appreciated that the framework would clarify their role in supporting local people who are receiving chemotherapy in other locations. They were keen to reduce the pressure on the regional and sub-regional health services, and to provide appropriate information, referral and support services for people living in their catchment communities.

4.7 New locations for services

While it is desirable for people to have access to services as close to home as possible, the resources needed to support a wider distribution of services across Grampians region may not be readily available. In particular it is noted that:

- Most of the medical oncologists travel from Ballarat to provide consultancy services across the region and it would be difficult for them to provide consultancy services beyond Horsham
- There is forecast high population growth at the peri-urban eastern end of the region, and Ballan District Health & Care has established a small chemotherapy service to respond to that demand. Djerriwarrh Health Service has a chemotherapy service at its Melton Health campus, but indicates it is not likely to create any new oncology services in the foreseeable future. Djerriwarrh Health is likely to partner with Western Melbourne Integrated Cancer Service and Western Health in relation to cancer service planning and delivery.

⁵ Ballarat Oncology and Haematology Service. < <http://www.ballaratoncology.com.au/clinical-trials-unit.php> >

5 PLANNING PRINCIPLES & RECOMMENDATIONS

In response to the issues raised in consultation and the data indicating a strong and growing demand for chemotherapy services across Grampians region, a planning workshop (24 June 2016 in Ararat) determined there are a number of key challenges to be addressed by the service plan. It is recommended that GICS establish a working group that includes representatives from all chemotherapy service provider sectors, and seek agreement from all health services (public and private) in Grampians region to work together to achieve these proposed common aspirations:

- That the network of chemotherapy centres in Grampians region is able to provide access as close to home as is safely possible for the majority of people whose needs can be met by a Level 3 centre
- That the minority of patients who will need to travel to the Level 5 service in Ballarat or to a Level 6 service in Melbourne for treatment are better supported by their local health services
- Better-coordinated supportive care and non-clinical support service systems, particularly for older people whose needs may be complex
- A regional chemotherapy service system that is robust and flexible to respond to changing technologies and new treatment regimens.

Each of these issues is discussed in turn, and recommendations are linked with the discussion.

5.1 Regional service platform

While people can choose which centre they attend for chemotherapy services, it is important that they have options that are as close to home as possible. The large majority of people diagnosed with cancer will appropriately be cared for at their local Level 3, Level 4 or Level 5 (according to the draft framework) chemotherapy service provider in Grampians region. Therefore, a regional service platform needs to provide:

- Access (if this is what they choose) by all patients to all chemotherapy centres across the region
- Regional communication about the capacity of each health service to provide chemotherapy services or support
- A region-wide approach to recruiting, developing and retaining medical, nursing and allied health staff for the chemotherapy service system
- A regional approach to telehealth, to enable people to access consultations remotely with the support of their general practitioner and/or cancer coordination nurse.

5.1.1 Recommendations

In order to achieve a regional service platform that provides access by all patients to all chemotherapy centres across the region it is recommended that Grampians chemotherapy centres explore opportunities to:

- Develop and adopt an agreed set of chemotherapy nursing core competencies across the region, including a commitment that each chemotherapy-trained nurse will continue to have access to the training and support needed to meet a regional standard of competency
- Develop and adopt a nurse-exchange and allied health-exchange system, where nurses and allied health providers can work in different centres in order to teach and learn. While it is important to provide rotations to Ballarat Health Services for as many nurses and allied health providers as possible, it is also important for clinicians working at Ballarat Health Services to gain experience in the smaller centres if resources can be made available and a regional approach to clinical governance can be agreed
- Make sure that at point of diagnosis or surgery, patients receive information about their options, including capacity to receive copies of all their clinicians' letters, and a patient-held cancer record that will be used by all clinicians in the region
- Expand access to regional cancer coordination nursing roles, possibly jointly funded by participating health services

- Develop and maintain clinical communities of practice that can support clinicians working in smaller centres across the region and provide forums for discussion about models of care, networking and clinical support
- Enhance access to videoconferenced medical consultations, including the patient and their general practitioner and/or cancer coordination nurse
- Discuss regional protocols and pathways for shared care arrangements between consultants and general practitioners and/or physicians in the patient's local community. This could include community health and small rural health services as appropriate.

It is recommended that GICS:

- Create a regional profile of chemotherapy services, so that each health service knows what is the responsibilities and capabilities of each other health service.

5.2 Support for patients who need to travel to a Level 5 or Level 6 service

A small percentage of people diagnosed with cancer will need to travel for access to appropriate chemotherapy services, either to the Level 5 (according to the draft framework) services in Ballarat or to Level 6 (according to the draft framework) and highly-specialised services in Melbourne. The patients' local health service should, with the patient's consent, be included in treatment planning for these people and should have capacity to provide primary health care, supportive care and if necessary palliative care in the patient's local community.

5.2.1 Recommendations

Grampians health services are recommended to:

- Develop links with nurse managers in metropolitan cancer centres, to support cross-referral for patients to access supportive care services (as appropriate) in their local community
- Work with general practitioners who control the initial referral flows, to encourage them to refer to surgical and oncology services within Grampians region
- Agree protocols with major metropolitan chemotherapy centres to improve communication about patients whose treatment needs cannot be met in Grampians region, with patients' consent.

5.3 Wrap-around services

While this service plan is focussed on chemotherapy services, people going through treatment often need other health and human services supports. Chemotherapy service providers recognise that many people, particularly the increasing numbers of older people in the service system, have co-morbidities and/or physical frailties and need tailored services to maintain their wellbeing as much as possible during treatment. Some people do not have carers, and may need to be linked with local support services to assist them during their treatment.

Increased involvement of primary care providers, community health and small rural health services in the chemotherapy service network will provide increased opportunities to identify patients' health and wellbeing needs and to assemble the resources to meet them. Cancer care coordinators would provide a useful adjunct to the service system

5.3.1 Recommendations

Grampians health services are recommended to:

- Include vulnerable patients' primary care providers in multidisciplinary meetings where possible, to make sure that patients' wellbeing needs are met
- Expand the deployment of cancer care coordinators across Grampians region
- Expand access to wellness services across the region
- Build better models for caring for older people receiving chemotherapy treatment.

5.4 Changing technologies and treatments

Grampians regional chemotherapy centres are aware of and engaged with the ongoing development of medical oncology, and note the likely future impact of immunological and other medical treatments for cancer.

5.4.1 Recommendations

While it is the responsibility of each clinician and centre to keep up to date with changing treatments, there needs to be a regional commitment to:

- Using forums including multi-disciplinary meetings and communities of practice to discuss and debate the implications of new treatments and technologies
- Adopting a regional approach to the training and development needed to upskill staff to deliver new treatments and use new technologies, aligned with the capabilities at each chemotherapy centre
- Ensure, where aligned with each chemotherapy centre's capability profile, that new treatments and technologies are rolled out across the region, so that all patients continue to have access as close to home as possible.

6 IMPLEMENTATION

Implementation actions are summarised as short-term, medium-term and long-term actions, which are not based on timetables but on delivery factors:

- Short-term actions can commence immediately because they are resource-neutral, uncontroversial and/or are not contingent on other actions
- Medium-term actions have some resource and/or political costs, and/or may be contingent on short-term actions
- Long-term actions depend on new resources, may be contentious and/or cannot proceed until earlier actions have been completed.

6.1 Short-term actions

In the short term, GICS and its member health services need to review governance arrangements to make sure there is a mandate for and mechanisms for making changes. In particular, it will be important to engage all health service providers including the region's Level 3, Level 4 and Level 5 providers, small health services who provide Level 1 services (diagnoses and referrals, supportive care) and private-sector providers.

The focus of short-term actions is planning, negotiating agreement to participating in the plan, and making sure that governance and communication structures will support medium-term and long-term actions.

6.1.1 GICS actions

GICS will present this service plan to its governance group for endorsement, and will seek endorsement for the implementation plan. It is recommended that GICS establish a working group that includes representatives from all chemotherapy service provider sectors, and seek agreement from all health services (public and private) in the Grampians region to achievement of these proposed common outcomes:

- That the regional platform of chemotherapy centres provide a universally high standard of care so that the majority of patients can confidently choose to attend any centre and that the goal of providing access to most people close to home can be met
- Better support for the minority of patients who will need to travel to the Level 5 service in Ballarat or to a Level 6 service in Melbourne for treatment
- Effective networks of service providers across the region, between public-sector and private-sector providers, and between regional and metropolitan centres
- Better-coordinated supportive care and non-clinical support service systems, particularly for older people whose needs may be complex
- A regional chemotherapy service system that is robust and flexible to respond to changing technologies and new treatment regimens.

In the short term, GICS will:

- Continue to seek strategies to improve cancer-related health literacy in Grampians region
- Continue to work with health services to identify variation in care and service improvements, and implement optimal care pathways
- Create a regional profile of chemotherapy services including an overview of all chemotherapy centres in the region. This will be provided to referrers including general practices, to help patients and their clinicians to select an appropriate treatment location
- Seek agreement from member health services to create a regional chemotherapy service committee, which would have in its terms of reference regional coordination initiatives such as a workforce plan
- Encourage regional chemotherapy centres to conduct a formal self-assessment against the draft chemotherapy capability framework, as amended from time to time.

6.1.2 Health services actions

In the short term, health services need to commit to working together to achieve the proposed common outcomes, in accordance with this implementation plan. This will include commitment to joining a regional round-table discussion to support quality service delivery at all chemotherapy services, and a commitment to a regional workforce plan and a regional credentialling system.

During this time, health services and clinicians will:

- Advise whether they will participate in a regional round-table that will identify, agree and monitor quality indicators and outcomes
- Nominate staff to participate in the proposed regional committees for medical, nursing and allied health workforces and identify resources needed to participate in regional communities of practice, consistent with the roles of lead clinicians' groups
- Discuss with their consumer advisory committees how consumers will contribute to regional round-table outcomes.

6.2 Medium-term actions

In the medium term, GICS and the health services will embark on activities that require additional resources and/or negotiation.

6.2.1 GICS actions

In the medium term, GICS will advocate for:

- Regional committees for medical, nursing and allied health workforces. These committees will be responsible to create communities of practice for the chemotherapy workforce and agree a regional approach to training that is linked with centres' self-assessed Level within the draft chemotherapy capability framework, and a regional approach to use of data to enhance practice
- A regional referrals project for cancer care, which identifies skills and resources (linked with centres' self-assessed Level within the draft chemotherapy capability framework) across the region and agrees referral pathways. This work may be done in conjunction with the Western Victoria Primary Health Network, which is implementing HealthPathways as a central source of information for general practitioners and other primary health providers in western Victoria.

6.2.2 Health services actions

In the medium term, health services will:

- Ensure that arrangements exist for a range of public-sector and private-sector Grampians-based oncologists to consult at each chemotherapy centre
- Document their services and referral pathways for contribution to the regional referrals project
- Explore opportunities for cross health service staff rotations for medical, nursing and allied health staff. Each health service needs capacity to provide rotations for staff in all other chemotherapy centres, depending on available resources. As the regional centre, Ballarat Health Service may appropriately take a lead role, if resources are available to expand staff profiles to accommodate training responsibilities
- Give consideration to implementing telehealth models where none exists and where this would be a useful enhancement to service access
- Consider development of a model of wellness care that would be consistent across the region and would be suitable particularly for older patients who may need significant support during treatment. Note there are current pilots underway that may contribute to this.

6.3 Long-term actions

Longer term actions need significant early planning, and/or additional resources. For some actions, a business case will need to be developed, while for other actions a process of gathering information and negotiating agreements will take time. Long term actions will be developed in partnership between GICS and Grampians regional chemotherapy centres, and may focus on:

- Continuing to improve relationships with consumers and communities in order to improve individuals' access to education, support and services
- Seeking access to new resources to meet demand for local access to chemotherapy services, supportive care and other related services
- Developing new partnerships within the region to improve patient care
- Developing new relationships with major metropolitan chemotherapy centres to improve coordination and referrals between regional and central services
- Developing new pathways and partnerships with primary care providers to develop mechanisms to meet consumers' health needs as close to home as is safely possible.

Appendix 1 People consulted

Name	Position, Organisation
Mary Bruce	Director Clinical Services, Stawell Regional Health
Jarrold Hunter	Nurse Unit Manager Acute, Stawell Regional Health
Jan Sherwell	Assistant Nurse Unit Manager Oncology, Stawell Regional Health
Carmel O'Kane	Nurse Practitioner Oncology, Wimmera Health Care Group
Majella Hunter	Nurse Unit Manager Oncology, Wimmera Health Care Group
Jenny Vague	Nurse Unit Manager Acute, Wimmera Health Care Group
Judy Wood	Nurse Unit Manager Acute, Wimmera Health Care Group
Julie	Consumer, Wimmera Health Care Group
Judy	Consumer, Wimmera Health Care Group
Don McCrae	Director Clinical Services, Wimmera Health Care Group
Alan Wolffe	Director Medical Services, Wimmera Health Care Group
Ian Campbell	Director Surgery, Wimmera Health Care Group
Meredith Finnigan	Director of Nursing, Edenhope and District Memorial Hospital
Trish	Nurse Unit Manager Acute, West Wimmera Health Service
Michael Krieg	Chief Executive, St John of God Ballarat
Liz Mullins	Director Medical Services, Djerriwarrh Health Service
Tracy Hynes	Acting Director of Nursing and Midwifery, Djerriwarrh Health Service
Andrew Freeman	Chief Executive, Djerriwarrh Health Service
Heather Francis	Medical Oncologist, Ballarat Cancer Care
Craig Carden	Medical Oncologist, Ballarat Cancer Care
Angela	Consumer Advisory Group, Grampians Integrated Cancer Service
Mary Rose	Consumer Advisory Group, Grampians Integrated Cancer Service
Ian	Consumer Advisory Group, Grampians Integrated Cancer Service
Sally	Consumer Advisory Group, Grampians Integrated Cancer Service
Kaye	Consumer Advisory Group, Grampians Integrated Cancer Service
Wayne Weaire	Chief Executive, Ballan District Health & Care
Margaret Daw	Director Clinical Services, Ballan District Health & Care
Trevor Adem	Chief Executive, Beaufort and Skipton Health Service
Terri Antonio	Acting Chief Executive, Hepburn Health Service
Adam Chapman	Manager Cancer Services and Information, Dept of Health and Human Services
Spiri Galetakis	Cancer Services and Information, Dept of Health and Human Services
Jenny Tunbridge	Manager Health Service Operations, Grampians region Dept of Health and Human Services
Steve Medwell	Director Ballarat Regional Integrated Cancer Centre, Ballarat Health Services
Nick Kimpton	General Practitioner Reference Group, Grampians Regional Integrated Cancer Service
Ashley Hayes	General Practitioner Reference Group, Grampians Regional Integrated Cancer Service
David Deutscher	Clinical Director, Grampians Regional Integrated Cancer Service
George Kannourakis	Director, Ballarat Oncology and Haematology Services
Prashanth Prithviraj	Medical Oncologist, Ballarat Oncology and Haematology Services
Robyn Wilson	Nurse Unit Manager Oncology, Ballarat Regional Integrated Cancer Centre, Ballarat Health Services
Melanie Wuttke	Medical Oncologist, Ballarat Regional Integrated Cancer Centre, Ballarat Health Services
Stephen Brown	Acting Head Medical Oncology, Ballarat Regional Integrated Cancer Centre, Ballarat Health Services
Lee Na Teo	Medical Oncologist, Ballarat Regional Integrated Cancer Centre, Ballarat Health Services
Peter Armstrong	Director Clinical Services, East Grampians Health Service
Tracey Walters	Nurse Unit Manager Oncology, East Grampians Health Service

Appendix 2 Draft chemotherapy capability framework

This Appendix represents the self-assessment of health services against the draft capability framework dimensions, and has not been independently validated.

Table 8 Initial review of service levels: Dimension 1 Services Provided

Service level	Service capability	Wimmera Health Care Group, Horsham	Stawell Regional Health	East Grampians Health Service, Ararat	Ballarat Health Service	Ballan District Health & Care	St John of God Hospital Ballarat
1	Community-based primary health care service.		x	x		x	
1	Assessment, management and referral by general medical practitioner		x	x		x	
1	Identified referral pathways to higher-level cancer services		x	x		x	
1	Shared care with oncology specialist for hormone therapy and survivorship		x	x		x	
1	Manage local health care plan for palliative patients		x	x		x	
2	Provides supportive care, and potentially low risk non-chemotherapy treatments such as monoclonal antibodies (under the direct supervision of a level 5 or level 6 service), for stable patients with common cancers or palliative care patients, using pre-ordered materials		x	x		x	
2	If providing maintenance chemotherapy, must be prescribed and supervised by a medical oncologist.		x	x		x	
3	Provides low risk, ambulatory and/or inpatient diagnostic, consultation and treatment service with access to limited support services		x	x		x	
3	Delivers low risk chemotherapy for common tumour streams, including palliative management under supervision of a higher level service		x	x		x	
3	Referral and management primarily by accredited medical practitioners/general physicians and registered nurses		x	x		x	
3	Specialist consultation must be available via visiting service or telehealth links		x	x		x	
4	Administers conventional doses of systemic therapy and manages low-medium-risk therapy protocols to patients diagnosed with common tumours, or requiring palliative management (medical oncology) or to patients with low risk of neutropenic sepsis or with moderate bone marrow suppressive protocols (haematology)	x			x		x
4	Can administer first cycle courses for a limited number of protocols where ordered and directly supervised by a visiting registered medical specialist with credentials in medical oncology / haematology	x			x		x
4	Visiting medical oncologist clinics	x					x
4	Provides timely after-care to patients receiving autologous transplants elsewhere (haematology malignancy services only)	x					x
5	Provides diagnosis and treatment for all common malignancies, including 24 hour emergency admission for management of complications				x		x
5	Manages relatively high-risk systemic therapy protocols				x		x

Service level	Service capability	St John of God Hospital Ballarat	Ballan District Health & Care	Ballarat Health Service	East Grampians Health Service, Ararat	Stawell Regional Health	Wimmera Health Care Group, Horsham
5	Can administer initial courses of systemic therapy and supervise subsequent maintenance courses provided at level 3 and 4 medical oncology services	x		x			
5	May also treat some low-incidence, highly specialised cancers after initial assessment and development of a treatment plan at level 6	x		x			
5	May provide autologous transplantation, but not allogeneic transplantation (for haematology malignancy services only)						

Table 9 Initial review of service levels: Dimension 2 Network Linkages

Service level	Service capability	St John of God Hospital Ballarat	Ballan District Health & Care	Ballarat Health Service	East Grampians Health Service, Ararat	Stawell Regional Health	Wimmera Health Care Group, Horsham
2	Linked with higher-level medical oncology / haematology and cancer services to meet other cancer care requirements	x	x	x	x	x	x
3	Linked with higher-level medical oncology / haematology and cancer services for advice, supervision and to meet other cancer care requirements		x		x	x	x
3	Has formal links with multidisciplinary consultation groups at a higher-level cancer service		x		x	x	x
4	Accepts referrals from lower level services and may provide outpatient/outreach services (visiting or telehealth).	x		x			x
4	Access to radiation oncology, pain management and palliative care.	x	x	x	x	x	x
4	Refers to level 5/6 medical oncology and cancer services for advice, supervision and to meet more specialised cancer care requirements.						x
4	Via service network with level 5/6 services, has access to information related to the latest evidence-based care and treatments.	x		x			x
5	Forms part of a multidisciplinary cancer service with Radiation Oncology, Medical Oncology, Haematology, Cancer Surgery, Nuclear Medicine, Palliative Care, Pain Management. Conducts tumour stream based MDMs.	In partnership with BHS		x			
5	Has regional referral role, supporting lower level medical oncology services with advice, consultancy and clinical supervision. May provide outreach or telehealth clinics.			x			
5	Has network linkages to level 6 service ensuring access to information on the latest evidence-based care and treatments Transfers/refers highly complex or high-risk patients to Level 6 service.	x		x			

Table 10 Initial review of service levels: Dimension 3 General Service Requirements

Service level	Service capability	Wimmera Health Care Group, Horsham	Stawell Regional Health	East Grampians Health Service, Ararat	Ballarat Health Service	Ballan District Health & Care	St John of God Hospital Ballarat
2	Identified referral pathways to higher-level services, including emergency response	x	x	x		x	
3	Local supervision by a registered medical practitioner or nurse practitioner responsible for overall continuity of care of the patient		x	x		x	
3	Capacity to deal with medical oncology / haematology complications, either locally if medical supervision available or by transfer to higher level network facility	x	x	x	x	x	x
3	Urgent telephone consultation with referring level 5 or 6 service, as required for complications of treatment requiring admission	x	x	x		x	
3	Access to radiation oncology services referral (including for urgent treatment e.g. spinal cord compression).	x	x	x	x	x	x
4	Local supervision by general physicians, with interest/skills in medical oncology / haematology, on call 24 hours.	x			x		x
4	Medical oncologist on call 24 hours	x			x		x
4	Has medical registrar (at least one shift per day)	x			x		x
4	Senior RN cover 24/7	x			x		x
5	Provides both general and site-specific oncology consultation.				x		x
5	Provides multidisciplinary management of oncology patients, including case conferences and the development of treatment plans with the multidisciplinary team.				x		x
5	Has on-site access to or formal arrangements for patient referral and transfer to/from a radiotherapy unit to provide concurrent chemo-radiation.				x		x

Table 11 Initial review of service levels: Dimension 4 Workforce requirements

Service level	Service capability	Wimmera Health Care Group, Horsham	Stawell Regional Health	East Grampians Health Service, Ararat	Ballarat Health Service	Ballan District Health & Care	St John of God Hospital Ballarat
2	Service provided by accredited medical practitioner, either resident or visiting	x	x	x	x	x	x
2	Has at least 2 RNs trained and competent in the services provided.	x	x	x	x	x	x
2	May have access to general physician or medical oncologist for advice (visiting or telehealth).	x	x	x	x	x	x
3	Registered medical practitioner on-call 24 hours (on-site or within 10 minutes)	x	x	x	x	x	x
3	24/7 access to a medical oncologist / haematologist for advice.	x	x	x	x	x	x
3	24/7 cover by senior registered nurse	x	x	x	x	x	x
3	RNs trained and competent in chemotherapy administration, as defined by COSA, and competent checking chemotherapy prescriptions before treatment is administered	x	x	x	x	x	x
3	Access to a registered nurse with specialised knowledge and experience in medical oncology / haematology, at a Level 5 or 6 medical oncology service, for advice, as required	x	x	x	x	x	x
3	May have specialist RN responsible for care coordination around specific tumour groups	x	x	x	x		x
4	RNs trained and competent in chemo administration, checking prescriptions	x			x		x
4	May have specialist RN	x			x		x
5	Service provided by Medical Oncologists / haematologists available for consultation 24/7				x		x
5	Has oncology registrar or fellow 24/7 cover				Clinician on call		?
5	Specialist consultation available 24 hours - responsibility may be shared between a Medical Oncologist / Haematologist at the service				x		x
5	Access to infectious diseases specialist for advice				x		x
5	Senior registered nurse, with oncology experience and skills, in charge during working hours	x			x		x
5	Adequate nursing staff — to support the senior registered nurse in charge of each shift				x		x
5	Should have access to specialist nurse oncology consultancy advice.	x	x	x			

Table 12 Initial review of service levels: Dimension 5 Infrastructure

Service level	Service capability	Wimmera Health Care Group, Horsham	Stawell Regional Health	East Grampians Health Service, Ararat	Ballarat Health Service	Ballan District Health & Care	St John of God Hospital Ballarat
2	Must have access to telehealth consultation	x	x	x	x	x	x
3	Designated ambulatory day beds/chairs for chemotherapy treatment.	x	x	x	x	x	x
3	Access to emergency admission beds, either on site or through a formal arrangement with a nearby health service.	x	x	x	x	x	x
4	Designated ambulatory care area and overnight admission beds	x			x		x
5	Designated inpatient admission unit for oncology patients.				x		x
5	Dedicated day only treatment area for systemic therapy and ambulatory procedures (e.g. bone marrow aspirate and trephines, venipuncture)				x		x
5	A cell separator available both for the collection of peripheral blood progenitor cells (for units performing autologous transplants) and therapeutic apheresis, with appropriately trained nursing staff available for the operation of cell separators.				x		x
5	At least two single accommodation rooms with ensuite and clinical hand-washing facilities (for haematology malignancy services only).				x		x

Table 13 Initial review of service levels: Dimension 6 Clinical Support

Service level	Service capability	Wimmera Health Care Group, Horsham	Stawell Regional Health	East Grampians Health Service, Ararat	Ballarat Health Service	Ballan District Health & Care	St John of God Hospital Ballarat
2	Pharmacy: Access to drugs supplied on individual prescription. Service provided on site or externally.	x	x	x	x	x	x
2	Pathology – local access to specimen collection, with suitable arrangements for transfer to referral laboratory and turnaround time of within 48 hours for results.	x	x	x	x	x	x
2	Access to pain management services.	x	x	x	x	x	x
3	Requires access to: Pathology services with turnaround time of within 24 hours.	x	x	x	x	x	x
3	Requires access to: 24/7 access to a registered medical specialist with credentials in microbiology for advice	x	x	x	x	x	x
3	Requires access to: Pharmacy on site, with access to a level 5 (med onc) pharmacy service for advice.	x	x	x	x	x	x
3	Requires access to: Medical imaging	x	x	x	x	x	x
3	Requires access to: Nuclear medicine service capable for bone scans.	x	x	x	x	x	x
3	Requires access to: Pain management services	x	x	x	x	x	x
4	Requires access to: Pathology services available on call 24 hours, with turnaround time of within 24 hours and on site blood storage. For haematology, has a pathology turnaround time of within 2 hours.	x			x		x
4	Requires access to: Pharmacy on site, with access to a level 5 (med onc) pharmacy service for advice. Pharmacist on call 24/7. Provision of chemotherapy drug monitoring, utilisation review and adverse drug reaction reporting.	x			x		x
4	Requires access to: Medical imaging – including on site CT scanning	x			x		x
4	Requires access to: Nuclear medicine – for bone scans	not on site			x		x
4	Requires access to: Anaesthetics	x			x		x
4	Requires access to: Pain management services	x			x		x
4	Requires access to: Coronary Care Unit (CCU) / Intensive Care Unit (ICU)	x			x		x
4	Requires access to: On site or formally documented access to haemo dialysis, respiratory, cardiology and infectious disease services.	x			x		x
4	Requires access to: Interventional radiology services	x			x		x
4	Requires access to: Central venous access services.	x			x		x
4	Requires access to: Clinical genetics service.	x			x		x
5	Pathology – comprehensive, 24 hours on site				x		x
5	24/7 access to microbiologist for advice				x		x
5	Pharmacy – on site with clinical pharmacy service & access to specialist Oncology Pharmacy advice. Pharmacist on call 24/7.				x		x
5	Medical Imaging – readily accessible 24/7 including onsite CT scanning				x		x
5	Nuclear medicine including PET – on site or readily accessible 24/7.				x		x
5	Anaesthetics – on site, including pain management				x		x

Service level	Service capability	Wimmera Health Care Group, Horsham	Stawell Regional Health	East Grampians Health Service, Ararat	Ballarat Health Service	Ballan District Health & Care	St John of God Hospital Ballarat
5	Coronary Care Unit (CCU) on-site				x		x
5	Intensive Care Unit (ICU) on-site				x		x
5	Has access to: Clinical genetics service				x		x
5	Has access to: Invasive cardiovascular monitoring				x		x
5	Has access to: Interventional radiology services (stent insertions, breast tumour localisation)				x		x
5	Has access to: Central venous access services for insertion and maintenance				x		x
5	Has access to: Respiratory service				x		x
5	Has access to: haemo dialysis services				x		x

Table 14 Initial review of service levels: Dimension 7 Support and referral services

Service level	Service capability	Wimmera Health Care Group, Horsham	Stawell Regional Health	East Grampians Health Service, Ararat	Ballarat Health Service	Ballan District Health & Care	St John of God Hospital Ballarat
2	Access to allied health, palliative care and rehabilitation not necessarily on site	x	x	x	x	x	x
3	Access to palliative care, rehabilitation, consultation-liaison psychiatry, allied health and other supportive services as required.	x	x	x	x	x	x
4	Access to consultation liaison psychiatry, rehabilitation service, and palliative care.	x			x		x
4	Allied health services on site including social work, physiotherapy, occupational therapy, speech pathology and nutrition	x			x		x
5	Has access to (onsite or by referral to another HS): Lymphoedema services				x		x
5	Has access to (onsite or by referral to another HS): Consultation psychiatry				x		x
5	Has access to (onsite or by referral to another HS): Rehabilitation				x		x
5	Onsite allied health services as for level 4				x		x
5	Palliative Care Unit – on-site or off site with same provider				x		x

Table 15 Initial review of service levels: Dimension 8 Quality Improvement and Audit

Service level	Service capability	Wimmera Health Care Group, Horsham	Stawell Regional Health	East Grampians Health Service, Ararat	Ballarat Health Service	Ballan District Health & Care	St John of God Hospital Ballarat
2	Participates in general facility accreditation.	x	x	x	x	x	x
3	Participates in a cancer care QA program from higher level service and local facility accreditation.	x	x	x	x	x	x
4	Formal cancer care QA program	x			x		x
5	Formal cancer care QA program				x		x

Table 16 Initial review of service levels: Dimension 9 Teaching and research

Service level	Service capability	Wimmera Health Care Group, Horsham	Stawell Regional Health	East Grampians Health Service, Ararat	Ballarat Health Service	Ballan District Health & Care	St John of God Hospital Ballarat
2	CPD available for nursing, pharmacy and other staff	x	x	x	x	x	x
3	Training and CPD as required ensuring an appropriately skilled and competent workforce.	x	x	x	x	x	x
4	Supports some allied health undergraduate education	x			x		x
5	Has formal teaching and research role				x		x

Appendix 3 Consumer survey responses

This Appendix provides the text of all responses to the chemotherapy survey. Seventy responses were received, from Ballarat Health Services, Wimmera Health Care Group, Stawell Regional Health and East Grampians Health Service.

Q1: Were you given a choice about where you could attend for your chemotherapy?

Yes: 44 respondents

No: 20 respondents

No need - we have the best here!!

(Yes) Well not really. Ballarat was very insistent on me having treatment more so in Ballarat but having gone through cancer treatment in Ararat last year with my husband, we insisted the treatment be in our home town Ararat.

(No) My surgery was done here at the hospital. This was a follow on from that.

I am a Ballarat resident so (?) the Ballarat Base as a matter of course.

Ballarat was offered

I can't remember because my initial treatment started so long ago.

(yes) Stawell was my closest oncology unit and quite happy to attend there. Glad to be able to do local rather than having to travel further.

No, but I started treatment 19 and a half years ago in Ballarat before cancer centres were established closer to home. When services were made available in Stawell I was treated there then a few years later when my specialist came to Horsham I was treated there.

No. I'm from Kaniva so the closest is Horsham

(yes) not really everywhere else was too far away

yes I was given a choice so chose Horsham as it is my home town

No. was sent to Ballarat but chose to come to Horsham

(yes) I chose to go to Horsham, the service is excellent

no - but would have been told to go Horsham anyway. Due to travel. Very happy

yes. I went to W/B because of convenience

yes. My choice was Horsham.

yes. Surgeon sent me to Geelong oncology. After initial appointment with oncologist and further tests plus the 'port' was put in I asked to have the rest of my treatment in Horsham. Much closer and easier for my family.

(unclear) when first contact about my treatment there seemed to be some disagreement about treatment.

(no) I used to drive to Melbourne each week until I was made aware of this service here at Horsham

(unclear) here at Horsham hospital

Q2: Are you aware of the chemotherapy services that are provided in your part of the region?

Yes: 60 respondents

No: 8 respondents

Yes, I am now, but prior to this there was little or no information available.

Yes and this is why we insisted having treatment in Ararat as the pressure of travelling an hour over 10 minutes is much more appealing and supporting the great service supplied.

not all

(No) Not really sure of other services other than those offered at BRICC.

(no) I am only aware of this one.

Yes. Staff in Stawell unit are very good and let you know of other options.

yes, lack of treatment if one can't drive oneself) is the biggest problem.

(yes) As far as I'm aware Horsham is closest for me - next is Stawell then Ararat.

(unclear) to feeling so much better

(yes) As far as I know this is the only one except Ballarat

yes - well informed

yes I am

(yes) the treatment is very helpful and staff keep you well informed

(unclear) no I was not aware while attending the ?? Clinic

Q3: Why have you chosen to come to this service?

This is the best service I have received in 11 years of treatment

I have chosen the Ararat Service because it was offered to me by the GP and the oncologist. The GP is a partner in the Ararat Medical Clinic.

Geographical close to home. Wonderful caring staff.

Close to home, great staff, the best facilities

Closer and easier than Ballarat

We follow the oncologist on a three week cycle so therefore we are here every (?) week as doctor is here every 2 weeks

It's closer, less stressful, the nurses and their care is fantastic, like they say support your home town 1st before looking elsewhere.

Because it is closer and much more convenient and I don't have to travel.

1. This is where Craig Carden works from.

2. Atmosphere, room and staff delightful.

To have chemo

Close to home and great service

Local

It was recommended by the surgeon.

Recommended by my oncologist + enjoy the very high standards of care

Closest to home

Because it's local

Public patient. Very happy with this service.

Travel - no problem

Nurses - awesome

Drs - great

I live close to service.

Because I served well last time 13 years ago.

1. I could not fault the service I have been given over the last 4 years.

2. Having 3 small kids I didn't want the worry of costs if I went private treatment.

Referred here by Southern Memorial hospital where I had surgery.

Closest to where I live.

Because it's the best. I have always come to this hospital.

Was suggested by oncologist. Proximity to home is fantastic

(?) is where I live

Great service. Close to home.

Because it is a convenient location.

Even though I am residing in Ararat and chemotherapy services are offered there, I was being treated Stephen's team at Ballarat Base Hospital, and as he consults at Stawell, I chose to have treatment at this centre.

Because the staff are fantastic.

It is nice.

I did not pick to come to this service

It is closer and friendly and very clean.

Because I live here.

It is most convenient and the staff are caring and thoughtful.

Because I am pleased with the service and friendliness of the staff.

Local, less travel time, convenience, oncologist attends here, excellent facilities, staff, support

Q3: Why have you chosen to come to this service?

Oncology staff and detail to service is excellent. Facilities at Stawell are second to none and provide a relaxing atmosphere, so grateful while having ongoing treatment.

It was my closest unit and very well equipped. Staff always helpful.

My doctor services here.

I feel very comfortable with the friendly staff and service provided at Stawell.

Was recommended by my doctor.

Stawell was chosen by Hamilton Hospital when I was an inpatient.

Because it is in Horsham. Also to get well

I live in Horsham. I have chemo three weeks in a row, and it is very convenient for me to attend chemo in my home town, and not travel. If I was extremely unwell on chemo days, I would not be able to travel.

It's the closest

It is the closest to my home (only half hour drive each way). Also I am happy here as it is very friendly and professional.

It's the closest centre

Wonderful, caring and professional . Ongoing treatment could not be in better hands

-

Close to my home

Location and the caring staff and support that I receive.

Convenient - only five minutes from my home. Lovely staff.

Because I live here.

No travelling

I want and need to come, so it is a must.

Easy travel. Would not be able to afford trips to Ballarat or Stawell. More than happy with my choice.

I live in Horsham.

Cancer found in W/B and convenient to stay in Horsham.

Close to home

yes they are good.

Because it's close to home.

It is the closest.

Close to where I live. Do not have to travel for 2hr each time.

yes

Close to home

So much closer and just as good

I live in the area.

Because it is local and the staff are great and very good at what they do.

The staff and help they give me is great - all the staff make me feel good

Appendix 4 Data analysis

We have provided data on:

- Admitted episodes of chemotherapy care provided to Grampians residents in public hospitals and private hospitals. Public hospitals are named, but private hospitals are grouped and are not identifiable. Admitted episodes are counted as “separations”
- Non-admitted episodes of chemotherapy care provided to Grampians residents, which are funded by and reported to the Medicare Benefits Schedule. These may include episodes of care provided at non-hospital private medical centres, as well as non-admitted chemotherapy clinics operated in public and private hospitals.

Chemotherapy separations: admitted episodes

This section looks at chemotherapy admitted episodes by Grampians region patients over the last two years and forecast to 2026/2027. Note that these tables reflect the number of chemotherapy separations provided, and not the number of unique chemotherapy patients. From 2014/2015 to 2026/2027, the total number of chemotherapy separations by Grampians residents is expected to increase by 58.9 per cent overall, an additional 6,449 separations (Table 17).

In 2014/2015, 40.3 per cent of chemotherapy separations were from City of Ballarat residents, followed by 14.2 per cent from Rural City of Horsham residents and 9.0 per cent from Moorabool Shire residents. By 2026/2027, chemotherapy separations by City of Ballarat residents are expected to increase to 41.4 per cent of total Grampians region chemotherapy inpatient activity and Moorabool Shire separations are expected to represent 9.8 per cent (Table 17).

Table 17 Local Government Area for Grampians residents’ chemotherapy separations 2013/2014 to 2014/2015 historical and forecast to 2026/2027

Local government area	2013/2014	2014/2015	2018/2019	2021/2022	2026/2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
Ballarat (C)	4,801	4,413	5,208	5,858	7,209	2,796	63.4%
Horsham (RC)	1,312	1,556	1,757	1,961	2,396	840	54.0%
Moorabool (S)	859	981	1,125	1,318	1,703	722	73.6%
Golden Plains (S)	706	565	748	868	1,067	502	88.9%
Northern Grampians (S)	743	586	722	807	926	340	58.0%
Hepburn (S)	650	564	692	774	932	368	65.2%
Yarriambiack (S)	432	611	649	713	805	194	31.7%
Ararat (RC)	639	499	580	644	738	239	47.9%
Hindmarsh (S)	427	539	577	624	684	145	26.9%
Pyrenees (S)	399	374	414	465	560	186	49.8%
West Wimmera (S)	399	260	301	332	378	118	45.3%
Total	11,367	10,948	12,771	14,364	17,397	6,449	58.9%

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

At a Statistical Local Area level, the greatest number of chemotherapy separations were from people who lived in the City of Ballarat – Central (15.7 per cent), City of Ballarat – Inner North (15.0 per cent), Rural City of Horsham – Central (11.4 per cent) and City of Ballarat – South (9.4 per cent) areas. Over the next twelve years the number of chemotherapy separations from people who live in Moorabool Shire – Bacchus Marsh is expected to increase by 83.9 per cent and from people who live in the City of Ballarat – South by 73.3 per cent (Table 18).

Table 18 Statistical Local Area for Grampians residents' chemotherapy separations 2013/2014 to 2014/2015 historical and forecast to 2026/2027

Statistical local area	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
Ballarat (C) - Inner North	1,710	1,637	1,936	2,215	2,813	1,176	71.8%
Ballarat (C) - Central	1,778	1,723	2,005	2,197	2,588	865	50.2%
Horsham (RC) - Central	1,037	1,246	1,419	1,573	1,921	675	54.2%
Ballarat (C) - South	1,272	1,026	1,240	1,419	1,778	752	73.3%
Moorabool (S) - Bacchus Marsh	564	606	715	843	1,114	508	83.9%
Ararat (RC)	639	499	580	644	738	239	47.9%
N. Grampians (S) - Stawell	562	480	586	655	755	275	57.4%
Hindmarsh (S)	427	539	577	624	684	145	26.9%
Yarriambiack (S) - South	374	511	548	598	668	157	30.6%
Golden Plains (S) - North-West	375	334	398	458	567	233	69.6%
Hepburn (S) - East	312	337	401	453	544	207	61.6%
Golden Plains (S) - South-East	331	231	350	410	500	269	116.6%
Horsham (RC) Bal	275	310	337	389	474	164	53.1%
Moorabool (S) - Ballan	222	306	341	399	495	189	61.6%
West Wimmera (S)	399	260	301	332	378	118	45.3%
Hepburn (S) - West	338	227	291	321	388	161	70.7%
Pyrenees (S) - North	260	261	267	293	348	87	33.2%
Pyrenees (S) - South	139	113	147	172	213	100	88.2%
N. Grampians (S) - St Arnaud	181	106	135	152	170	64	60.7%
Yarriambiack (S) - North	58	100	101	116	137	37	37.1%
Moorabool (S) - West	73	69	69	76	94	25	36.3%
Ballarat (C) - North	41	27	26	27	30	3	9.4%
Total	11,367	10,948	12,771	14,364	17,397	6,449	58.9%

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

In 2014/2015, 57.6 per cent of chemotherapy separations were from people aged 65 years and older, 23.0 per cent were from people aged 55 to 64 years of age, 17.0 per cent from people aged 35 to 54 years of age and 2.4 per cent were from people aged 34 years and under. By 2026/2027, these percentages are expected to decrease slightly across almost all age groups except in persons aged 65 years and over, which is forecast to increase to 68.0 per cent (Table 19).

Table 19 5-year age groups for Grampians residents' chemotherapy separations 2013/2014 to 2014/2015 historical and forecast to 2026/2027

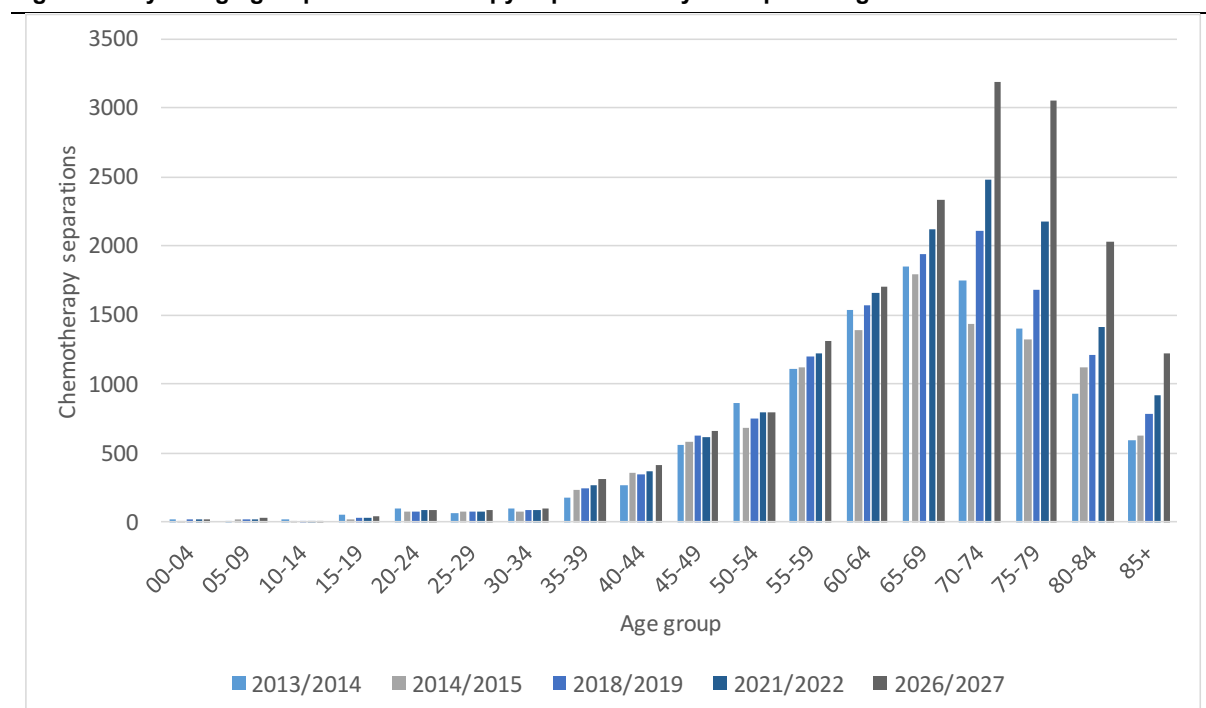
Age group	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
00-04	21	10	16	18	22	12	120.6%
05-09	8	16	17	20	24	8	51.5%
10-14	13	<5	8	8	9	7	371.0%

Age group	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
15-19	53	18	30	32	39	21	119.0%
20-24	95	75	80	82	87	12	15.9%
25-29	58	72	74	76	81	9	11.8%
30-34	98	74	83	90	99	25	33.7%
35-39	171	230	241	269	310	80	34.6%
40-44	268	361	341	368	418	57	15.7%
45-49	553	584	631	619	663	79	13.4%
50-54	862	684	746	793	798	114	16.6%
55-59	1,107	1,124	1,198	1,220	1,315	191	17.0%
60-64	1,535	1,394	1,572	1,658	1,710	316	22.7%
65-69	1,850	1,799	1,947	2,119	2,333	534	29.7%
70-74	1,751	1,439	2,116	2,484	3,187	1748	121.5%
75-79	1,398	1,324	1,679	2,175	3,052	1728	130.5%
80-84	933	1,118	1,207	1,416	2,034	916	81.9%
85+	593	624	786	917	1,217	593	95.0%
Total	11,367	10,948	12,771	14,364	17,397	6,449	58.9%

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

Figure 14 shows how chemotherapy separations by Grampians residents are largely skewed towards the older age groups.

Figure 14 5-year age group of chemotherapy separations by Grampians region residents in 2014/2015



Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

Last year 53.9 per cent of chemotherapy separations by Grampians residents were by female patients, and 46.1 per cent were from male patients. While the number of chemotherapy separations by males is expected to increase by 62.1 per cent from 2014/2015 to 2026/2027, the proportion of chemotherapy separations by male patients is forecast to only increase by 0.9 per cent (Table 20).

Table 20 Sex of separations by Grampians residents receiving chemotherapy 2013/2014 to 2014/2015 historical and forecast to 2026/2027

Sex	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
Male	5,187	5,049	5,932	6,710	8,184	3,135	62.1%
Female	6,180	5,899	6,839	7,654	9,213	3,314	56.2%
Total	11,367	10,948	12,771	14,364	17,397	6,449	58.9%

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

Where patients went for chemotherapy services

Last year there were 10,948 chemotherapy separations by Grampians residents, of which 58.6 per cent were delivered in a public hospital and 41.4 per cent were delivered in a private health service (including the Ballarat Day Procedure Centre and St John of God Ballarat Hospital and metropolitan private services amongst others). Of the public hospitals, Wimmera Base Hospital [Horsham] provided 20.3 per cent of chemotherapy separations to Grampians residents followed by 18.9 per cent provided by Ballarat Health Services [Base Campus] (Table 6).

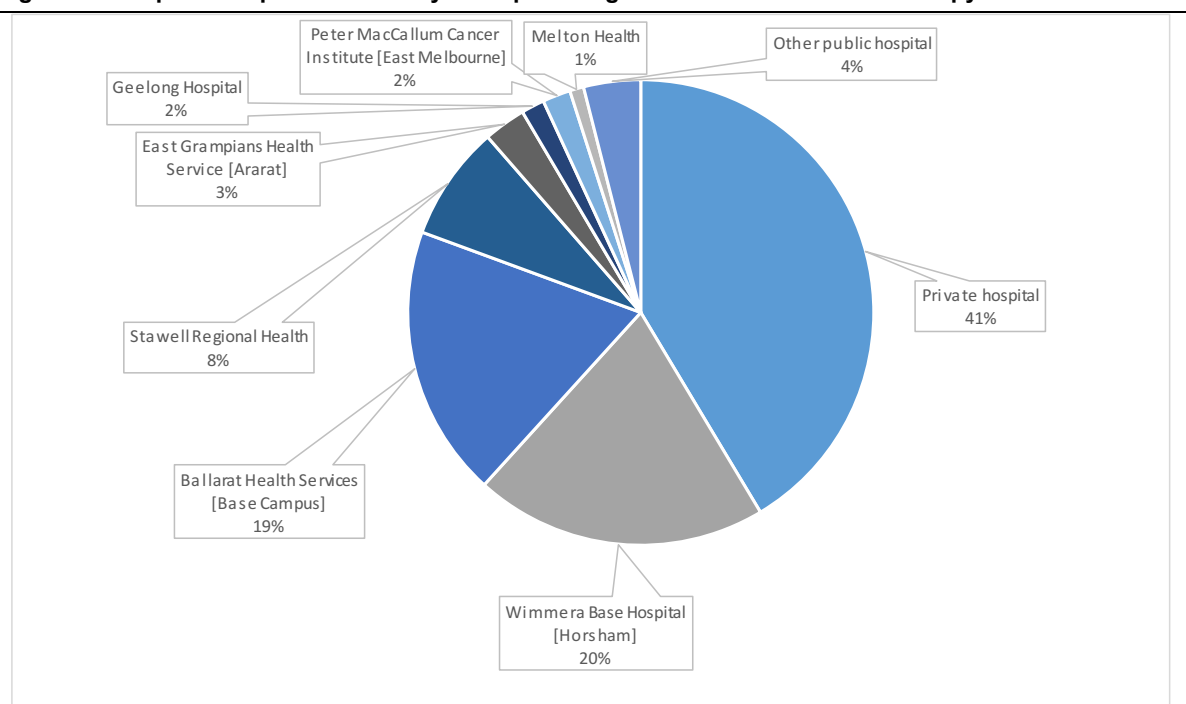
Table 21 Hospital campus attended by Grampians residents for chemotherapy separations 2013/2014 to 2014/2015 historical and forecast to 2026/2027

Campus name	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
Private hospital	5,088	4,534	5,305	6,045	7,565	3,031	66.9%
Wimmera Base Hospital [Horsham]	2,000	2,224	2,576	2,848	3,346	1,122	50.4%
Ballarat Health Services [Base Campus]	2,102	2,067	2,489	2,761	3,283	1,216	58.8%
Stawell Regional Health	870	874	1,000	1,125	1,300	426	48.8%
East Grampians Health Service [Ararat]	364	321	327	363	424	103	32.0%
Geelong Hospital	291	176	262	298	347	171	96.9%
Peter MacCallum Cancer Institute [East Melbourne]	145	213	196	213	250	37	17.2%
Melton Health	94	106	143	179	247	141	133.3%
Alfred, The [Prahran]	36	76	69	80	100	24	31.6%
Western Hospital [Footscray]	76	46	55	63	81	35	75.4%
Royal Melbourne Hospital - City Campus	69	41	49	50	56	15	35.4%
Royal Children's Hospital [Parkville]	44	39	50	56	68	29	74.1%
Austin Hospital	21	47	46	50	54	7	15.9%
Other hospital campus	167	184	203	234	278	94	51.0%
Total	11,367	10,948	12,771	14,364	17,397	6,449	58.9%
<i>Total public</i>	<i>6,279</i>	<i>6,414</i>	<i>7,466</i>	<i>8,319</i>	<i>9,832</i>	<i>3,418</i>	<i>53.3%</i>
<i>Total private</i>	<i>5,088</i>	<i>4,534</i>	<i>5,305</i>	<i>6,045</i>	<i>7,565</i>	<i>3,031</i>	<i>66.9%</i>

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

Figure 9 shows where Grampians residents went for chemotherapy in 2014/2015, by hospital campus.

Figure 15 Hospital campus attended by Grampians region residents for chemotherapy in 2014/2015



Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

The following tables provide detail about the campuses where patients attended for chemotherapy and chemotherapy-related services.

Table 22 Where Ararat Rural City residents attended for chemotherapy & related services 2012 to 2015

Campus name	2012	2013	2014	2015	Total
East Grampians Health Service [Ararat]	536	384	400	379	1,699
Private Hospitals*	241	298	277	221	1,037
Ballarat Health Services [Base Campus]	126	103	147	94	470
Stawell Regional Health	34	42	180	165	421
Alfred, The [Prahran]	<5	<5	37	<5	na
Wimmera Base Hospital [Horsham]	8	20	6	<5	na
Royal Children's Hospital [Parkville]	20	11	<5		na
Austin Hospital	9	10	6	<5	na
St Vincent's Hospital	6	11	<5	<5	na
South West Healthcare [Warrnambool]	10	12	<5		na
Ballarat Health Services [Queen Elizabeth Campus]	<5	6	<5	7	na
Peter MacCallum Cancer Institute [East Melbourne]	<5	<5	6	6	na
University Hospital Geelong	8	<5		5	na
Royal Melbourne Hospital - City Campus	<5	<5	<5	<5	na
Other	8	7	11	10	36
Total	1,014	913	1,084	906	3,917

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Table 23 Where Ballarat City residents attended for chemotherapy & related services 2012 to 2015

Campus name	2012	2013	2014	2015	Total
Private Hospitals*	4,448	4,958	5,222	4,878	19,506
Ballarat Health Services [Base Campus]	2,146	2,171	2,382	2,606	9,305
Ballarat Health Services [Queen Elizabeth Campus]	107	115	134	122	478
Peter MacCallum Cancer Institute [East Melbourne]	82	62	91	81	316
Alfred, The [Pahran]	69	23	83	60	235
Royal Melbourne Hospital - City Campus	69	58	44	55	226
Royal Children's Hospital [Parkville]	70	56	60	30	216
Austin Hospital	58	47	51	59	215
University Hospital Geelong	34	26	23	60	143
St Vincent's Hospital	22	24	27	15	88
Royal Women's Parkville	14	30	22	<5	na
Maryborough District Health Service [Maryborough]	13	10	15	20	58
Monash Medical Centre [Moorabbin]	7	14	13	21	55
Stawell Regional Health	<5	9	16	18	na
East Grampians Health Service [Ararat]	8	<5	18	14	na
Other	24	28	38	39	129
Grand Total	7,175	7,635	8,239	8,081	31,130

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Table 24 Where Golden Plains Shire residents attended for chemotherapy & related services 2012 to 2015

Campus name	2012	2013	2014	2015	Total
Private Hospitals*	444	564	577	606	2,191
University Hospital Geelong	205	266	388	268	1,127
Ballarat Health Services [Base Campus]	235	175	245	231	886
Alfred, The [Pahran]	41	17	12	<5	na
Peter MacCallum Cancer Institute [East Melbourne]	16	6	30	16	68
Austin Hospital	<5	28	17	11	na
Royal Melbourne Hospital - City Campus	15	5	11	13	44
Ballarat Health Services [Queen Elizabeth Campus]	20	8	9	5	42
Grace McKellar Centre [Geelong]	6	9	10	9	34
Stawell Regional Health			30	3	33
Royal Children's Hospital [Parkville]	14	<5	<5	<5	na
Box Hill Hospital		10	9		19
Colac Area Health	<5	<5	5	7	na
Western Hospital [Footscray]		<5	<5	13	na
Royal Women's Parkville	7	<5	<5	<5	na
St Vincent's Hospital	<5	<5	<5	<5	na
East Grampians Health Service [Ararat]	<5	<5	<5	<5	na
Maryborough District Health Service [Maryborough]		<5	<5	<5	<5
Other	9	7	14	9	39
Grand Total	1,020	1,108	1,368	1,204	4,700

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Table 25 Where Hepburn Shire residents attended for chemotherapy & related services 2012 to 2015

Campus name	2012	2013	2014	2015	Total
Private Hospitals*	425	510	552	529	2,016
Ballarat Health Services [Base Campus]	323	338	371	360	1,392
Daylesford District Hospital	69	59	74	65	267
Peter MacCallum Cancer Institute [East Melbourne]	23	19	37	45	124
Bendigo Hospital, The	16	42	8	15	81
Alfred, The [Prahran]	11	40	13	10	74
Austin Hospital	10	15	8	29	62
Royal Women's Parkville	34	15		<5	na
Royal Melbourne Hospital - City Campus	21	6	7	13	47
Kyneton District Health Service	12	11	7	6	36
Ballarat Health Services [Queen Elizabeth Campus]	11	12	5	7	35
Creswick District Hospital	7	9	11	6	33
Castlemaine Health	<5	5	8	8	na
Stawell Regional Health			10	13	23
Royal Children's Hospital [Parkville]	8	6	5	<5	na
St Vincent's Hospital	<5	5	7	<5	na
Maryborough District Health Service [Maryborough]	<5	<5	<5	8	na
Western Hospital [Footscray]	<5	5	5	<5	na
East Grampians Health Service [Ararat]	<5	11			na
Other	8	12	16	18	54
Grand Total	992	1,122	1,147	1,141	4,402

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Table 26 Where Hindmarsh Shire residents attended for chemotherapy & related services 2012 to 2015

Campus name	2012	2013	2014	2015	Total
Wimmera Base Hospital [Horsham]	374	484	449	523	1,830
Private Hospitals*	78	72	82	99	331
Ballarat Health Services [Base Campus]	73	49	27	28	177
West Wimmera Health Service [Nhill]	32	24	30	45	131
Stawell Regional Health			11	50	61
East Grampians Health Service [Ararat]	<5	<5	29	14	na
Hamilton Base Hospital	10	9	12	<5	na
Peter MacCallum Cancer Institute [East Melbourne]	<5	<5	6	16	na
Royal Melbourne Hospital - City Campus	<5	7	9	<5	na
West Wimmera Health Service [Rainbow]	10	<5	6	<5	na
Other	15	28	18	28	89
Grand Total	600	679	679	812	2,770

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Table 27 Where Horsham City residents attended for chemotherapy & related services 2012 to 2015

Campus name	2012	2013	2014	2015	Total
Wimmera Base Hospital [Horsham]	1,425	1,262	1,429	1,728	5,844
Private Hospitals*	212	284	285	232	1,013
Ballarat Health Services [Base Campus]	77	50	50	71	248
East Grampians Health Service [Ararat]	<5	55	55	73	na
Stawell Regional Health	<5	<5	63	92	na
Peter MacCallum Cancer Institute [East Melbourne]	25	28	31	47	131
Royal Melbourne Hospital - City Campus	18	12	38	16	84
University Hospital Geelong	9	12	8	17	46
St Vincent's Hospital	10	8	5	10	33
Royal Women's Parkville		8	<5	8	na
Alfred, The [Prahran]		<5	<5	7	na
Austin Hospital	<5	<5	5	5	na
Ballarat Health Services [Queen Elizabeth Campus]	7	<5	<5	<5	na
Royal Children's Hospital [Parkville]	<5	<5	6		na
Western Hospital [Footscray]	5	<5	<5	<5	na
Bendigo Hospital, The	<5	8			na
Hamilton Base Hospital		<5	<5	<5	na
Other	9	<5	9	<5	na
Grand Total	1,807	1,747	1,992	2,317	7,863

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Table 28 Where Moorabool Shire residents attended for chemotherapy & related services 2012 to 2015

Campus name	2012	2013	2014	2015	Total
Private Hospitals*	708	751	736	844	3,039
Ballarat Health Services [Base Campus]	359	313	293	275	1,240
Djerriwarrh Health Service [Bacchus Marsh]	143	209	199	167	718
Melton Health	96	162	139	132	529
Western Hospital [Footscray]	205	116	122	72	515
Peter MacCallum Cancer Institute [East Melbourne]	63	92	84	94	333
Royal Melbourne Hospital - City Campus	48	65	50	53	216
Alfred, The [Prahran]	22	27	37	99	185
Sunshine Hospital	35	32	33	42	142
Royal Women's Parkville	22	37	40	35	134
Royal Children's Hospital [Parkville]	17	9	28	40	94
Austin Hospital	5	11	23	30	69
University Hospital Geelong	7	13	27	22	69
St Vincent's Hospital	19	14	14	19	66
Ballarat Health Services [Queen Elizabeth Campus]	15	10	18	13	56
Mercy Public Hospitals Inc [Werribee]	<5	9	12	20	na
East Grampians Health Service [Ararat]	11	16	<5		na
Other	23	39	35	40	137
Grand Total	1,799	1,925	1,891	1,997	7,612

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Table 29 Where Northern Grampians Shire residents attended for chemotherapy & related services 2012 to 2015

Campus name	2012	2013	2014	2015	Total
Stawell Regional Health	498	399	669	589	2155
Private Hospitals*	268	240	209	211	928
Ballarat Health Services [Base Campus]	142	101	130	108	481
East Grampians Health Service [Ararat]	57	65	23	41	186
Wimmera Base Hospital [Horsham]	35	73	36	19	163
Bendigo Hospital, The	47	32	63	19	161
Peter MacCallum Cancer Institute [East Melbourne]	21	22	22	46	111
East Wimmera Health Service [St Arnaud]	44	22	19	9	94
Royal Melbourne Hospital - City Campus	9	29	14	6	58
Royal Children's Hospital [Parkville]	12	21	5	<5	na
Maryborough District Health Service [Maryborough]	<5	6	12	6	na
University Hospital Geelong	15	<5	<5	<5	na
Box Hill Hospital		20			20
Ballarat Health Services [Queen Elizabeth Campus]	9		<5	<5	na
Austin Hospital	<5	<5	6	<5	na
St Vincent's Hospital	<5	<5	6	<5	na
Alfred, The [Prahran]	<5	<5	<5	<5	na
Royal Women's Parkville	<5	<5	<5	<5	na
Monash Medical Centre [Moorabbin]	<5	<5		5	na
Other	9	7	14	10	40
Grand Total	1183	1049	1237	1083	4552

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Table 30 Where Pyrenees Shire residents attended for chemotherapy & related services 2012 to 2015

Campus name	2012	2013	2014	2015	Total
Private Hospitals*	260	212	255	240	967
Ballarat Health Services [Base Campus]	175	209	269	238	891
Maryborough District Health Service [Maryborough]	28	25	26	64	143
Stawell Regional Health	44	<5	43	24	115
East Grampians Health Service [Ararat]	20	22	22	24	88
Peter MacCallum Cancer Institute [East Melbourne]	10	12	6	8	36
Beaufort & Skipton Health Service [Beaufort]	10	<5	10	6	na
Bendigo Hospital, The		5	11	7	23
Royal Melbourne Hospital - City Campus	12	<5	5	<5	na
Ballarat Health Services [Queen Elizabeth Campus]	7	<5	7	<5	na
St Vincent's Hospital	<5	<5	<5	<5	na
Other	9	26	32	21	88
Grand Total	577	525	690	643	2,435

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Table 31 Where West Wimmera Shire residents attended for chemotherapy & related services 2012 to 2015

Campus name	2012	2013	2014	2015	Total
Wimmera Base Hospital [Horsham]	191	299	380	266	1,136
Royal Melbourne Hospital - City Campus	16	24	63	27	130
Edenhope & District Hospital	20	29	44	34	127
Private Hospitals*	25	28	24	44	121
Ballarat Health Services [Base Campus]	21	25	9	24	79
South West Healthcare [Warrnambool]	19	30	14	10	73
Peter MacCallum Cancer Institute [East Melbourne]	6	<5	9	16	na
Hamilton Base Hospital	5	7	5	11	28
Other	18	26	24	20	88
Grand Total	321	472	572	452	1,817

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Table 32 Where Yarriambiack Shire residents attended for chemotherapy & related services 2012 to 2015

Campus name	2012	2013	2014	2015	Total
Wimmera Base Hospital [Horsham]	653	477	405	462	1,997
Private Hospitals*	124	175	128	83	510
Stawell Regional Health	19	26	50	163	258
University Hospital Geelong	30	44	23	36	133
Rural Northwest Health [Warracknabeal]	17	25	28	30	100
Ballarat Health Services [Base Campus]	20	29	13	29	91
East Grampians Health Service [Ararat]	5	25	27	23	80
Peter MacCallum Cancer Institute [East Melbourne]	19	21	<5	17	58
New Mildura Base Hospital	<5	9	9	35	na
Rural Northwest Health [Hopetoun]	16	7		<5	na
Bendigo Hospital, The	22	<5			na
St Vincent's Hospital	10	8	<5	<5	na
Swan Hill District Health [Swan Hill]	12	<5	6	5	na
Other	29	21	21	16	87
Grand Total	980	870	716	904	3,470

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Other inpatient activity

This section looks at other cancer-related inpatient activity by Grampians region residents, including separations with diagnostic codes under the following categories:

- Inpatient separations with an ICD-10-AM code from the Neoplasms chapter, including C00-C97 Malignant neoplasms, D00-D09 In situ neoplasms, D10-D36 Benign neoplasms, and D37-D48 Neoplasms of uncertain or unknown behaviour
- Inpatient separations with a Diagnostic Related Group (DRG) code within the range of R01A-R64Z Neoplastic disorders (haematological and solid neoplasms)
- All other oncology-related separations, including but not limited to follow-up examinations after chemotherapy or radiotherapy, diagnostic procedures including endoscopy etc.

In 2014/2015, there were 8,222 cancer-related inpatient separations by Grampians residents excluding chemotherapy. By 2026/2027, the number of separations is expected to increase by 36.9 per cent overall (Table 33).

Forty-two per cent of cancer-related separations by Grampians residents were from people who live in the City of Ballarat in 2014/2015, followed by Moorabool Shire (11.7 per cent), Rural City of Horsham (8.8 per cent) and Golden Plains Shire (7.3 per cent).

Table 33 Local Government Area of residence for Grampians residents receiving cancer-related inpatient services (excluding chemotherapy) 2013/2014 to 2014/2015 historical and forecast to 2026/2027

Local government area	2013/2014	2014/2015	2018/2019	2021/2022	2026/2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
Ballarat (C)	3,257	3,493	3,934	4,288	4,993	1,500	42.9%
Moorabool (S)	961	963	1,096	1,247	1,539	576	59.9%
Horsham (RC)	637	726	757	809	911	185	25.5%
Golden Plains (S)	630	604	708	800	947	343	56.8%
Hepburn (S)	475	567	586	645	757	190	33.6%
Northern Grampians (S)	477	483	482	511	559	76	15.7%
Ararat (RC)	430	392	409	438	482	90	23.0%
Pyrenees (S)	287	258	267	295	345	87	33.5%
Yarriambiack (S)	277	286	271	276	293	7	2.5%
Hindmarsh (S)	242	265	244	251	264	-1	-0.4%
West Wimmera (S)	167	185	159	161	168	-17	-8.9%
Total	7,840	8,222	8,911	9,721	11,259	3,037	36.9%

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

Private hospital campuses provided 41.1 per cent of cancer-related inpatient services to Grampians residents in 2014/2015, followed by Ballarat Health Services [Base Campus] (22.3 per cent) and Wimmera Base Hospital [Horsham] (8.9 per cent) (Table 34).

Table 34 Campus of Grampians residents receiving cancer-related inpatient services (excluding chemotherapy) 2013/2014 to 2014/2015 historical and forecast to 2026/2027

Campus	2013/2014	2014/2015	2018/2019	2021/2022	2026/2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
Private hospital campus*	3,182	3,379	3,775	4,159	4,892	1,513	44.8%
Ballarat Health Services [Base Campus]	1,665	1,832	1,944	2,095	2,420	588	32.1%
Wimmera Base Hospital [Horsham]	653	731	762	811	909	178	24.4%

Campus	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
Geelong Hospital	173	228	253	282	317	89	39.2%
Stawell Regional Health	201	245	249	263	291	46	18.8%
East Grampians Health Service [Ararat]	195	227	231	252	283	56	24.6%
Ballarat Health Services [Queen Elizabeth Campus]	180	165	194	220	260	95	57.8%
Djerriwarrh Health Service [Bacchus Marsh]	164	146	188	224	294	148	101.6%
Peter MacCallum Cancer Institute [East Melbourne]	178	179	179	192	213	34	19.1%
Royal Melbourne Hospital - City Campus	181	154	165	176	196	42	27.1%
Alfred, The [Prahran]	160	119	143	150	158	39	32.5%
Austin Hospital	103	101	106	117	134	33	32.2%
Maryborough District Health Service [Maryborough]	57	78	81	94	112	34	43.6%
Daylesford District Hospital	81	68	77	84	102	34	50.4%
St Vincent's Hospital	70	60	57	61	69	9	14.5%
Western Hospital [Footscray]	64	49	57	64	79	30	61.8%
Royal Children's Hospital [Parkville]	66	40	44	47	52	12	31.1%
West Wimmera Health Service [Nhill]	40	52	47	48	49	-3	-6.3%
Melton Health	45	26	40	43	49	23	86.7%
Royal Women's Hospital [Carlton]	47	34	36	36	38	4	11.8%
Other hospital campus	335	309	284	302	341	32	10.3%
Total	7,840	8,222	8,911	9,721	11,259	3,037	36.9%

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Table 35 looks at where Grampians residents went for cancer-related inpatient services in 2014/2015, by campus and Local Government Area of residence. While 60.9 per cent of cancer-related inpatient separations at Ballarat Health Services [Base Campus] were from City of Ballarat residents, there were also a number of separations from people who travelled from Hepburn Shire, Moorabool Shire and Golden Plains Shire (all of which border the City of Ballarat).

Table 35 Where Grampians residents went for cancer-related inpatient services (excluding chemotherapy) in 2014/2015

Campus	Ballarat (C)	Moorabool (S)	Horsham (RC)	Golden Plains (S)	Northern Grampians (S)	Hepburn (S)	Ararat (RC)	Pyrenees (S)	Yarriambiack (S)	Hindmarsh (S)	West Wimmera (S)
Private hospital campus*	1,718	346	140	291	123	166	136	99	90	56	17
Ballarat Health Services [Base Campus]	1,014	120	30	119	68	135	56	94	9	11	9
Wimmera Base Hospital [Horsham]	-	<5	378	-	20	-	6	<5	107	96	41

Campus	Ballarat (C)	Moorabool (S)	Horsham (RC)	Golden Plains (S)	Northern Grampians (S)	Hepburn (S)	Ararat (RC)	Pyrenees (S)	Yarriambiack (S)	Hindmarsh (S)	West Wimmera (S)
Stawell Regional Health	<5		8	<5	154	-	16	9	7	<5	
East Grampians Health Service [Ararat]	18	<5	<5	<5	10	-	147	9	5	<5	<5
Royal Melbourne Hospital - City Campus	39	42	32	11	11	7	<5	5	<5	9	20
Ballarat Health Services [Queen Elizabeth Campus]	134	18	<5	9	<5	5	<5	7	-	-	-
Peter MacCallum Cancer Institute [East Melbourne]	56	36	17	13	14	20	6	5	<5	<5	9
Geelong Hospital	17	12	<5	129	<5	<5		<5	8	-	-
Djerriwarrh Health Service [Bacchus Marsh]	<5	160	-	<5	<5	-	-	-	-	-	-
Alfred, The [Prahran]	78	18	<5	5	<5	8	37	<5	6	-	-
Austin Hospital	42	21	<5	14	<5	8	<5	<5	<5	<5	-
Other hospital campus	135	185	22	35	66	123	16	49	42	62	70
Total	3,257	961	637	630	477	475	430	287	277	242	167

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

Table 36 looks at forecast cancer-related inpatient separations in 2026/2027 by hospital campus and Local Government Area.

Table 36 Where Grampians residents are forecast to go for cancer-related inpatient services (excluding chemotherapy) in 2026/2027

Campus	Ballarat (C)	Moorabool (S)	Golden Plains (S)	Horsham (RC)	Hepburn (S)	Northern Grampians (S)	Ararat (RC)	Pyrenees (S)	Yarriambiack (S)	Hindmarsh (S)	West Wimmera (S)
Private hospital campus*	2,822	595	434	163	327	143	133	116	84	52	23
Ballarat Health Services [Base Campus]	1,555	191	183	38	170	70	53	107	17	21	14
Wimmera Base Hospital [Horsham]	<5	<5	<5	593		14	<5	<5	122	116	54
Geelong Hospital	33	23	217	14	<5	<5	7	<5	15	-	-
Djerriwarrh Health Service [Bacchus Marsh]	<5	283	-	<5	<5	5	-	-	-	-	-
Stawell Regional Health	6	-	<5	31	-	223	11	<5	10	<5	<5
East Grampians Health Service [Ararat]	18	-	<5	<5	-	18	224	14	6	-	-

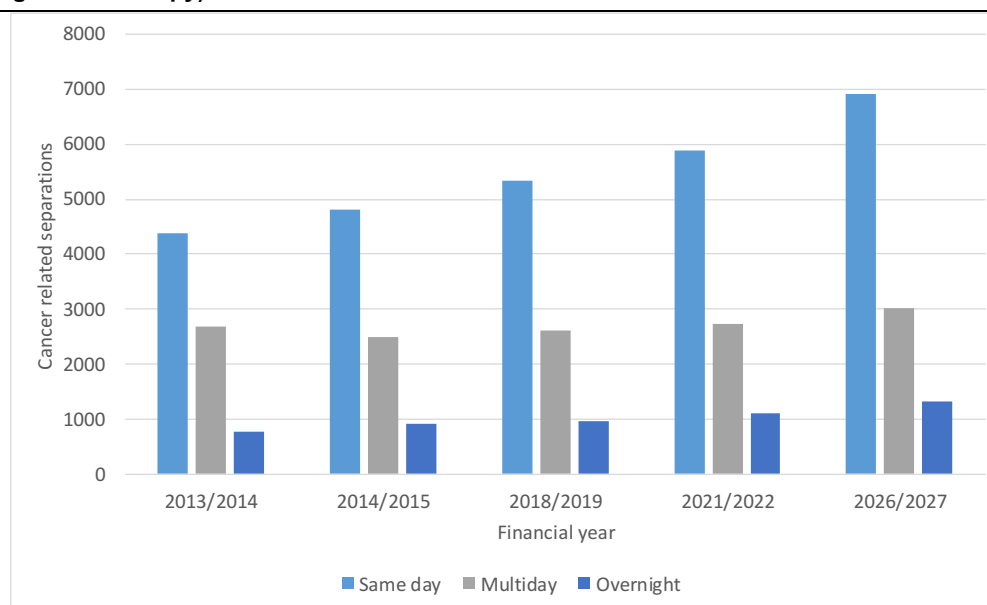
Campus	Ballarat (C)	Moorabool (S)	Golden Plains (S)	Horsham (RC)	Hepburn (S)	Northern Grampians (S)	Ararat (RC)	Pyrenees (S)	Yarriambiack (S)	Hindmarsh (S)	West Wimmera (S)
Ballarat Health Services [Queen Elizabeth Campus]	194	24	12	<5	10	<5	8	7	-	<5	<5
Peter MacCallum Cancer Institute [East Melbourne]	62	53	11	18	25	22	6	8	<5	<5	5
Royal Melbourne Hospital - City Campus	50	54	17	19	17	7	<5	6	<5	<5	16
Alfred, The [Prahran]	74	39	<5	<5	12	<5	15	<5	<5	<5	-
Austin Hospital	45	18	16	6	33	<5	6	<5	-	<5	<5
Other hospital campus	128	256	49	21	158	45	13	73	32	63	52
Total	4,993	1,539	947	911	757	559	482	345	293	264	168

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

*These are private hospitals, not private patients admitted to public hospitals. The dataset did not differentiate between private hospitals, some of which may not be located in Grampians region.

In 2014/2015, 58.5 per cent of cancer-related separations by Grampians residents were same day stays, while 30.4 per cent were multiday and 11.1 per cent were overnight. By 2026/2027 the percentage of same day activity is expected to increase to 61.4 per cent (Figure 16).

Figure 16 Length of stay type of Grampians residents receiving cancer-related inpatient services (excluding chemotherapy) 2013/2014 to 2014/2015 historical and forecast to 2026/2027



Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

Over the next twelve years the average length of stay of non-same day cancer-related separations by Grampians residents is expected to decrease by 0.7 days (Table 37).

Table 37 Average length of stay of Grampians residents receiving cancer-related inpatient services (excluding chemotherapy and same day separations) 2013/2014 to 2014/2015 historical and forecast to 2026/2027

	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
Total separations	3,456	3,410	3,582	3,838	4,340	930	27.3%
Total bed days	27,011	24,730	25,662	26,645	28,531	3,801	15.4%
Average length of stay (days)	7.8	7.3	7.2	6.9	6.6	-0.7	-9.4%

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

During 2014/2015, almost half (47.4 per cent) of cancer-related separations by Grampians residents were surgical, 35.0 per cent were medical and 17.6 per cent were “other” (for example, diagnostic procedures like endoscopy) (Table 38).

Table 38 Clinical grouping of admission by Grampians residents receiving cancer-related inpatient services (excluding chemotherapy) 2013/2014 to 2014/2015 historical and forecast to 2026/2027

Clinical grouping	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
Medical	2,902	2,878	2,922	3,079	3,361	483	16.8%
Other	1,384	1,448	1,661	1,862	2,263	815	56.3%
Surgical	3,554	3,896	4,327	4,779	5,634	1738	44.6%
Unknown*			<5	<5	<5	1	N/A
Total	7,840	8,222	8,911	9,721	11,259	3,037	36.9%

*Private hospital admissions with a confidential DRG code

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

Table 39 looks at the Diagnostic Related Group (DRG) of cancer-related separations by Grampians residents. Over the next twelve years, separations with the DRG of “J11Z Other Skin, Subcutaneous Tissue and Breast Procedures” are expected to increase by 50.1 per cent, representing 14.4 per cent of total cancer-related separations, followed by 8.5 per cent of separations with the DRG of “G48C Colonoscopy, Sameday” and 8.0 per cent with the DRG of “R61C Lymphoma and Non-Acute Leukaemia, Sameday”.

Table 39 Diagnostic Related Group (DRG) of Grampians residents receiving cancer-related inpatient services (excluding chemotherapy) 2013/2014 to 2014/2015 historical and forecast to 2026/2027

DRG code	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
J11Z Other Skin, Subcutaneous Tissue and Breast Procedures	905	1,078	1,230	1,369	1,618	540	50.1%
R61C Lymphoma and Non-Acute Leukaemia, Sameday	681	789	781	831	904	115	14.6%
G48C Colonoscopy, Sameday	602	617	723	806	962	345	55.9%
Z40Z Other Contacts W Health Services W Endoscopy, Sameday	411	451	509	568	699	248	55.0%
J10Z Plastic OR Procedures for Skin, Subcutaneous Tissue and Breast Disorders	230	289	337	383	476	187	64.8%

DRG code	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
J08C Other Skin Grafts and Debridement Procedures, Sameday	178	253	280	331	429	176	69.6%
J06A Major Procedures for Malignant Breast Disorders	218	194	211	225	249	55	28.5%
R61B Lymphoma and Non-Acute Leukaemia W/O Catastrophic CC	222	184	184	194	210	26	14.0%
G46C Complex Endoscopy, Sameday	124	130	155	186	245	115	88.3%
G60B Digestive Malignancy W/O Catastrophic CC	165	153	152	157	171	18	11.9%
L07B Other Transurethral Procedures W/O CC	108	116	130	149	188	72	61.8%
J08B Other Skin Grafts and Debridement Procedures W/O CC	83	95	116	137	178	83	87.5%
E71B Respiratory Neoplasms W/O Catastrophic CC	102	123	122	126	135	12	9.5%
R60C Acute Leukaemia, Sameday	73	131	120	124	128	-3	-1.9%
N09Z other Vagina, Cervix and Vulva Procedures	99	115	115	118	121	6	5.4%
Z64B Other Factors Influencing Health Status, Sameday	112	88	107	115	127	39	44.8%
E71A Respiratory Neoplasms W Catastrophic CC	99	81	91	95	107	26	31.5%
J13B Lwr Limb Procs W/O Ulcer/Cellulitis W/O (Skin Grafts and Sev CC) W/O Cat CC	50	80	88	101	123	43	54.4%
N04B Hysterectomy for Non-Malignancy W/O Catastrophic or Severe CC	92	75	77	82	88	13	17.4%
I65B Musculoskeletal Malignant Neoplasms W/O Radiotherapy W/O Cat CC	74	74	74	78	87	13	17.5%
G60A Digestive Malignancy W Catastrophic CC	84	62	71	76	86	24	39.3%
B66B Nervous System Neoplasms W/O Radiotherapy W Catastrophic or Severe CC	62	75	73	76	84	9	12.5%
G02A Major Small and Large Bowel Procedures W Catastrophic CC	74	69	73	74	81	12	17.0%
H61A Malignancy of Hepatobiliary System and Pancreas W Catastrophic CC	53	67	67	71	81	14	20.2%
Other DRG code	2,939	2,833	3,025	3,248	3,680	847	29.9%
Total	7,840	8,222	8,911	9,721	11,259	3,037	36.9%

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

Table 40 looks at the ICD-10-AM diagnostic code⁶ allocated to cancer-related separations by Grampians residents. In 2014/2015 the most common codes were “C443 Other malignant neoplasms of skin - Skin of other and unspecified parts of face” (6.8 per cent), “Z080 Follow-up examination after surgery for malignant neoplasm” (4.0 per cent) and “C61 Malignant neoplasm of prostate” (2.9 per cent).

Table 40 ICD-10-AM code of separations by Grampians residents receiving cancer-related inpatient services (excluding chemotherapy) 2013/2014 to 2014/2015 historical and forecast to 2026/2027

ICD-10-AM code	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
C443 Other malignant neoplasms of skin - Skin of other and unspecified parts of face	461	563	645	737	910	347	61.7%
Z080 Follow-up examination after surgery for malignant neoplasm	320	329	378	422	516	187	56.9%
C61 Malignant neoplasm of prostate	193	236	245	264	299	63	26.8%
D123 Benign neoplasm of colon, rectum, anus and anal canal - Transverse colon	132	153	188	213	257	104	67.8%
D45 Polycythaemia vera	158	163	187	205	222	59	36.1%
C442 Other malignant neoplasms of skin - Skin of ear and external auricular canal (excl. connective tissue of ear)	127	151	180	206	259	108	71.3%
C795 Secondary malignant neoplasm of bone and bone marrow	173	157	169	178	201	44	27.9%
C9000 Multiple myeloma	99	188	173	182	196	8	4.3%
D122 Benign neoplasm of colon, rectum, anus and anal canal - Ascending colon	138	131	152	172	209	78	59.8%
D125 Benign neoplasm of colon, rectum, anus and anal canal - Sigmoid colon	122	130	151	170	204	74	57.2%
C444 Other malignant neoplasms of skin - Skin of scalp and neck	89	124	142	163	205	81	65.5%
Z087 Follow-up examination after combined treatment for malignant neoplasm	116	114	129	141	172	58	51.1%
C9110 Chronic lymphocytic leukaemia of B-cell type	108	139	128	133	154	15	10.5%
C447 Other malignant neoplasms of skin - Skin of lower limb, including hip	75	104	121	139	169	65	62.5%
C446 Other malignant neoplasms of skin - Skin of upper limb, including shoulder	90	97	115	133	167	70	72.6%
D120 Benign neoplasm of colon, rectum, anus and anal canal - Caecum	81	100	118	130	153	53	53.5%

⁶ *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification*

ICD-10-AM code	2013/ 2014	2014/ 2015	2018/ 2019	2021/ 2022	2026/ 2027	Difference 2014/2015 to 2026/2027	Per cent change 2014/2015 to 2026/2027
C341 Malignant neoplasm of bronchus and lung - Upper lobe, bronchus or lung	106	106	114	121	134	28	26.5%
C20 Malignant neoplasm of rectum	97	101	109	114	130	29	28.6%
D128 Benign neoplasm of colon, rectum, anus and anal canal - Rectum	97	93	103	115	139	46	49.1%
C787 Secondary malignant neoplasm of liver and intrahepatic bile duct	77	106	110	116	131	25	23.6%
C441 Other malignant neoplasms of skin - Skin of eyelid, including canthus (excl. connective tissue of eyelid)	67	96	104	118	148	52	54.3%
Z089 Follow-up examination after unspecified treatment for malignant neoplasm	80	87	101	113	136	49	56.2%
C509 Malignant neoplasm of breast - Breast, unspecified	101	92	88	92	102	10	10.4%
C833 Non-follicular lymphoma - Diffuse large B-cell lymphoma	91	84	85	92	103	19	23.1%
Other ICD-10-AM code	4,642	4,578	4,876	5,252	5,942	1,364	29.8%
Total	7,840	8,222	8,911	9,721	11,259	3,037	36.9%

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS

Some patients are treated as private patients in public hospitals. In this case, the episode of care is reported to the Victorian Department of Health and Human Services in the Victorian Admitted Episodes Dataset, and a reduced WIES payment is made. The consultant also charges the patient direct, through Medicare and/or through the patient's medical insurance. Some of these patients may also be represented in the Medicare tables below, but it is not possible to correlate the VAED with the Medicare dataset.

Table 41 Public hospital campus attended by Grampians residents for privately-provided chemotherapy separations 2012 to 2015

Campus name	2012	2013	2014	2015	Diff 2012 to 2015	Per cent change
Wimmera Base Hospital [Horsham]	852	744	880	982	130	13%
Ballarat Health Services [Base Campus]	720	442	583	554	-166	-30%
Stawell Regional Health	172	121	309	257	85	33%
East Grampians Health Service [Ararat]	203	221	167	128	-75	-59%
University Hospital Geelong	102	132	93	82	-20	-24%
Peter MacCallum Cancer Institute [East Melbourne]	103	53	109	122	19	16%
Ballarat Health Services [Queen Elizabeth Campus]	61	48	50	53	-8	-15%
Royal Melbourne Hospital - City Campus	56	55	56	34	-22	-65%
Royal Children's Hospital [Parkville]	39	42	32	22	-17	-77%
Djerriwarrh Health Service [Bacchus Marsh]	23	34	31	23	0	0%

Campus name	2012	2013	2014	2015	Diff 2012 to 2015	Per cent change
Alfred, The [Prahran]	45	34	9	11	-34	-309%
Austin Hospital	14	18	33	16	2	13%
West Wimmera Health Service [Nhill]	14	10	21	17	3	18%
Other hospital campus*	90	87	94	81	-9	-11%
Total	2494	2041	2467	2382	-112	-5%

Source: Victorian Admitted Episodes Dataset (VAED) 2016, DHHS
 * A number of public hospitals with small numbers

Medicare Benefits Schedule chemotherapy claims

This section looks at cytotoxic chemotherapy and other chemotherapy-related Medicare Benefits Schedule (MBS) claims by Grampians Region residents during the years 2012/2013 to 2014/2015. This does not include services that may have been provided to public patients in hospitals, to outpatients in public hospitals or in emergency departments in public hospitals. Due to the suppression of data where values are less than 6 in order to protect patient confidentiality, we have displayed the data within minimum and maximum ranges for each year.

Total chemotherapy and chemotherapy-related MBS claims by Grampians region residents have increased by approximately 5-6 per cent over the last three years, with the greatest increase in claims from Horsham Rural City and Yarriambiack Shire residents (Table 42).

Table 42 Chemotherapy and chemotherapy-related Medicare Benefits Schedule (MBS) items for the GICS catchment 2012/2013 to 2014/2015, by patient Local Government Area

Local government area	2012/2013		2013/2014		2014/2015	
	Min.	Max.	Min.	Max.	Min.	Max.
Ararat (RC)	395	467	467	539	228	300
Ballarat (C)	6,520	6,676	6,652	6,776	5,990	6,202
Central Goldfields (S)	325	413	339	403	407	487
Golden Plains (S)	450	546	459	563	606	730
Hepburn (S)	650	762	763	843	481	549
Hindmarsh (S)	432	492	455	511	604	648
Horsham (RC)	1,092	1,184	2,144	2,240	2,177	2,253
Moorabool (S)	843	959	1,078	1,202	838	958
Northern Grampians (S)	849	965	1,036	1,116	684	736
Pyrenees (S)	327	403	254	330	240	300
West Wimmera (S)	199	235	310	342	257	297
Yarriambiack (S)	522	598	480	568	908	952
Total	12,604	13,700	14,437	15,433	13,420	14,412

Source: Department of Human Services - Information Gateway and Governance Branch 2016

When singling out claims for cytotoxic chemotherapy only, the number of claims by Grampians region residents has increased by 3-4 per cent over the last three years, again with the greatest increase in claims by Horsham Rural City and Yarriambiack Shire residents. In some Local Government Areas including Ararat Rural City, City of Ballarat, Hepburn Shire, Moorabool Shire, Northern Grampians Shire, Pyrenees Shire and West Wimmera Shire the number of claims have decreased (Table 43).

Table 43 Cytotoxic chemotherapy Medicare Benefits Schedule (MBS) items for the GICS catchment 2012/2013 to 2014/2015, by patient Local Government Area

Local government area	2012/2013		2013/2014		2014/2015	
	Min.	Max.	Min.	Max.	Min.	Max.
Ararat (RC)	310	330	298	318	146	154
Ballarat (C)	4,043	4,087	4,151	4,179	3,738	3,810
Central Goldfields (S)	171	199	217	225	234	262
Golden Plains (S)	312	344	299	319	405	449
Hepburn (S)	376	420	540	564	318	330
Hindmarsh (S)	242	258	234	250	335	347
Horsham (RC)	627	651	1,390	1,406	1,252	1,256
Moorabool (S)	518	554	702	734	457	497
Northern Grampians (S)	592	628	829	849	457	465
Pyrenees (S)	164	196	152	172	132	164
West Wimmera (S)	119	127	135	155	95	107
Yarriambiack (S)	329	345	240	276	547	559
Total	7,803	8,139	9,187	9,447	8,116	8,400

Source: Department of Human Services - Information Gateway and Governance Branch 2016

The most commonly claimed chemotherapy or chemotherapy-related item claimed by Grampians region residents is "long-term implanted drug delivery device for cytotoxic chemotherapy" followed by "cytotoxic chemotherapy" (Table 44).

Table 44 Chemotherapy and chemotherapy-related Medicare Benefits Schedule (MBS) items for the GICS catchment 2012/2013 to 2014/2015, by MBS item

MBS item and category/short description	2012/2013		2013/2014		2014/2015	
	Min.	Max.	Min.	Max.	Min.	Max.
13945 Long-Term Implanted Drug Delivery Device For Cytotoxic Chemotherapy	4,537	4,621	4,987	5,071	5,048	5,128
13918 Cytotoxic Chemotherapy	4,408	4,484	5,053	5,109	5,074	5,138
13924 Cytotoxic Chemotherapy	1,908	1,988	2,916	2,932	2,497	2,541
13915 Cytotoxic Chemotherapy	1,005	1,145	545	681	496	608
13921 Cytotoxic Chemotherapy	492	572	673	725	49	113
34527 Central Vein Catheterisation	110	326	88	272	101	285
34530 Central Venous Line, Or Other Chemotherapy Devic	52	208	89	293	75	231
34528 Central Vein Catheterisation	86	326	77	305	66	298
13948 Cytotoxic Agent	8	40	5	25	5	25
35406 Dosimetry, Handling And Injection Of Sir-Spheres	<5	10			<5	20
35404 Dosimetry, Handling And Injection Of Sir-Spheres	<5	10			<5	10
13927 Cytotoxic Chemotherapy			<5	5		
37610 Retroperitoneal Lymph Node Dissection	<5	10	<5	10		

MBS item and category/short description	2012/2013		2013/2014		2014/2015	
	Min.	Max.	Min.	Max.	Min.	Max.
13942 Ambulatory Drug Delivery Device					<5	10
13939 Implanted Pump Or Reservoir	<5	10	<5	5	<5	5
Total	12,614	13,750	14,437	15,433	13,420	14,412

Source: Department of Human Services - Information Gateway and Governance Branch 2016

While the number of cytotoxic chemotherapy MBS claims has increased overall, looking at age groups tells us that the increase is only by those aged 30 to 39 years of age, 60 to 69 years of age and those aged 80 years and older (Table 45).

Table 45 Cytotoxic chemotherapy Medicare Benefits Schedule (MBS) items for the GICS catchment 2012/2013 to 2014/2015

Age group	2012/2013		2013/2014		2014/2015	
	Min.	Max.	Min.	Max.	Min.	Max.
00-09	109	117	76	92	64	80
10-19	71	99	55	71	48	72
20-29	49	61	86	98	43	59
30-39	127	135	242	254	257	269
40-49	616	668	453	481	279	311
50-59	1,404	1,464	1,578	1,618	1,125	1,161
60-69	1,948	2,024	2,390	2,442	2,554	2,602
70-79	2,708	2,732	2,981	3,037	2,051	2,111
80 plus	771	839	1,326	1,354	1,695	1,735
Total	7,803	8,139	9,187	9,447	8,116	8,400

Source: Department of Human Services - Information Gateway and Governance Branch 2016

Appendix 5 Policy and planning context

The policy context for this service plan is set by the Victorian Government. The Victorian Government has now developed a legislative framework in the *Improving Cancer Outcomes Act 2014*, which requires the development of a statewide cancer plan every four years.

Improving Cancer Outcomes Act 2014 and four-year cancer plan

In 2016/2017 the Victorian Department of Health and Human Services will implement Victoria's new Cancer plan 2016–2020, the first cancer plan developed under the *Improving Cancer Outcomes Act*. The plan articulates objectives and policy priorities for cancer which have been developed in collaboration with the sector. It builds on and develops Victoria's current cancer reform program, which in 2016-2020 will focus on:

- Implementation of the nationally agreed Optimal Cancer Care Pathways across Victorian cancer services and service providers
- Development of survivorship models to support best practice care for cancer patients and carers following their initial treatment
- Ongoing work with Victoria's cancer sector and Cancer Australia to develop and test a cancer service capability framework across Victorian cancer service providers
- Working with Victoria's new Regional Cancer Centres to develop best practice models for regional cancer care, including supporting early diagnosis and more streamlined referral pathways for rural and regional Victorians
- Working with Victoria's Comprehensive Cancer Centre to strengthen collaboration in cancer research across Victoria
- Promoting and supporting access to clinical trials to improve participation rates
- Development of a program for monitoring Victorians' experience of cancer.

Victoria's Integrated Cancer Services will continue to support reform implementation across Victoria.

The Act supports the Victorian strategy for cancer control, and strengthens the state healthcare system's capacity to respond to scientific, technological and policy developments in cancer. It authorises the collection of cancer data and information, and establishes a framework for the appropriate management, use and disclosure of the information. It continues the mandatory reporting of cancer diagnosis information, and allows the Secretary of the Department of Health and Human Services to enter an agreement with a third party to collect and store the information, currently Cancer Council Victoria, Victorian Cytology Service and BreastScreen Victoria.

Grampians Integrated Cancer Service

The Grampians Integrated Cancer Service was established under *Victoria's cancer action plan 2008-2011*, with a mandate to improve cancer care systems and services in the Grampians region by working in partnership with the community and public and private health service providers. Its mission is to improve patient experiences and outcomes by connecting cancer care and driving best practice. Its objectives are to:

- Understand the needs of people affected by cancer
- Build and support collaboration between health professionals, health services and consumers
- Drive quality improvement in cancer care
- Support development of the cancer workforce
- Facilitate system-wide engagement in cancer research.

Roles of Victoria's Regional Cancer Centres

Regional cancer centres have been established across Victoria, under *Victoria's Cancer Action Plan*. Their roles are:

- To maintain a regional focus on quality cancer care, but to be outward-looking

- To provide the highest level of care within the region and to be the regional complex care provider
- To provide and promote access to clinical trials in regional settings
- To provide and promote supportive care, survivorship services and wellness services
- To promote and support participation in multi-disciplinary meetings and to support the use of information technology and e-health initiatives to make clinical services more accessible
- To promote and support professional education and development
- To provide patient and carer accommodation.

Clinical governance policy framework 2008

Victoria's health services operate within the nine framework principles laid out in the *Clinical governance policy framework*. These are:

- Focus on the consumer experience
- Clear communication of priorities and strategic directions to support quality and safety systems
- Planning and resource allocation supports achievement of goals
- Strong clinical leadership and ownership
- Promotion of organisational cultures that support patient safety and quality improvement initiatives
- Compliance with legislative and departmental policy requirements including hospital accreditation
- Rigorous measurement of performance and progress, including reporting and review
- Continuous improvement of quality and safety
- Clear definition of roles and responsibilities that are understood by health service users and providers.

Review of hospital safety and quality assurance in Victoria 2015

Following some clinical governance failures in Victorian public health services, the Victorian Government commissioned a review of hospital safety and quality assurance. The review has not been completed, but it has identified four main themes for strengthening clinical governance:

- Fostering a culture of continuous improvement
- Improving governance in health services
- Strengthening the Department's oversight of safety and governance in health services
- Increasing transparency.

Victorian health services performance monitoring framework 2016

The framework describes the Victorian Government's approach to organising, funding, monitoring and intervening in the provision of health services and programs that meet the needs of Victorian communities. The framework brings together:

- Governance
- Planning
- Strategic and operational management
- Funding
- Performance information
- Performance monitoring and intervention
- Evaluation and reporting.

The framework establishes a dialogue between the Department of Health and Human Services and health service providers, in order to align government priorities, plans and budget provisions with health services' delivery strategies and actions to support health service and system performance. This dialogue follows an annual business cycle which includes development of budgets, agreement to Statements of priorities, monitoring and assessment, review and evaluation.

Appendix 6 Notes from Planning Workshop

This Appendix provides a report on outcomes of the Planning Workshop conducted Friday 24 June 2016 with service providers and service system stakeholders in the Grampians region. Attendees included service consumers, medical officers, nursing managers and health services managers. A list of attendees and people apologising is attached.

PRESENTATIONS

Welcome, Background and Purpose

Presented by the Chair, Joanne Gell, Strategic Director, GICS

The aim of the workshop is to provide a detailed picture of the current state of chemotherapy service delivery across the Grampians region, and to identify any future requirements. The Plan must incorporate issues relating to location, critical mass, management risks and linkages.

The methodology of formulating the chemotherapy service plan consists of:

- 1 Data analysis of population, epidemiology and utilisation rates
- 2 Consultations with stakeholders
- 3 Survey (constructed in consultation with Grampians Consumer Advisory Group) of consumer attitudes toward service providers
- 4 Workshops
- 5 Report.

This process is managed by the Project Control Group, which has representatives from Grampians Integrated Cancer Service, Ballarat Health Services, Wimmera Health Care Group and the Department of Health and Human Service.

State Government Directions

Presented by Adam Chapman, Manager Cancer Services and Information, Department of Health and Human Services

- The Department's goal is to lead reforms that support local flexibility and making cancer treatment as accessible as possible
- This was consolidated in the 2008 Action Plan with centralised funding and the creation of the Victorian Cancer Agency
- Optimal Care Pathways were led by Victoria and then rolled out nationally
- The Department has a mandate to produce a cancer plan every four years; the current plan will be released in July
- Victorian Regional Cancer Centres:
 - There is an expectation of service change and improvement from funding the development of these centres – more than just bricks and mortar
 - The centres are outward looking, delivering clinical trials, professional education and support, patient and carer accommodation, the highest level of care within the region, and support for regional Multi-disciplinary meetings
- Health 2040: a longer-term discussion paper with a focus on patient-centred care. Health 2040 highlights the social aspect of care
- Duckett Review
 - Quality and Safety processes
 - Department to improve its 'touch' with performance issues facing the sector
 - Clear governance structures and approaches
 - Transparency

Q: How is the department going to accrue data, and how is that data going to help us?

A: There is no easy answer to that question. We can use administrative cancer data to validate against other data sets. This will allow us to give an indication of how services are performing comparatively.

Q: For the Regional Cancer Centres, funding is linked to strategic design i.e. it's not just for bricks and mortar. How does this work?

A: We want to realise more than just a building. We need to think about what the role of a regional cancer centre might be. It could be used to provide other services with support, through:

- Rapid referral
- General practitioner education
- Placement

The investment is in more than just initial capacity. It's about how we provide support across the region: with both Ballarat Health Services and GICS being responsible for improved models of care.

Data Presentation

Presented by Alison Hallahan, Principal, Biruu.Health

As some regions in the Grampians have very small populations, it is vital that the numbers are treated with care. A small increase of chemotherapy separations in a small population may skew the data set. There are a number of limitations with the dataset:

- Can track admissions, but not patients
- Can't identify how many episodes a single patient had
- Can't tell which private hospital a patient attended.

Survey Responses

- People are generally aware of what's available and had a choice of where to go
- Location is important
- We received a number of unsolicited remarks about the high quality of service respondents were receiving

Catchment Population

- The Grampians region's population is growing, predominantly in Ballarat. Therefore, the chemotherapy service system must be equipped to deal with more people
- There is high forecast growth in the over 70 age group – the chemotherapy service system must be equipped to cater for people who may have co-morbidities
- People value locality, but there is always a trade-off between access and critical mass.

The data presentation is available on request.

FUTURE CHALLENGES

What are the challenges facing service providers over the next 10 years?

- Respond to population growth:
 - Bricks and mortar facilities are sufficient to meet future needs, and each chemotherapy service provider can expand in their existing facilities (except Wimmera Health Care Group Horsham, which is planning a redevelopment of their chemotherapy unit)
 - Staffing at Ballarat Health Services is the current limiter for service growth at the BRICC, as is funding
- Funding: link funding to care through optimal care pathways?

Transport – people are travelling long distances

- Changing technologies/treatments: variations in care

- The impact of immunological treatments may be that duration of treatment is increased, even though each episode may be shorter
- Ensure quality care:
 - Grampians region needs to do better on access to radiotherapy
 - Plan for nursing staff to rotate through different services in the region. This will ensure that they improve and diversify their skills, as well as ensure that nurses are aware of different services in the region (networking)
- Workforce: keeping skilled staff numbers high. The transient medical workforce should be encouraged to stay
 - Improve communication between services, including improving the networks between public and private partners
- Engage with support services: as the over 70 population increases, some of these people may not have a partner, carer or family. They will need assistance with nutrition, physiotherapy etc. They will have collected comorbidities. Larger services should engage with smaller services, who are better placed to provide wrap around services
- Master the balance between pushing services out to increase access for patients and pulling in to ensure quality service (critical mass). There is a trade-off between speciality and broad knowledge
- Introduce shared electronic records and a common information platform across the region. This is likely to be aided by the roll-out of Bossnet and regional electronic medical record. There may be some implementation issues in some situations, for instance at Wimmera Health Care Group Horsham's private clinics
- Introduce informed consent early in chemotherapy pathway: give patients an option as to where they have chemotherapy
 - Ensure patients know the capability of their local service, for instance they need to know they can go to Edenhope for a transfusion and Ballarat for chemotherapy
- Ensure language is not fear-based, and that patients are treated with a recovery focus
- More information regarding which patients in the region have cancer:
 - This is difficult currently due to the transient general practitioner population
 - Raises privacy questions
- Collect patients who have been seen outside the region: once a patient has left specialist treatment in Melbourne? How does the region re-engage with them? This is a particular problem with palliative care – the patient is at home dying having had no contact with the local service
- Keep having conversations within the community: what do they expect?

HOW DOES THE SERVICE SYSTEM NEED TO CHANGE?

The discussion regarding future challenges gave rise to five themes:

- 1 The 90% who can and do receive chemotherapy in the region (60-70% peripherally, and 20-30% who receive chemotherapy at a major centre in the region)
- 2 Networks
- 3 Wrap around care services
- 4 Response to changing technology and treatment
- 5 The 5-10% who choose to or are required to have chemotherapy outside the region

The 90% of patients who can and do receive chemotherapy locally

Staff

The region must attract, recruit and retain staff. There is a need to keep junior personnel, especially doctors, and specialisation and skills in the region. This could be achieved through the Regional

Highway model, supported by Ballarat Health Services' Centre for Education and Training. It could also be achieved through accessing recorded programs delivered in Melbourne, which the region has the technology to support. Staff need to be made aware of these opportunities.

Nursing staff future plans:

- Agree on nursing core competencies across the region (there are no agreed common core competencies for oncology nursing across Australia). Ballarat Health Services can lead this work in partnership with health services in the region and possibly between regions
- Set a standard of care: everyone signs up to a regional agreement to maintain expertise of nursing staff
- Face to face education of nursing staff may be preferred by some, others may be ok with IT platforms
- Teleconferences to coordinate discharge planning and frequent admissions
- Staff share – send some staff to Ballarat Health Services or Wimmera Health Care Group Horsham for short-term staff training and exposure. And vice versa: encourage major centre nurses to visit smaller providers
- Add more specialist nurses to the region, especially to smaller services and to visit people in their homes
- Regional approach: nurses fill requirements at other services e.g. if one service has a busy day, it can recruit a nurse from another service to assist
 - Through GCCN
 - Agree policies and procedures
 - MOUs to cover governance, credentials and liability
- Create liaison nurses who will co-ordinate patient care plans across the region

Medical workforce future plans:

- Need a better process to communicate patient records between doctors: public/private, regional/metro, especially general practitioner communication
- Up to date education:
 - Immunotherapy side effects
 - Run education sessions (anaesthetics, ED, obstetrics and gynaecology all have general practitioner educational frameworks which oncology can expand on). May be supported by PHN funding, but need better grant applications
 - Educate on wider suite of cancer journey – not just oncologist's competencies. Ensure that all medical staff know what patient-centred care looks like
- Telehealth from smaller locations: reduce patient's time spent travelling by connecting general practitioner, nurse, patient and oncologist via videoconference if the patient consents to this: only for follow-up appointments
 - Need the general practitioner to be knowledgeable of cancer care for this to work (build general practitioner competencies)
 - Supported by cancer care coordinators
 - Must have general practitioner and/or local nurse there with specialist so everyone is up to date on the plan

Regional approach:

- GICS to facilitate medical professionals to develop on a set of principles for regional service provision e.g. referral pathways
- Multi-disciplinary meetings: not all patients need to be discussed at a multi-disciplinary meeting.

Facilities

- Although the region cannot support more services to the west, it can upskill primary care providers and small rural health services in those areas to provide referrals and supportive care
- People need to know what they can rely on others to do:
 - Level 1 and 2 providers have a responsibility to support local people receiving chemotherapy in other locations
 - Level 3 services need to provide a continuum of care
 - Level 4 and 5 services need to communicate with the smaller services
 - Provide general practices and consultants' rooms with a poster detailing which services do what in the region

Transport

- Car parking
 - Often during chemotherapy, a short trip morphs into a 4/5-hour stay
 - In Ballarat, it is very expensive
- Create common networks for carpooling
- Community program options:
 - A volunteer drives their own car
 - Maryborough has a community car
- Nurses deliver chemo at home or local hospital. This would be decided based on a risk profile, capability profile and agreed approach
 - Utilise relationships with hospital in the home

Networks

Patient care is improved if clinicians work together. Possible actions include:

- Collect patient at the point of diagnosis or surgery, and inform them of their options
 - Have patients elect to receive their doctor's letters
 - Have a patient held cancer record, which patients, nurses, general practitioners, oncologists and other specialists can write in
- Make the cancer care coordinator regionally-based, rather than service-based and/or practitioner-based
- Have multidisciplinary groups meet more often (communities of practice) co-ordinated by GICS
- Introduce an Internet Forum/Online chat group for clinicians
- The public/private interface
 - The existing incentive structures do not encourage private hospitals to seek publicly-funded service for their patients
 - How to support patient's choice of doctor with location choices
 - Shared care model: allow doctors to admit patients to different hospitals. E.g. if a patient wants to see Dr X who doesn't consult at their local hospital, patient can still receive chemo at the local hospital
 - Telehealth consultations
 - All doctors get visiting rights at all health services
 - No reason why each chemotherapy unit can't work with all oncologists in the region
 - Need to expand referral networks to include locations and costs
- Improve health literacy in the region

Wrap-around care

Possible actions and issues include:

- Engage primary providers in care discussions e.g. wellness on wheels
- Screening rates need to increase, this should be led by primary care providers
- No public funded oncology rehabilitation: look for alternative funding resources
- The increasing numbers of over 70s who may have additional needs: negotiate with aged care service providers (residential and home based)
- Include pre-funded services (NDIS/HACC)
- Palliative care: hard to accommodate people who can't stay at home
 - Miscommunication with people who are still having treatment: improve language and management of patient expectations regarding having chemotherapy during palliative care

Changing technology

This theme was covered over the course of previous discussions.

The 5-10% who choose or are required to travel for chemotherapy

Possible actions include:

- Encourage doctors to keep patients in the Grampians region for treatment develop relationships with clinical nurses in major metropolitan centres and other services in the area
- Discourage general practitioners from referring patients outside the area
- Improve communication between regional and the main metropolitan services so that people whose treatment is not available in Grampians are known to their local health service (with the patient's consent)

WORKSHOP ATTENDEES

Attendance

Name	Position, Organisation
Jan Sherwell	Assistant Nurse Unit Manager Oncology, Stawell Regional Health
Carmel O'Kane	Nurse Practitioner Oncology, Wimmera Health Care Group
Majella Hunter	Nurse Unit Manager Oncology, Wimmera Health Care Group
Meredith Finnigan	Director of Nursing, Edenhope and District Memorial Hospital
Craig Carden	Medical Oncologist, Ballarat Cancer Care
Angela Moore	Consumer Advisory Group, Grampians Integrated Cancer Service
Mary-Rose McLaren	Consumer Advisory Group, Grampians Integrated Cancer Service
Wayne Weaire	Chief Executive, Ballan District Health and Care
Adam Chapman	Manager Cancer Services and Information, Dept of Health and Human Services
Steve Medwell	Director Ballarat Regional Integrated Cancer Centre, Ballarat Health Services
David Deutscher	Clinical Director, Grampians Regional Integrated Cancer Service
Prashanth Prithviraj	Medical Oncologist, Ballarat Oncology and Haematology Services
Robyn Wilson	Nurse Unit Manager Oncology, Ballarat Regional Integrated Cancer Centre, Ballarat Health Services
Stephen Brown	Acting Head Medical Oncology, Ballarat Regional Integrated Cancer Centre, Ballarat Health Services
Craig Wilding	Director Medical Administration, Ballarat Health Services
Jan Fisher	Executive Director Clinical Services, West Wimmera Health Service
Anne Bates	Acting Chief Executive Officer, Rural Northwest Health
Mary Kinsella	Associate Nurse Unit Manager, Day Oncology Unit, East Grampians Health Service
Lorine Paterson	Nurse Unit Manager, Inpatient Ward, East Grampians Health Service
Joanne Gell	Strategic Director, GICS
Alison Hallahan	Principal, Biruu Health
Claire Kelly	Biruu.Health

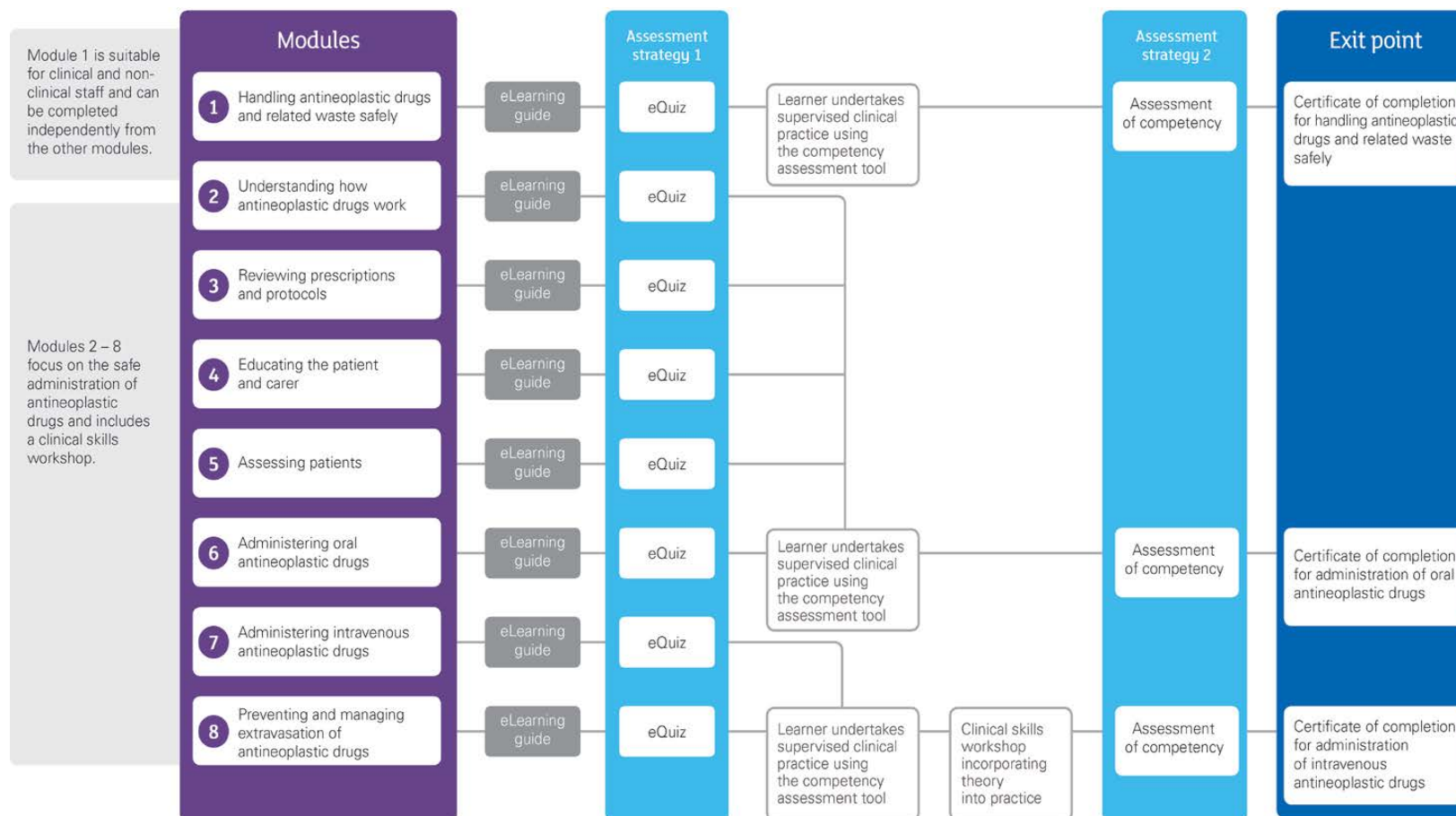
Apologies

Name	Position, Organisation
Michael Krieg	Chief Executive, St John of God Ballarat
Lee Na Teo	Medical Oncologist, Ballarat Regional Integrated Cancer Centre, Ballarat Health Services
Peter Armstrong	Director Clinical Services, East Grampians Health Service
Terri Antonio	Acting Chief Executive, Hepburn Health Service
George Kannourakis	Ballarat Oncology and Haematology
Andrew Freeman	Chief Executive, Djerriwarrh Health Service
Melanie Wuttke	Medical Oncologist, Ballarat Regional Integrated Cancer Centre, Ballarat Health Services
Glenn Reeves	Consumer Advisory Group, GICS
Kay Timmins	Consumer Advisory Group
Sally Waldron	Consumer Advisory Group
jenny Tunbridge	Department of Health and Human Services
Spiri Galetakis	Department of Health and Human Services
Margaret Daw	Director Clinical Services, Ballan District Health and Care
Ashley Hayes	General Practitioner Reference Group, GICS
Nick Kimpton	General Practitioner Reference Group, GICS
Representative	Leukaemia Foundation
Rob Phillips	Listerhouse/ Wimmera Health Care Group
Ian Campbell	Listerhouse/ Wimmera Health Care Group
Cath Healy	McGrath Foundation
Suzanne Bartlett	McGrath Foundation
Catherine Morley	Rural North West Health
Jarrold Hunter	Nurse Unit Manager Acute, Stawell Regional Health
Mary Bruce	Director Clinical Services, Stawell Regional Health
Alan Wolff	Director Medical Services, Wimmera Health Care Group
Don McRae	Director Clinical Services, Wimmera Health Care Group
Tracey Daffy	Wimmera Health Care Group
John Smith	Chief Executive, West Wimmera Health Service
Trish Heinrich	West Wimmera Health Service

Appendix 7 ADAC chemotherapy training modules

Cancer Institute NSW
Antineoplastic Drug Administration Course Competency Framework

eviQ Antineoplastic Drug Administration Course module diagram



25 October 2013

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