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# Beechworth Health

## Service Plan 2017 to 2022

22 September 2017

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# 1 Executive summary

Beechworth Health Service is a small rural health service providing acute, sub-acute, residential aged care, primary and community and home-based services within Indigo Shire. It is the only public hospital within Indigo Shire. Beechworth Health Service's main referral centres are Northeast Health Wangaratta and Albury Wodonga Health Service, each located around 40 kilometres away and in opposite directions.

The main catchment area for Beechworth Health Service is the south eastern portion of the Indigo Shire: a population of approximately 6,000 people. The Shire is home to a vibrant tourist population which can swell the population significantly and result in increased reliance on local service infrastructure including healthcare services.

Beechworth Health Service commissioned Biruu.Health to complete a Health Services Plan for the period 2017 to 2022. This plan is based on an overview of the demographics and health status of Indigo Shire, which is the catchment area for Beechworth Health Service. The plan is also informed by consultation with key stakeholders and consumer representatives from within Beechworth Health Service and within the community.

## 1.1 Background

Beechworth Health Service provides services to all age groups of people in the service catchment area including a twelve bed acute inpatient unit; a 24-hour urgent care service; visiting xray and ultrasound imaging services; sixty residential aged care beds and community health services.

During the next fifteen years, the Shire of Indigo's population is expected to increase by 5.7 per cent, or 0.4 per cent annually, compared with 1.7 per cent annually for Victoria as a whole. There will be an increase in the number of older people in the catchment, and fewer people in the working-age group.

## 1.2 Summary of findings

Arising from consultation, workshops and data analysis, the following issues are to be resolved in this service plan:

- Identifying opportunities to re-direct resources to provision of community-based and home-based services. Stakeholders expressed a strong preference for service models that reduce their risk of hospitalisation
- Identifying opportunities to improve population health outcomes in partnership with local organisations. In particular it is noted that Indigo Shire residents have low participation rates in cancer screening
- Confirming the future size and role of the acute inpatient service and the residential aged care service
- Consolidating Beechworth Health Service's role as a key member of the sub-regional service system. The Department of Health and Human Services is seeking to formalise partnerships between health services in designated sub-regions: Beechworth Health Service is nominated to be in Albury Wodonga Health's sub-region
- Considering the future of the Blackwood unit, which currently provides Aged Persons' Mental Health residential services. This service is currently operated by Albury Wodonga Health, and provides a regional residential service for older people with mental illness.

### 1.2.1 Health service resources

One of Beechworth Health Service's key challenges is that current funding models support facility-based episodic care, while community members seek community-based and integrated care. It is apparent that people living in Beechworth and surrounds are not accessing some of the preventive services (such as cancer screening) that can help them to maintain good health.

Beechworth Health Service has flexibility to allocate resources between service types and settings, however, some flexibility is lost because of the resources needed to provide inpatient and residential

services. These resources constraints will continue to impact Beechworth Health Service's capacity to provide nursing and allied health services in the community.

### 1.2.2 Community engagement

Beechworth Health Service has good access to a volunteer workforce, and appreciates that volunteers seek to give back to the community. Stakeholders were keen to expand their engagement with Beechworth Health Service, and wanted to talk about how Beechworth Health Service could be involved in community activities, as well as how they could contribute to health service activities.

### 1.2.3 Access

Stakeholders identified a number of access difficulties, including a perception that Beechworth Health Service provides services only for older people; lack of awareness in the community of the services offered and social and economic barriers. There are also physical access issues, such as low availability of outdoor space, distance between the inpatient unit and the hospital-based rehabilitation facility and insufficient storage.

### 1.2.4 Expansion opportunities

One of the key constraints for Beechworth Health Service is lack of space at its Beechworth facility. Although expansion opportunities are also limited by the availability of funding, the Service Plan has identified expansion opportunities.

### 1.2.5 Staff

Beechworth Health Service is generally able to recruit people to fill any vacancies that arise, and is an active participant in regional workforce planning projects, student placements and entry-level positions for new graduates. One barrier for trainee placements is the lack of affordable accommodation close to the hospital.

There may be an option to develop a regional nurse practitioner model.

## 1.3 Service Planning Principles

The service planning recommendations are based on the following principles. Beechworth Health Service will:

- **Prioritise** services and activities that help people to maintain their independence
- **Engage** with people living in Beechworth and surrounding communities, to understand their priorities and advocate for better health outcomes for them
- **Maintain** a focus on consumer needs and interests at all times
- **Work in partnership** with sub-regional health service providers to ensure residents of Beechworth and surrounding communities have access to the health services they need

## 1.4 Recommendations

### 1.4.1 Continued development of community-based and home-based care

In order to expand community-based and home-based services, Beechworth Health Service could create a social work position and use it to build Beechworth Health Service's role within sub-regional care pathways and improve referral networks for the District Nursing Service, expanding its role in post-discharge care. Beechworth Health Service could also review opportunities to provide care outside business hours and develop roles in the delivery of NDIS-funded therapeutic services for people with disability and Commonwealth-funded community-based services for older people.

### 1.4.2 Improved population health outcomes

Beechworth Health Service will partner with primary care providers in the sub-region to work on strategies to improve population health outcomes. Strategies will include expansion of children's services, expansion of access to community health services and a continued focus on the needs of older members of the community.

### 1.4.3 Size and role of facility-based services

Between Beechworth Health Service and Yackandandah Health there will be a possible shortfall of residential aged care services within ten years. As this service sector is undergoing significant policy change, it is recommended that Beechworth Health Service continue to monitor demand for residential aged care and to market its services to people in north eastern Hume. There may be capacity to provide Short Term Restorative Care, a service model similar to Transition Care[1], but provided to people referred directly from the community, rather than from a hospital.

Several strategies would contribute to Beechworth Health Service's capacity to provide an expanded inpatient range of services:

- Develop higher-level rehabilitation capability, including investment in rehabilitation resources at the bedside, on the ward and in an accessible location for community members. Each clinical space should provide capacity for rehabilitative care
- Informal activity spaces for older residents: consistent with the Montessori model, invest in space and facilities that support self-management and self-direction
- In order to attract people in to three-month placements for Transition Care and possibly Short Term Restorative Care, invest in facilities that will support these people to retain social connectedness and the maximum possible independence. This may include kitchen and separate eating spaces, family visit spaces, and facilities where people can re-learn daily activities
- Expand the range of visiting services to include pathology
- Establish capacity for telehealth ward rounds hosted by Northeast Health Wangaratta and/or Albury Wodonga Health.

### 1.4.4 Sub-regional service relationships

Beechworth Health Service will continue to provide key resources to the sub-regional service system. In order to enhance the health service role, Beechworth Health Service will:

- Investigate opportunities to provide more visiting medical services with the support of Albury Wodonga Health and Northeast Health Wangaratta
- Expand the existing admission planning structure to include a combined discharge planning structure with Albury Wodonga Health and Northeast Health Wangaratta.

A number of health services work together to provide Hospital Admission Risk Program-funded services in the northeast Hume sub-region. A regional coordinator of these services would help direct patients to the closest possible provider of home-based and/or community-based services, and would help small rural health services including Beechworth Health Service to plan and provide services that are relevant to the patient group and are well coordinated with service partners.

### 1.4.5 Future role and purpose for Blackwood Cottage

Albury Wodonga Health and the Department of Health and Human Services have committed to working collaboratively with Beechworth Health Service to determine the future role and configuration of the existing Blackwood Cottage service for the benefit of its current resident cohort and for older people with mental illness who may in the future need residential support. It is envisaged that Beechworth Health Service will take over operation of the unit at an appropriate time, likely maintaining current service levels for the current resident as the role of the unit is redeveloped.

[1] [1]Short-term Restorative Care and Transition Care are funded by the Australian Government. Both programs aim to reverse and/or slow an older person's rate of functional decline and to improve their wellbeing. Both programs provide a time-limited, goal-oriented, multi-disciplinary and coordinated package of services. Transition Care assists older people to return home after a hospital stay; Short-Term Restorative Care is available for older people who have not had a hospital stay.

# 2 Introduction

Beechworth Health Service has commissioned Biruu.Health to complete a Health Services Plan for the period 2017 to 2022. Consistent with government policy directions, the project was required to[2]:

- Examine the current utilisation of health services within the BHS catchment area
- Describe the current health services and models of care provided for residents in the catchment area. This will include a description of the facilities (beds, theatres and urgent care centre), aged and primary health services and available times of operation
- Interpret the demand patterns and health service projections for the BHS catchment and the implications of these forecasts on service provision, resources and the management and partnership opportunities of health services
- Take into account the nature of population changes within the catchment including the latest ABS population data and forecast projections (*Victoria in Future*)
- Investigate the role, use and availability of other public hospitals and private providers that may impact on the catchment area allowing for the accessibility of services for the catchment population
- Examine the status and level of relationships/partnerships between Northeast Health Wangaratta, Albury Wodonga Health Service and Tallangatta Health Service and identify opportunities and barriers that may affect the delivery of health services in the catchment. In particular considering theatre, midwifery, clinical governance and workforce planning
- Meet with the communities of Beechworth, Stanley, Wooragee, Rutherglen, Chiltern, Barnawartha, Yackandandah and Tangambalanga to discuss health service gaps and needs
- Advise on the appropriate provision, configuration and model of care for the catchment, including the respective capabilities and appropriate roles of neighbouring health services, and being cognisant of the impact of technological change and changing workforce models
- Advise on the impact of the geographic location of healthcare services for the catchment in terms of accessibility, access to transport options and quality of care
- Address issues of access, critical mass, quality of care, service sustainability and efficiency
- Advise on broad level facility implications to support the BHS strategic health service plan and model of care
- Advise on an implementation plan and key short, medium and long-term strategies for the catchment area.

## 2.1 Methodology

This plan is based on an overview of the demographics and health status of Indigo Shire, which is the catchment area for Beechworth Health Services. The plan is also informed by consultation with key stakeholders and consumer representatives from within Beechworth Health Service and within the community. A list of people consulted is provided at 0. We thank them for their time and contribution.

A series of focus group discussions was held with Beechworth Health Service staff cohorts. Outcomes from these discussions were used to frame consultation workshops with:

- Representatives of community groups who work with Beechworth Health Service
- Community and health service stakeholders, who participated in a “world café” discussion
- A scenario planning workshop with senior members of Beechworth Health Service staff.

[2] Project brief provided by Beechworth Health Service, 13 September 2016.

The project was supported by a Working Group, which met throughout the project. Members are listed in Table 1.

**Table 1 Working Group members**

| Organisation | Representative name |
|---|---|
| Beechworth Health Service | Katie Warner, President |
| | Mark Ashcroft, Chief Executive Officer |
| | Shell Morphy, Quality and Risk Manager |
| | Carolyn Shaw, Corporate Service Manager |
| | Anna Mckinlay, Health Promotion Officer and Community Engagement Officer |
| | Lisa Pryor, Director of Clinical Services |
| Department of Health and Human Services | Neville Page, Hume Regional Health Manager |
| Biruu.Health | Alison Hallahan, Principal |

### 2.1.1 Notes to the data

Most of the publicly available health and population data exists only at a Local Government Area level, and some comparisons between datasets are not possible because of changes to the Australian Bureau of Statistics' geographical definitions. Data for this document were obtained from several sources, listed in Table 2.

**Table 2 Data sources**

| Data type | Data source |
|---|---|
| Population | Population projections sourced from Victoria in Future 2016, developed by the Department of Environment Land Water and Planning, have been used to more accurately reflect catchment boundaries. While some data are available at the level of Victoria in Future Small Area (VIFSA), population forecasts in five-year age groups are available only at LGA level.<br>Socio-Economic Indexes for Areas (SEIFA) figures were sourced from the Australian Bureau of Statistics 2011 Census of Population and Housing |
| Health status | Data on the health status of the catchment population was accessed through several sources, including: Victorian Health Information Surveillance System (VHISS), Health Intelligence Unit, Prevention and Population Health Branch, Wellbeing, Integrated Care and Aged Division of the Department of Health Victoria |
| Ambulatory Services | Beechworth Health Service provided data on primary care and community-based services |
| Admitted Episodes | The Victorian Department of Health and Human Services provided data on:<br>• Admitted episodes provided by Beechworth Health Service, to all patients including non-catchment residents<br>• Admitted episodes provided to catchment residents, by all Victorian public health services |
| Community Health | Gateway Health provided aggregated data on primary care and community health services provided to people with a postcode within Beechworth Health Service's catchment. |

# 3 About the catchment communities

The main catchment area for Beechworth Health Service is the south eastern aspect of the Indigo Shire, including the townships of Beechworth, Stanley and Wooragee: a population of approximately 6,000 people. The extended catchment area for Beechworth Health Service includes the townships of Rutherglen, Chiltern, Barnawartha, Yackandandah and Tangambalanga; a population in excess of 15,000 people. The Shire is home to a vibrant tourist population which can swell the population significantly and result in increased reliance on local service infrastructure including healthcare services.

More information about the health status of catchment communities is provided in Appendix 2.

The Shire of Indigo encompasses an area of 3,844 square kilometres is located in Victoria's Hume Region, 116km north-east of Melbourne. Townships and small settlements in the Shire of Indigo include Beechworth, Stanley, Wooragee, Rutherglen, Chiltern, Barnawartha, Yackandandah and Tangambalanga. Figure 1 demonstrates Indigo Shire's location in Victoria.

**Figure 1 Map of Victoria showing the Shire of Indigo**


*Source: VicHealth Map*

## 3.1 Demographic profile

During the next fifteen years, the Shire of Indigo's population is expected to increase by 5.7 per cent, or 0.4 per cent annually, compared with 1.7 per cent annually for Victoria as a whole (Table 3).

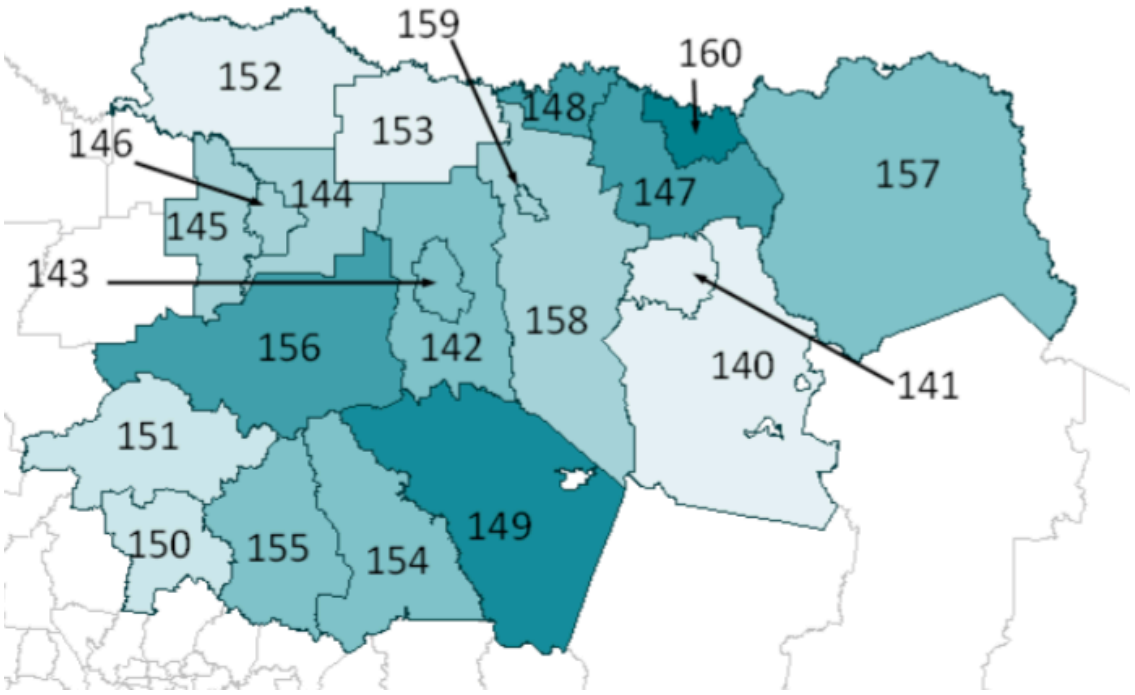
**Table 3 Indigo Shire forecast population change from 2016 to 2031, based on 2011 actual population**

| Local Government Area | Year 2016 | Year 2021 | Year 2026 | Year 2031 | Difference from 2016 to 2031 | Per cent change 2016 to 2031 | Growth per annum |
|---|---|---|---|---|---|---|---|
| Beechworth – Chiltern | 11,716 | 11,904 | 12,147 | 12,448 | 732 | 6.25% | 0.41% |
| Indigo Shire | 15,465 | 15,689 | 15,983 | 16,346 | 882 | 5.70% | 0.40% |
| Victoria | 6,048,767 | 6,605,653 | 7,170,957 | 7,733,259 | 1,684,492 | 27.80% | 1.70% |

*Source: Victoria in Future 2016*

For planning purposes, the Victorian Government issues some data and projections at the level of Victoria in Future Small Areas. These are designed to provide information at an area smaller than Local Government Area, and are based on the Australian Statistical Geography Standard's Statistical Area Level 2. The allocation of areas in Hume region to Victoria in Future Small Areas is provided in Figure 2. The Beechworth – Chiltern Victoria in Future Small Area is numbered 147, and borders 148 Rutherglen District (also in Indigo Shire), 141 Myrtleford District, 158 Wangaratta Rural District and 160 Wodonga Rural City.

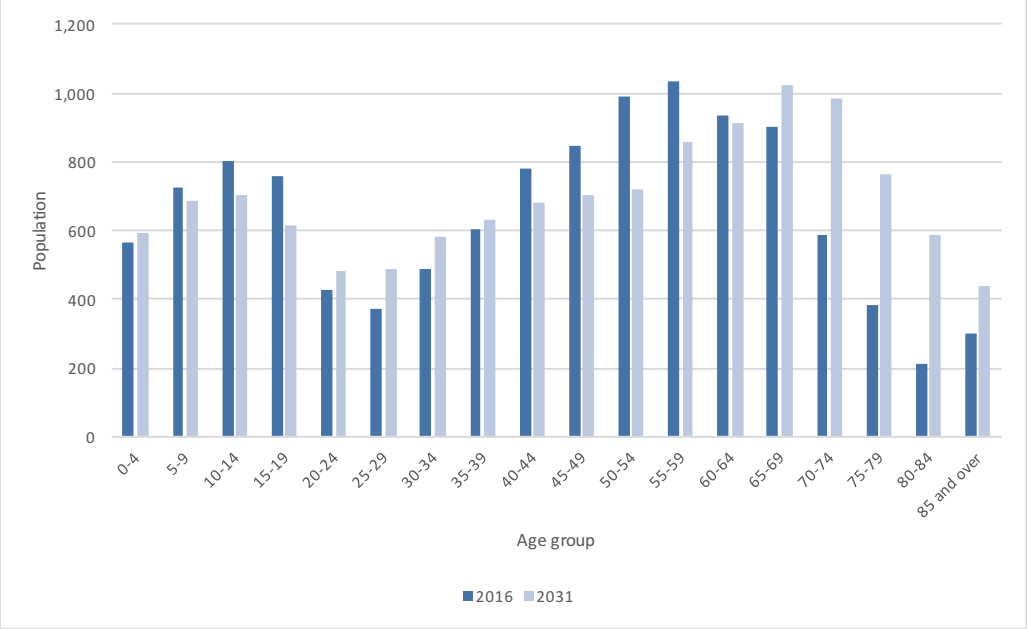
**Figure 2 Hume region's Victoria in Future Small Areas**




*Source: Department of Environment Land Water and Planning 2015 "Victoria in Future Small Areas – Lists and Maps by Region. <planning.vic.gov.au>*

The forecast age structure for the catchment area is provided in Figure 3. This figure demonstrates that the population is expected to age, with the population cohort over 65 showing the most significant growth during the period from 2016 to 2013. The predicted decreases in the 0-4 and 20-34 age groups point to a slight decrease in the number of young families. The low numbers of persons 20-40 represents a 'hollowing out' effect in the working-aged population during the coming years.

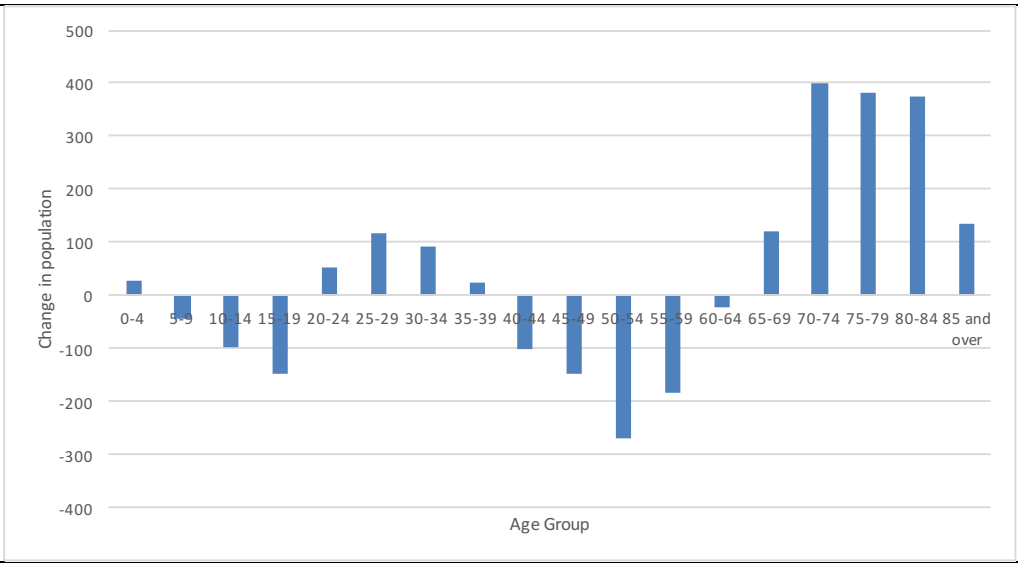
**Figure 3 Beechworth – Chiltern Victoria in Future Small Area: change in population 2016 to 2031 by 5 year age group**




*Source: Victoria in Future 2016*

Figure 4 again emphases the predicted increase in the number of older people in the catchment, and the fewer number of those in the working-age group.

**Figure 4 Beechworth – Chiltern Victoria in Future Small Area: change in population 2016 to 2031 by 5 year age group**




*Source: Victoria in Future 2016*

## 3.2 Socio-Economic Indexes for Areas

The Australian Bureau of Statistics uses census data to produce its Index of Relative Socio-Economic Disadvantage. It is based on a range of census variables considered to reflect levels of disadvantage, including income level, employment status and level of educational attainment. A number of studies have indicated a consistent correlation between low socioeconomic status and poor health. These data are collated to create the Socio-economic Index for Areas. Scores are standardised across census collection districts so that the average score across Australia is 1,000. Scores lower than 1,000 indicate relatively more disadvantaged areas and higher scores indicate relatively less disadvantaged areas. People living in areas of disadvantage tend to rely on public health services, and to have less capacity to meet out of pocket, travel and accommodation expenses.

The Shire of Indigo has a Relative Socio-Economic Disadvantage index score above 1,000, indicating a very low level of disadvantage across the catchment region (Table 4). The Shire also scored well across the Index of Economic Resources, which shows the area has higher than average access to economic resources (e.g. few households with low income). However, it scored poorly across the Index of Education and Occupation, which shows the area has a lower education and occupation status within the local population (e.g. high unemployment or fewer people with qualifications).

**Table 4 Socio-Economic Index: Scores of Local Government Areas in the catchment region**

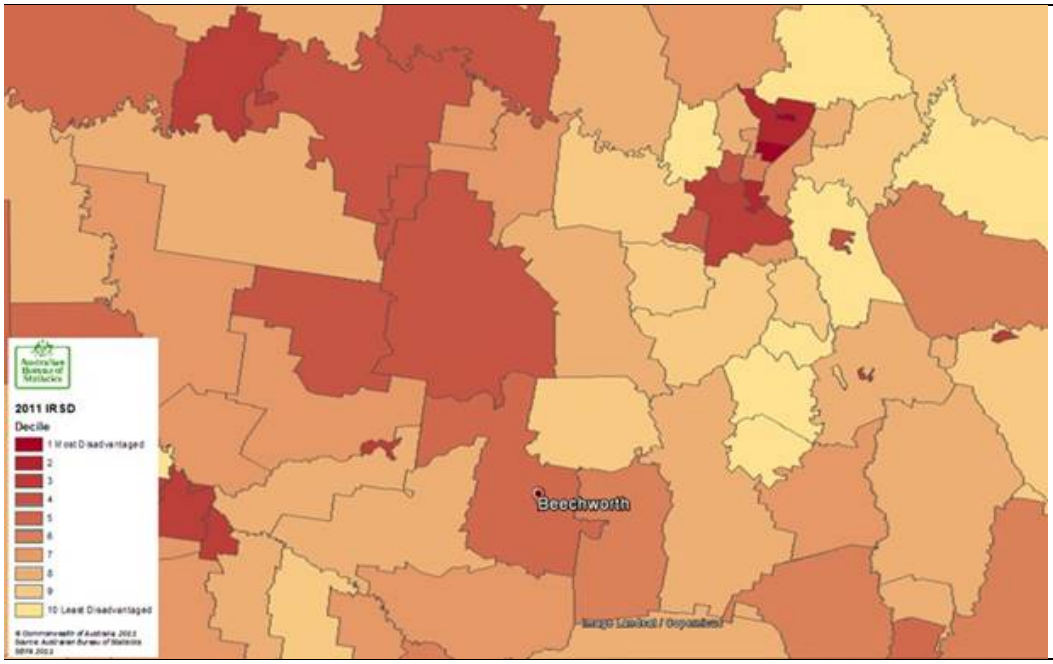
| Local Government Area | Index of Relative Socio-Economic Disadvantage | Ranking in Victoria* | Index of Economic Resources | Ranking in Victoria* | Index of Education and Occupation | Ranking in Victoria* |
|---|---|---|---|---|---|---|
| Shire of Indigo | 1010 | 53 | 1016 | 59 | 994 | 48 |

**Note: Ranking is out of 79 Local Government Areas in Victoria, where 1 is the most disadvantaged and 79 is the least disadvantaged*

*Source: Australian Bureau of Statistics, 2033.0.55.001 - Census of Population and Housing: Socio-Economic Indexes for Areas, Data Cube only, 2011*

Figure 1 demonstrates that there are pockets of disadvantage to the north and west of Beechworth.

**Figure 5 Local Socio-Economic Index ratings**




**Note: Ranking is out of 79 Local Government Areas in Victoria, where 1 is the most disadvantaged and 79 is the least disadvantaged*

*Source: Australian Bureau of Statistics, 2033.0.55.001 - Census of Population and Housing: Socio-Economic Indexes for Areas, Data Cube only, 2011*

# 4 About Beechworth Health Service

Beechworth Health Service is a small rural health service providing acute, sub-acute, residential aged care, primary and community and home based services within Indigo Shire. It is the only public hospital within Indigo Shire. Beechworth Health Service's main referral centres are Northeast Health Wangaratta and Albury Wodonga Health Service, each located around 40 kilometres away and in opposite directions.

## 4.1 Vision, purpose and values

Beechworth Health Service's vision is: *Leading the health of our Community*

Beechworth Health Service's purpose is: to meet the needs of the Indigo community by being accessible, collaborative and sustainable. We do this through the continual support of excellence. Beechworth Health Service's values are:

- Respect: Being courteous and considerate of the diversity and equality of all
- Unity: Encouraging participation, collaboration and a common purpose
- Innovation: Promoting flexibility and the exploration of new ideas and methods in everything we do, to reflect the changing needs and expectations of our community
- Excellence: Enhancing quality of life while meeting the highest standards of quality, safety and client centred care
- Integrity: Promoting professionalism and openness through honesty, fairness and ethical behaviour.

## 4.2 Services provided

Beechworth Health Service has a long tradition of healthcare provision to the people of Beechworth and surrounding communities. The service came into being in 1992 as a result of the amalgamation of two of the oldest hospitals in north-eastern Victoria and the inclusion of part of a third hospital, Mayday Hills. The hospital has been operating from its current site in Sydney Road Beechworth since 2005.

Beechworth Health Service provides services to all age groups of people in the service catchment area including:

- A twelve bed acute inpatient unit, which includes three transitional care places for older people who have had a recent acute inpatient experience and need some additional assistance in their recovery and decision-making about their living arrangements. Beechworth Health Service also provides a limited inpatient withdrawal service, under agreement with Albury Wodonga Health, and is able to provide palliative care with the assistance of the Palliative Care Consultancy Service provided by Albury Wodonga Health
- A 24-hour urgent care service, co-located with and operated by the acute inpatient unit. The service is supported by visiting medical officers from the local general practice
- Visiting imaging services: xray and ultrasound
- Sixty residential aged care beds; 30 providing nursing home level care requirements (Acacias) and 30 providing hostel level care requirements (Stringybark). The residential aged service has successfully adopted the Montessori model, which gives back to residents the tasks they can manage (even if modified and/or with assistance)
- Community health service which meet the needs of people in all age cohorts, providing physiotherapy, occupational therapy, speech therapy, podiatry, diabetes education, dietetics, complex care coordination and health promotion; supported by an allied health assistant. This is funded from within Beechworth Health Service's small rural health service "block funding". Outreach services are provided to Tangambalanga and Yackandandah. About 70 per cent of clients have chronic conditions and complex needs, most arising from an earlier trauma or chronic illness. Exercise groups are provided for frail older people over the age of 80, for people who can manage their own programs in a supervised gymnasium, and for a balance group
- A four-yearly regional health promotion program, in partnership with health services in the sub-region

- A seven-day District Nursing Service that provides for Beechworth and surrounding communities. Patients include people referred from Albury Wodonga Health's palliative care program, and from Northeast Health Wangaratta's Hospital in the Home program
- Social inclusion services for elderly community members in Tangambalanga, Yackandandah and Beechworth
- Meals on Wheels services for people living in Beechworth and Stanley. The kitchen also provides meals for inpatients, residents, and for clients such as the police.

In addition to this service profile, Beechworth Health Service also houses Blackwood Cottage, a fifteen bed residential based mental health service for older people. This service is managed for the community by Albury Wodonga Health.

Beechworth Health Service provides the "backbone" for health promotion work done in the Shire.

Beechworth Health Service is strongly committed to staff training, and provides training and graduate nursing positions, as well as student placements in physiotherapy, occupational therapy, podiatry, and allied health assistance. The health service also supports the Certificate III in Leisure and Lifestyle that is provided by Wodonga TAFE.

## 4.3 Other health services provided in the Beechworth community

While Beechworth Health Service provides the only hospital within Indigo Shire, people access health services provided in other areas including Melbourne. Also, health services in north east Hume also have responsibility for delivery of some services within the Shire.

### 4.3.1 Beechworth Surgery

The Beechworth general practice employs 10 general practitioners (6.0 EFT). All have credentials to provide visiting medical services to Beechworth Health Service, and provide regular ward rounds and visits to the aged care service. The general practitioners also provide on-call back-up for the urgent care centre, although people who present to the urgent care centre during working hours may be referred direct to the general practice. Every second weekend, on-call support is provided by general practitioners in Wangaratta. The practice also provides physiotherapy, podiatry and dietetics funded by the Primary Health Network. Some allied health clinicians also rent rooms within the practice.

### 4.3.2 Private allied health service providers

Beechworth has access to private allied health service providers including podiatrist, physiotherapist, diabetes educator, dietitian, and psychologist.

### 4.3.3 Albury Wodonga Health

Albury Wodonga Health provides the North East and Border Area Mental Health Service, which provides community-based mental health services for Indigo residents, and operates the following services in Beechworth:

- Blackwood Cottage is co-located with Beechworth Health Service. It is a 15-bed service for people over 65 years of age who experience behavioural difficulties associated with their mental illness. The Aged Care Assessment Team is responsible for admission and for discharge if the person is able to transfer back to their original place of residence
- Willows Community Care Unit provides support for up to 18 people aged 16 to 65 years, who have persistent symptoms, impaired psychosocial functioning and reduced capacity to live independently in the community. The service is provided in Gilchrist Avenue and Mayday Court, Beechworth.

Albury Wodonga Health provides the Rural Allied Health Team in the sub-region, providing some physiotherapy and occupational therapy. Albury Wodonga Health is the sub-regional tertiary referral hospital, providing for catchment communities including southern New South Wales; provides the specialist palliative care consultancy service; and provides the Director of Medical Services for Beechworth Health Service.

### 4.3.4 Northeast Health Wangaratta

Beechworth Health Service and Northeast Health Wangaratta have strong referral relationships. Northeast Health Wangaratta provides some back-of-house support for Beechworth Health Service, and they provide a sub-regional visiting geriatrician to support small rural health services within the catchment.

# 5 Health status of Indigo Shire population

The Shire of Indigo surveyed residents reported better than the State average results across persons reporting type 2 diabetes, high blood pressure and osteoporosis and persons who are overweight or obese (Table 5). A higher proportion of Indigo Shire residents reported asthma than the state average; the Shire is ranked 14th in the state in persons reporting asthma.

**Table 5 Health status characteristics of the catchment area using 2013 population reports for non-communicable disease**

| Health characteristic | Shire of Indigo | Victoria | Rank |
|---|---|---|---|
| Persons reporting asthma | 14.0% | 10.9% | 14 |
| Persons reporting type 2 diabetes | 4.2% | 5.0% | 49 |
| Persons reporting high blood pressure | 21.1% | 24.5% | 70 |
| Persons reporting heart disease | 6.9% | 6.9% | 40 |
| Persons reporting osteoporosis | 3.7% | 5.3% | 76 |
| Persons reporting arthritis | 20.3% | 19.8% | 44 |
| Persons who are overweight | 31.6% | 32.5% | 51 |
| Persons who are obese | 17.8% | 17.3% | 50 |

*Source: 2013 LGA profiles data, Department of Health, http://docs.health.vic.gov.au/docs/doc/2013-LGA-profiles-data*

The standardised rate of malignant cancers diagnosed per 100,000 people in Indigo Shire is higher than the rate for Victoria, with both male and female cancer incidence rates exceeding the State average. Cancer screening rates for cervical and bowel cancers in Indigo Shire are also higher than the State average, however Indigo Shire is ranked number 78 out of 79 LGAs for breast cancer screening (Table 6).

**Table 6 Health status characteristics of the catchment area using 2013 population reports for cancer incidence**

| Health characteristic | Shire of Indigo | Victoria | Rank |
|---|---|---|---|
| Malignant cancers diagnosed per 100,000 pop | 741.2 | 522.0 | 16 |
| Cancer incidence per 100,000 people, males | 775.8 | 577.0 | 18 |
| Cancer incidence per 100,000 people, females | 706.2 | 468.1 | 13 |
| **Screening** | | | |
| Breast screening participation, females aged 50-69 | 12.9% | 54.6% | 78 |
| Cervical cancer screening participation, females aged 50-69 | 62.7% | 60.2% | 26 |
| Bowel cancer screening participation, persons | 40.9% | 36.5% | 17 |

*Source: 2013 LGA profiles data, Department of Health, http://docs.health.vic.gov.au/docs/doc/2013-LGA-profiles-data*

Notifications per 1,000 people of chlamydia were among the lowest in the state (Table 7). Notifications for influenza were lower than the state average while notifications for pertussis were the same as the state average.

**Table 7 Health status characteristics of the catchment Local Government Areas using 2013 population reports for specific communicable disease**

| Notifiable diseases | Shire of Indigo | Victoria | Rank |
|---|---|---|---|
| Notifications per 1,000 people, pertussis | 0.8 | 0.8 | 36 |
| Notifications per 1,000 people, influenza | 0.6 | 1.1 | 55 |
| Notifications per 1,000 people, chlamydia | 2.0 | 3.5 | 71 |

*Source: 2013 LGA profiles data, Department of Health, http://docs.health.vic.gov.au/docs/doc/2013-LGA-profiles-data*

In Indigo Shire in 2011/2012, 52.3 per cent of people surveyed described their health status as excellent/very good, which is a very high result when compared with the Victorian average (46.6 per

cent) (Table 8). Furthermore, 13.4 per cent of people surveyed described their health status as fair/poor, below the Victorian average of 15.9 per cent.

**Table 8 Self-reported health status 2011/2012: Indigo Shire**

| Response | Shire of Indigo | Victoria per cent |
|---|---|---|
| Excellent/very good | 52.8% | 46.6% |
| Good | 33.8% | 37.3% |
| Fair/poor | 13.4% | 15.9% |

**Note: Estimate has a relative standard error of between 25 and 50 per cent and should be interpreted with caution*
*Source: Self-reported health and selected chronic diseases from the Victorian Population Health Survey 2011-12, Department of Health Victoria*

## 5.1 Children

Indigo Shire has a high maternal and child health check attendance rate and a high kindergarten participation rate. The Shire performed better than the state average in all health status characteristics except for children with speech or language problems and emotional/behavioural problems at school entry. (Table 9).

**Table 9 Health status characteristics of catchment area using 2013 population reports for children**

| Health characteristic | Shire of Indigo | Victoria | Rank |
|---|---|---|---|
| Low Birthweight babies | 4.8% | 6.6% | 75 |
| Infants fully breastfed at 3 months | 60.0% | 51.4% | 25 |
| Children fully immunised at 24-27 months | 94.2% | 91.7% | 32 |
| Children attending 3 year old maternal and child health check | 94.8% | 64.4% | 3 |
| Kindergarten participation rate | 100.0% | 98.0% | - |
| Children with emotional/behavioural problems at school entry | 4.7% | 4.3% | 31 |
| Children with speech or language problems at school entry | 18.1% | 13.8% | 20 |
| Adolescents who report being bullied | 17.7% | 17.9% | 49 |

*Source: 2013 LGA profiles data, Department of Health, http://docs.health.vic.gov.au/docs/doc/2013-LGA-profiles-data*

The Australian Early Development Census is an Australian Government initiative that aims to collect data as a measure of childhood developmental outcomes, and help communities and schools support children. The results show that Indigo Shire has lower rates than the state average of vulnerable children across all domains, but higher rates of physically and socially at risk children.

The domain areas of social competence and physical health and wellbeing have the most need of improvement in terms of children's wellbeing (Table 10). Note that due to a small population, the sample size is quite small and these results should be treated with caution.

**Table 10 Australian Early Development Index (AEDI) 2015 results by Local Government Area**

| Domain | Shire of Indigo | | | | Victoria | | | |
|---|---|---|---|---|---|---|---|---|
| | # children assessed | On track (%) | At risk (%) | Vulnerable (%) | # children assessed | On track (%) | At risk (%) | Vulnerable (%) |
| Physical health and wellbeing | 157 | 77.1 | 14 | 8.9 | 67,871 | 80.9 | 11.2 | 7.9 |
| Social competence | 157 | 74.5 | 17.8 | 7.6 | 67,860 | 77.2 | 14.1 | 8.7 |
| Emotional maturity | 157 | 67.5 | 21.7 | 10.8 | 67,617 | 77.5 | 14.5 | 8 |
| Language and cognitive skills (school-based) | 157 | 86 | 7.6 | 6.4 | 67,828 | 84.7 | 8.9 | 6.3 |
| Communication skills and general knowledge | 157 | 81.5 | 10.8 | 7.6 | 67,864 | 78.8 | 13.6 | 7.6 |
| | # children assessed | Yes (%) | No (%) | | # children assessed | Yes (%) | No (%) | |
| Vulnerable on one or more domains | 157 | 21.7 | 78.3 | | 67,670 | 19.9 | 80.1 | |
| Vulnerable on two or more domains | 157 | 10.8 | 89.2 | | 67,812 | 9.9 | 90.1 | |

*Source: AEDI 2015 - Public table by Local Government Area (LGA) 2009-2015*

## 5.2 Mental health

The World Health Organisation defined health as 'a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity'[3]. Poor mental health can impact on physical health and on all aspects of an individual's wellbeing. This section gives an overview of the effects of mental health on the community, and looks at the prevalence of risk factors within the catchment region.

A comparable percentage of persons surveyed in Indigo Shire reported having a high degree of psychological distress when compared with Victoria, but fewer people reported having adequate work-life balance (Table 11).

**Table 11 Health status characteristics of the catchment Local Government Areas using 2013 population reports for mental health**

| Health characteristic | Shire of Indigo | Victoria | Rank |
|---|---|---|---|
| Persons who have a high degree of psychological distress | 11.0% | 11.1% | 35 |
| Persons sleeping less than 7 hours per day | 27.3% | 31.5% | 62 |
| Persons with adequate work-life balance | 43.1% | 53.1% | 69 |

*Source: 2013 LGA profiles data, Department of Health, http://docs.health.vic.gov.au/docs/doc/2013-LGA-profiles-data*

[3] WHO (World Health Organization) 2013, Mental health 2013

# 6 Service delivery

This chapter provides two views of service delivery data:

- Services provided by Beechworth Health Service, including services provided to Indigo Shire residents and services provided to residents of other Victorian local government areas and other States and Territories
- Services provided to residents of Indigo Shire, by Beechworth Health Service and by other Victorian health services.

## 6.1 Beechworth Health Service: Admitted episodes

This section reports on the Beechworth Health Service program activity as set out in the Victorian Admitted Episodes Dataset (VAED) for the years 2012/2013 to 2015/2016, with forecasts to 2031/2032.

In the following discussion it is recognised that haemodialysis activity is based upon planned admissions, where the patient requires a sequence of treatments and, if the patient is admitted, each day of treatment is counted as a separate admission. In this situation, a typical renal dialysis patient would be formally admitted and discharged about three times a week or up to 150 times a year. These separations can skew the results, and are therefore excluded from some tables.

Most admitted episodes at Beechworth Health Service were multiday or overnight stays (Table 12). The overall number of admitted episodes is expected to increase by 24 per cent.

**Table 12 Same day and multiday program activity at Beechworth Health Service 2012-13 to 2015-16, separations forecast to 2031-32**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Forecast growth |
|---|---|---|---|---|---|---|---|
| Multi day/overnight | 234 | 244 | 259 | 266 | 319 | 53 | 20% |
| Same day | 9 | 19 | 12 | 6 | 18 | 12 | 208% |
| **Grand Total** | **243** | **263** | **271** | **272** | **337** | **65** | **24%** |
| Bed days | 2,465 | 2,115 | 2,144 | 2,507 | 2,181 | -326 | -13% |
| Average length of stay | 10.1 | 8.0 | 7.9 | 9.2 | 5.5 | -3.8 | -41% |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

## 6.2 Where Indigo Shire residents attend for admitted episodes

This section looks at where Indigo catchment residents are going for hospital services outside Beechworth Health Service. Chemotherapy and dialysis separations are excluded from this data.

Table 13 shows the number of medical admissions is projected to decrease by 2031-32, while the number of surgical admissions will increase by 44 per cent.

**Table 13 Program activity summary forecast to 2031- 32 for Indigo Shire residents**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| Medical | 1,954 | 2,017 | 2,111 | 2,679 | 2,344 | -335 | -13% |
| Other | 555 | 566 | 631 | 668 | 936 | 268 | 40% |
| Surgical | 1,308 | 1,299 | 1,361 | 1,054 | 1,522 | 468 | 44% |
| **Grand Total** | **3,817** | **3,882** | **4,103** | **4,401** | **4,801** | **400** | **9%** |
| Haemodialysis | 1,110 | 1,082 | 768 | 808 | 2,041 | 1,233 | 153% |
| Chemotherapy | 382 | 432 | 317 | 336 | 746 | 410 | 122% |

*Source: VAED*

Most residents of Indigo Shire received services at Albury Wodonga Health, Wodonga, followed by Private Hospitals (Table 14). Beechworth Health Service accounts for six per cent of all separations from Indigo Shire residents, and it is expected to maintain this share in 2031-32.

**Table 14 Program activity by hospital campus 2012-13 to 2015-16, forecast to 2031-32 for Indigo shire residents**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| AWH, Wodonga | 1,054 | 1,128 | 1,109 | 1,206 | 1,630 | 424 | 35% |
| Private Hospital | 804 | 724 | 833 | 739 | 1,112 | 373 | 51% |
| Wangaratta | 646 | 728 | 765 | 899 | 1,153 | 254 | 28% |
| AWH, Albury* | 667 | 615 | 685 | 807 | | | |
| Beechworth | 211 | 237 | 228 | 223 | 301 | 78 | 35% |
| MH, RMH | 92 | 100 | 87 | 84 | 128 | 44 | 52% |
| Alfred | 87 | 65 | 70 | 77 | 78 | 1 | 2% |
| St Vincent's | 56 | 74 | 78 | 64 | 94 | 30 | 46% |
| Royal Children's Hos | 43 | 47 | 49 | 57 | 46 | -11 | -19% |
| Benalla | 20 | 29 | 20 | 36 | 58 | 22 | 61% |
| Other | 137 | 135 | 179 | 209 | 201 | -8 | -4% |
| **Grand Total** | **3,817** | **3,882** | **4,103** | **4,401** | **4,801** | **400** | **9%** |

Source: *VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

** The Department does not provide forecasts for Albury Wodonga Health, Albury campus*

## 6.3 Emergency and urgent care services

Note that Beechworth Health Service does not provide a funded emergency department, but provides a general practitioner-supported small urgent care service. Data for urgent care services are not included in the Victorian Emergency Minimum Dataset.

Beechworth Health Service operates a one bed Urgent Care Centre which provides initial resuscitation and a limited stabilisation capacity prior to early transfer to a regional or major trauma service.

This section provides information about the usage of Emergency Department Services outside the Shire by residents of Indigo Shire.

Half of all emergency presentations by Indigo Shire residents between 2012-13 and 2015-16 were to Albury Wodonga Health Wodonga (Table 15).

**Table 15 Emergency presentations for Indigo residents by hospital 2012-13 to 2015-16**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Change 2012-13 to 2015-16 | Per cent growth |
|---|---|---|---|---|---|---|
| Albury Wodonga Health [Wodonga] | 2,374 | 2,226 | 2,381 | 2,382 | 8 | 0% |
| Northeast Health Wangaratta | 1,047 | 1,167 | 1,110 | 1,244 | 197 | 19% |
| Albury Wodonga Health [Albury] | 1,027 | 989 | 1,006 | 1,118 | 91 | 9% |
| Royal Melbourne Hospital [City Campus] | 38 | 52 | 43 | 28 | -10 | -26% |
| Alfred, The [Prahran] | 19 | 30 | 21 | 27 | 8 | 42% |
| St Vincent's Hospital | 17 | 16 | 14 | 10 | -7 | -41% |
| Royal Children's Hospital [Parkville] | 16 | 7 | 11 | 11 | -5 | -31% |
| Goulburn Valley Health [Shepparton] | 6 | 13 | 8 | 8 | 2 | 33% |
| Royal Victorian Eye & Ear Hospital The [East Melbourne] | 5 | 6 | 9 | 7 | 2 | 40% |
| Austin Hospital | 12 | 2 | 5 | 6 | -6 | -50% |
| Other | 60 | 77 | 92 | 81 | 21 | 35% |
| **Grand Total** | **4,621** | **4,585** | **4,700** | **4,922** | **-405** | **-8%** |

*Source: VEMD*

## 6.4 Community Health Services

The main provider of community health services is Gateway Health.

### 6.4.1 Indigo residents attending Gateway Health

The number of Indigo Shire residents receiving services from Gateway Health increased by 82 per cent from 2014 to 2016 (Table 16). Most people receiving services are in the 25-44 age group.

**Table 16 Program activity by age for Indigo Shire residents**

| | 2014 | 2015 | 2016 | Change 2014 to 2016 | Per cent change |
|---|---|---|---|---|---|
| 0-14 | 9 | 12 | 29 | 20 | 222% |
| 15-24 | 23 | 24 | 24 | 1 | 4% |
| 25-44 | 62 | 98 | 129 | 67 | 108% |
| 45-69 | 67 | 98 | 112 | 45 | 67% |
| 70-84 | 13 | 9 | 21 | 8 | 62% |
| 85+ | <5 | <5 | <5 | | |
| **Grand Total** | **175** | **245** | **319** | **144** | **82%** |

*Source: Gateway Health*

Counselling Wodonga was the most utilised service between 2014 and 2016 (Table 17). Alcohol and Drug Counselling increased by 327 per cent to become the most used service in 2016.

**Table 17 Program activity by age for Indigo Shire residents**

| | 2014 | 2015 | 2016 | Change 2014 to 2016 | Per cent change |
|---|---|---|---|---|---|
| Counselling Wodonga | 30 | 25 | 39 | 9 | 30% |
| AOD Counselling | 11 | 33 | 47 | 36 | 327% |
| Comm Health Nursing Wang | 7 | 24 | 26 | 19 | 271% |
| McGrath Breast Care Nursing | 17 | 20 | 15 | -2 | -12% |
| Parenting & Relationship Education | 10 | 22 | 12 | 2 | 20% |
| AOD MERPS | 8 | 12 | 8 | 0 | 0% |
| Positive Parenting Telephone Service | 6 | 11 | 9 | 3 | 50% |
| Gamblers Help | 7 | 12 | 6 | -1 | -14% |
| Resolve Adolescent Counselling | <5 | 13 | 6 | | |
| CHIPS | | | 22 | | |
| AOD Withdrawal | | 12 | 10 | | |
| PHaMS | 5 | 5 | 11 | 6 | 120% |
| Other | 70 | 56 | 108 | 38 | 54% |
| **Grand Total** | **175** | **245** | **319** | **144** | **82%** |

*Source: Gateway Health*

# 7 Issues raised in consultation and workshops

During the consultation process, we discussed issues such as:

- Health status of catchment residents, and the barriers they face in achieving good health and wellbeing
- The role of Beechworth Health Service and other organisations in meeting health care needs for people living in the southern part of Indigo Shire, and partnerships between Beechworth Health Services and other agencies, including agencies outside Indigo Shire
- Opportunities to improve the health and wellbeing of Shire residents and to engage in planning for improved health and wellbeing
- Opportunities for agencies and communities to work in partnership to improve access to services and to build community resilience
- Issues that should be considered by Beechworth Health Service as they consider their future roles, service profiles and partnerships.

One of the key consultation forums was a "world café" discussion, held 21 April 2017 in Beechworth. The following themes were identified during that conversation: all of the consultation outcomes have been organised into these themes.

## 7.1 Health: it's not just health services

Currently, most of Beechworth Health Service's resources derive from the delivery of health services within its Beechworth facility. However, most people seek to engage with health services and community organisations within a broader concept of health. People said they are keen to receive care that helps them to retain their independence in the community, and that helps them to maintain their health and wellbeing. It is apparent that people living in Beechworth and surrounds are not accessing some of the preventive services (such as cancer screening) that can help them to maintain good health.

Beechworth Health Service has limited resources for health promotion, and uses programmatic funding where possible to achieve primary and secondary prevention outcomes: for instance, social connectedness for older members of the community. While Beechworth Health Service is not able to address some of the social determinants of health (for example, provision of education), it has a key interest in working with partners to improve the health status of the community and to develop health care models that take into account people's socioeconomic vulnerabilities.

One of Beechworth Health Service's key challenges is that current funding models support facility-based episodic care, while community members seek community-based and integrated care.

### 7.1.1 Home-based and community-based health service delivery

Beechworth Health Service has flexibility in allocation of resources between service types and settings, within the small rural health service "block" funding model. However, some flexibility is lost because of the resources needed to provide inpatient and residential services, including direct service delivery staff, ancillary staff and facility costs. Larger organisations have better critical mass to absorb base costs across their service platform. Further, the implementation of Activity-Based Funding for small rural health services is likely to reduce the flexibility gains made when small rural health services were given access to "block" funding.

These resources constraints will continue to impact Beechworth Health Service's capacity to provide nursing and allied health services in the community. In many cases, the delivery of home-based care does not reduce the staffing and resource requirements to operate the inpatient and residential services; however lack of access to high-quality care at home can result in preventable hospitalisation.

## 7.2 Engagement with communities: it's a two-way conversation

Stakeholders were keen to engage with Beechworth Health Service, and wanted to talk about how Beechworth Health Service could be involved in community activities, as well as how they could contribute to health service activities. This desire for engagement is a key resource, while it will be important for the health service to create both the agenda for this engagement and the forums within

which it can occur. One of the key enablers for this conversation is transparency and a commitment to ongoing engagement even during difficult conversations.

The volunteer workforce was identified as being key “ambassadors” for the health service. Some are residents of small communities around Beechworth, and they have regular contact with individuals and families throughout the community. The Community Advisory Committee also provides a valuable role in collecting and collating community issues for discussion with the health service.

Several ideas were floated for better engagement with communities, including:

- Open days in the residential aged care service
- Beechworth Health Service stalls in the main streets of Beechworth and surrounding communities, as well as at local activities such as shows, and promotional events coinciding with local activities
- Increasing the social media presence
- Better engagement with people who might be willing to volunteer their time and labour
- Community food and cooking events such as demonstrations, and community meals
- Christmas lunch and a Christmas market including other local organisations
- Opening a coffee and food van on hospital premises
- Development of a community vegetable garden that could also be used by aged care residents
- Mounting a “campaign” for people to prepare their advanced care plans.

## 7.3 Access: knocking down barriers

Stakeholders identified a number of access difficulties:

- A perception that Beechworth Health Service provides only for older people, so younger people believe they must travel to Northeast Health Wangaratta or Albury Wodonga Health for access to health care
- Some confusion about the role and capability of the urgent care service. People said they were unclear whether it acted as an “emergency department” or not. It was noted that the local general practice now charges a co-payment which may over time increase demand for primary-care level urgent care services
- Despite the availability of land around the hospital, there are limited opportunities for residents of the aged care services to engage in informal and/or outdoor activities
- Some of the services usually associated with a health precinct are not available in Beechworth, including dentistry, specialist consultations, out-of-hours access to primary care
- Many people suggested that individuals are not necessarily aware of the services available to them, including services provided by Beechworth Health Services as well as by larger health services in the region
- Beechworth Health Service is expanding its capacity to provide telehealth services: there are now formal links with Northeast Health Wangaratta and with Albury Wodonga Health, and the local on-call general practitioner has access to an iPad for communication about individual patients.

There are physical access barriers in some parts of the hospital, including distance between the inpatient unit and the hospital-based rehabilitation facility, and some bathroom access issues in the residential units. Also there is insufficient storage in the residential facilities for residents’ mobility aids, and the layout does not sufficiently separate patients from hospital operations.

While physical access barriers must be addressed, Beechworth Health Service also needs a continued focus on social and economic barriers to health care, including access to health services provided by other organisations. These barriers may include lack of access to information, transport, telecommunications, and/or informal supports including family carers. We were also told that people can experience the aged care service system as fragmented and difficult to access, and that Beechworth Health Service may have a role in assisting people to understand and coordinate the different services they receive.

While there is a good pool of volunteers (83 active volunteers at the time of this report), the entry process can be time consuming. Volunteers need to provide a police check, undergo training for their

role, and undergo training in occupational health and safety, and in basic life support. Volunteers provide patient transport, as well as supporting Club Connections in Yackandanda and Tangambalanga. The volunteer driver service is appreciated and well-used, although some people were concerned that the service is vulnerable as the community ages.

We were told that some community members are concerned that if the acute inpatient unit is full, there may be no options for local people who need admission to hospital. In particular our attention was drawn to the role of Beechworth Health Service in providing longer-term admissions for people who may otherwise be hospitalised in Wangaratta or Wodonga.

## 7.4 Opportunities to expand

One of the key constraints for Beechworth Health Service is lack of built space in the inpatient and residential units at its Beechworth facility: inpatients and residents now bring more equipment to the hospital, the health service has invested in more lifting and mobility equipment in order to implement the 'no lift' policy, patients and residents bring more family members with them. However, there is a significant land asset at the Beechworth site, which could be used for new services if funded.

Expansion opportunities are also limited by the availability of funding. Some services can be charged directly to the patient, but most services are funded by State and Commonwealth governments. Some options for expansion include:

- Delivery of Short Term Restorative Care: the model is similar to Transition Care[4] services, but is available for people who have not experienced a hospital stay
- Becoming an NDIS-recognised provider of allied health and other therapeutic services. This may provide an additional source of funding for people in the Beechworth community who have disabilities
- Entering agreements with Indigo Shire Council about delivery of Home and Community Care services in the Beechworth community
- Partnering with Beechworth Surgery to bring more specialist consultation services to the hospital
- Developing clear and appropriate roles within sub-regional care pathways, for example pre- and post-surgical rehabilitation, stroke pathways, ante- and post-natal care pathways.

Note that Beechworth Health Service has contributed to a sub-regional review of NDIS service delivery options that advises the small and remote population provides both opportunities and challenges for people with disabilities and for people and organisations that provide services for tthem:

- Opportunities: as it is unlkely there would be a sufficient market to attract new external providers, there may be opportunities for existing service providers who are well known in the community to expand their service offerings to include NDIS-funded supports
- Challenges: as the population is small and there is a small number of people with disabilities, it would be difficult to maintain a viable service, and there is a risk of market failure.

The review provides an overview of services to which NDIS funding can be directed (for instance transport for people with disabilities to medical appointments), and recommends that local health services in north eastern Victoria should collaborate and support each other in the delivery of disability support services, and should work with NDIS participants to make sure they are funded to receive all of the services and supports they need. In particular the review finds that there may be a role for small rural health services in providing a Support Coordination Service for people with disabilities who have frequent interactions with the health service system.

## 7.5 Regional partnerships: BHS role

People living in Indigo Shire have good access to primary care and residential aged services, acute and sub-acute services and tertiary referral services; provided by small rural health services including Beechworth Health Service, by Northeast Health Wangaratta, and by Albury Wodonga Health.

[4] Short-term Restorative Care and Transition Care are funded by the Australian Government. Both programs aim to reverse and/or slow an older person's rate of functional decline and to improve their wellbeing. Both programs provide a time-limited, goal-oriented, multi-disciplinary and coordinated package of services. Transition Care assists older people to return home after a hospital stay; Short-Term Restorative Care is available for older people who have not had a hospital stay.

Beechworth Health Service is engaged with regional and sub-regional employment strategies including credentialling in advanced life support.

Beechworth Health Service has a strong presence in the sub-regional service system, providing:

- A sub-regional Transition Care service, which could potentially be expanded by accessing new funding for Short Term Restorative Care. This program is similar to the Transition Care program but is available for people who have not had a hospital stay
- A sub-regional low-risk inpatient withdrawal service, taking people referred by Gateway Health for a scheduled seven-day program
- Post-operative recuperative care for people referred from other health services. While the service caters for Beechworth residents returning after surgery at other health services, it is also available for other people who wish to accept a referral to Beechworth. Beechworth Health Service (and other sub-regional small rural health services) daily reports its bed status to Northeast Health Wangaratta and Albury Wodonga Health, in order to provide discharge options where appropriate and where the patient agrees to a transfer. The service depends on the availability of a general practitioner to provide medical supervision
- Pre-rehabilitative care for non-weight bearing people referred by Albury Wodonga Health, taking advantage of the good allied health program provided by Beechworth Health Service.

The North East and Border Mental Health Service (Albury Wodonga Health) operates Blackwood Cottage, co-located with Beechworth Health Service. This is a legacy service model which provides Commonwealth-funded and State-funded residential care for older people with mental illness and behavioural challenges. Albury Wodonga Health has developed a new model of care where the community-based Older Persons' Mental Health Service provides in-reach assessment, treatment and support for older people at home or in residential aged care services, in partnership with the person's general practitioner, family and carers. The service also provides education and support for staff in residential aged care services who may have residents who display difficult or challenging behaviours.

Northeast Health Wangaratta plans to appoint a geriatrician who would be available to support sub-regional small rural health services through clinical governance, consultations, medical support and possibly the provision of Medicare-funded clinics. With back-up telemedicine support, this could enable Beechworth Health Service to increase its capacity in the delivery of Transition Care and Short Term Restorative Care.

## 7.6 Attracting and retaining great staff

We were told that generally Beechworth Health Service is able to recruit people to fill any vacancies that arise. At the moment, several staff are preparing for retirement, and the recruitment process has been linked with a "transition to retirement" process which supports retention of organisational knowledge. Many staff members travel from other communities to work at Beechworth Health Service.

Beechworth Health Service is an active participant in regional workforce planning projects, and provides student placements and entry-level positions for new graduates. One barrier for trainee placements is the lack of affordable accommodation close to the hospital.

Beechworth Health Service has good access to a volunteer workforce, and appreciates that volunteers seek to give back to the community, while appreciating the support and involvement that they receive in return. The volunteer program is managed carefully, and Beechworth Health Service continues to recruit community members.

Staff development activities include detailed orientation, and access to ongoing vocational and career training. Beechworth Health Service has a good relationship with training providers including La Trobe University, Charles Sturt University, GOTAFE, Albury Wodonga TAFE and others, and provides a clear pathway from traineeship to ongoing positions in nursing and allied health. Simulation-based training is available in the region, supported by University of Melbourne.

There may be an option to develop a regional nurse practitioner model, supporting nurse candidates in small rural health services by using the resources of regional health services to provide quality and safety support, clinical review and training opportunities.

# 8 Service planning principles and recommendations

The service planning recommendations are based on the following principles. Beechworth Health Service will:

- Prioritise services and activities that help people to maintain their independence
- Engage with people living in Beechworth and surrounding communities, to understand their priorities and advocate for better health outcomes for them
- Maintain at all times a focus on consumer needs and interests
- Work in partnership with sub-regional health service providers to ensure residents of Beechworth and surrounding communities have access to the health services they need

## 8.1 Planning outcomes

Arising from consultation, workshops and data analysis, the following issues are to be resolved in this service plan:

- Identifying opportunities to re-direct resources to provision of community-based and home-based services. Stakeholders expressed a strong preference for service models that reduce their risk of hospitalisation
- Identifying opportunities to improve population health outcomes in partnership with local organisations. In particular it is noted that Indigo Shire residents have low participation rates in cancer screening, and that outcomes can be improved for children in Indigo Shire
- Confirming the future size and role of the acute inpatient service and the residential aged care service
- Consolidating Beechworth Health Service's role as a key member of the sub-regional service system. The Department of Health and Human Services is seeking to formalise partnerships between health services in designated sub-regions: Beechworth Health Service is nominated to be in the Albury Wodonga sub-region
- Considering the future of the Blackwood unit, which currently provides Aged Persons' Mental Health residential services. This service is currently operated by Albury Wodonga Health, and provides a regional residential service for older people with mental illness.

## 8.2 Recommendations

### 8.2.1 Continued development of community-based and home-based care

One role of community-based and home-based care is to "expand the frontiers" of Beechworth Health Service. While the focus of health service delivery will continue to be at the hospital site, increasingly people will expect that the hospital comes to them. In order to expand community-based and home-based services, Beechworth Health Service could:

- Create a social work position, to assist with admissions, discharges and care planning. One role will be to build Beechworth Health Service's role within sub-regional care pathways
- Use the new social work position to improve referral networks for the District Nursing Service, expanding its role in post-discharge care
- Review opportunities to provide care outside business hours, possibly in partnership with other health services and using telehealth
- Develop roles in the delivery of NDIS-funded therapeutic services for people with disability and Commonwealth-funded community-based services for older people
- Explore the option of providing plan management and/or brokerage services for people eligible for NDIS-funded services, including people under the age of 55 who live in residential aged care services.

### 8.2.2 Improved population health outcomes

Beechworth Health Service will partner with primary care providers in the sub-region to work on strategies to improve population health outcomes. Strategies will include:

- Expansion of children's services. Beechworth Health Service currently provides speech therapy, dietetics and podiatry and participates in an informal partnership with Albury Community Health
- Expand access to community health services across the catchment communities
- Continue to focus on the needs of older members of the community, particularly older people outside Beechworth who may be socially disconnected

### 8.2.3 Size and role of the inpatient acute unit

Beechworth Health Service will continue to provide inpatient acute and recuperative services, as well as palliative admissions. The Department of Health and Human Services has forecast a requirement for 2,181 acute bed days (multi-day and same-day, Table 12), which can be accommodated (at 85 per cent occupancy) in eight beds, indicating that the existing 12-bed unit does not need to be expanded.

With additional visiting consultation services, Beechworth Health Service may be able to provide some of the nearly 5,000 admissions forecast by 2032 to be provided to Indigo Shire residents by other health services (see Table 13).

Several strategies would contribute to Beechworth Health Service's capacity to provided an expanded inpatient range of services:

- Develop higher-level rehabilitation capability, including investment in rehabilitation resources at the bedside, on the ward and in an accessible location for community members. Each clinical space should provide capacity for rehabilitative care
- In order to attract people in to three-month placements for Transition Care and possibly Short Term Restorative Care, invest in facilities that will support these people to retain social connectedness and the maximum possible independence. This may include kitchen and separate eating spaces, family visit spaces, and facilities where people can re-learn daily activities
- Expand the range of visiting services to include pathology
- Establish capacity for telehealth ward rounds hosted by Albury Wodonga Health.

### 8.2.4 Residential aged care

Residential aged services are planned in accordance with benchmarks published by the Australian Government, based on the number of people in a "planning region" aged 70 years and older. While Australian Government only applies the benchmarks to Victorian Government planning regions (in this case, Hume region), an understanding of population needs at the local level can provide some insight. Table 18 shows that the 70+ population in the Beechworth-Chiltern Victoria in Future Small Area will need access to 222 residential places by 2036, although note that some of these people will seek services in other locations, particularly in Albury Wodonga and Wangaratta which have many services a short distance from Beechworth.

Between Beechworth Health Service, Myrtleford Lodge Aged Care and Yackandandah Health there are 263 residential aged care beds in the area, fully catering for current and future demand. There will be significant need for home-based services. In order to maintain its competitive capacity, Beechworth Health Service should develop Informal activity spaces for older residents: consistent with the Montessori model, invest in space and facilities that support self-management and self-direction.

**Table 18 Aged care resources model: 2011, 2026 and 2036 populations**

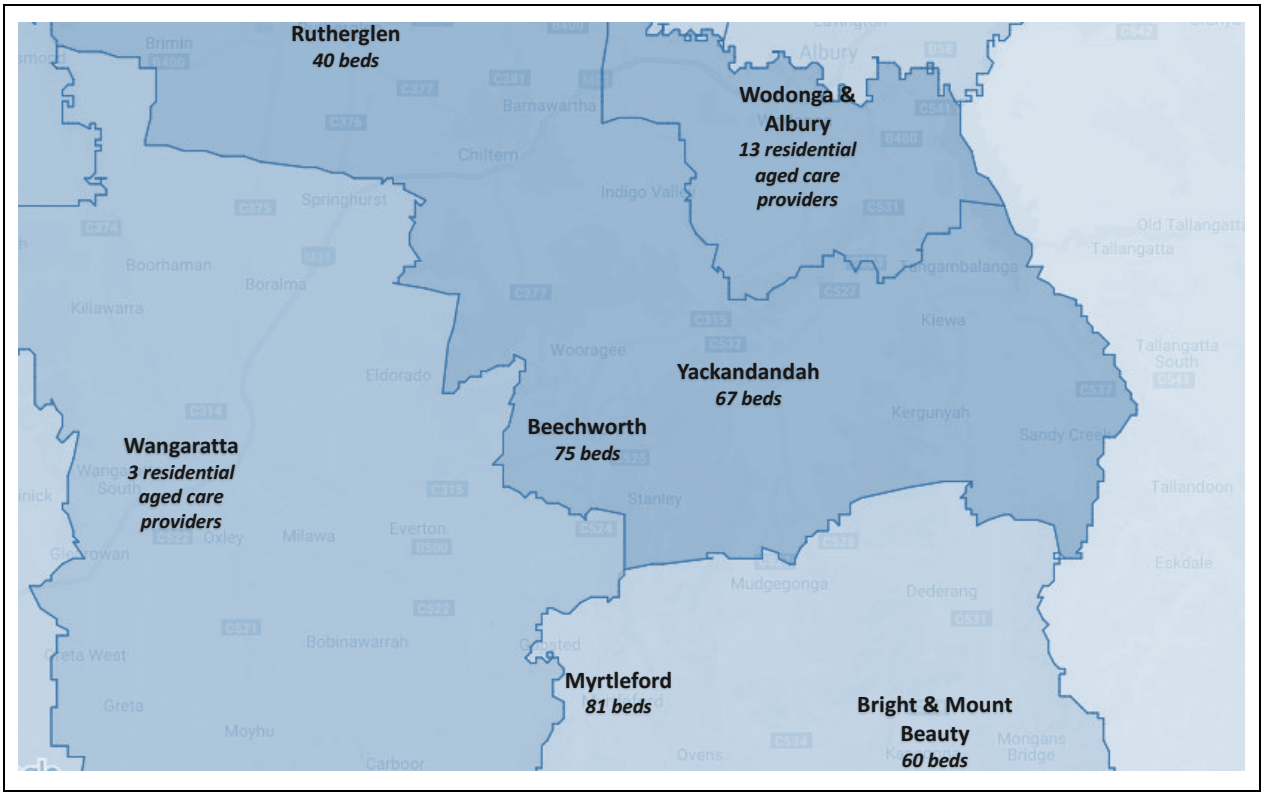
| Beechworth-Chiltern Victoria in Future Small Area | 2011 | 2026 | 2036 |
|---|---|---|---|
| Population aged 70 years and older | 1,479 | 2,327 | 2,776 |
| Estimated aged care beds* needed | 119 | 186 | 222 |
| Estimated community-based aged care packages* needed | 67 | 105 | 125 |
| Current availability of beds: Beechworth Health Service | 75** | | |
| Current availability of beds: Yackandandah Health Aged Care | 67 | | |
| **Other facilities near, but not in the Beechworth-Chiltern Victoria in Future Small Area** | | | |
| Current availability of beds: Myrtleford Lodge Aged Care | 81 | | |
| Current availability of beds: Indigo North Health (Rutherglen) | 40 | | |
| Current availability of beds: Alpine Health (Bright) | 40 | | |
| Current availability of beds: Alpine Health (Mount Beauty) | 20 | | |

**Notes: Commonwealth aged services planning benchmarks based on 80 beds and 45 community-based aged care packages per 1000 people aged 70+. Of the 80 residential places, it is expected 78 would be permanent places*
*** Includes Stringybark, Acacia and Blackwood*

*Population data source: Beechworth-Chiltern District (Victoria in Future Small Area.23350.10), Victoria in Future 2016, Department of Environment, Land, Water and Planning*

Figure 6 demonstrates the addition of Wangaratta and Albury Wodonga to the list of potential locations for Beechworth residents seeking residential aged care services; there is a significant pool of available places in north eastern Victoria.

**Figure 6 Availability of residential aged care services near Beechworth**



### 8.2.5 Sub-regional service relationships

Beechworth Health Service will continue to provide key resources to the sub-regional service system. In order to enhance the health service role, Beechworth Health Service will:

- Investigate opportunities to provide more visiting medical services with the support of Albury Wodonga Health
- Expand the existing admission planning structure to include a combined discharge planning structure with Albury Wodonga Health and Northeast Health Wangaratta. This should aim to return Shire residents to Beechworth Health Service as early as possible by discussing this option with the patient as they are being admitted
- A number of health services work together to provide Hospital Admission Risk Program-funded services in the northeast Hume sub-region. A regional coordinator of these services would help direct patients to the closest possible provider of home-based and/or community-based services, and would help small rural health services including Beechworth Health Service to plan and provide services that are relevant to the patient group and are well coordinated with service partners
- Explore sub-regional options to develop locally-responsive NDIS-funded services.

While these service relationships will help to build Beechworth Health Service's service role and capabilities, they need to be carefully negotiated and based on clear and documented agreements and allocation of responsibilities and accountabilities.

### 8.2.6 Future role and purpose for Blackwood Cottage

Albury Wodonga Health and the Department of Health and Human Services have committed to working collaboratively with Beechworth Health Service to determine the future role and configuration of the existing 15-bed Blackwood Cottage service for the benefit of its current resident cohort and for older people with mental illness who may in the future need residential support. This is in recognition that Albury Wodonga Health's new models of care for older people with mental illness who need residential care will over time reduce the number of older people who would be suitable for referral to Blackwood.

Beechworth Health Service and the Department will work together to review options for Blackwood Cottage. Options are:

1 Continue to lease the unit to Albury Wodonga Health, in the expectation that Albury Wodonga Health will continue to refer older people to the unit. While this option would maintain the current flow of resources to Beechworth Health Service, it brings the risk that Albury Wodonga Health will in the future have no need for the unit and it will be closed, resulting in community objection to the perceived loss of services for older people

2 Give notice to Albury Wodonga Health that Beechworth Health Service would like to terminate the lease and take over responsibility to provide residential aged services in the unit. While this option provides a greater level of control for Beechworth Health Service, it brings the risk that there will be insufficient demand for a total of 75 residential aged care beds in Beechworth, and that the service will operate at a loss. It may be possible to provide Transition Care and Short Term Restorative Care in the unit but this would require some redevelopment to make rehabilitation facilities more accessible to residents, who currently need to travel between buildings to access rehabilitation

3 Give notice to Albury Wodonga Health that Beechworth Health Service would like to terminate the lease and over time reduce its provision of residential aged care services. The existing unit may be redeveloped for new uses such as childcare, or carer accommodation. This option provides a greater level of control for Beechworth Health Service, however it brings the risk of community objection to a perceived loss of services for older people.

The preferred option is number 2, as it provides Beechworth Health Service with some control over the facilities, and provides a service option that may be viable and sustainable.

## 8.3 Implementation plan

The implementation plan includes short-term, medium-term and long-term actions.

### 8.3.1 Short-term actions

In the short term, Beechworth Health Service will:

- Determine whether it will seek a role in the delivery of new service models including Short-term Restorative Care and NDIS-funded disability support services. These decisions will be based on making sure that the services are financially sustainable, able to be delivered within the existing workforce profile, and meet demonstrable needs in the community. In both cases, the services are more likely to be viable if they are delivered in collaboration with other health services in north-eastern Victoria
- Develop new models for delivery of primary care and community health services, including outreach services to people's homes and sessional services provided in community-based locations across the catchment community
- Work with Albury Wodonga Health and North East Health Wangaratta to make sure children in the catchment communities have access to assessments and early intervention
- Work with Albury Wodonga Health and North East Health Wangaratta to build clinical skills and service capabilities to meet the needs of the catchment communities
- Develop a whole-of-health service approach to the needs of older people in the community. Older people should be engaged with Beechworth Health Service across all of its service platforms, ranging from information and health literacy support, support to maintain health and wellbeing and independence in the community, and residential care should that become necessary
- Identify funding for a social work position, to support older people in particular to make more seamless transitions between different types of services.

### 8.3.2 Medium-term actions

In the medium term, the size and role of the residential aged care service needs to be resolved in partnership with Albury Wodonga Health and the Department of Health and Human Services. The successful implementation of option 2 relies on some redevelopment of the facilities, as the existing rehabilitation facilities are remote from the residential aged care service in another building on site. In order for this redevelopment to be planned, a clear plan of action needs to be developed.

Beechworth Health Service will need to work closely with Albury Wodonga Health and the Department to determine whether this option is supported, and to prepare a detailed implementation plan including a specific program for each of the current residents, some of whom may continue to live at Beechworth Health Service.

This work should lead toward the preparation of a business case for redevelopment of the Beechworth hospital facility. The proposed redevelopment should support:

- Consolidation of a viable residential aged care service that is able to support all current residents. This includes the development of co-located allied health and therapeutic spaces as well as more activity space within the residential aged care service
- Development of a more effective allied health facility that can support inpatients, residents in the aged care service, people who can visit the hospital for allied health services, and outreach services to people's homes and other community-based facilities
- An expanded future role for the acute inpatient service in the delivery of rehabilitative care for older people and for people recovering from surgery and/or medical conditions. This rehabilitative model of care must be provided in partnership with Albury Wodonga Health, and should be supported by their geriatrician and other specialists. Note this expanded role is unlikely to result in the need for additional beds
- Resolution of physical shortcomings including poor physical access.

### 8.3.3 Long-term actions

In the longer term, demand for residential aged care is likely to expand sufficiently so that there is a demand for all of the aged care services that Beechworth Health Service can provide. As competition for residents increases, Beechworth Health Service will continue to refine its service offerings in order to meet the needs of older people within its catchment communities.

# Appendix 1 People consulted

**People consulted: individuals and focus groups**

| Name | Position, organisation |
|---|---|
| Mark Ashcroft | Chief Executive Officer, Beechworth Health Service |
| Tony Lane | Program manager, DHHS Hume regional office |
| Louine Robinson | Team Leader, Allied Health |
| Carolyn Shaw | Corporate Services Manager |
| Lisa Pryor | Director of Clinical Services |
| Anne Hanson | Chair, Community Advisory Committee |
| Marianne Thompson | Volunteer Coordinator |
| Jenny Stott | Manager, Staff Development |
| Staff Members | Inpatient Acute Unit |
| Linda Thompson | District Nursing Service, Planned Activity Groups and Aboriginal and Islander services |
| Jenny McIntosh | Allied Health Assistant |
| Lynette Schier | Physiotherapist |
| Margaret Bennett | Chief Executive Officer, Northeast Health Wangaratta |
| Tim Griffiths | Chief Operating Officer, Northeast Health Wangaratta |
| John Elcock | Director of Medical Services, Northeast Health Wangaratta |
| Libby Fifis | Director or Clinical Services, Nursing and Midwifery, Northeast Health Wangaratta |
| Michelle Butler | Director of Performance Improvement, Northeast Health Wangaratta |
| Staff members | Administrative group |
| Lyn Pritchard | Service supervisor |
| John McColl | Practice Manager, Beechworth Surgery |
| Staff members | Residential Aged Care |
| Staff members | Food services group |
| Michael Nuck | Director of North East and Border Mental Health Service, Albury Wodonga Health |
| Janet Chapman | Director Regional Citizenship, Albury Wodonga Health |

**People attending the community groups' consultation, Thursday 20 April 2017**

| Name | Position, organisation |
|---|---|
| Mark Ashcroft | Chief Executive Officer, Beechworth Health Service |
| John Van Aken | Consumer Advisory Group |
| Joyce Wilkinson | University of the Third Age |
| Annie Turnbull | Community Member |
| Lorna Nash | Carer Support Group |
| Pauline Middleton | Salvation Army |
| Ian Smith | Men's Shed/Heart Walkers |
| Lesley Browne | Rotary |
| Janet Wills | Old Cranks |
| Robert Scott | BHS: Volunteer Driver |

**People attending the world café consultation, Friday 21 April 2017**

| Name | Position, organisation |
|---|---|
| Mark Ashcroft | Chief Executive Officer, Beechworth Health Service |
| Marisel Belfari | Yackandandah Kindergarten |
| Kate Biglin | Indigo Shire Council |
| Gina Bladon | BHS Board |
| Janet Chapman | Albury Wodonga Health |
| Pam Crosthwaite | Parkinson's support group |
| Lisa Deppeler | BHS Staff - Dietitian |
| Jenny Donnelly | Upper Hume PCP |
| Di Everingham | Changing Minds Carer Support Group |
| Tom Gladstone | Ambulance Victoria - Beechworth Branch |
| Jenny Gordon | BHS Board |
| Dyan Hill | BHS Staff – HR Manager |
| Anna Mackinlay | BHS Staff –Health Promotion & Community Engagement |
| Kate Marshall | BHS Staff – Manager Residential Aged Care |
| Helen McIntosh | BHS volunteer |
| Trish Mom | BHS Board |
| Shell Morphy | BHS Staff – Quality & Risk Manager |
| Alex Nelson | Beechworth Community Childcare Centre |
| Annette Nuck | Yackandandah Health |
| Neville Page | DHHS |
| Jennifer Perrin | BHS volunteer |
| Lisa Pryor | BHS Staff - Director of Clinical Services |
| Louine Robinson | BHS Staff – Team Leader Primary Health / Podiatrist |
| Carolyn Shaw | BHS Staff - Director Corporate Services |
| Dot Stelling | Community member |
| Jennifer Stott | BHS Staff – Staff Development Officer |
| Gabriella Tange | BHS Staff – Health Promotion Officer |
| Harry Thomas | BHS Board |
| Marianne Thompson | Tangambalanga Club Connection |
| Lynda Thompson | BHS Staff – Team Leader – District Nursing & Planned Activity Group |
| Jenny Tolley | BHS volunteer |
| Lauris Turley | BHS volunteer |
| Katie Warner | BHS Board |
| Una Watson | BHS volunteer |

# Appendix 2 Health status of catchment residents

The Shire of Indigo surveyed residents reported better than the State average results across persons reporting type 2 diabetes, high blood pressure and osteoporosis and persons who are overweight or obese (Table 5). A higher proportion of Indigo Shire residents reported asthma than the state average; the Shire is ranked 14th in the state in persons reporting asthma.

**Table 19 Health status characteristics of the catchment area using 2013 population reports for non-communicable disease**

| Health characteristic | Shire of Indigo | Victoria | Rank |
|---|---|---|---|
| Persons reporting asthma | 14.0% | 10.9% | 14 |
| Persons reporting type 2 diabetes | 4.2% | 5.0% | 49 |
| Persons reporting high blood pressure | 21.1% | 24.5% | 70 |
| Persons reporting heart disease | 6.9% | 6.9% | 40 |
| Persons reporting osteoporosis | 3.7% | 5.3% | 76 |
| Persons reporting arthritis | 20.3% | 19.8% | 44 |
| Persons who are overweight | 31.6% | 32.5% | 51 |
| Persons who are obese | 17.8% | 17.3% | 50 |

*Source: 2013 LGA profiles data, Department of Health, http://docs.health.vic.gov.au/docs/doc/2013-LGA-profiles-data*

The standardised rate of malignant cancers diagnosed per 100,000 people in Indigo Shire is higher than the rate for Victoria, with both male and female cancer incidence rates exceeding the State average. Cancer screening rates for cervical and bowel cancers in Indigo Shire are also higher than the State average, however Indigo Shire is ranked number 78 out of 79 LGAs for breast cancer screening (Table 6).

**Table 20 Health status characteristics of the catchment area using 2013 population reports for cancer incidence**

| Health characteristic | Shire of Indigo | Victoria | Rank |
|---|---|---|---|
| Malignant cancers diagnosed per 100,000 pop | 741.2 | 522.0 | 16 |
| Cancer incidence per 100,000 people, males | 775.8 | 577.0 | 18 |
| Cancer incidence per 100,000 people, females | 706.2 | 468.1 | 13 |
| **Screening** | | | |
| Breast screening participation, females aged 50-69 | 12.9% | 54.6% | 78 |
| Cervical cancer screening participation, females aged 50-69 | 62.7% | 60.2% | 26 |
| Bowel cancer screening participation, persons | 40.9% | 36.5% | 17 |

*Source: 2013 LGA profiles data, Department of Health, http://docs.health.vic.gov.au/docs/doc/2013-LGA-profiles-data*

Notifications per 1,000 people of chlamydia were among the lowest in the state (Table 7). Notifications for influenza were lower than the state average while notifications for pertussis were the same as the state average.

**Table 21 Health status characteristics of the catchment Local Government Areas using 2013 population reports for specific communicable disease**

| Notifiable diseases | Shire of Indigo | Victoria | Rank |
|---|---|---|---|
| Notifications per 1,000 people, pertussis | 0.8 | 0.8 | 36 |
| Notifications per 1,000 people, influenza | 0.6 | 1.1 | 55 |
| Notifications per 1,000 people, chlamydia | 2.0 | 3.5 | 71 |

*Source: 2013 LGA profiles data, Department of Health, http://docs.health.vic.gov.au/docs/doc/2013-LGA-profiles-data*

In Indigo Shire in 2011/2012, 52.3 per cent of people surveyed described their health status as excellent/very good, which is a very high result when compared with the Victorian average (46.6 per

cent) (Table 8). Furthermore, 13.4 per cent of people surveyed described their health status as fair/poor, below the Victorian average of 15.9 per cent.

**Table 22 Self-reported health status 2011/2012: Indigo Shire**

| Response | Shire of Indigo | Victoria per cent |
|---|---|---|
| Excellent/very good | 52.8% | 46.6% |
| Good | 33.8% | 37.3% |
| Fair/poor | 13.4% | 15.9% |

**Note: Estimate has a relative standard error of between 25 and 50 per cent and should be interpreted with caution*
*Source: Self-reported health and selected chronic diseases from the Victorian Population Health Survey 2011-12, Department of Health Victoria*

## Potentially preventable hospitalisations

The Australian Institute of Health and Welfare (AIHW) defines potentially preventable hospitalisations as 'those conditions where hospitalisation could have potentially been prevented through the provision of appropriate individualised preventative health interventions and early disease management. These services are usually delivered in primary care and community-based care settings (including by general practitioners, medical specialists, dentists, nurses and allied health professionals).' [5] The Victorian Government has now adopted the definition of "potentially preventable hospitalisation", consistent with the Australian standard.

The proportion of total separations that were for potentially preventable hospitalisations is a national benchmark and not unexpectedly therefore, the rate of Potentially Preventable Hospitalisations is defined as a National Healthcare Agreement performance indicator.

Separation rates for potentially preventable hospitalisations thus can be seen as indicators of the quality or effectiveness of non-hospital care. A high rate of potentially preventable hospitalisations may indicate an increased prevalence of the conditions in the community, poorer functioning of the non-hospital care system, or an appropriate use of the hospital system to respond to greater need.

There are three categories of potentially preventable hospitalisations described by the AIHW:

- '*Vaccine-preventable*. These diseases can be prevented by proper vaccination and include influenza, bacterial pneumonia, hepatitis, tetanus, diphtheria, pertussis (whooping cough), chicken pox, measles, mumps, rubella, polio and haemophilus meningitis. The conditions are considered to be preventable, rather than the hospitalisation
- *Acute*. These conditions may not be preventable, but theoretically would not result in hospitalisation if adequate and timely care (usually non-hospital) was received. These include eclampsia; pneumonia (not vaccine-preventable); pyelonephritis; perforated ulcer; cellulitis; urinary tract infections; pelvic inflammatory disease; ear, nose and throat infections; and dental conditions
- *Chronic*. These conditions may be preventable through behaviour modification and lifestyle change, but they can also be managed effectively through timely care (usually non-hospital) to prevent deterioration and hospitalisation. These conditions include diabetes complications, asthma, angina, hypertension, congestive heart failure, nutritional deficiencies and chronic obstructive pulmonary disease.'[6]

In 2014/2015, nationally potentially preventable hospitalisations accounted for 8.2 per cent of public hospital separations. *Diabetes complications* accounted for about 15 per cent of separations that were classified as *Chronic condition* potentially preventable hospitalisations.

For Victoria in 2014/2015 the total potentially preventable hospitalisation separations per 1000 population was 23.9, or 5.9 per cent of all separations.

The AIHW data also notes that remoteness is a significant factor to be considered when evaluating potentially preventable hospitalisations. For 2014–15, the overall rate of potentially preventable hospitalisations was highest for residents of Remote and Very remote areas (40 and 59 per 1,000 population, respectively) and lowest for residents of Major cities (24 per 1,000). Residents of Remote

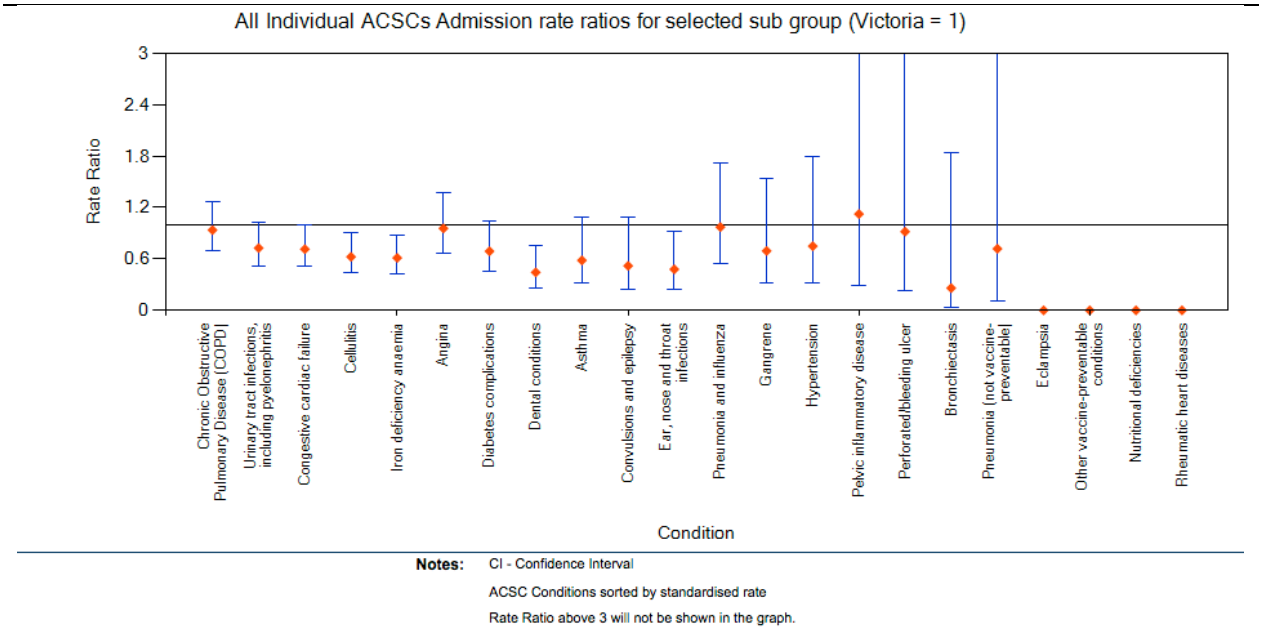
[5] Australian Institute of Health and Welfare 2016. Admitted patient care 2014–15: Australian hospital statistics. Health services series no. 68. Cat. no. HSE 172. Canberra: AIHW p94-99
[6] ibid

and Very remote areas had the highest rates of potentially preventable hospitalisations across the three categories. The corresponding Outer regional rate was 29 per 1000 population.

## Indigo Shire Comparator

While detailed data are not available for Indigo Shire, the Victorian Department of Health and Human Services publishes a comparison of admission rates associated with Ambulatory Care Sensitive Conditions, against a Victorian benchmark of 1.0. Indigo Shire has lower rate ratio for all Ambulatory Care Sensitive Conditions investigated except for Pelvic Inflammatory Disease, which has a rate ratio of 1.12 (Figure 7).

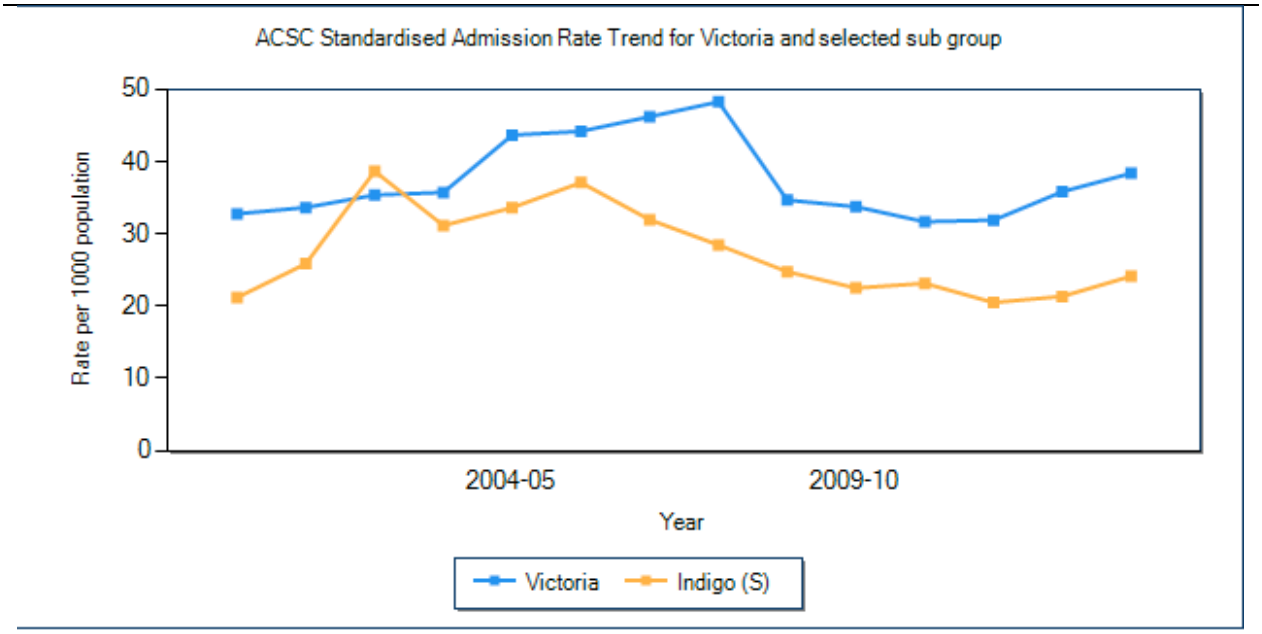
**Figure 7 Ambulatory Care Sensitive Conditions 2014/2015, Indigo Shire**




*Source: <https://hns.dhs.vic.gov.au>*

Indigo Shire had a lower standardised admission rate than the state average for all years but one (Figure 8).

**Figure 8 Ambulatory Care Sensitive Conditions standardised admission rate, Indigo Shire v Victoria**




*Source: <https://hns.dhs.vic.gov.au >*

## Mental health

The World Health Organisation defined health as 'a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity'[7]. Poor mental health can impact on physical health and on all aspects of an individual's wellbeing. This section gives an overview of the effects of mental health on the community, and looks at the prevalence of risk factors within the catchment region.

A comparable percentage of persons surveyed in Indigo Shire reported having a high degree of psychological distress when compared with Victoria, but fewer people reported having adequate work-life balance (Table 11).

**Table 23 Health status characteristics of the catchment Local Government Areas using 2013 population reports for mental health**

| Health characteristic | Shire of Indigo | Victoria | Rank |
|---|---|---|---|
| Persons who have a high degree of psychological distress | 11.0% | 11.1% | 35 |
| Persons sleeping less than 7 hours per day | 27.3% | 31.5% | 62 |
| Persons with adequate work-life balance | 43.1% | 53.1% | 69 |

*Source: 2013 LGA profiles data, Department of Health, http://docs.health.vic.gov.au/docs/doc/2013-LGA-profiles-data*

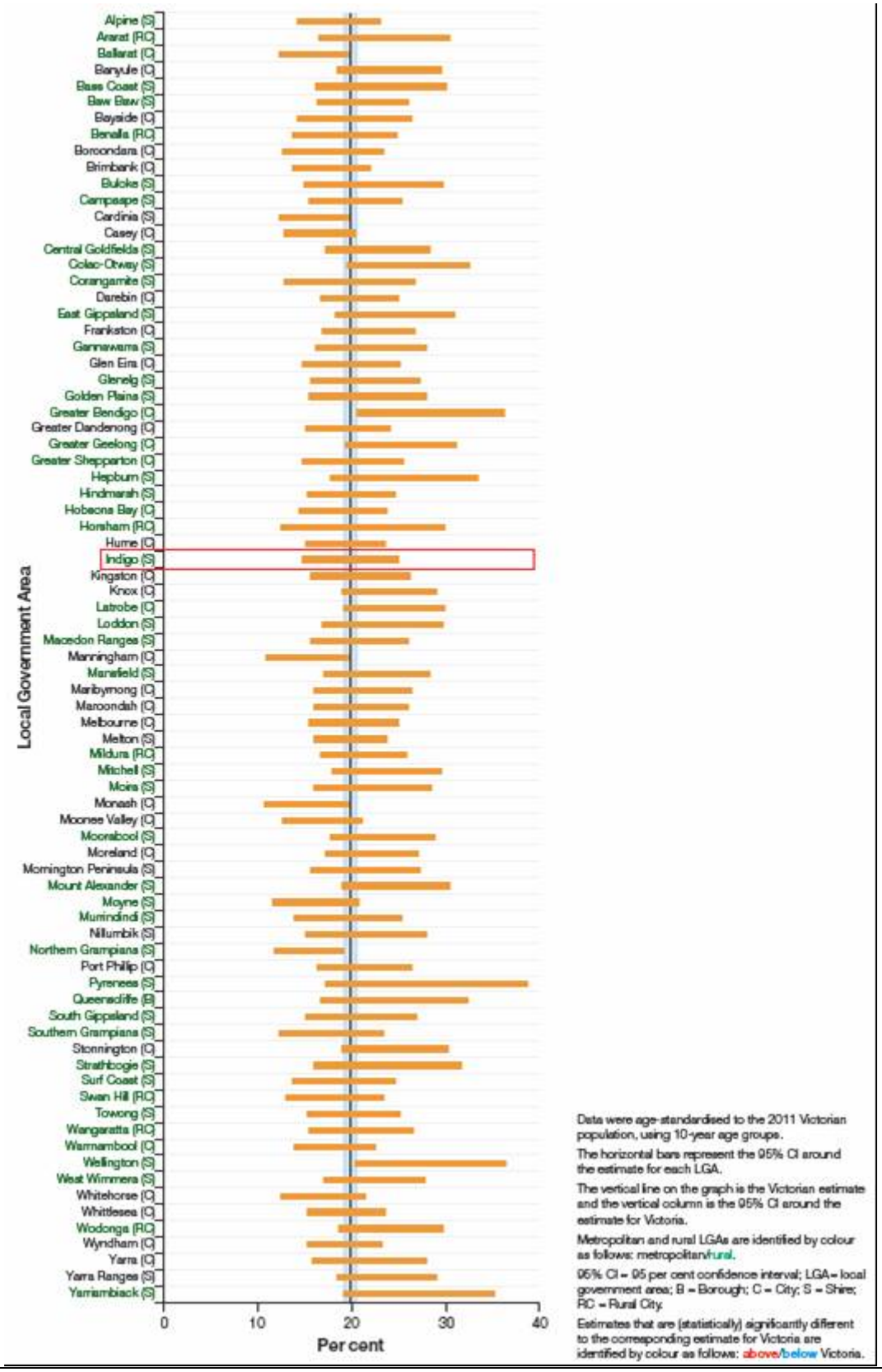
The Victorian Population Health Survey found that a significantly higher lifetime prevalence of depression and anxiety was reported among people with the following characteristics[8]:

- completed primary education only
- unemployed or not in the labour force
- total annual household income less than $40,000
- moderate, high or very high levels of psychological distress
- current smoker
- fair or poor self-reported health status
- diagnosed with diabetes.

The average lifetime prevalence of depression and anxiety in Victoria is 20 per cent. The prevalence is 19.3 per cent in Indigo Shire (9.4 per cent for males and 29.1 per cent for females) (Figure 9).

[7] WHO (World Health Organization) 2013, Mental health 2013
[8] Victorian Population Health Survey 2011–12, chapter 9: Mental Health

**Figure 9 Lifetime prevalence of depression and anxiety in Victorian Adults by LGA**




*Source: Victorian Population Health Survey 2011–12, chapter 9: Mental Health*

## People with disabilities in the catchment

People with disabilities face barriers in access to education and employment, which can reduce their educational attainment and their income. These are factors that are known to contribute to poor health status. Further, people with disabilities may need access to a range of support services and health services to enable them to live an independent life. Their service needs should be included in any planning for health and human services in the catchment. The 2011 Census asked the following questions about disability:

- Does the person ever need someone to help with, or be with them for, self-care activities?
- Does the person ever need someone to help with, or be with them for, body movement activities?
- Does the person ever need someone to help with, or be with them for, communication activities?
- What are the reasons for the need for assistance or supervision shown in the questions above?

In the catchment in 2011, 5.0 per cent of people residing in Indigo Shire reported needing assistance for core activities, slightly higher than the state average (Table 24). Note that the rate of people needing assistance is very high amongst people aged 85 and over. As new policy and funding models for aged care emphasise care at home, there will need to be more access to home-based care services across the catchment.

**Table 24 Core activity need for assistance: 2011 Census**

| Age group | Shire of Indigo - Has need for assistance | % of people in need of assistance | Victoria - Has need for assistance | % of people in need of assistance |
|---|---|---|---|---|
| 0-4 years | 10 | 1.20% | 3,456 | 1.00% |
| 5-14 years | 31 | 1.50% | 17,300 | 2.60% |
| 15-19 years | 22 | 2.00% | 6,757 | 2.00% |
| 20-24 years | 3 | 0.60% | 4,916 | 1.30% |
| 25-34 years | 18 | 1.60% | 9,814 | 1.30% |
| 35-44 years | 22 | 1.10% | 15,264 | 2.00% |
| 45-54 years | 66 | 2.60% | 22,693 | 3.10% |
| 55-64 years | 121 | 4.90% | 32,903 | 5.40% |
| 65-74 years | 125 | 8.20% | 36,492 | 9.10% |
| 75-84 years | 169 | 22.40% | 55,535 | 21.80% |
| 85 years and over | 176 | 53.70% | 50,366 | 48.00% |
| Total | 763 | 5.00% | 255,496 | 4.80% |

*Source: 2011 Census, Australian Bureau of Statistics*

In Indigo Shire there was a higher than average percentage of persons providing unpaid assistance to a person with a disability (12.4 per cent) compared with the State average of 11.3 per cent (Table 25).

**Table 25 Provided unpaid assistance to a person with a disability (persons aged 15 years and over): 2011 Census**

| Age group | Shire of Indigo - Provided unpaid assistance | % of people who provided unpaid assistance | Victoria - Provided unpaid assistance | % of people who provided unpaid assistance |
|---|---|---|---|---|
| 15-19 years | 49 | 4.50% | 13,984 | 4.00% |
| 20-24 years | 34 | 6.80% | 19,891 | 5.30% |
| 25-34 years | 118 | 10.30% | 55,727 | 7.30% |
| 35-44 years | 265 | 13.10% | 91,501 | 11.80% |
| 45-54 years | 392 | 15.70% | 116,306 | 16.00% |
| 55-64 years | 399 | 16.30% | 109,858 | 18.00% |
| 65-74 years | 176 | 11.50% | 52,872 | 13.10% |
| 75-84 years | 87 | 11.50% | 24,599 | 9.70% |
| 85 years and over | 12 | 3.60% | 5,358 | 5.10% |
| Total | 1,532 | 12.40% | 490,096 | 11.30% |

*Source: 2011 Census, Australian Bureau of Statistics*

# Appendix 3 Admitted episodes

This chapter provides two views of service delivery data:

- Services provided by Beechworth Health Service, including services provided to Indigo Shire residents and services provided to residents of other Victorian local government areas and other States and Territories
- Services provided to residents of Indigo Shire, by Beechworth Health Service and by other Victorian health services.

## Beechworth Health Service: Admitted episodes

This section reports on the Beechworth Health Service program activity as set out in the Victorian Admitted Episodes Dataset (VAED) for the years 2012/2013 to 2015/2016, with forecasts to 2031/2032.

In the following discussion it is recognised that haemodialysis activity is based upon planned admissions, where the patient requires a sequence of treatments and, if the patient is admitted, each day of treatment is counted as a separate admission. In this situation, a typical renal dialysis patient would be formally admitted and discharged about three times a week or up to 150 times a year. These separations can skew the results, and are therefore excluded from some tables.

Most admitted episodes at Beechworth Health Service were multiday or overnight stays (Table 12). The overall number of admitted episodes is expected to increase by 24 per cent.

**Table 26 Same day and multiday program activity at Beechworth Health Service 2012-13 to 2015-16, separations forecast to 2031-32**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Forecast growth |
|---|---|---|---|---|---|---|---|
| Multi day/overnight | 234 | 244 | 259 | 266 | 319 | 53 | 20% |
| Same day | 9 | 19 | 12 | 6 | 18 | 12 | 208% |
| **Grand Total** | **243** | **263** | **271** | **272** | **337** | **65** | **24%** |
| Bed days | 2465 | 2115 | 2144 | 2507 | 2181 | -326 | -13% |
| Average length of stay | 10.1 | 8.0 | 7.9 | 9.2 | 5.5 | -3.8 | -41% |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

The following table shows that on average more females attend BHS than males, however both groups are expected to increase by 24 per cent over the next 15 years (Table 27).

**Table 27 Program activity at Beechworth Health Service by sex 2012-13 to 2015-16, separations forecast to 2031-32**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| Female | 150 | 143 | 144 | 142 | 176 | 34 | 24% |
| Male | 93 | 120 | 127 | 130 | 161 | 31 | 24% |
| **Grand Total** | **243** | **263** | **271** | **272** | **337** | **65** | **24%** |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

Table 28 shows program activity at Beechworth Health Service by Diagnostic Related Group (DRG). The most common diagnosis code was Z63B Other Follow Up After Surgery or Medical Care W/O Catastrophic CC followed by E65B Chronic Obstructive Airways Disease W/O Catastrophic CC. The code Z60Z Rehabilitation is set to increase substantially by 2031-32 (although this code was not used in 2015-16, comparison between data from 2012-2015 and 2031-32 indicates a large increase).

**Table 28 Program activity at Beechworth Health Service by Diagnostic Related Group (DRG) 2012-13 to 2015-16, separations forecast to 2031-32 (seps)**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| Z63B Other Follow Up After Surgery or Medical Care W/O Catastrophic CC | 23 | 19 | 16 | 15 | 17 | 2 | 13% |
| E65B Chronic Obstructive Airways Disease W/O Catastrophic CC | 15 | 9 | 14 | 18 | 20 | 2 | 10% |
| Z60Z Rehabilitation | 6 | 9 | 21 | | 36 | | |
| V62Z Alcohol Use and Dependence | 5 | <5 | 22 | 21 | 11 | -10 | -46% |
| J64B Cellulitis W/O Catastrophic or Severe CC | 10 | 10 | 9 | 8 | 14 | 6 | 75% |
| E71B Respiratory Neoplasms W/O Catastrophic CC | 9 | <5 | 6 | 7 | 10 | 3 | 43% |
| E62B Respiratory Infections/Inflammations W Severe or Moderate CC | 5 | 8 | 6 | 8 | 7 | -1 | -15% |
| G70B Other Digestive System Disorders W/O Catastrophic or Severe CC | 11 | <5 | 5 | <5 | 5 | | |
| Z63A Other Follow Up After Surgery or Medical Care W Catastrophic CC | 9 | 7 | <5 | 8 | <5 | | |
| G67B Oesophagitis and Gastroenteritis W/O Catastrophic or Severe CC | 5 | 6 | <5 | 6 | <5 | | |
| Other | 145 | 188 | 166 | 177 | 210 | 33 | 19% |
| **Grand Total** | **243** | **263** | **271** | **272** | **337** | **65** | **24%** |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

Table 29 below shows the average length of stay for each of the diagnosis codes listed in the table above. The common DRG codes with the longest lengths of stay include Z60Z Rehabilitation and Z63A Other Follow Up After Surgery or Medical Care W Catastrophic CC. All the lengths of stays are forecast to decrease for these diagnosis codes, with the exception of G67B Oesophagitis and Gastroenteritis W/O Catastrophic or Severe CC.

**Table 29 Average length of stay (days) for the top 10 diagnostic related group (DRG) for multiday program activity at Beechworth Health Service 2012-13 to 2015-16, separations forecast to 2031-32.**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| Z63B Other Follow Up After Surgery or Medical Care W/O Catastrophic CC | 6.6 | 7.0 | 4.5 | 10.8 | 4.0 | -6.8 | -63% |
| E65B Chronic Obstructive Airways Disease W/O Catastrophic CC | 7.1 | 6.7 | 4.5 | 8.4 | 4.1 | -4.3 | -51% |
| Z60Z Rehabilitation | 11.3 | 19.4 | 12.2 | | 10.6 | | |
| V62Z Alcohol Use and Dependence | 6.6 | 10.0 | 6.6 | 6.2 | 3.0 | -3.2 | -52% |
| J64B Cellulitis W/O Catastrophic or Severe CC | 7.0 | 6.1 | 4.0 | 4.3 | 3.8 | -0.5 | -11% |
| E71B Respiratory Neoplasms W/O Catastrophic CC | | 9.0 | | | 4.2 | | |
| E62B Respiratory Infections/Inflammations W Severe or Moderate CC | 10.2 | 7.8 | 8.0 | 7.3 | 4.1 | -3.1 | -43% |

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| G70B Other Digestive System Disorders W/O Catastrophic or Severe CC | 2.0 | 3.0 | 2.6 | 2.5 | 1.5 | -1.0 | -39% |
| Z63A Other Follow Up After Surgery or Medical Care W Catastrophic CC | 27.1 | 16.1 | 36.5 | 13.0 | 11.9 | -1.1 | -8% |
| G67B Oesophagitis and Gastroenteritis W/O Catastrophic or Severe CC | 4.2 | 1.0 | 5.5 | 1.5 | 3.3 | 1.8 | 122% |
| **Grand Total** | **8.6** | **8.7** | **7.4** | **7.5** | **5.2** | **-2.3** | **-31%** |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

Table 30 indicates that the major program activity trend will be increased demand older residents for Beechworth Health Service services. This trend aligns with that of ageing in the Shire population.

**Table 30 Program activity at Beechworth Health Service by age 2012-13 to 2015-16, separations forecast to 2031-32**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| 15-24 | <5 | <5 | 5 | <5 | <5 | | |
| 25-44 | 15 | 20 | 29 | 18 | 15 | -3 | -17% |
| 45-69 | 52 | 57 | 88 | 86 | 62 | -24 | -28% |
| 70-84 | 108 | 105 | 89 | 93 | 160 | 67 | 72% |
| 85+ | 66 | 77 | 60 | 73 | 97 | 24 | 33% |
| **Grand Total** | **243** | **263** | **271** | **272** | **337** | **65** | **24%** |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

Data regarding Average Length Of Stay (ALOS) by age group is set out in Table 31 below. As expected, people in the older age groups have longer lengths of stay.

**Table 31 Average length of stay (days) by age group for multiday program activity at Beechworth Health Service 2012-13 to 2015-16, separations forecast to 2031-32**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| 15-24 | 1.0 | 1.3 | 3.8 | 1.0 | 1.4 | 0.4 | 36% |
| 25-44 | 4.4 | 5.5 | 4.8 | 4.8 | 2.3 | -2.5 | -52% |
| 45-69 | 9.2 | 7.4 | 9.0 | 8.4 | 4.6 | -3.8 | -45% |
| 70-84 | 10.7 | 6.9 | 8.2 | 9.4 | 7.0 | -2.4 | -26% |
| 85+ | 11.5 | 11.0 | 7.7 | 11.3 | 5.4 | -5.8 | -52% |
| **Grand Total** | **10.1** | **8.0** | **7.9** | **9.2** | **5.5** | **-3.8** | **-41%** |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

From reading Table 32 below, statistical admissions are rare. The group 'Emergency Admission from ED at this hosp' is low due to BHS' Urgent Care Centre having only one bed. The Other Emergency admissions is set to recover, but will not reach 2012-2014 levels by 2031.

**Table 32 Program activity at Beechworth Health Service by admission type 2012-13 to 2015-16, separations forecast to 2031-32**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| P-Elective Admission | | | 229 | 266 | 224 | -42 | -16% |
| O-Other emergency admission | 119 | 140 | 40 | <5 | 86 | | |
| X-Other planned admission (same day or overnight) | 121 | 121 | | | 23 | | |
| S-Not applicable (statistical admission) | <5 | <5 | <5 | <5 | <5 | | |
| C-Emergency Admission from ED at this hosp | | <5 | <5 | | <5 | | |
| **Grand Total** | **243** | **263** | **271** | **272** | **337** | **65** | **24%** |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

From 2012-13 to 2015-16 roughly 85 per cent of Beechworth Health Service clients resided in the Beechworth-Chiltern District, and seven per cent resided in Wodonga (Table 33). This shows that Beechworth's clients are mostly locals.

**Table 33 Program activity at Beechworth Health Service by residential location 2012-13 to 2015-16, separations forecast to 2031-32**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| Beechworth-Chiltern District | 210 | 237 | 228 | 223 | 301 | 77.9 | 35% |
| Wodonga Rural City | 14 | 12 | 24 | 29 | 18 | -10.6 | -36% |
| Wangaratta Rural | 8 | 6 | <5 | 7 | 10 | 2.6 | 38% |
| zc-Interstate-Overseas-Other | <5 | 6 | 8 | 8 | <5 | | |
| Other | 8 | <5 | 7 | 5 | 5 | -0.4 | -7% |
| **Grand Total** | **243** | **263** | **271** | **272** | **337** | **65.3** | **24%** |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

## Where Indigo Shire residents attend for admitted episodes

This section looks at where Indigo catchment residents are going for hospital services outside Beechworth Health Service. Chemotherapy and dialysis separations are excluded from this data. The most dominant care type was 4-Other care (Acute) inc Qualified Newborn, which is forecast to increase eight per cent over the next 15 years (Table 34). Forecasts also show increased demand for Rehabilitation.

**Table 34 Program activity by care type 2012-13 to 2015-16, forecast to 2031-32 for Indigo shire residents**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| 4-Other care (Acute) inc Qualified Newborn | 3,524 | 3,626 | 3,822 | 4,141 | 4,466 | 325 | 8% |
| U-Unqualified Newborn | 118 | 107 | 99 | 104 | 94 | -10 | -10% |
| 6-Designated Rehab - Level 2 | 65 | 55 | 76 | 67 | 127 | 60 | 90% |
| 5A-Acute Adult Mental Health Service | 51 | 52 | 46 | 45 | 48 | 3 | 6% |
| 9-Geriatric Evaluation and Mgnt | 5 | 13 | 18 | 18 | 28 | 10 | 54% |
| Other | 54 | 29 | 42 | 26 | 38 | 12 | 47% |
| **Grand Total** | **3,817** | **3,882** | **4,103** | **4,401** | **4,801** | **400** | **9%** |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

Over the coming fifteen years same day separations from Shire residents are expected to increase by 30 per cent, while multiday stays will decrease by 4 per cent (Table 35).

**Table 35 Same day and multiday program activity for catchment residents 2012-13 to 2015-16, forecast to 2031-32 for Indigo shire residents**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| Multiday | 2,619 | 2,613 | 2,660 | 2,751 | 2,650 | -101 | -4% |
| Same day | 1,198 | 1,269 | 1,443 | 1,650 | 2,151 | 501 | 30% |
| **Grand Total** | **3,817** | **3,882** | **4,103** | **4,401** | **4,801** | **400** | **9%** |
| Bed days | 15,264 | 15,006 | 15,931 | 14,987 | 15,999 | 1,012 | 7% |
| Length of stay | 4.0 | 3.9 | 3.9 | 3.4 | 3.5 | 0.1 | 4% |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

Note that coding changes impact these data. Table 36 demonstrates emergency admissions and elective admissions are likely to continue to increase.

**Table 36 Program activity by admission type 2012-13 to 2015-16, forecast to 2031-32 for Indigo shire residents**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| P-Elective Admission | | | 2,303 | 2,345 | 2,953 | 608 | 26% |
| C-Emergency Admission from ED at this hosp | 571 | 700 | 665 | 795 | 1,015 | 220 | 28% |
| Not stated | 667 | 615 | 685 | 807 | | | |
| X-Other planned admission (same day or overnight) | 1,191 | 1,197 | | | 189 | | |
| L-Planned Adm - waiting list | 860 | 863 | | | 110 | | |
| O-Other emergency admission | 179 | 201 | 130 | 114 | 192 | 78 | 69% |
| M-Maternity | 157 | 147 | 149 | 160 | 151 | -9 | -6% |
| Y-Newborn | 147 | 131 | 130 | 135 | 124 | -11 | -8% |
| S-Not applicable (statistical admission) | 45 | 28 | 41 | 45 | 66 | 21 | 48% |
| **Grand Total** | **3,817** | **3,882** | **4,103** | **4,401** | **4,801** | **400** | **9%** |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

The dominant age group for Indigo Shire patients will shift from the 45-69 age group in 2015-16 to the 70-84 age group in 2031-32 (Table 37). The 70-84 and 85+ age groups are the only cohorts forecast to grow; all others will decrease. This is consistent with the projected demographic profile for the Shire.

**Table 37 Program activity by age 2012-13 to 2015-16, forecast to 2031-32 for Indigo shire residents**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| 0-14 | 365 | 352 | 371 | 430 | 222 | -208 | -48% |
| 15-24 | 192 | 232 | 236 | 234 | 189 | -45 | -19% |
| 25-44 | 679 | 624 | 686 | 694 | 597 | -97 | -14% |
| 45-69 | 1,445 | 1,567 | 1,651 | 1,813 | 1,464 | -349 | -19% |
| 70-84 | 916 | 848 | 917 | 931 | 1,905 | 974 | 105% |
| 85+ | 220 | 259 | 242 | 299 | 423 | 124 | 42% |
| **Grand Total** | **3,817** | **3,882** | **4,103** | **4,401** | **4,801** | **400** | **9%** |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

Most residents of Indigo Shires received services at Albury Wodonga Health, Wodonga, followed by Private Hospitals (Table 14). Beechworth Health Service accounts for 6 per cent of all separations from Indigo Shire residents, and it is expected to maintain this share in 2031-32.

**Table 38 Program activity by hospital campus 2012-13 to 2015-16, forecast to 2031-32 for Indigo shire residents**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| AWH, Wodonga | 1054 | 1128 | 1109 | 1206 | 1630 | 424 | 35% |
| Private Hospital | 804 | 724 | 833 | 739 | 1112 | 373 | 51% |
| Wangaratta | 646 | 728 | 765 | 899 | 1153 | 254 | 28% |
| AWH, Albury* | 667 | 615 | 685 | 807 | | | |
| Beechworth | 211 | 237 | 228 | 223 | 301 | 78 | 35% |
| MH, RMH | 92 | 100 | 87 | 84 | 128 | 44 | 52% |
| AlfH, Alfred | 87 | 65 | 70 | 77 | 78 | 1 | 2% |
| SV, St V | 56 | 74 | 78 | 64 | 94 | 30 | 46% |
| RCH | 43 | 47 | 49 | 57 | 46 | -11 | -19% |
| Benalla | 20 | 29 | 20 | 36 | 58 | 22 | 61% |
| Other | 137 | 135 | 179 | 209 | 201 | -8 | -4% |
| **Grand Total** | **3817** | **3882** | **4103** | **4401** | **4801** | **400** | **9%** |

Source: *VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

** The Department does not provide forecasts for Albury Wodonga Health, Albury campus*

Table 39 below shows the top ten DRGs for Indigo Shire residents forecast to 2013-32. The most common identifiable DRG is G48C Colonoscopy, Sameday, which is projected to increase by 57 per cent over the next 15 years. There will be decrease in the DRG codes P68D Neonate, AdmWt >=2500g W/O Sig OR Proc >=37 Comp Wks Gest W/O Problem and O60C Vaginal Delivery, Single Uncomplicated, which is reflective of the low birth rate.

**Table 39 Program activity by DRG 2012-13 to 2015-16, forecast to 2031-32 for Indigo shire residents**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| 960Z Ungroupable | <5 | 19 | | 807 | <5 | | |
| G48C Colonoscopy, Sameday | 113 | 129 | 133 | 123 | 193 | 70 | 57% |
| C16Z Lens Procedures | 69 | 122 | 89 | 95 | 221 | 126 | 133% |
| Z40Z Other Contacts W Health Services W Endoscopy, Sameday | 86 | 103 | 105 | 104 | 191 | 87 | 84% |
| Z64B Other Factors Influencing Health Status, Sameday | 106 | 107 | 141 | 76 | 132 | 56 | 73% |
| P68D Neonate, AdmWt >=2500g W/O Sig OR Proc >=37 Comp Wks Gest W/O Problem | 117 | 110 | 111 | 116 | 104 | -12 | -10% |
| Z60Z Rehabilitation | 85 | 74 | 117 | | 171 | | |
| G46C Complex Endoscopy, Sameday | 62 | 57 | 72 | 88 | 143 | 55 | 62% |
| G47C Gastroscopy, Sameday | 92 | 69 | 72 | 76 | 82 | 6 | 8% |
| O60C Vaginal Delivery, Single Uncomplicated | 80 | 71 | 65 | 73 | 68 | -5 | -7% |
| Other | 3,006 | 3,021 | 3,198 | 2,843 | 3,496 | 653 | 23% |
| **Grand Total** | **3,817** | **3,882** | **4,103** | **4,401** | **4,801** | **400** | **9%** |

*Source: VAED (DRG CODE L61Z HAEMODIALYSIS AND R63Z CHEMOTHERAPY EXCLUDED)*

*Ungroupable: Error DRGs*

*In AR-DRG Version 6.0, hospital records that contain clinically atypical or invalid information are assigned to one of three error DRGs:*
*960Z Ungroupable*
*961Z Unacceptable Principal Diagnosis*
*963Z Neonatal Diagnosis Not Consistent W Age/Weight*

Table 13 shows the number of medical admissions is projected to decrease by 2031-32, while the number of surgical admissions will increase by 44 per cent.

**Table 40 Program activity summary forecast to 2031- 32 for Indigo Shire residents**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2031-32 | Change 2015-16 to 2031-32 | Per cent change |
|---|---|---|---|---|---|---|---|
| Medical | 1,954 | 2,017 | 2,111 | 2,679 | 2,344 | -335 | -13% |
| Other | 555 | 566 | 631 | 668 | 936 | 268 | 40% |
| Surgical | 1,308 | 1,299 | 1,361 | 1,054 | 1,522 | 468 | 44% |
| **Grand Total** | **3,817** | **3,882** | **4,103** | **4,401** | **4,801** | **400** | **9%** |
| Haemodialysis | 1,110 | 1,082 | 768 | 808 | 2,041 | 1,233 | 153% |
| Chemotherapy | 382 | 432 | 317 | 336 | 746 | 410 | 122% |

*Source: VAED*

# Appendix 4 Emergency and urgent care services

Note that Beechworth Health Service does not provide a funded emergency department, but provides a general practitioner-supported small urgent care service. Data for urgent care services are not included in the Victorian Emergency Minimum Dataset.

Beechworth Health Service operates a one bed Urgent Care Centre which provides initial resuscitation and a limited stabilisation capacity prior to early transfer to a regional or major trauma service.

This section provides information about the usage of Emergency Department Services outside the Shire by residents of Indigo Shire.

Half of all emergency presentations by Indigo Shire residents between 2012-13 and 2015-16 were to Albury Wodonga Health Wodonga (Table 15).

**Table 41 Emergency presentations for Indigo residents by hospital 2012-13 to 2015-16**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Change 2012-13 to 2015-16 | Per cent growth |
|---|---|---|---|---|---|---|
| Albury Wodonga Health [Wodonga] | 2374 | 2226 | 2381 | 2382 | 8 | 0% |
| Northeast Health Wangaratta | 1047 | 1167 | 1110 | 1244 | 197 | 19% |
| Albury Wodonga Health [Albury] | 1027 | 989 | 1006 | 1118 | 91 | 9% |
| Royal Melbourne Hospital [City Campus] | 38 | 52 | 43 | 28 | -10 | -26% |
| Alfred, The [Prahran] | 19 | 30 | 21 | 27 | 8 | 42% |
| St Vincent's Hospital | 17 | 16 | 14 | 10 | -7 | -41% |
| Royal Children's Hospital [Parkville] | 16 | 7 | 11 | 11 | -5 | -31% |
| Goulburn Valley Health [Shepparton] | 6 | 13 | 8 | 8 | 2 | 33% |
| Royal Victorian Eye & Ear Hospital The [East Melbourne] | 5 | 6 | 9 | 7 | 2 | 40% |
| Austin Hospital | 12 | 2 | 5 | 6 | -6 | -50% |
| Other | 60 | 77 | 92 | 81 | 21 | 35% |
| Grand Total | 4,621 | 4,585 | 4,700 | 4,922 | -405 | -8% |

*Source: VEMD*

The dominant triage category for Indigo Shire residents is category 4 (Table 42).

**Table 42 Emergency presentations for Indigo residents by triage category 2012-13 to 2015-16, forecast to 2031-32**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Change 2012-13 to 2015-16 | Per cent change |
|---|---|---|---|---|---|---|
| 1 | 22 | 13 | 20 | 23 | 1 | 5% |
| 2 | 294 | 321 | 334 | 403 | 109 | 37% |
| 3 | 1,374 | 1,453 | 1,494 | 1,561 | 187 | 14% |
| 4 | 2,485 | 2,430 | 2,404 | 2,507 | 22 | 1% |
| 5 | 441 | 358 | 434 | 427 | -14 | -3% |
| 6 | 5 | 10 | 14 | <5 | | |
| **Grand Total** | **4,621** | **4,585** | **4,700** | **4,922** | 301 | 7% |

*Source: VEMD*

*Classification according to urgency of need for medical and nursing care, using the National Triage Scale.*

Most Indigo Shire residents who attended an Emergency Department were discharged home, however the proportion of this group relative to all presentations decreased over the past four years (Table 43).

**Table 43 Emergency presentations for Indigo residents by departure status 2012-13 to 2015-16, forecast to 2031-32**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Change 2012-13 to 2015-16 | Per cent change |
|---|---|---|---|---|---|---|
| 01-Discharge to home | 3,413 | 3,243 | 3,331 | 3,359 | -54 | -2% |
| 18-To ward - not elsewhere described (incl HITH) | 814 | 843 | 815 | 906 | 92 | 11% |
| 03-To ward - Short Stay Unit | 11 | 104 | 181 | 213 | 202 | 1836% |
| 19-Transfer to another hospital (excl MH/ICU/CCU) | 101 | 107 | 112 | 155 | 54 | 53% |
| 11-Left at own risk without treatment | 134 | 115 | 102 | 108 | -26 | -19% |
| 15-To ward - ICU – this campus | 24 | 32 | 33 | 44 | 20 | 83% |
| 12-Correctional/Custodial Facility | 39 | 34 | 37 | 46 | 7 | 18% |
| 10-Left After Advice re Rx Options | 28 | 36 | 18 | 35 | 7 | 25% |
| 05-Left at own risk after treatment started | 19 | 26 | 23 | 22 | 3 | 16% |
| 24-Residential care facility | 7 | 16 | 8 | 7 | 0 | 0% |
| Other | 31 | 29 | 40 | 27 | -4 | -13% |
| **Grand Total** | **4,621** | **4,585** | **4,700** | **4,922** | **301** | **7%** |

*Source: VEMD*

*Classification according to urgency of need for medical and nursing care, using the National Triage Scale.*

The number of Indigo Shire residents attending emergency departments increased over the past four years for all age groups except for the 25-44 age group (Table 44).

**Table 44 Emergency presentations for Indigo residents by age group 2012-13 to 2015-16, forecast to 2031-32**

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Change 2012-13 to 2015-16 | Per cent change |
|---|---|---|---|---|---|---|
| 0-14 | 832 | 815 | 832 | 900 | 68 | 8% |
| 15-24 | 669 | 674 | 711 | 725 | 56 | 8% |
| 25-44 | 1,156 | 1,096 | 1,079 | 1,108 | -48 | -4% |
| 45-69 | 1,282 | 1,267 | 1,354 | 1,416 | 134 | 10% |
| 70-84 | 508 | 527 | 554 | 561 | 53 | 10% |
| 85+ | 174 | 206 | 170 | 212 | 38 | 22% |
| **Grand Total** | **4,621** | **4,585** | **4,700** | **4,922** | **301** | **7%** |

*Source: VEMD*

*Classification according to urgency of need for medical and nursing care, using the National Triage Scale.*

# Appendix 5 Community Health Services

## Indigo residents attending Gateway Health

The number of Indigo Shire residents receiving services from Gateway Health increased by 82 per cent from 2014 to 2016 (Table 16). Most people receiving services are in the 25-44 age group.

**Table 45 Program activity by age for Indigo Shire residents**

| | 2014 | 2015 | 2016 | Change 2014 to 2016 | Per cent change |
|---|---|---|---|---|---|
| 0-14 | 9 | 12 | 29 | 20 | 222% |
| 15-24 | 23 | 24 | 24 | 1 | 4% |
| 25-44 | 62 | 98 | 129 | 67 | 108% |
| 45-69 | 67 | 98 | 112 | 45 | 67% |
| 70-84 | 13 | 9 | 21 | 8 | 62% |
| 85+ | <5 | <5 | <5 | | |
| Grand Total | 175 | 245 | 319 | 144 | 82% |

*Source: Gateway Health*

Almost 60 per cent of Gateway Health clients are female (Table 46).

**Table 46 Program activity by gender for Indigo Shire residents**

| | 2014 | 2015 | 2016 | Change 2014 to 2016 | Per cent change |
|---|---|---|---|---|---|
| Female | 99 | 150 | 189 | 90 | 91% |
| Male | 76 | 95 | 130 | 54 | 71% |
| Grand Total | 175 | 245 | 319 | 144 | 82% |

*Source: Gateway Health*

Counselling Wodonga was the most utilised service between 2014 and 2016 (Table 17). Alcohol and Drug Counselling increased by 327 per cent to become the most used service in 2016.

**Table 47 Program activity by age for Indigo Shire residents**

| | 2014 | 2015 | 2016 | Change 2014 to 2016 | Per cent change |
|---|---|---|---|---|---|
| Counselling Wodonga | 30 | 25 | 39 | 9 | 30% |
| AOD Counselling | 11 | 33 | 47 | 36 | 327% |
| Comm Health Nursing Wang | 7 | 24 | 26 | 19 | 271% |
| McGrath Breast Care Nursing | 17 | 20 | 15 | -2 | -12% |
| Parenting & Relationship Education | 10 | 22 | 12 | 2 | 20% |
| AOD MERPS | 8 | 12 | 8 | 0 | 0% |
| Positive Parenting Telephone Service | 6 | 11 | 9 | 3 | 50% |
| Gamblers Help | 7 | 12 | 6 | -1 | -14% |
| Resolve Adolescent Counselling | <5 | 13 | 6 | | |
| CHIPS | | | 22 | | |
| AOD Withdrawal | | 12 | 10 | | |
| PHaMS | 5 | 5 | 11 | 6 | 120% |
| Other | 70 | 56 | 108 | 38 | 54% |
| Grand Total | 175 | 245 | 319 | 144 | 82% |

*Source: Gateway Health*

## Beechworth Health Service data

Beechworth Health Service is meeting its targets for acute beddays, acute TCP beddays and acute UTR presentations (Table 48). BHS has delivered an extra 23 hours of other District Nurses than the target.

**Table 48 Target and actual program activity at Beechworth Health Service, 2016-17**

| | Target | Actual | Percentage of target |
|---|---|---|---|
| ACACIAS (beddays) | 7210 | 6915 | 96% |
| StringyBark Lodge (beddays) | 7210 | 7058 | 98% |
| Acute (beddays) | 1757 | 1832 | 104% |
| Acute TCP (beddays) | 586 | 618 | 106% |
| Acute UTR (presentations) | 366 | 392 | 107% |
| District Nurses HACC (hours) | 1913 | 1782 | 93% |
| District Nurses Other (hours) | 160 | 183 | 114% |

*Source: Beechworth Health Service*

On average, Beechworth Health Service is delivering more hours of activity than its target (Table 49). Physiotherapy, Occupational Therapy and Initial Needs in particular are exceeding their targets. Care Co-ordination and Club Connection are not delivering as many hours as expected.

**Table 49 Target and actual program activity at Beechworth Health Service, 2016-17**

| | Target | Actual | Percentage of target |
|---|---|---|---|
| Podiatry HACC | 525 | 519 | 99% |
| Podiatry Other | 433 | 424 | 98% |
| Physiotherapy | 867 | 1618 | 187% |
| Dietetics | 215 | 189 | 88% |
| Diabetes Education | 467 | 496 | 106% |
| Occupational Therapy | 207 | 262 | 127% |
| Speech Therapy | 176 | 161 | 92% |
| Care Coordination | 365 | 251 | 69% |
| Initial Needs | 129 | 227 | 176% |
| Club Connection Core | 11161 | 7391 | 66% |
| Club Connection High | 6648 | 4890 | 74% |

*Source: Beechworth Health Service*