Department of Human Services

Rural directions for a better state of health 2007

Further defining the roles of public hospitals in rural Victoria

Discussion Paper

Rural and Regional Health and Aged Care Services
August 2007

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Introduction

Rural directions for a better state of health[1] was released in November 2005. The document outlined the Government's vision for the continued development of the rural and regional health system in Victoria. It outlined key directions and provided a framework for rural health services to develop and enhance their roles in the system of care across Victoria.

Direction 2: Foster a contemporary health system and models of care for rural Victoria described a three level structure for rural health services, with a commitment to further develop and expand the characteristics and detail of the levels with input from rural and regional health services and other key stakeholders.

Since that time, the concept of the three levels has been well embraced and the majority of rural health services already recognise their role in the provision of a coordinated and collaborative system. Planning frameworks and other specific program details have also been provided, to give additional direction for service development. However, while services recognise their role, more clarity and definition of the levels is still required. The task now is to build on what has been achieved and to provide greater clarity about the service levels by more clearly defining the roles, relationships and development priorities for regional, sub-regional and local health services.

In addition to further defining service levels, there are a number of specialty areas that warrant particular attention. These specialties include those where expansion is required, as access is limited in rural areas, and others where long-term service sustainability is critical. As the health system continues to change and evolve, these specialty areas need to be addressed to maintain a quality health service for rural Victorians.

This document brings these two aspects together and proposes continuing incremental change to the health system and health services in rural Victoria.

Purpose of discussion paper

This discussion paper outlines the roles, relationships and development priorities for rural health services. The paper identifies each of the 71 rural public health services, public hospitals and multipurpose services and their campuses as regional, sub-regional or local hospitals. The paper does not address the roles of stand-alone community health services, stand-alone residential aged care services or other non-hospital based services. To reinforce this, health services are referred to as 'hospitals' throughout the paper.

The document has been prepared as a discussion paper and will be used as a basis for workshop discussion at the 13th Ministerial Rural and Regional Health Forum on 17 August 2007. This discussion will guide the development of final recommendations and directions.

The paper is organised into the following sections:

- Principles of service development
- Changing demographics of rural Victoria
- Forecast demand for hospital services
- Specialty service developments
- The rural health system
- Regional details

To aid discussion a number of questions have been posed. These are on Page 44.

[1] Department of Human Services, *Rural directions for a better state of health*, Department of Human Services, Melbourne, November 2005

Rural directions for a better state of health

The objectives of *Rural directions* included that services be well planned and coordinated, to meet community needs in a safe and high quality environment.

While all health services have a role in providing quality care for the population within their catchment area, a single health service cannot be expected to meet the total health care needs of this community. *Rural directions* recognised this and defined a contemporary system as one in which the various components work together, with partnerships between agencies to promote coordination of the whole health system. This recognises the important role all health services play within their communities, but also recognises that health care provision is changing and services need to respond to these changes to preserve quality health care.

Depending on the health service, catchment areas vary from local communities to entire regional areas, but in each case the health care provision needs to be flexible to ensure responsiveness to local needs and conditions. The role of statewide specialist services in metropolitan Melbourne is also important, with partnerships and referral arrangements between these services and rural hospitals essential for good patient care.

These cooperative arrangements maintain all levels of care, with clear referral pathways to support the right care in the best setting, as close as possible to where people live.

Principles of service development

The principles underpinning *Direction 2: Foster a contemporary health system and models of care for rural Victoria* were outlined in *Rural directions.* These same principles can be found underpinning a number of other policy documents, including *Care in your community*[2], which outlines a planning framework for area-based, integrated health service planning in order to more effectively meet the needs of individuals and families within the community.

All of these policy directions recognise health care needs are changing and that the system must continue to evolve to better meet those needs. The guiding principles aim to maximise access, quality and continuity of care, service flexibility, opportunities for service substitution and diversion as well as optimal use of all resources.

The principles guiding policy developments across a number of service areas include:

- The health system will be person and family centred, with consideration of a person's needs as these change over time, rather than centred on agencies or programs
- People will have adequate access to services and contemporary models of care that are both effective and safe
- Partnerships between agencies will facilitate appropriate patient care, development and maintenance of clinical skills and recruitment and retention of clinical staff
- Health care will be provided in the most appropriate and least complex setting
- Services should be planned and coordinated within geographical areas
- High volume, low complexity services will be provided as close to the patient's home as possible, without compromising the quality of care
- Low volume, high complexity services will be consolidated into fewer locations, balanced by the need to ensure service quality and sustainability
- Health service responses will reflect local circumstances and individual and community diversity
- Prevention and management of disease will be coordinated across the health sector

[2] Department of Human Services, *Care in your community. A planning framework for integrated ambulatory health care*, Department of Human Services Melbourne, January 2006

- Changing models of care and alternative options for care will increase the need for flexibility in both workforce and physical infrastructure
- Improving technology will increase options for provision of care and support at the local level.

Rural directions added other policy principles specific to rural Victoria:

- Victorians living in rural areas should have access to an adequate level and mix of health services, which is comparable to those available to metropolitan residents.
  - Service utilisation will be improved through both development of services in rural areas and through enhanced referral pathways
- Victorians living in rural areas should expect to have the majority of their health care needs met by services within their own region. Ideally, patients should only require treatment in metropolitan specialist services for highly complex care.
  - Regional self-sufficiency will be enhanced with development of specialist services at regional and sub-regional level.
- Coordination at the regional, sub-regional and local level will enhance health service provision.

Changing demographics of rural Victoria

Population change

Population estimates for 2006 indicate approximately 1.4 million people living in rural and regional areas, which equates to 27.6 per cent of the total population, or more than one in four Victorians. By 2018 this is forecast to increase to over 1.5 million.

Table 1: Population growth 1992-93 to 2018-19

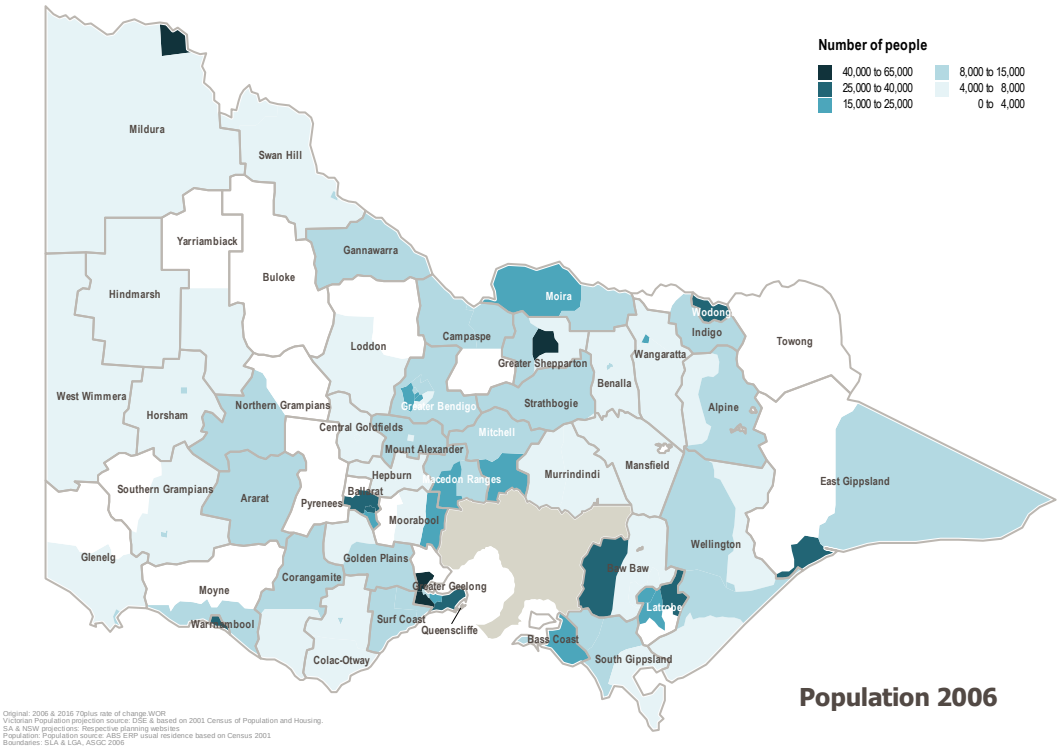
Area	Financial Year			Percentage growth	
	Estimated 1992-93	Estimated 2005-06	Estimated 2018-19	92-93 to 05-06	05-06 to 18-19
Rural	1,267,806	1,391,276	1,544,207	10%	11%
Per cent aged 70+	*9%*	*11%*	*16%*		
Metropolitan	3,194,502	3,658,319	4,148,451	15%	13%
Per cent aged 70+	*8%*	*9%*	*11%*		
Victorian Total	**4,462,308**	**5,049,594**	**5,692,658**	**13%**	**13%**
Percent Aged 70+	**8%**	**10%**	**13%**		

There is strong population growth in areas on the metropolitan-rural fringe and in most regional centres and their surrounding areas. Much of the growth is in areas with significant 'rural amenity', particularly coastal and riverine locations.

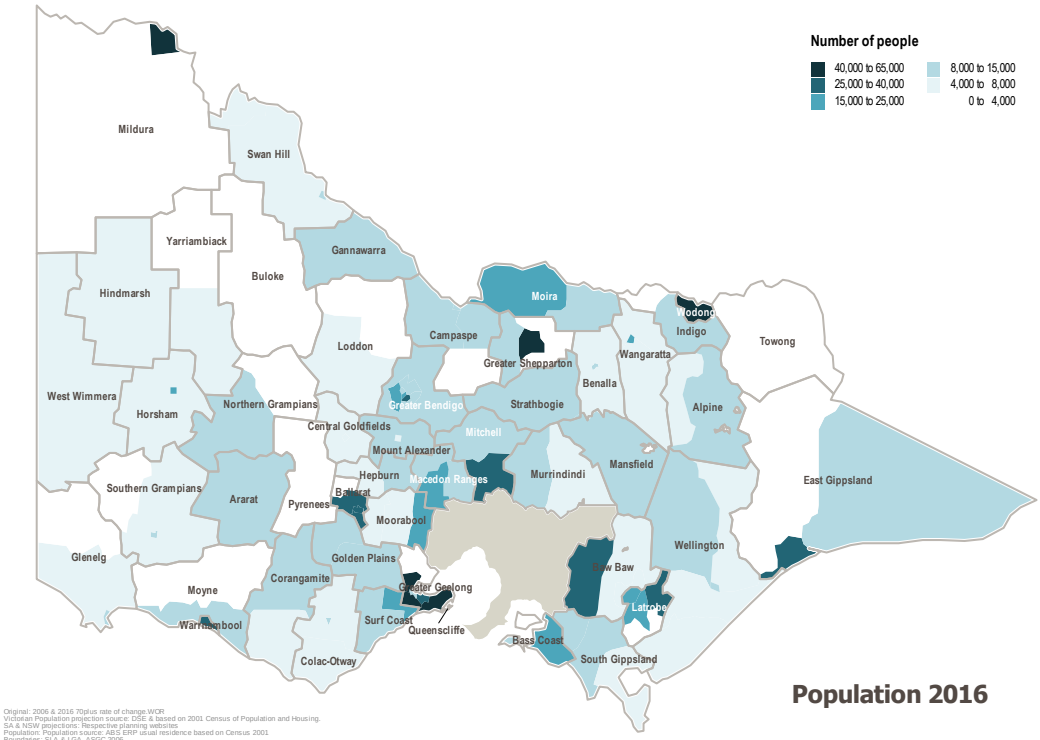
There is population decline and ageing in the more traditional farming or production areas in the western part of the state and in smaller towns outside the periphery of regional centres.

It is forecast that by 2018-19, people aged 70 years and over will consume 52 per cent of all beddays utilised by rural residents.

Map 1: Actual Population – 2006



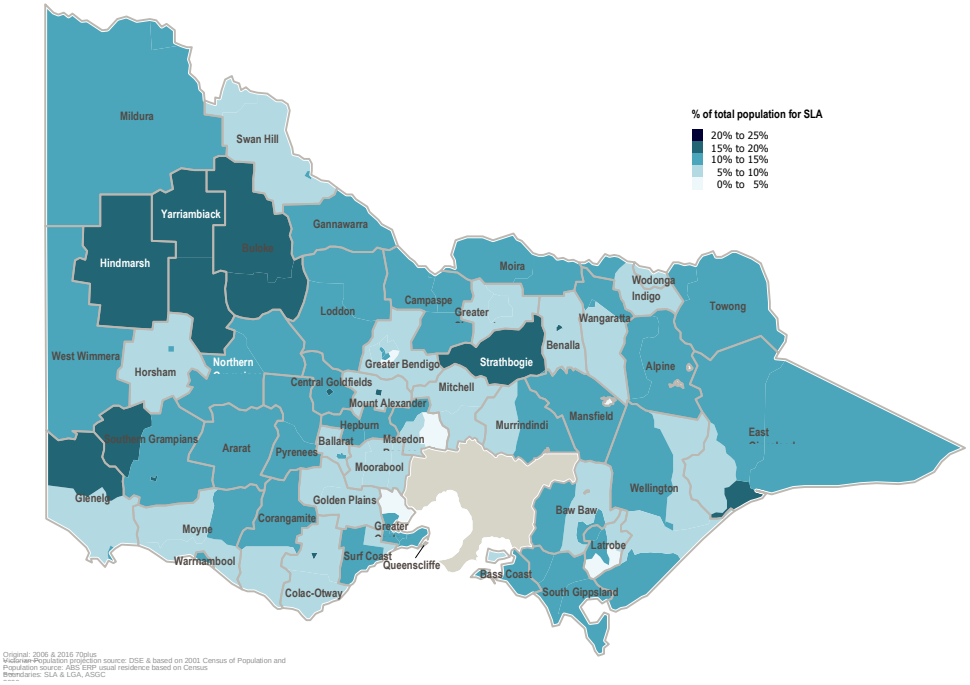
Map 2: Projected population – 2016



Age composition

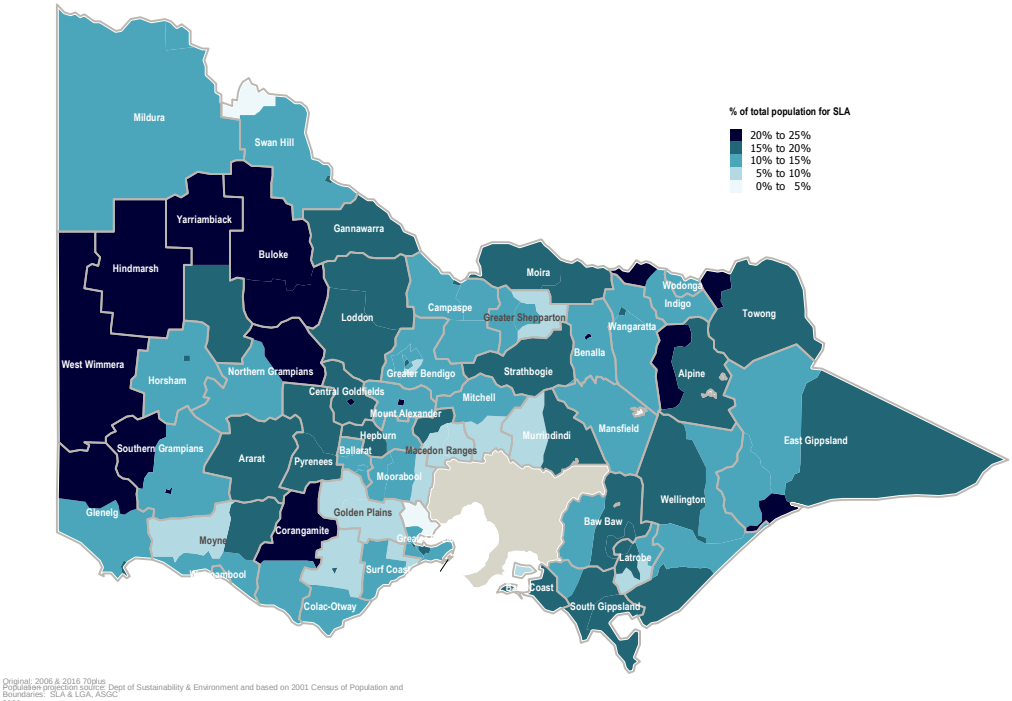
The age composition of rural areas is changing, with forecasts indicating the proportion of older people in rural Victoria will increase at a faster rate than in metropolitan Melbourne. By 2016, the age group of 70 years or older will increase to 14 per cent of the rural population, compared with 11 per cent in the metropolitan area.

Map 3: Population aged 70 years or more – 2006



Original: 2006 & 2016 70plus
Victorian Population projection source: DSE & based on 2001 Census of Population and
Population source: ABS ERP usual residence based on Census
Boundaries: SLA & LGA, ASGC

Map 4: Projected population aged 70 or more – 2016



Original: 2006 & 2016 70plus
Population projection source: Dept of Sustainability & Environment and based on 2001 Census of Population and
Boundaries: SLA & LGA, ASGC

This increasing proportion of the population aged 70 years or more places additional pressure on health services as older people have greater health needs and are major users of health services at all levels. Older people have a greater prevalence of chronic diseases, including cardiovascular disease, cancer, diabetes, renal disease, chronic obstructive pulmonary disease and musculoskeletal conditions such as arthritis. According to the ABS[3] there is also a high proportion of disabled persons in rural Victoria, with 209 per 1,000 population compared to the Victoria total of 189 per 1,000 population.

The changing age mix will increase demand for services needed to manage chronic and complex conditions throughout rural Victoria.

Burden of disease

The Burden of Disease Study identified living in the country as being associated with a decreased life expectancy, which is usually due to cardiovascular disease, injuries caused by traffic and machinery accidents, suicide and drowning. Country people may be at greater risk of earlier death for many reasons including socioeconomic factors and the harsh effects of drought, combined with the limited nature of local services and the longer time taken to get to life-saving treatment such as resuscitation and surgery.

Lack of access to services is compounded by a number of factors. Data from the 2001[4] census indicates lack of access to general practitioners, with 1.11 GPs per 1,000 population in rural Victoria compared with 1.48 for Victoria as a whole and lower socioeconomic status in much of rural Victoria, impacting on the ability of people to pay for alternative services.

The index of relative socio-economic disadvantage measure is 998.88 for rural Victoria compared with 1020.56 for metropolitan areas. Rural populations experience a higher unemployment rate and percentage of low income households compared to metropolitan populations.

[3] Small Area Estimates, Disability Synthetic Estimates, Australian Bureau of Statistics, 2003

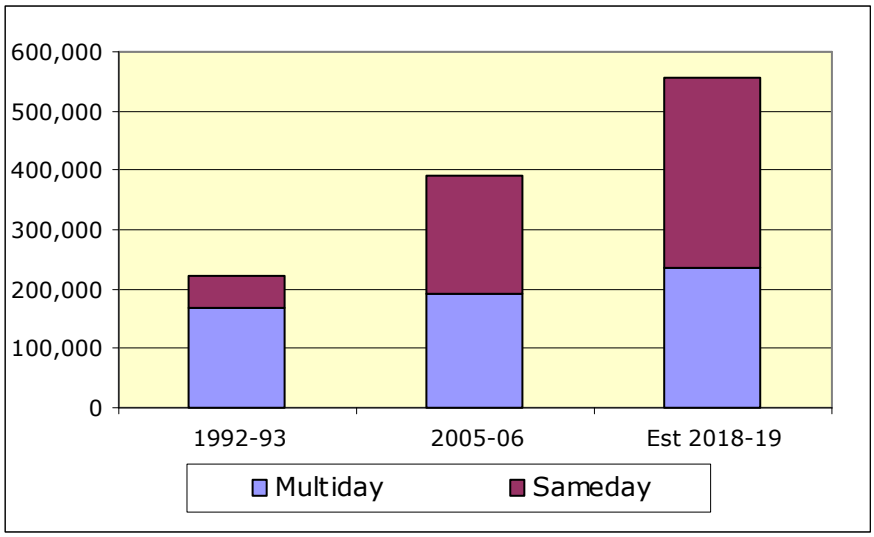
[4] 2001 Census of Population and Housing, Australian Bureau of Statistics, 2001

Forecast demand for hospital services

Continuing service growth

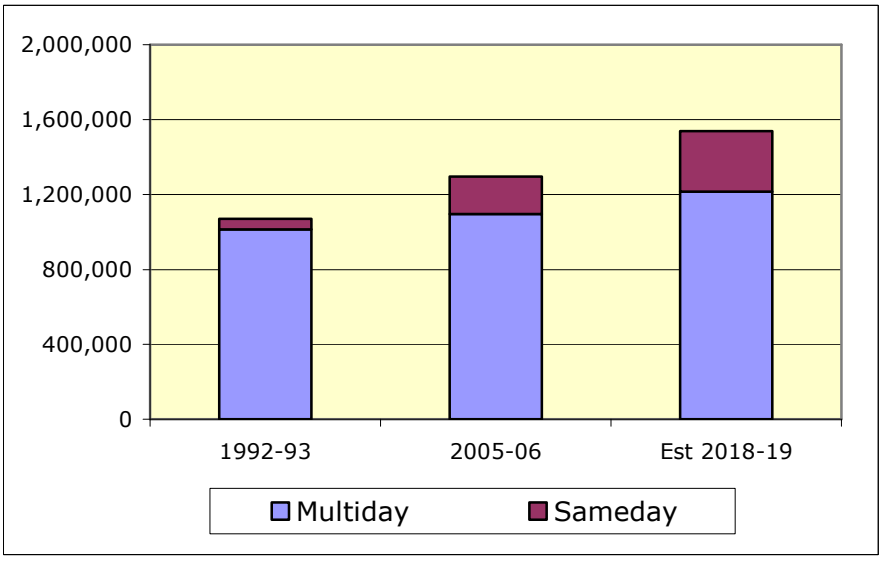
Analysis of rural health service activity shows an annual growth rate in separations of 4.4 per cent for the years between 1992-93 and 2005-06. The majority of this growth has been in sameday separations. The forecasting model[5] expects this to now steady, with an additional 167,000 separations forecast by 2018-19.

Chart 1: Growth in total rural public hospital separations



At the same time, patient days have also grown 1.5 per cent per annum, which equates to an increase of more than 220,000 days. Forecasts expect this to continue, with an additional 240,000 patient days expected by 2018-19.

Chart 2: Growth in total rural public hospital patient days



As mentioned earlier, patients aged 70 years and over will consume 52 per cent of the total rural acute hospital beddays by 2018-19.

[5] Department of Human Services, Inpatient forecasting model, 2006

The continuing growth in separations and beddays will be across the full range of specialties, with the major groups shown in the following table. These top eight specialties account for over 80 per cent of the total forecast growth in both separations and days.

This is a base case forecast only and assumes a continuation of current service mix.

Table 2: Forecast hospital growth for top eight specialties 2005-06 to 2018-19

Specialty	Separations	Patient Days
Renal Dialysis	56,300	56,314
Oncology/Radiology	17,499	17,828
General Medicine	14,130	19,827
Gastroenterology	12,037	26,134
Cardiology	11,825	26,702
General Surgery	9,492	16,953
Respiratory	7,731	20,850
Orthopaedics	7,614	22,461

Improve service utilisation

One of the principles of service development described earlier is that Victorians living in rural areas should have access to an adequate level and mix of health services, which is comparable with that available to metropolitan residents.

Service utilisation is a measure of access to services. There is variation in rates across both geographic and specialty areas, which could be the result of either excess service provision in some high utilisation areas or inadequate access in low utilisation areas.

Overall, service utilisation for rural residents is reasonable in comparison with metropolitan residents, particularly as metropolitan areas have greater access to specialists and facilities in larger hospitals and greater access to private health services. However, there are some specialties where service utilisation and patient outcomes for rural residents are both lower than for people living in metropolitan areas. There is also variation in utilisation rates between rural regions, indicating that even within rural Victoria access to some services is limited depending on where people live.

Specialty areas where a lower rural utilisation rate is apparent includes chemotherapy, diagnostic GI endoscopy, endocrinology, haematology, ophthalmology, renal dialysis and renal medicine, urology, mental health and sub-acute. For these specialties, service utilisation will be improved over time through increased provision of services in rural areas and through enhanced referral pathways.

Improve regional self-sufficiency

The second principle of service development is that Victorians living in rural areas should expect to have the majority of their health care needs met by services within either their own or a neighbouring region and should only have to travel to metropolitan specialist services for highly complex care.

As funding has increased in rural areas over time, rural self-sufficiency has been continually improving. However, there are some clinical specialties where local access is still limited.

In 2005-06 there were 48,300 separations of rural Victorians from a metropolitan public hospital. While it can be assumed that much of this activity would have been for complex services, there is scope to improve access to services where this can be appropriately provided at a regional level. The specialties where developments to improve regional self-sufficiency need to continue are cardiac, sub-acute, renal dialysis and cancer. Over time and as resources become available, growth will be supported in these specialty areas.

Specialty service developments

A Fairer Victoria[6] outlines a range of strategies and initiatives designed to address disadvantage in Victorian communities, including the needs of Victorians in rural and regional areas. It notes that disadvantage can be experienced by people living in communities where life chances are diminished through geographical isolation.

Examination of the demographics of rural Victoria, together with analysis of patterns of service utilisation has demonstrated several specialty areas where local provision could be improved. In some cases the main issue is a demonstrated need for expansion of capacity in rural areas and in others sustainability of service provision. In both cases the objective is to improve access to high quality services, with the aim of improving the equality and ultimately health status of Victorians living in rural areas.

Cardiac Services

The Burden of Disease Study identified living in the country as being associated with a decreased life expectancy, with one of the major causes being cardiovascular disease. This is significant and is one area where increased access to health care intervention can make a difference.

There are three major diagnosis and treatment options for those with identified acute cardiac disease.

1. Thrombolytic and anticlotting agents for immediate management of acute myocardial infarction (AMI). The use of these treatments has significantly improved survival rates. To be effective, thrombolysis needs to be administered as soon as possible after AMI. This treatment option requires skilled clinical staff but no specific facilities or equipment.
2. Diagnosis of coronary disease is supported by a coronary angiogram or cardiac catheterisation. This identifies abnormalities of heart muscles and valves and narrowed or blocked coronary arteries. Both diagnostic and interventional angiograms are performed in a cardiac catheterisation laboratory.
3. Angioplasty and other percutaneous coronary interventions (PCI) are options for treatment for cardiac disease, both for angina and following AMI. Angioplasty and stenting technologies reduce the rate of coronary artery reocclusion following thrombolysis. PCI requires the expertise of an experienced cardiac team with access to a coronary care unit for post-operative care.

Fast and accurate diagnosis of cardiac problems is critical, but access to treatment options needs to be improved in some rural and outer metropolitan areas. In many rural areas the time to administer thrombolysis is extended, with longer waiting times than in metropolitan hospitals. Up-skilling of clinical staff is required in order to improve access to thrombolysis in rural areas.

Access to percutaneous coronary intervention services is also limited. This relates to the interaction between the following issues:

- Small population base in regional centres, which leads to difficulty in developing and maintaining an expertise base in procedures
- Limited availability of interventional cardiologists in rural Victoria
- High cost of building and maintaining cardiac catheterisation laboratories.

There are currently cardiac catherisation laboratories at Barwon Health and Bendigo Health. In other areas access to comprehensive interventional cardiac services is limited, with patients having to travel to metropolitan services for treatment. This is particularly the case for residents of Hume and Gippsland regions.

[6] Victorian Department of Premier and Cabinet, *A Fairer Victoria, Creating opportunity and addressing disadvantage*, Department of Premier and Cabinet, Melbourne 2005. This has since been updated to: State Government of Victoria, *A Fairer Victoria, Progress and next steps,* State Government of Victoria, Melbourne June 2006

Cardiac rehabilitation improves functional status and quality of life of people following treatment for cardiac disease and it is currently the recommendation of the National Heart Foundation that all such patients be referred for rehabilitation. Studies of utilisation of cardiac rehabilitation in rural Victoria are limited, but participation in programs appears to be low. In many areas there are long waiting lists for access to programs.

The Department is currently undertaking a review of cardiac services in Victoria. The aim of this project is to enhance the quality and accessibility of adult cardiac services in Victorian public health services. To fulfil this aim, the objectives are to:

- Review current and projected adult cardiac services in Victoria
- Develop a planning framework for delivery of acute (diagnostic assessment and treatment) and sub-acute (rehabilitation) adult cardiac services in Victoria
- Develop an integrated statewide approach to the care of adults with cardiac disease.

The review is expected to produce a final report with recommendations for future developments in November 2007.

The cardiac review will produce detailed recommendations. Without pre-empting the findings of the review, there are service enhancements for rural areas that will be pursued. These include:

- Improve access to thrombolytic treatment as a first-line treatment for all patients with AMI, particularly in health services without specialist cardiac services and 24-hour emergency departments. This will require increased training for clinical staff
- Expansion of cardiac services to improve access for rural residents. This is likely to mean further development of cardiac catheterisation laboratories, so there is a service available in each region. Staged development will include services at Ballarat Health Service, Goulburn Valley Health and Latrobe Regional Hospital
- Improve access to cardiac rehabilitation services.

Sub-acute services

Sub-acute services include rehabilitation level 2 and geriatric evaluation and management (GEM) provided in inpatient units in sub-acute facilities and in dedicated sub-acute units within acute hospitals. A range of specialist community based services is also provided.

The population group aged 70 years or older currently utilises 78 per cent of rehabilitation level 2 and GEM separations and bed days. This patient group is well represented in rural Victoria with details on page 9 demonstrating that this proportion of the population is growing faster in rural areas than metropolitan Melbourne.

Total rural self-sufficiency for bed based sub-acute services in 2005-06 varied between 88 and 96 per cent, which demonstrates that rural Victorians receive most of their sub-acute services within their own regions. However, within three rural regions, region wide access to sub-acute services is limited with services concentrated in the large agencies in Geelong, Ballarat and Bendigo. These three services account for over 50 per cent of all rural sub-acute inpatient resources.

Utilisation of sub-acute services in these larger regional centres is comparable with metropolitan residents, but in other areas of the state the utilisation rates for sub-acute services is considerably lower. Total rural utilisation rates are 7 per cent below metropolitan rates, which suggests lack of available access to services. The lack of access means people in rural areas who could potentially benefit from sub-acute care are not receiving these services.

Hospital beds are only one part of the service system and there are increasing opportunities and incentives to provide more ambulatory sub-acute services. For this service model there also remains a funding inequity for rural Victoria, when compared with the metropolitan area. As with inpatient resources, the three large services in Geelong, Ballarat and Bendigo account for just less than 50 per cent of the available SACS funding.

A sub-acute services planning framework will be developed for Victoria in 2007–08. The aim of this framework is to facilitate equity and access to sub-acute care and consistency of service quality across the state. The framework will encompass:

- development of benchmarks for future planning for sub-acute services across Victoria
- development of a model of delineation of sub-acute services across Victoria
- updating and/or development of designation standards for inpatient rehabilitation

Proposed service developments for sub-acute services in Victoria include:

- Continued development of opportunities to share sub-acute resources across regional areas and support outreach services where feasible
- Increased inpatient and community based services as funding becomes available. Growth in sub-acute services is required in all rural regions, but particularly in Barwon South Western and Gippsland where current utilisation rates are lower than other rural regions.

Renal dialysis

In January 2005 DHS released the final report from its review of renal services in Victoria. The final report, *Renal dialysis: a revised service model for Victoria*[7] identified nine key recommendations for service improvement.

The particular recommendations relevant to rural Victoria were:

"5. A new category of service provider should be introduced and termed a 'node'. Node providers will assume a greater level of responsibility for patient management than the majority of satellites currently assume (for example, routine care of peritoneal dialysis patients). There should be a medium term target over the next five to ten years to create a node in each departmental non-metropolitan region. Bendigo Health will establish the first regional node service.

7. Over time there should be a move to greater regionally defined hub responsibilities for infrastructure and clinical support, commencing with regionalised education services.

8. Satellites will only be required to conform with one set of clinical protocols unless there is demonstrated clinical evidence to the satisfaction of the Maintenance Dialysis Advisory Committee that more than one set of protocols would not be detrimental to patient care. The protocols of the primary hub to which a satellite relates will take precedence over the protocols of other hubs."

Service forecasts indicate that there will be significant demand for growth in renal dialysis services, with 56,300 additional separations by 2018-19. In addition to this growth, renal dialysis has been identified as an area with low service utilisation in rural Victoria.

Proposed service developments for renal dialysis in rural Victoria include:

- Development of all regional hospitals to node status. Bendigo Health already provides services as a node. Ballarat Health Services, Goulburn Valley Health and Latrobe Regional Hospital also need to develop to node status as resources become available
- Longer term development to hub status. Barwon Health is already a hub. Over the longer term, all regional hospitals may enhance their services to move from node to Level 3 hub status. Part of this development will be a reallocation of satellite services within each region to move their relationship with a metropolitan hub to the regional hub
- Improve access through expansion of renal dialysis services throughout rural Victoria.

[7] Healthcare Management Advisors Pty. Ltd, *Renal Dialysis: a revised service model for Victoria*, Department of Human Service, 2005

Cancer services

Cancer is the greatest cause of mortality in Victoria, and the provision of care and treatment for cancer patients represents a significant proportion of all health care delivered. The need for improved delivery of care is driven by many factors including trends in population health, workforce issues, the increasing complexity and cost of cancer care and the shift of cancer treatment to the ambulatory setting.

A study by the Australian Institute of Health and Welfare in 2003[8], demonstrated a higher proportion of both male and female cancer deaths in Australia for residents of regional and remote areas. Preventable cancers associated with excessive sun exposure (melanoma), higher smoking rates (lung, head and neck, and lip cancers) and low pap smear screening (cervical cancer) were among the main cancers with significantly higher incidence rates in regional and remote areas in 2001–2003 compared with major cities.

Victoria has a significant cancer reform agenda to improve the planning and delivery of treatment and support, so that the appropriate care is provided in a timely manner as close to the patient's home as possible. One of the most important components of the reform agenda is the establishment of rural integrated cancer services (RICS) in each region to drive change at the local level.

There is now radiotherapy capability in each rural region. Demand for radiotherapy treatment at these units has grown more rapidly than anticipated, and growth continues to be strong as the services mature and people opt to have treatment close to their home.

Proposed service developments for cancer services in rural Victoria include:

- Continued collaboration through the RICS to improve access and support service efficiency
- Improved access to services through expansion of chemotherapy and radiotherapy services in areas of clear population need.
- Review of Grampians radiotherapy capacity. This is currently a single machine facility at a private hospital in Ballarat, operated by a consortium of Austin Health, Ballarat Health, St John of God Ballarat, and Radiation Oncology Victoria
- Future expansion of radiotherapy services through additional linear accelerator capacity at Latrobe by 2011.

The other contributing factor to maintaining access to appropriate health care for rural Victorians is support for long term sustainability of services. The services where improved models of service provision will enhance long term sustainability include:

Maternity services

In 2005-06, 65,761 women gave birth in Victoria. Of these 16,691 occurred in rural areas, which equates to 25 per cent of total Victorian births.

Forty-five rural health services offer a birthing service with intrapartum care. Nineteen health services support over 200 births per year and a further 17 have between 50 & 200 births per year. Nine services support less than 50 births per year, averaging 1 birth per week.

Over time a number of smaller health services have discontinued the provision of birthing services. This has been as a result of:

- low and reducing numbers of births. In some areas this is due to changing demographics with an aging and declining population. Most services averaged less than 50 births over the three years prior to cessation.

[8] AIHW (Australian Institute of Health and Welfare) & AACR (Australasian Association of Cancer Registries) 2007. *Cancer in Australia: an overview*, 2006. Cancer series no. 37. Cat. no. CAN 32. Canberra: AIHW.

- the risk in continuing to provide a service when limited numbers make it difficult for clinicians to maintain skills
- difficulty recruiting and retaining qualified and experienced doctors and midwives
- consolidation to one campus within an amalgamated health service, to facilitate service efficiencies and maximise available resources, including workforce.

For the remaining services, long term sustainability is important, particularly those where distances to alternative services is significant.

Support for services has been provided through the Rural Maternity Initiative (RMI), which was originally to assist rural health services in the introduction of continuity of midwifery models of care. From 2007-08 the program will be broadened to include sustainability of maternity services.

Ensuring the sustainability of maternity services requires a multifaceted approach addressing such issues as workforce shortage, patient access, models of care and system development. Maternity services will continue to be supported and strengthened in local hospitals. In addition, sub-regional and regional hospitals will be strengthened to meet increasing demand, retain a specialist workforce and support local hospitals in the delivery of maternity care.

There are various examples of collaborative arrangements between services, which have been driven by hospitals and practitioners at the local level. It is now necessary to move beyond these local collaborative arrangements to support more formal area based services, or clinical networks, which will involve all hospitals in an area working together to sustain a comprehensive maternity service.

Proposed service developments to support long term sustainability of maternity services in rural Victoria include:

- Continuation of the Rural Maternity Initiative, but with the emphasis now on support for models which will help to sustain services
- Continued development of area based clinical networks
- Support for the development of sub-regional models of care and system support. This will involve the sub-regional hospitals taking a more active role in the support of local services within their areas
- Support for the establishment of the Victorian Maternity Clinical Network (MCN). This provides an opportunity to develop a consistent managed approach to the delivery of safe high quality maternity services in Victoria. The MCN will support improved patterns of referral; positive working relationships between clinicians; use of agreed clinical practice guidelines; opportunities for greater skill development for midwifery and medical staff and provide opportunities for innovative approaches to workforce constraints. The network is currently being developed.

Procedural services

Procedural services constitute an important component of comprehensive health care provision. 'Procedural service' is a summary term to encompass a wide range of surgical operations and diagnostic procedures across the full range of specialty and sub-specialty areas.

The majority of rural health services provide some procedural services, but the volume of work this represents is quite variable. Almost 80 per cent of all surgical work in rural Victoria is undertaken in seventeen hospitals. The remaining 20 per cent is provided across another 40 health services.

General surgery and gastroenterology together account for almost 40 per cent of all procedural work provided in rural health services, with orthopaedics and gynaecology accounting for a

further 23 per cent. Other specialties provided also include ENT, ophthalmology, urology, plastics and dental.

Procedural service provision in many rural health services has been changing over time in response to changes in technology, demand and a health service's capacity to deliver procedural services. The *Rural procedural services planning framework*[9] was released in January 2007. This is particularly relevant to smaller health services where it provides the opportunity for review of procedural services in accordance with service capability.

A challenge for rural hospitals can be determination of the best mix of procedural services to be provided. As with maternity care, there are opportunities for hospitals to work together to provide coordinated procedural services across a regional or sub-regional area. The same multifaceted approach to workforce shortages, patient access and system development provides opportunities to strengthen and sustain a level of procedural services in local hospitals. This is particularly relevant in specialties where volume at individual hospitals is comparatively low, so it should be possible for hospitals within an area to define a complementary service mix, rather than each try to offer a wider range than is sustainable in the long term.

This cooperative arrangement will also support the regional and sub-regional hospitals to meet increasing demand and retain a specialist workforce.

The rural patient initiative will continue to have a focus on elective surgery, but will now also be expanded to support these more formal area based arrangements, or clinical networks, to sustain procedural services.

For larger hospitals that participate in the elective surgery program, the key emphasis will remain on improved waiting list management, reduction in waiting times and the treatment of additional patients. Ongoing funding of elective surgery access coordinators will support this.

Proposed service development for procedural services in rural Victoria include:

- Support for the development of sub-regional models of care and system support to improve collaboration between agencies, enhance access to procedural services and increase service efficiency. This may involve the sub-regional hospitals taking a more active role in the support of local services within their areas
- Continued funding through the rural patient initiative and elective surgery program to improve waiting list management, reduce waiting times and treat additional patients.

Critical care

Critical care is provided in rural Victoria, with eleven health services having intensive care units and thirteen having coronary care units.

In 2005-06 there were 10,446 separations of adults from rural Victoria who received some level of critical care, totalling almost 722,000 hours of intensive care and coronary care hours. Between 43 to 87 per cent of these separations occurred in the same rural region in which the patient resides. However, close to 50 per cent of residents of Hume and Gippsland regions requiring critical care services received those services in metropolitan hospitals.

Some of the challenges faced by rural health services include:

- attracting sufficient clinical staff to maintain high quality services
- access to critical care in high acuity metropolitan health services when required. Transfers are organised in conjunction with adult medical retrieval services.

[9] Department of Human Services, *Rural procedural services planning framework*, Department of Human Services, Melbourne 2007

There are no plans to increase the number of critical care units in rural Victoria, but some existing units will need to expand in accordance with total service expansion and redevelopment. Maintenance of a sufficient critical mass of services is required to support ongoing recruitment and retention of experienced clinicians.

Proposed service developments for critical care services in rural Victoria include:

- Targeted expansion of some existing units in accordance with total service expansion over time.
- Continued support and development of high dependency units in sub-regional hospitals
- Improved access to high acuity critical care in metropolitan health services. Critical care inter hospital transfer rates continue to be monitored with the intention of optimising bed availability and reducing the number of inter-hospital transfers of intensive and coronary care patients.

Emergency care

A level of emergency service response is required from all public hospitals in rural Victoria. Many hospitals have comprehensive 24-hour emergency services, but all services need to be able to respond with at least a minimum level of safe, high quality care.

Health services without doctors on-site rely on general practitioners to provide medical services on call. This reliance presents challenges for doctors finding an acceptable work-life balance, and for health services ensuring continuous sustainable service provision. Additional funding has been provided to support on-call arrangements. The *Rural emergency health service minimum specifications* are currently being finalised by the department. This will describe the minimum emergency resuscitation and stabilisation capability that all rural public health services should provide and will assist health services by informing the skills development and maintenance that is expected of relevant health care professionals.

In health services with 24 hour medically staffed emergency departments there are opportunities to further develop models of care to facilitate improved patient care and management. This can include the development of alternative care options within the emergency department, such as short stay observation units (SOU). Development of medical assessment and planning units (MAPUs) also provides an opportunity to improve care of older patients. These models of care focus on streamlining the assessment and planning process for medical patients.

SOUs are located close to emergency departments to facilitate joint ED/admitted patient management. In comparison a MAPU is not necessarily located near emergency departments and is managed solely by admitted patient services.

Proposed service developments for emergency care in rural Victoria include:

- Finalisation and dissemination of the *Rural emergency health service minimum specifications*
- Continued development and adoption of models of care to improve the response to patients requiring emergency care
- Support for advancing of the clinical role of nurses in the provision of emergency care.

The rural health system

There are 71 rural public health services, public hospitals and multi-purposes services in rural Victoria. Each of these services and their campuses can be defined as a regional, sub-regional or local hospital.

As identified earlier, the concept of health services being categorised into three levels has been well embraced, but further work is required to adequately define the roles and responsibilities of each level.

Differentiating between health service levels meets a number of objectives. These include:

- to assist with delineation of the range and complexity of health care to be provided at each level, which can then support quality health care and sustainability of appropriate services
- to assist with strategic service planning for both an area and individual hospitals
- to provide a platform for service development. As specialty services are reviewed and models of care evolve and develop, a variable role for each level of health service can be defined.

The range and complexity of care provided by rural health services varies from those services that should be provided as locally as possible, which are usually the lower-cost, high–volume services; those services that require a greater level of expertise and therefore must have a minimum volume to be sustainable over the longer-term; and those that require specialised workforce, equipment or infrastructure, which means they can only be provided efficiently in a small number of services. The challenge is to provide services as close as possible to where people live, while maintaining sufficient volume to ensure quality service provision.

A coordinated system facilitates quality patient care by supporting improved patient pathways and care coordination. All services should continue to develop and enhance relationships, but these will vary in form and function depending on local circumstances. Collaboration can achieve the best outcomes for the community, with increasing service utilisation and access to care most important, rather than where that care is delivered.

Regional hospitals

Regional hospitals are key service providers and health resource centres for each region. They are each located in the largest population centres of their respective regions, so have a combination of roles. They are primarily responsible for meeting the health needs of their own local community and have the resource and population base to be able to provide services at a more complex or specialist level than much of the balance of regional areas. With the capacity to provide these specialist services they then have a complementary role of being a source of more complex or specialist health services for the wider population of their regional areas.

Regional hospitals are often the principal agencies considered for service development when complex new clinical services or programs are being developed. This includes provision of services where adequate patient volume is required to retain a skilled clinical workforce and therefore a high quality service. In some instances specialised equipment is also required, which can only be provided efficiently in a small number of sites. Service examples include radiotherapy, cardiac services or renal dialysis node development, where the regional services are expected to provide a level of care for the entire region.

As regional hospitals are a point of referral for complex care, they need to take a leadership role and work collaboratively both with sub-regional and local hospitals within their region and with specialist statewide services in metropolitan Melbourne.

There is one regional hospital in each region, with the five designated rural public health services forming this group.

Table 3: Regional hospitals

Region	Estimated Resident Population	Regional hospital
Barwon South West	357,585	Barwon Health
Gippsland	249,896	Latrobe Regional Hospital
Grampians	216,292	Ballarat Health Services
Hume	265,842	Goulburn Valley Health
Loddon Mallee	309,767	Bendigo Health

Barwon Health is the regional hospital for the Barwon South West region. Barwon Health is one of the largest hospitals in Victoria and provides a greater range and complexity of services than the others in this group. It is more comparable to the larger tertiary metropolitan hospitals than the other regional hospitals.

Service provision details

Regional hospitals provide a comprehensive mix of clinical services, with acute medical and surgical services at all but the highest level of complexity. They are principal providers of both specialist and comprehensive general health care including acute, sub-acute, aged and primary health services.

A range of clinical specialties form the core services expected of a rural hospital. Many of the core services have service guidelines developed to support quality care at defined levels. As other specialty areas develop planning frameworks and service guidelines, these roles will continue to evolve.

Regional hospitals provide:

- 24-hour emergency departments on-site and full complement of clinical staff. They are regional trauma centres[10] within the state trauma system and a point of contact for clinical advice and support for other health services within the region
- procedural services are provided at Level 4[11], which is the highest level of complexity for rural health services
- birthing services at Level 4[12], providing for both primary and secondary levels of care[13]. This may include intrapartum support for neighbouring local hospitals with Level 1 or Level 2 birthing services
- critical care for adults is provided, with an intensive care unit to at least Level 2[14], with Level 3 preferred
- Neonatal care is at Level 2 high dependency special care nursery[15]
- Palliative care is provided at Level 3[16], with links to the regional palliative care consortia
- over time, all regional hospitals will enhance their renal dialysis services to develop from a satellite service to a regional node[17]. Barwon Health is the only service currently operating as a Level 3 hub, but longer term developments may see other regional hospitals eventually move from node to hub status.

To meet their broader regional role these services are also lead providers for a range of clinical specialties. The regional role is particularly important where specialist services require a critical

[10] State trauma system, Department of Human Services, http://www.health.vic.gov.au/trauma/guidelines/index.htm
[11] defined by *Rural procedural services planning framework,* Department of Human Services, 2007
[12] defined by *Rural Birthing Services – a capability based planning framework,* Department of Human Services, 2005
[13] defined by *Future Directions for Victoria's maternity services*, Department of Human Services, 2004
[14] Critical care services, Department of Human Services, http://www.health.vic.gov.au/criticalcare/ccu.htm
[15] defined by *Neonatal Services Guidelines*, Department of Human Services, 2005
[16] Department of Human Services, *Strengthening palliative care: a policy for health and community care providers 2004–2009*, Department of Human Services, Melbourne, 2004
[17] Department of Human Services, *Renal dialysis: a revised service model for Victoria-Final report,* Department of Human Services, Melbourne, 2004

mass of service volume and complexity to support maintenance of clinical expertise, quality standards and infrastructure.

- Radiotherapy is provided as part of a comprehensive cancer treatment service, with the regional hospital taking a lead role in the work of regional integrated cancer service.
- To support enhancement of self-sufficiency within regions, each regional hospital will provide a level of specialist care for time critical services. This will include enhanced cardiac services through provision of on-site cardiac catheterisation laboratories, with clinical and support staff to maintain the service.
- Regional hospitals are significant sub-acute service providers for their regions. This includes provision of rehabilitation and geriatric evaluation and management services, with support for outreach throughout the region. They have a major role in provision of the services required of centres for promoting health independence (CPHIs) for continuing care.
- Regional hospitals provide a comprehensive range of both inpatient and community mental health services.
- Residential aged care and community care for the aged and people with disabilities and complex conditions is provided by almost all health services at all levels. Regional hospitals have an additional role as providers of transition care and support of the aged care assessment service (ACAS).
- Prevention and management of disease and strategies to support improving health status is also the responsibility of all health services. The broader regional role includes taking a lead role in development and coordination of programs and tools that can be shared across the sector.

Workforce

Regional hospitals are the major specialist service providers for their regions, with medical care provided by specialist physicians and surgeons. Salaried positions are required to support key clinical specialties, in accordance with service guidelines. This includes emergency medicine, intensive care, obstetrics, paediatrics, geriatrics and/or rehabilitation, nephrology and a range of procedural specialities.

This clinical mix also supports the teaching and training role expected of these agencies, as regional hospitals will have the specialist staff to provide for training in accordance with professional college requirements. This will include an emergency physician (FACEM) as medical director of the emergency department.

Where regional hospitals have developed clear collaborative relationships with sub-regional and local hospitals, there will be opportunities to share resources, including the specialist clinical workforce. Regional services should take a lead role in the appointment of specialists who could then also work across a number of hospitals in a sub-regional or regional area. Service capability would need to be demonstrated at each hospital and appropriate contractual arrangements in place. This would allow the regional service to be able to recruit a full time position, which provides a greater opportunity for long term sustainability of specialist services.

They also employ a full range of allied health professionals, some of who could also provide a support or outreach role for local hospitals within the region.

Clinical support

Regional hospitals have a comprehensive range of diagnostic support services on-site and available 24-hours a day. This includes pharmacy, pathology, radiology, nuclear medicine and echocardiography. Capacity for scanning with 32 or 64 multi slice computerised tomography (CT) should be available, together with magnetic resonance imaging (MRI).

Ongoing investment in technology will include enhancement of telehealth, which provides opportunities to improve communication with other health services, provide clinical training and the capacity to support local hospitals with the provision of clinical advice. This could also include through direct clinical applications such as digital radiology.

Clinical teaching and training

Regional hospitals play a significant leadership role in rural workforce development, staff education, training and research, from undergraduate through to specialist post-graduate levels and in all disciplines. They have important links with university departments, particularly with departments of rural health and rural clinical schools.

The opening of the state's third medical school at Deakin University in Geelong in 2008 will have a significant impact on Barwon Health and other healthcare providers in the region. This school will be based in a regional area, and will use the full range of teaching opportunities and capacity provided by the health services that serve the 600,000 people who live in the Barwon South Western and Grampians regions.

Barwon Health will have student clinical placements during all four years of study. The third year program will be conducted in a variety of clinical settings throughout western Victoria. In the fourth year the students will return to Geelong, Warrnambool or Ballarat to prepare for their intern year.

The increased numbers of rurally based medical students across the state from 2008 will also impact on the provision of clinical placements in other regional health services.

Regional hospitals will continue to support post-graduate medical training, from postgraduate year 1 through to registrar level in a range of specialty areas, including GP proceduralists, emergency care and obstetrics.

Regional hospitals are also direct providers of education and training within their regions through provision of clinical placements and training for nursing and allied health staff. Education and training of nurses will include support for general nursing placements, midwifery and other speciality groups.

Regional hospitals also enhance ongoing service provision through participation in research programs, including clinical trials.

Regional relationships

A leadership role is expected of regional hospitals, to provide clinical advice and specialist support to sub-regional and local hospitals within the region. This role involves development of collaborative relationships with other hospital to support service provision through improved coordination and outreach. Clinical expertise, in particular specialist obstetrics and emergency medicine should be available to provide support for local services in the surrounding area.

Regional hospitals participate in retrieval services as required and receive patient transfers from sub-regional and local hospitals within the region, when a more complex level of care is required.

Regional organisational arrangements will be supported through continued development of shared service models. This can include provision of a central point for the appointment of staff or provision of functions that an individual hospital would find difficult to sustain on its own. This could include area based directors of medical services to support local hospitals.

Rural health alliances involve rural health services working together to meet their information and communications technology service needs. All publicly funded health services under the *Health Services Act (1988)* are required to be participants in the alliance for their region, and regional public health services are required to take on the significant role of principal agency for their alliance.

The regional hospitals should also take a proactive role in the quality of service provision throughout the region through supporting the development and promulgation of evidence based clinical guidelines and practice.

Proposed / ongoing service development – Regional hospitals

Regional hospitals must have sufficient resources available to them to meet the majority of the specialist health care needs of their regional population.

Regional self-sufficiency and service utilisation will be improved through improved access to services. Service enhancements required to improve access include support for:

- Expansion of service capacity over time, in response to population growth and increasing demand
- Enhancement of regional support role, to ensure ongoing provision of services in both sub-regional and local hospitals across the region. This is particularly important for maternity and procedural services.
- Continued targeted growth and support for sustainability of critical care services.
- Enhancement of cardiac services, from diagnosis and treatment through to rehabilitation. This may include provision of on-site cardiac catheterisation laboratories at each regional hospital, with clinical and support staff to maintain the service.
- Enhancement of services to support management of complex and chronic disease through expansion of sub-acute services.

Other developments will include:

- Development of renal dialysis service to support a minimum of node status at each regional hospital. Longer term developments are to have each as their regional hub.
- Central point for appointment of area based directors of medical services, and other positions requiring specialist knowledge or expertise, to support other health services in the region.
- Continued development of cancer services including further development of rural integrated cancer services; expansion of radiotherapy where indicated and continued development of a strong and sustainable cancer care workforce.
- Service improvements to implement new models of care. This includes short stay units in emergency department; improved patient flow initiatives and increased focus on ambulatory and home based care.

Sub-regional hospitals

Sub-regional[18] hospitals are major services in medium to large Victorian towns and communities. These services have a broader geographic focus and provide a range of services to meet the needs of the wider catchment community, while still maintaining their local area responsibilities. As with regional hospitals, sub-regional hospitals have a support role and are a point of referral from the local hospitals within their catchment. This can involve working collaboratively with local hospitals as they change service mix in response to changing circumstances or community needs. An example is the provision of intrapartum birthing support, where local hospitals have retained provision of antenatal and postnatal care. The changing nature of local health care provides increasing opportunities to develop this sub-regional role.

The number of sub-regional hospitals varies by region, depending on the history, geography and demography of the regional area.

As service complexity also varies, for the purpose of this discussion paper the eleven hospitals described as sub-regional are separated into two groups.

Table 4: Proposed Sub-Regional hospitals

Region	Estimated resident population	Regional Health Service	Proposed Sub-Regional Health Services	
			Group 1	Group 2
Barwon South West	357,585	Barwon Health	South West Healthcare	Western District Health Service
Gippsland	249,896	Latrobe Regional Hospital		Bairnsdale Regional Health Central Gippsland Health Service West Gippsland Healthcare Group
Grampians	216,292	Ballarat Health Service	Wimmera Health Care Group	
Hume	265,842	Goulburn Valley Health	Northeast Health Wangaratta Wodonga Regional Health Service	
Loddon Mallee	309,767	Bendigo Health	Mildura Base Hospital	Echuca Regional Health Swan Hill District Hospital

The differences between Group 1 and Group 2 relate to a number of factors including the population served and the volume and complexity of services offered. Group 1 provides a higher level of complexity in service mix, and in many specialties offers a similar level of care to that of a regional hospital.

[18] When *Rural directions* was released in 2005, these services were described as "district" but with subsequent review the descriptor "sub-regional" seems to more accurately describe their role.

Proposed developments:

- Wodonga Regional Health Service is in the process of being integrated with Albury Base Hospital to form a new public health service. It is expected that, over time, the integrated health service will provide a wider range of services for the combined Albury and Wodonga communities than the two individual hospitals provide currently.
- Bass Coast Regional Health is currently a local hospital, providing health care to the south coast area. Population growth in the Bass Coast Shire has been significant in recent years and this is forecast to continue, as it is an identified area of amenity. In addition to total population growth, a significant proportion of this growth is in the older age groups, which has driven a significant demand for additional services. Over time, Bass Coast will be developed to a sub-regional hospital in Group 2.

Service provision

Sub-regional hospitals are major providers of a range of clinical specialties within areas and provide a comprehensive mix of clinical services. Acute medical and surgical services are provided at a moderate to high level of complexity.

These services are a point of referral for care within the sub-regional area, with procedural and surgical services provided by a mix of general practitioners and specialists. They also have a role in provision of clinical advice and support to local hospitals within the surrounding area. Sub-regional hospitals will also have relationships with health services outside their own region and with metropolitan services as circumstances dictate.

Sub-regional hospitals work with the regional hospital when new clinical services or programs are being developed. This is relevant when a broad distribution of services is required, for example the new bowel cancer screening program and forensic paediatric services.

These hospitals provide the same range of core clinical services as regional hospitals and those in Group 1 will provide many at the same level of complexity.

Group 1

In many specialities, such as obstetrics, the level of expertise provided by a sub-regional hospital in Group 1 may be equal to that of a regional hospital.

Sub-regional hospitals in Group 1 usually provide:

- 24-hour emergency departments on-site and full complement of clinical staff. They are defined as regional trauma services within the state trauma system
- procedural services are provided at Level 4
- birthing services at Level 4, providing for both primary and secondary levels of care. This may include intrapartum support for neighbouring local hospitals with Level 1 or Level 2 birthing services
- critical care for adults is provided, with an intensive care unit to at least Level 2
- Neonatal care is at Level 2 high dependency special care nursery
- Renal dialysis as a satellite service
- Radiotherapy will not be provided on-site, but cancer treatment will be provided, including chemotherapy. Sub-regional services are key participants in the regional integrated cancer services
- Palliative care is provided at Level 2
- Ophthalmology services.

Group 2

Group 2 sub-regional services also provide a comprehensive range of services, but in some areas at a lower level of complexity.

Sub-regional hospitals in Group 2 usually provide:

- 24-hour emergency departments on-site and full complement of clinical staff. As a minimum they are urgent care services within the state trauma system

- procedural services are provided at Level 3
- birthing services at Level 3, providing for both primary and secondary levels of care. This may include intrapartum support for neighbouring local hospitals with Level 1 or Level 2 birthing services
- high dependency nursing care*(1)*
- Neonatal care is at Level 2 low dependency special care nursery
- Renal dialysis as a satellite service
- Cancer treatment will be provided, including chemotherapy. Sub-regional services are key participants in the regional integrated cancer services
- Palliative care is provided at Level 2.

(1) Where hospitals in this group already provide ICU/CCU services these will be retained. This applies to Central Gippsland Health Service and Western District Health Service with Adult ICU/CCU Level 2.

To meet their additional sub-regional role all these hospitals are also lead providers for a range of clinical specialties, particularly those where specialist services require a critical mass of volume and complexity to support ongoing provision.

- Sub-regional hospitals provide a comprehensive range of mental health services, in conjunction with the regional mental health service
- Sub-regional hospitals provide sub-acute services, including rehabilitation and geriatric evaluation and management services, with support for outreach throughout the area. They will have a role in provision of integrated services, with links to centres for promoting health independence.

Workforce

Sub-regional hospitals are specialist service providers for their area. For this medical care hospitals rely on specialist physicians and surgeons, with general practitioners also available for support. Some key clinical specialties should be permanent salaried positions, where this is required to meet standards of service provision. This may include emergency medicine, intensive care, obstetrics, paediatrics and a range of procedural specialities. Specialist positions such as obstetricians and emergency physicians will be available to provide support and advice for local hospitals in the surrounding area.

As with regional hospitals, where sub-regional hospitals have developed clear collaborative relationships with surrounding local hospitals there will be opportunities to share resources, including the specialist clinical workforce. Sub-regional hospitals should take a lead role in the appointment of specialists who could also work across a number of services within a sub-regional area, providing the local hospital could demonstrate service capability and all appropriate contractual arrangements are in place. This provides a greater opportunity for hospitals to be able to recruit a full time position, which provides increased opportunity for long term sustainability of specialist services.

Where there is a teaching and training role, particularly for Group 1, the hospitals will have the specialist staff to provide for training in accordance with professional college requirements.

A range of other clinical and allied health professionals will be employed. In many cases, this team will include a support or outreach role for local hospitals within the region.

Clinical support

Sub-regional hospitals have a comprehensive range of diagnostic support services available, including CT scanning. Pharmacy is provided on-site.

Telehealth provides opportunities to improve communication with other health services, provide clinical training and the capacity to support local health services, through both provision of clinical advice and direct clinical applications such as digital radiology.

Clinical Teaching and Training

Sub-regional hospitals provide clinical placements to support undergraduate education and training for medical, nursing and allied health staff and rotations for specialist nursing and medical education, including GP proceduralists.

Sub-regional hospitals will continue to support post-graduate medical training, from postgraduate year 1 through to registrar level, in a range of specialty areas including GP proceduralists, emergency care and obstetrics. To support this role sub-regional hospitals will need to have the specialist staff to provide for training, in accordance with professional college requirements.

Education and training of nurses will include support for general nursing placements, midwifery and other speciality groups.

Regional relationships

Sub-regional hospitals will continue to develop relationships with local services throughout their catchment area as well as referral arrangements with the regional and metropolitan hospitals.

Sub-regional hospitals will take a lead role and work collaboratively with their peers to develop and improve standards of care for local communities. They will also assist local hospitals within the surrounding area with clinical advice and support for referrals. In some instances this will involve taking a lead role in the coordination of collaborative service provision within an area.

Sub-regional hospitals will also support development of shared service models, including provision of a central point for the appointment of staff such as area based directors of medical services.

These health services will participate within their regional IT alliances, to support increasing cooperation and integration between health and community service providers.

Proposed / ongoing service development – sub-regional hospitals

Sub-regional self-sufficiency and service utilisation will be improved through improved access to services. Sub-regional hospitals must have sufficient resources available to them to meet the majority of the moderate to high complexity health care needs of their population.

Service enhancements to improve access include support for:

- Expansion of services over time, to increase sub-regional self-sufficiency in areas of population growth and increasing demand
- Support for ongoing sustainability of emergency services, including coordination of services to support provision of medical care
- Enhancement of sub-regional role, to support ongoing provision of core services across the sub-regional area. This is particularly important for maternity and procedural services.
- Continued sustainability of critical care services
- Enhancement of management of complex and chronic conditions through expansion of sub-acute services.
- Improved access to cardiac rehabilitation services

Other developments will include:

- Service improvements with implementation of new models of care and reconfiguration of services where changing models of care would support alternative care options
- Central point for appointment of area based directors of medical services, and other positions requiring specialist knowledge or expertise, to support local health services.

Local hospitals

Rural directions described local health services within three sub categories, differentiating those that provide acute inpatient treatment and care and those that are primarily community-based. The categories are:

1. Local health services – community care
2. Local health services – rural hospitals
3. Local health services – metropolitan fringe hospitals

This document relates to 2 and 3, which are the hospitals providing a comprehensive mix of services. Community services, including bush nursing centres, are not included as they are the focus of other service development projects[19].

Local hospitals vary considerably in size. They range from those funded as small rural health services, with catchment populations of less than 5,000 to those in medium towns of up to 10,000 with total catchment communities of up to 20,000. Campuses of regional and sub-regional health services are also defined as local hospitals.

Also included within this group are the three hospitals located in growing areas on the rural/metropolitan fringe. These hospitals are located in areas of increasing population and are adjacent to the major growth corridors in metropolitan Melbourne. Their proximity to metropolitan health services provides both challenges and opportunities for future development.

All local hospitals play an essential role in the provision of health care to their local communities and in many cases will be the first point of contact with the public health system.

Since the introduction of the small rural health service funding model in 2003, the service mix of many local hospitals has changed. This funding model provides the flexibility to reconfigure services and therefore the opportunity for many to expand services such as primary care in response to identified high priority community needs.

A key characteristic of local hospitals is the integral role local general practitioners play in the provision of hospital care including medical and procedural services. The inter-dependency between rural general practice and rural hospital service provision in small and medium towns is critical to the ongoing sustainability of local hospital services.

Local hospitals have a key role in facilitating access to an appropriate and seamless system of care for their community. Development and maintenance of referral pathways and partnerships with surrounding health services to support coordinated care will benefit the local community.

Service provision

It is increasingly recognised that health care can be delivered in a range of settings, not always in acute hospital beds. This provides opportunities for all hospitals to redesign models and systems to ensure care is provided across a range of settings and is well coordinated and seamless to support patient focussed care.

Services offered by local hospitals include inpatient medical care at a low to moderate level of complexity. Many local hospitals have the ability to perform surgery and support a birthing service, depending on local circumstances including proximity to other services, availability of qualified staff, facilities and equipment. Clear referral pathways are required where services are not provided on-site.

[19] Bush nursing centres project, http://www.health.vic.gov.au/ruralhealth/hservices/bush.htm

Local hospitals will usually provide a range of services including:

- emergency stabilisation and care. Local hospitals are either primary care services or urgent care services within the state trauma system.
- low to moderate complexity acute medical inpatient services, including definitive care for minor injuries and illnesses.
- community and primary care services, including care and support in people's own homes
- residential aged care and community care for the aged and people with disabilities and complex conditions
- prevention and management of disease and strategies to support improving health status

Depending on service capability, access to clinicians and support services the following could also be provided:

- procedural services at Level 1 or 2
- primary maternity care and birthing service up to Level 3
- neonatal service at Level 1
- community care for the aged and people with disabilities and complex conditions
- allied health to support a rehabilitation service
- palliative care Level 1, with specialist support from the regional palliative care service
- mental health services, with support from regional mental health teams.
- renal dialysis as a satellite service
- chemotherapy, in conjunction with regional and sub-regional hospitals

Workforce

In local hospitals medical care is provided primarily by general practitioners. On-call arrangements are important to ensure sufficient coverage, as doctors are not usually available on-site. This can be an onerous commitment for doctors, particularly in the provision of emergency care after hours.

Many local hospitals also engage specialist visiting medical officers to provide care, particularly surgical services. Local hospitals are encouraged to engage these doctors in partnership with other local services, or through the sub-regional or regional hospital. The benefits of this approach are:

- improved coordination of medical workforce planning
- efficient utilisation of a scarce resource
- enhanced clinical governance and standards of practice
- reduction of professional isolation of individual practitioners.

Where sessions or times can be combined, this also provides greater opportunity for the sub-regional or regional hospital to be able to attract and retain a full time position, which provides a greater opportunity for long term sustainability of specialist services across an area.

In the case of local hospitals located on the metropolitan fringe opportunities to partner with a nearby metropolitan hospital should also be pursued.

In many cases allied health professionals are employed by local hospitals, but in some instances these practitioners are accessed on a part time basis from the sub-regional hospital, or through shared services arrangements with other local health services.

Clinical support

Local hospitals usually have access to pathology services through a contractual arrangement with a major private provider, so do not have services on-site.

In many cases radiology services will be available on-site for plain x-rays and film reading. Where this is not available, there will be referral arrangements for patients requiring radiology assessment. Opportunities to employ digital radiology, to allow support from sub-regional hospitals, should be pursued where this is feasible.

As technology improves opportunities to use telemedicine and other technological support to link to either the regional or sub-regional hospital will be enhanced.

Training and education

At the local level, continuing development and maintenance of a competent and skilled workforce is essential to ensure ongoing quality service provision and for individuals to meet duty of care responsibilities. Hospitals should actively support clinical staff to maintain skills by ensuring that appropriate education programs are accessible to all relevant staff, and that they have sufficient opportunities to maintain competence, including experience in other health services where appropriate.

Where resources are available for training and education, opportunities to work with neighbouring health services to provide a critical mass for local training, to share other resources or to offer joint training programs should be explored.

In relation to the training of doctors, some local hospitals are already involved in vocational training programs through appointment of GP registrars. With the increasing emphasis on rural medical undergraduate training, such as the new Deakin Medical School, there will be a significant role for local hospitals to play in medical training, through collaboration with local general practices and sub-regional and regional hospitals

Regional relationships

It is important that local, sub-regional and regional hospitals together participate in the development of the system architecture within a geographical area, to support ongoing sustainability and increase effectiveness. Local hospitals increasingly work in conjunction with other health services in their area for patient referral, expert advice, training and development and to increase the overall efficiency of each service.

Some local health services have shared care arrangements in place, for example working with nearby rural health services to provide emergency health care after hours. Typically shared arrangements involve local health services taking turns to provide care within their area. This arrangement can increase service sustainability by reducing the demand on general practitioners to be on call and to travel, but must be widely communicated to the community.

In some cases collaborative arrangements can assist with sustainability of services, where it may be possible for agencies to define a role and service mix which complements neighbouring services, rather than each try to offer a wider range than is sustainable in the long term. This collaborative arrangement is particularly relevant to procedural services and maternity services or any service where throughput at each separate agency is comparatively low. It is also important that local health services continue to develop services in response to identified community need.

These health services will also participate within their regional IT alliances, to support increasing cooperation and integration between health and community service providers.

Proposed / ongoing service development – local health services

Service enhancements to improve access include support for:

- Expansion of services, over time, in areas of population growth and increasing demand
- Support for ongoing emergency service provision through development of minimum service specifications
- Support for ongoing sustainability of core services
- Enhancement of management of complex and chronic conditions through expansion of sub-acute services, where applicable.
- Enhancement of primary care services, to support health promotion and illness prevention

Other developments will include:

- Ongoing reconfiguration of services to respond to changing community needs and where changing models of care would support alternative options
- Continuing redevelopment of aged care residential facilities to meet the standards defined for a quality environment for both residents and staff.

Appendix: Regional profiles

Barwon South West Region

The region covers an area of 29,637 square kilometres extending approximately 380km from St Leonards in the east to the South Australian border.

The region has three Primary Care Partnerships, and nine local government areas: Borough of Queenscliffe, City of Greater Geelong, City of Warrnambool, Colac-Otway Shire, Corangamite Shire, Glenelg Shire, Moyne Shire, Southern Grampians Shire and Surf Coast Shire.

The region comprises small sparsely populated communities such as Casterton with a population density of 0.4 people per square kilometre to Geelong the largest city in Victoria outside Melbourne.

Forecasts indicate the population centres in the east of the region, including both Geelong and the Surf Coast will continue to grow significantly. The southwest area is also demonstrating population growth, but the southern Grampians and Glenelg areas are more stable and show a slight decline in total population to 2016.

Primary Care Partnership	Total estimated resident population (ABS 2006)	
	2006	2016
Barwon	256,742	287,131
South West	64,973	67,471
Sth Grampians/Glenelg	37,168	35,350
Region Total	358,883	389,952

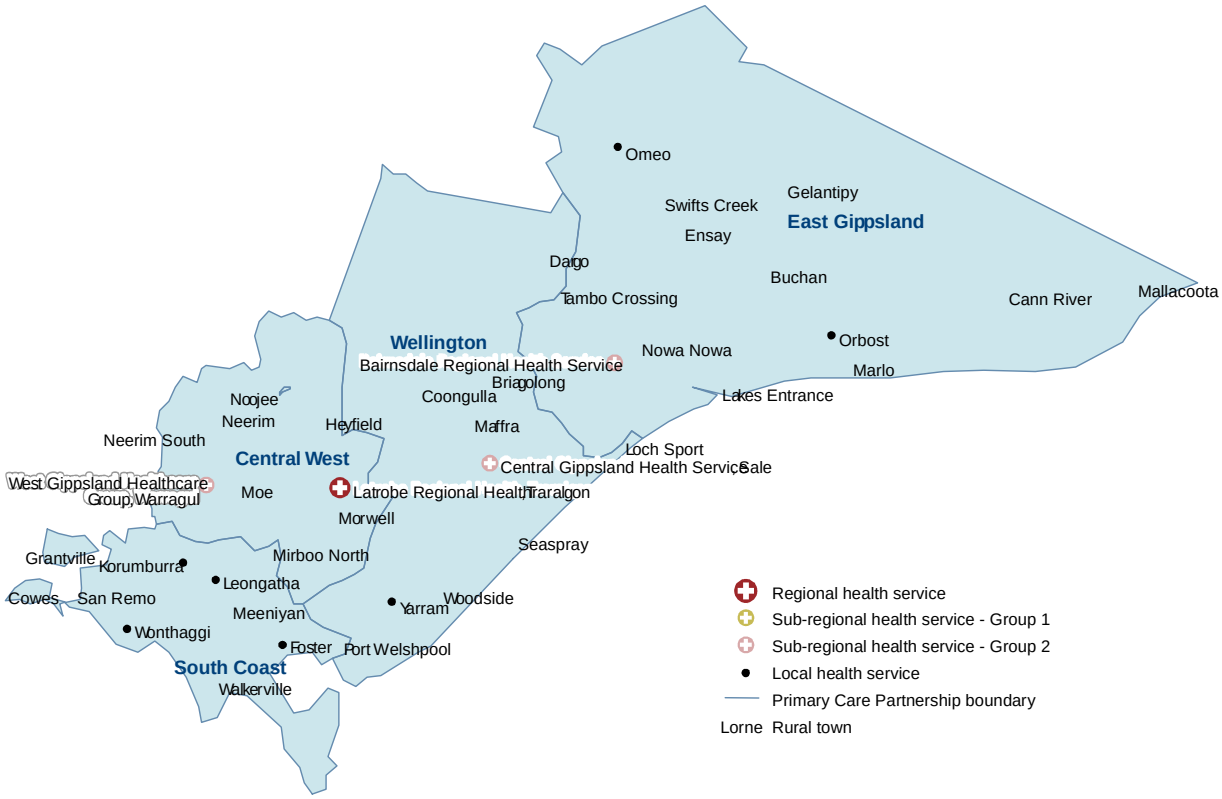
Actual and forecast separations for public health services in the region	2005-06	2018-19
	99,761	145,575

Regional hospital
Barwon Health

Sub-Regional hospitals
South West Healthcare (Warrnambool)
Western District Health Service (Hamilton)

Local Health Services
Beaufort & Skipton Health Service (Skipton)
Casterton Memorial Hospital
Colac Area Health
Hesse Rural Health Service (Winchelsea)
Heywood Rural Health
Lorne Community Hospital
Moyne Health Services (Port Fairy)
Otway Health & Community Services (Apollo Bay)
Portland & District Hospital
South West Healthcare (Camperdown)
Terang & Mortlake Health Service (Terang)
Timboon & District Healthcare Service
Western District Health Service (Coleraine)
Western District Health Service (Penshurst)

Gippsland Region



The region covers an area of 41,539 square kilometres extending approximately 515 km from Cowes on Phillip Island to Mallacoota in the far east of the State.

The region has four Primary Care Partnerships, and six local government areas: Bass Coast Shire, Baw Baw Shire, East Gippsland Shire, Latrobe City, South Gippsland Shire and Wellington Shire.

Sizable population centres have grown through the region along the Princes highway, including Traralgon, Moe, Morwell, Sale and Bairnsdale. As each of these towns is significant in size, the region has more sub-regional hospitals than any other.

Three sub-regional services, being Central Gippsland, Bairnsdale and West Gippsland have developed over time to offer a similar range and mix of services, so are all in the same group.

West Gippsland is also a health service on the metropolitan fringe. While it is in the same PCP as the regional service, it provides services to the growing population at the western end of the PCP. This area abuts the rapidly growing metropolitan area of Cardinia.

The far east of the region includes some of the most sparsely populated areas in Victoria, with small communities such as Mallacoota with a population density 0.1 people per square kilometre. Yallourn North in Latrobe with a population density of 1,103 people per square kilometre is the most densely populated community in the region.

Primary Care Partnership	Total estimated resident population (ABS 2006)	
	2006	2016
Central West Gippsland	110,838	112,578
Wellington	42,147	41,511
East Gippsland	42,075	43,790
South Coast	57,631	64,390
Region Total	252,691	262,270

Actual and forecast separations for public health services in the region	2005-06	2018-19
	59,287	81,209

Regional hospital
Latrobe Regional Hospital

Sub-Regional hospitals
Central Gippsland Health Service (Sale)
Bairnsdale Regional Health Service
West Gippsland Healthcare Group

Local Health Services
Bass Coast Regional Health*
Central Gippsland Health Service (Maffra)
Gippsland Southern Health Service (Korumburra)
Gippsland Southern Health Service (Leongatha)
Kooweerup Regional Health Service#
Omeo District Hospital
Orbost Regional Health
South Gippsland Hospital (Foster)
Yarram & District Health Service

* Planned to become a sub-regional hospital Group 2

Hospital is located in a metropolitan LGA, but functions as a local rural hospital

Grampians Region

The region covers an area of 47,980 square kilometres and extends approximately 360 km from Bacchus Marsh in the east to the South Australian border in the west, and from Patchewollock in the north to Lake Bolac in the south.

The region has three Primary Care Partnerships, and 11 local government areas: Ararat City, Ballarat City, Golden Plains Shire, Hepburn Shire, Hindmarsh Shire, Horsham Rural City, Moorabool Shire, Northern Grampians Shire, Pyrenees Shire and West Wimmera Shire, Yarriambiack Shire.

The City of Ballarat is the single dominate population centre in the region. The far west of the region, bordering South Australia, includes some of the most sparsely populated areas in Victoria, such as Rainbow with a population density of 0.1 people per square kilometre. Solder Hill in Ballarat with a population density of 1,945 people per square kilometre is the most densely populated community in the region.

Due to this dominant population at the eastern end of the region around Ballarat, this region has only one sub-regional service, which is Wimmera Healthcare Group in Horsham. Many small rural centres surround the City of Horsham, which are the traditional broad acre farming areas most affected by changing patterns of farming and drought. Many of the local health services in these communities are facing difficulties attracting and retaining clinical staff and services.

Within the eastern area Djerriwarrh Health Service in Bacchus Marsh is identified as a local metropolitan fringe health service. This health service is close to the growing metropolitan LGA of Melton and has strong links to Western Health.

Primary Care Partnership	Total estimated resident population (ABS 2006)	
	2006	2016
Central Highlands	149,667	164,363
Grampians Pyrenees	30,526	30,694
Wimmera	38,394	37,108
Region Total	218,587	232,165

Actual and forecast separations for public health services in the region	2005-06	2018-19
	81,672	114,408

Regional hospital
Ballarat Health Service

Sub-Regional hospitals
Wimmera Health Care Group (Horsham)

Local Health Services
Beaufort & Skipton Health Service (Beaufort)
Djerriwarrh Health Services (Bacchus Marsh)#
Dunmunkle Health Services (Rupanyup)
East Grampians Health Service (Ararat)
East Grampians Health Service (Willaura)
East Wimmera Health Service (St Arnaud)
Edenhope & District Hospital
Hepburn Health Service (Creswick)
Hepburn Health Service (Daylesford)
Rural Northwest Health (Hopetoun)
Rural Northwest Health (Warracknabeal)
Stawell Regional Health
West Wimmera Health Service (Jeparit)
West Wimmera Health Service (Kaniva)
West Wimmera Health Service (Nhill)
West Wimmera Health Service (Rainbow)
Wimmera Base Hospital (Dimboola)

Local health service on rural/metropolitan fringe

Hume Region

The region covers 40,427 square kilometres extending approximately 263 km from Wallan in the south to Wodonga on the New South Wales border.

The region has four Primary Care Partnerships, and 12 local government areas: Alpine Shire, Benalla Rural City, Greater Shepparton City, Indigo Shire, Mansfield Shire, Mitchell Shire, Moira Shire, Murrindindi Shire, Strathbogie Shire, Towong Shire, Wangaratta Rural City and Wodonga City.

Much of the population is spread throughout the region in the larger centres of Shepparton, Wangaratta and Wodonga, all of which are located in the northern half of the region. The rest of the region includes small townships spread across many relatively isolated farming and agricultural areas. The geography of the region includes mountainous areas, making travel between services a challenge in some instances. The region includes sparsely populated communities such as Corryong with a population density of 0.3 people per square kilometre to Waterford Park in Mitchell Shire with a population density of 1,078 people per square kilometre.

The southern half of the region includes areas of rural amenity where the population is growing, particularly lower Mitchell Shire. In these areas service trends indicate that the population is more likely to travel to metropolitan health services for care rather than the regional or sub-regional hospitals in the north. Within this southern area Kilmore is identified as a local metropolitan fringe health service and is close to the growing metropolitan LGA of Whittlesea.

The agencies in this region also provide services to residents of NSW towns across the border. Albury is one of the largest regional centres in NSW and the governments of both Victoria and NSW have undertaken to develop an integrated health service across the growing communities of Wodonga and Albury. Much has already been done at a local level and the two state departments are continuing to work towards the establishment of a single health service.

Primary Care Partnership	Total estimated resident population (ABS 2006)	
	2006	2016
Goulburn Valley	99,813	110,294
Central Hume	61,980	64,807
Upper Hume	56,948	65,418
Lower Hume	47,511	54,325
Region Total	266,252	294,843

Actual and forecast separations for public health services in the region	2005-06	2018-19
	72,060	106,036

Regional hospital
Goulburn Valley Health (Shepparton)

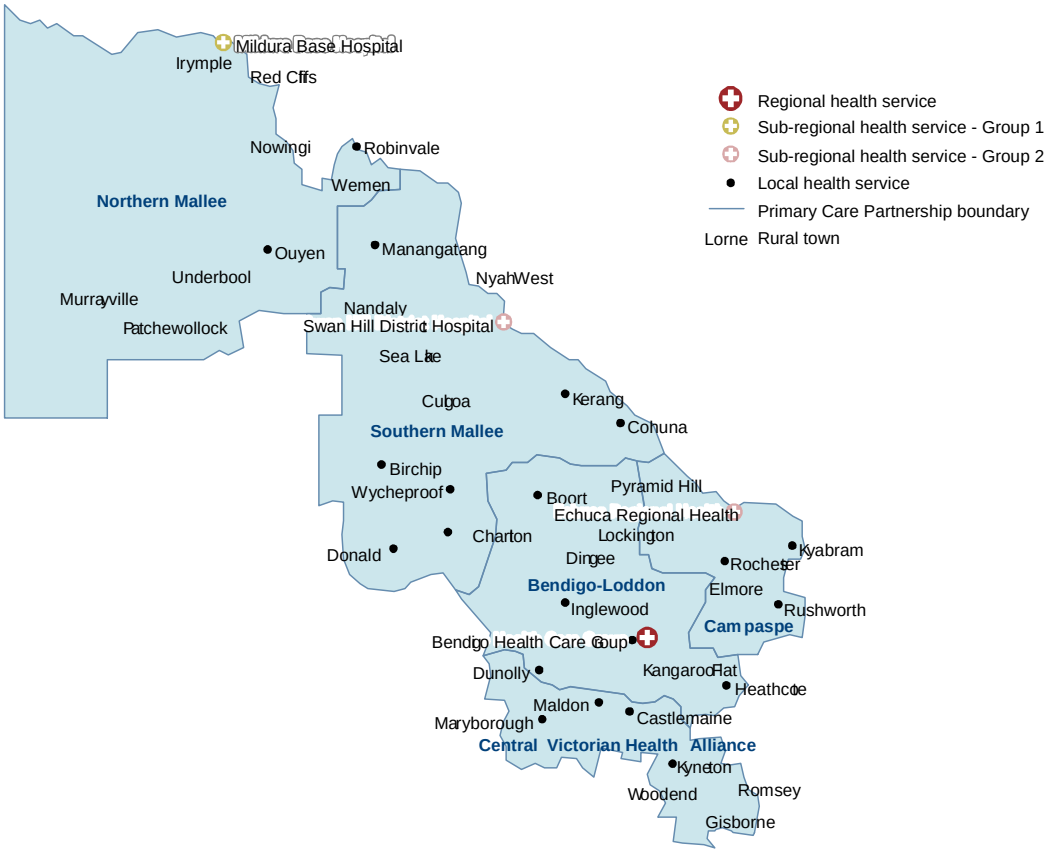
Sub-Regional hospitals
Northeast Health Wangaratta
Wodonga Regional Health Service*

Local Health Services
Alexandra District Hospital
Alpine Health (Bright)
Alpine Health (Mount Beauty)
Alpine Health (Myrtleford)
Beechworth Health Service
Benalla & District Memorial Hospital
Cobram District Hospital
Goulburn Valley Health (Tatura)
Goulburn Valley Health (Waranga)
Kilmore & District Hospital#
Mansfield District Hospital
Nathalia District Hospital
Numurkah District Health Service
Seymour District Memorial Hospital
Tallangatta Health Service
Upper Murray Health & Community Services (Corryong)
Yarrawonga District Health Service
Yea & District Memorial Hospital

* Planned to become a regional service incorporating Albury Base Hospital

Local health service on rural/metropolitan fringe

Loddon Mallee Region



The region covers an area of 59,149 square kilometres extending approximately 492 km from Gisborne in the south to Mildura on the New South Wales border.

The region has five Primary Care Partnerships, and ten local government areas: Buloke Shire, Campaspe Shire, Central Goldfields Shire, Gannawarra Shire, Greater Bendigo City, Loddon Shire, Macedon Ranges Shire, Mildura Rural City, Mount Alexander Shire and Swan Hill Rural City.

The far west of the region, bordering South Australia, includes some of the most sparsely populated areas in Victoria, such as Murrayville and Underbool with a population density of 0.1 people per square kilometre. Flora Hill in Greater Bendigo with a population density of 1,617 people per square kilometre is the most densely populated community in the region.

The northern Mallee area includes some traditional broad acre farming areas, but also the large rural City of Mildura, which is one of the three sub-regional services.

All three sub-regional services are along the Murray River. The agencies in this region also provide services to residents of NSW towns across the river and to parts of South Australia.

At the southern end of the region Kyneton is a local metropolitan fringe health service and is close to the growing metropolitan LGAs of Hume and Whittlesea.

Primary Care Partnership	Total estimated resident population (ABS 2006)	
	2006	2016
Bendigo Loddon	106,125	117,986
Central Victorian	71,966	79,653
Northern Mallee	57,034	62,486
Campaspe	38,261	40,820
Southern Mallee	36,381	34,278
Region Total	309,767	335,223

Actual and forecast separations for public health services in the region	2005-06	2018-19
	77,906	110,518

Regional hospital
Bendigo Health

Sub-Regional hospitals
Mildura Base Hospital
Echuca Regional Health
Swan Hill District Hospital

Local Health Services
Boort District Hospital
Cohuna District Hospital
East Wimmera Health Service (Birchip)
East Wimmera Health Service (Charlton)
East Wimmera Health Service (Donald)
East Wimmera Health Service (Wycheproof)
Goulburn Valley Health (Waranga)
Inglewood & District Health Service
Kerang District Health
Kyabram & District Health Service
Kyneton District Health Service#
Maldon Hospital
Mallee Track Health & Community Service
Manangatang & District Hospital
Maryborough District Health Service (Dunolly)
Maryborough District Health Service (Maryborough)
McIvor Health & Community Services (Heathcote)
Mount Alexander Hospital (Castlemaine)
Robinvale District Health Services
Rochester & Elmore District Health Service
Swan Hill District Hospital (Nyah)

Local health service on rural/metropolitan fringe

Consultation questions

1. What issues arise from these definitions of regional, sub-regional and local hospitals?

2. What are three key opportunities to improve health service delivery in your region, sub-region or local area?

3. What are some of the challenges to working collaboratively and how can these be addressed?

4. What services could be enhanced in your region or sub-region through further development of cooperative arrangements?

5. What is the key planning or service development issue the Department needs to address?