LODDON GANNAWARRA
HEALTH NEEDS ANALYSIS

JANUARY 2017

ACKNOWLEDGEMENTS

Loddon Gannawarra Health Services Executive Network (LGHSEN) Members

The Loddon Gannawarra Health Needs Analysis was commissioned by the LGHSEN and produced in collaboration with Bendigo Loddon Primary Care Partnership.

The LGHSEN wishes to acknowledge the contribution of the production team at Bendigo Loddon Primary Care Partnership and the work of participating LGHSEN agencies in data collection. Acknowledgement also goes to Campaspe Primary Care Partnership for their contribution to background document support, to the Murray PHN for data support and to "Colourit" for report compilation and desk-top publishing.

The Loddon Gannawarra Health Needs Analysis was completed in December 2016.

The Loddon Gannawarra Health Services Executive Network acknowledges the contribution and support of the Department of Health and Human Services - Loddon Mallee Region.

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THE LODDON GANNAWARRA HEALTH NEEDS ANALYSIS CONTEXT

The communities of the Loddon and Gannawarra Shires are supported in their health and wellbeing by a number of services which include Community Health Services, Hospitals, an Aboriginal Community Controlled Organisation, a Bush Nursing Centre, Aged Care services, Pharmacies, General Practice, Private Allied Health providers, Local Government services, Primary Care Partnerships, the Primary Health Network, Family Violence Services, early childhood and school based services among others.

The Loddon Gannawarra Health Services Executive Network (LGHSEN) consists of a collaboration of 12 organisations to produce the Loddon Gannawarra Health Needs Analysis for 2016. The Health Needs Analysis has drawn on government data sets, community consultations, local service demand statistics as available, service mapping against priority areas and indicative service catchment data. Within Gannawarra Shire the LGHSEN organisations are Kerang District Health, Northern District Community Health Service, Cohuna Hospital, Mallee District Aboriginal Service, Gannawarra Shire and Southern Mallee Primary Care Partnership. Loddon Shire organisations contributing to the LGHSEN are Boort District Health, Inglewood and Districts Health Service, Dingee Bush Nursing Centre, Loddon Shire Council and Bendigo Loddon Primary Care Partnership. The Central Victoria division of Murray PHN spans both Shires.

Local health services are operating in an environment affected by changing government policies, social transformations, technological developments, and ever expanding regulatory requirements.

In conjunction with these broad external factors are the impact of multiple health and social reforms. These include reforms to disability services, aged care, family violence, vulnerable children and mental health. Client centred approaches to service delivery aim to provide greater choice and control over how services are delivered. It is recognised that a place-based approach will be required to successfully deliver these reforms but this also has it challenges as services tend to become more centralised as a result of business models responding to the reforms.

Key issues for the Loddon and Gannawarra Shires are aging and reducing populations, community disadvantage and access to services. As reinforced in the Murray PHN Health Needs Assessment (2016) there are particular pockets of very significant disadvantage within the Loddon and Gannawarra shires with Korong Vale identified as special case in one of Victoria's most disadvantaged postcodes. The Murray PHN Health Needs Assessment Health data establishes that four preventable chronic conditions being cardiovascular disease, diabetes, cancer and mental illness are the biggest direct contributors to the life expectancy gap between Aboriginal and non-Aboriginal Victorians and that Loddon is one Shire with a higher estimated percentage of population with mental health/ behavioural problems than the Victorian average.

The Victorian State Government have identified that many chronic disease and injuries are preventable and have developed a plan focused on supporting healthy living from the early years and throughout life. The Victorian health and wellbeing priorities for 2015–2019 are healthier eating and active living, tobacco-free living, reducing harmful alcohol and drug use, improving mental health, preventing violence and injury, and improving sexual and reproductive health.

The Victorian Public Health and Wellbeing Outcomes Framework launched in late 2016works to support the achievement of desired health outcomes in these areas of priority. The Framework acknowledges the need for a shared measurement of indicators of the collective effort from many partners, including government, non-government organisations, businesses, health professionals, communities, families and individuals. These indicators aim to track whether these combined efforts are improving the health and wellbeing of Victorians over time.

One indicator is the measure of Ambulatory Care Sensitive Conditions (ACSCs) ,those conditions for which hospitalisation is thought to be avoidable with the application of public health interventions and early disease management, These interventions are usually delivered in ambulatory setting such as primary care. High rates of hospital admissions for ACSCs may provide indirect evidence of problems with patient access to primary healthcare, inadequate skills and resources, or disconnection with specialist services. (VHISS 2016)

Within the Top 10 ACSCs in both Gannawarra and Loddon Shires are Diabetes complications, Congestive Cardiac Failure, Angina, Dental Conditions and Chronic Obstructive Pulmonary Disease (COPD). These are conditions that could respond to treatment or be managed in the primary health care or other community setting without the need for hospitalization. The health system that is available to a particular community will affect access to services that work to prevent chronic conditions and impact upon the health outcomes for individuals and communities. (Duckett 2016)

Loddon and Gannawarra Health Priorities and Evidence

The evidence gathered through the Loddon Gannawarra Health Needs Analysis identifies 4 health priorities. The criteria applied to define priority will order these 4 Health priorities differently however the Loddon and Gannawarra Shire Health Priorities are:

- Diabetes
- Heart Health
- Mental Health
- Oral Health

Many modifiable risk factors have been identified that contribute to the development and progress of these health priorities. These include lack of physical activity, food insecurity and access, high consumption of sugar sweetened beverages and inadequate fruit and vegetable consumption which all contribute to obesity , as well as tobacco, alcohol and other substance use. These risk factors and their prevalence in Loddon and Gannawarra re discussed, are included in the Heart Health Evidence Summary.

To address the health priority areas health care must be proactive rather than reactive; it must focus on partnership with the patient/client, rather than the focus on health professionals, and it must focus on outcomes. Primary Care Partnerships (PCPs) have played a significant role in the establishment and facilitation of Service Coordination, e-referrals, collaborative partnerships to increase service access and shared care planning. Partnership initiatives have been developed to support coordinated Prevention activities to enhance Mental Health, Social Inclusion, Physical Activity, Healthy Eating, Prevention of Family Violence and other place based priorities. There is an opportunity for greater collaboration between health care providers in supporting these outcomes in the Loddon and Gannawarra Shires and it is envisaged that the "HealthPathways" initiative currently being implemented by Murray PHN will support this collaboration.

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Diabetes

Diabetes is increasing across the Loddon and Gannawarra Shires as it is across Victoria however the rate is greater than the Victorian average trend. The proportion of the population with Diabetes has more than doubled within the Shires in the 10 years between 2001 and 2011. The rate of Avoidable deaths from Diabetes in Victoria is estimated to be 6.3 per 100,000 persons. This rate is higher than average for Gannawarra at 7.2 and for Loddon Shire is 15.4 which is almost double that rate. It is well documented that aboriginal people and those living with disadvantage experience a higher incidence of chronic disease.

Heart Health

The Heart Foundation reports that cardiovascular disease is a major cause of death in Australia. According to data from the Heart Foundation Loddon residents have some of the highest rates of heart conditions in Victoria including heart attack, heart failure, unstable angina and cardiac arrest. The heart attack rates for the Loddon Shire are over 2.5 times higher than the state average. Hypertension rates are significantly higher than the State average.

Gannawarra Shire has higher rates than the Victorian average for heart attack, unstable angina, hypertension and heart failure however the rates of cardiac arrest are lower.

In 2013 Indigenous Australians were more likely to suffer from heart disease than non-indigenous Australians with 12% of total deaths amongst Aboriginal and Torres Strait Islander peoples attributable to heart disease.

As discussed there are several modifiable risk factors for heart disease such as poor nutrition, low levels of physical activity, obesity and smoking. Obesity is an issue for both men and women across the Shires with higher than state average rates. Of particular concern is the particularly high smoking rates in Loddon Shire alongside some of the highest rates of heart conditions in the State.

Mental Health

Mental health is "a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community." (World Health Organization, 2012) Three key determinants found in the literature that are indisputably linked to mental health and well-being are social inclusion, freedom from discrimination and violence, and access to economic resources

In Australia, one in five will experience a mental health disorder at some stage in their lifetime. Primary health care is the first point of call for most people living in Australia with a mental health concern, and it is the point in the system where most care is delivered. Overall rates of mental and behavioural problems in Gannawarra are equivalent with the Victorian average with Loddon at a higher rate.

The 2015 VicHealth Indicators Survey results found that according to the indicators measured, the level of resilience, and indicators of neighbourhood connection and trust, both Loddon and Gannawarra had higher levels of mental wellbeing compared to the Victorian average. However other data around mental health indicators shows that the number of admissions for mental health related conditions in Loddon and Gannawarra Shires are higher than state average.

In 2009/10, compared to the regional Victoria and Victoria average, Loddon and Gannawarra Shires had a lower rate of mental health care plans per 100,000 population that had been prepared by GPs through the Better Access Program.

Oral Health

Dental conditions have significant impacts upon the overall health and wellbeing of the population. Dental health conditions have the highest admission rates for avoidable hospital admissions for young people in Victoria aged up to 19 years. Gannawarra Shire rates Dental health conditions as the number one Ambulatory Care Sensitive Condition for hospital admission. Loddon Shire rates Dental Conditions as second to Chronic Obstructive Pulmonary Disease.

Particular groups are at risk of dental health problems and this includes people with diabetes, people with a disability, pregnant women, aboriginal people and those without fluoride in their drinking water. (DHSV)

Loddon and Gannawarra Community Identified Health Needs

The communities of Loddon and Gannawarra Shires identified the following shared health needs as priorities for the health and wellbeing of residents.

Access to local health services including medical, dental, hospital and aged care was overwhelmingly the most common need identified by communities. A related issue raised to support service access was the need for better information provision across the community about local and visiting services, events and opportunities.

Mental Health is a key consideration for all people of all ages and abilities.

The Gannawarra and Loddon communities are very aware of the challenge for local health and community services of sustainability. The recruitment of the workforce required to provide health and wellbeing services, including allied health practitioners, mental health workers, aged care services and General Practitioners, was identified as a need. Partnerships and collaboration between services supported by improved shared information and referral was another need identified.

Concern was raised about transport to distant health services, including emergency response. Transport was also seen as a priority to support social and community participation. Social inclusion in community activities, and the ability to participate in decision making about social structures was seen as important for children, young people, parents, older people, people with disabilities and those on low incomes.

Infrastructure to support healthy lifestyles for all people of all ages and abilities was prioritised including increased childcare places and facilities, and parent networks

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Local Service Demand and Service Mapping

Data Collection for this project has been problematic and figures presented should be interpreted with caution due to gaps in data consistency. The results are, however, indicative and provide some information as to the postcode catchment of the health services, the current demand in services through client numbers and interactions related to health priority area. For example Gannawarra residents made up nearly half the number of Oral Health clients attending a Loddon agency. There is less northward flow of demand for Gannawarra services from Loddon residents.

Indicative Age Profile data for health priorities tell us that the demand for Mental Health services and Sexual Health services cross the lifespan. It could be anticipated that the demand for Diabetes, Respiratory Health and Heart Health services are more concentrated in the older age groups, while Oral Health services are predominantly accessed by young people under 20 years. A significant gap in the data for Gannawarra Shire is that from Mallee District Aboriginal Service and it is recommended that this is collated at a later date and added to the needs analysis.

Through Service Mapping workshops the current capacity of health services to respond to the preventive, treatment and recovery needs of patient/clients was explored. A client - centred Case studies approach was used to guide the mapping of currently available services.

Through this process the most obvious gaps have been identified and include the need for:

- a focus on Heart health at all points of the service system including coordinated Cardiac Rehabilitation services
- collaborative service planning for Diabetes and Mental Health referral pathways and services
- the development of Workforce strategies to support best practice healthcare in each Health Priority area

The current health and wellbeing service system in Loddon and Gannawarra Shires will benefit from a collaborative review and service planning across the four Health Priorities to support the development of local service excellence, access to services clear referral pathways, treatment and recovery best practice, concentrated prevention strategies and shared workforce expertise. It is recommended that priority be given to the upgrading and standardising of data collection systems. This will allow collation of the evidence base required to advocate for the resource allocation necessary to address the disadvantage experienced within the Shires and support health and community service access and health equality.

Recommendations

Below is a list of Recommendations.

THE POLITICAL AND REFORM ENVIRONMENT

ENVIRONMENTAL SCAN

In 2016 the five Primary Care Partnerships in the Loddon Mallee Region, including Southern Mallee PCP and Bendigo Loddon PCP, commissioned a document "Roadmap for Health and Social Services" with the aim of supporting partner agencies to better navigate the range of changes and reforms currently occurring at State and Federal government levels. . This document applies a business analysis model to support services to assess the potential impact of external factors on organisational activities and performance in the long term.

The model used is the PESTLE analysis which stands for political, economic, social, technological, legal and environment factors. The "Roadmap for Health and Social Services" analysis demonstrates that health and social services are being affected by changing government policies, social transformations, technological developments, and ever expanding regulatory requirements.

In conjunction with these broad external factors are the impact of multiple health and social reforms. These include reforms to disability services, aged care, family violence, vulnerable children and mental health. However, there are common themes across all the reforms that present opportunities and challenges. System reforms are placing greater focus on providing individuals with greater choice and control over how services are delivered. It is recognised that a place-based approach will be required to successfully deliver these reforms but this also has it challenges as services become more centralised.

The context of health and community service delivery in the Loddon and Gannawarra Shires is most acutely influenced by the challenges of aging and reducing populations, community disadvantage and access to services. Access factors include the geographical distance and transport availability to attend services as well as technological changes that create a gatekeeping "digital divide" role. The reliance on e-platforms for implementation of government programs lock out significant proportions of the community through the absence of internet connection, lack of computer skills in the target population, and capability to navigate the e-platforms due to design which is not intuitive.

The communities are clear that they appreciate and require services provided at the local level though there is openness to e-Health opportunities where appropriate and supporting access to specialist services. The community voice requests further development of complementary and integrated services to provide access and meet their health and community support needs

The Loddon Mallee "Roadmap for Health and Social Services" was produced in parallel to the production of the Loddon and Gannawarra Shires Health Needs Analysis and will be the document summarised to provide a broad picture environmental scan .

CONTEXT FOR CHANGE

The environment in which health and social service organisations operate has been in a constant state of change for many years. This has been driven by changes in government, policy, approaches to government operations and social factors that have increased demands on community services

The following analysis considers the political, economic, social, technological, environmental and legal factors currently affecting health and social services in Victoria.

Political

Governments affect the operating environment of health and social services through both policy and preferences (the accepted ways of doing things that are not explicitly policy).

Main points

- Shifting Commonwealth and State roles in funding programs have led to increased complexity in the health, education, housing and homelessness sectors.
- Competitive tendering is on the rise at federal and state level.
- New areas such as public hospitals, public dental health, and housing and homelessness services look set to be opened for competition.
- Continued political focus on budget surpluses comes often to the detriment of services and support to those most in need.

Some of the main political factors affecting health and social services.

Shifting Commonwealth-state relations

- Over time the Commonwealth government has increased its involvement in a range of policy areas and services that were traditionally state and territory government responsibilities.
- Joint responsibility between the two levels of government can lead to confusion for the service sector.
- Greater complexity in Commonwealth-State roles leads to greater uncertainty for health and social service organisations in terms of both funding and policy directions.

Competition for funding

- Governments in Australia prefer awarding funding for services through competitive tendering processes or through direct competition by services for service users.
- Governments use competition in the belief that it drives service providers to provide greater choice and control for service users and to be more responsive to their needs, innovative, and more efficient.
- The recent Productivity Commission's preliminary findings report on Introducing competition and informed user choice into Human Services: Identifying sectors for reform has identified some further areas for greater competition such as public hospitals, public dental health, and housing and homelessness services.
- Outcomes of competitive tendering process often results in well funded services being delivered by larger and/or For Profit organisations and those services with lower profit margins left for Not For Profit agencies which has a significant impact on the sustainability of the organisations.
- There is a profound impact of this policy approach on the operations of health and social service organisations and hence on the service users and communities they serve.

Preference for budget surpluses

- Clear government preference for budget surpluses because they are considered as a positive political strategy.

ENVIRONMENTAL SCAN

Economic

Economic conditions directly affect the living standards of most people. Not-for-profit health and social services are also affected by economic conditions. Rising government revenue allows for increased expenditure on health and social services.

When economic growth is low or negative, unemployment and underemployment rise, the participation rate falls, average real income and working hours stagnate. Demands on health and social services may grow and income (from governments, fund-raising and donations) is likely to stagnate.

Main points

- Poverty and income and wealth inequalities have increased despite two decades of uninterrupted growth.
- Labour market shifts are resulting in more part-time work.
- Health and social service organisations are having to diversify sources of income
- For-profit providers are providing more competition in aged care, disability services
- Not-for-profits lack access to finance for investment available to for-profits.

Poverty and increasing inequality

- Australia has had an unprecedented 25 years of uninterrupted economic growth[2] and rising average incomes and wealth.[3] Despite this, inequality income and wealth has increased[4] and the proportion of people living in poverty remains high at 13.3 per cent of the population.[5]
- As health and social services tend to focus on the most disadvantaged, the demand for services continues to grow despite continuous economic growth.

Changing labour market and Workforce

- The way in which people are employed and the industries that employ them have changed substantially over the past few decades. Part-time work has become more common with the proportion of the workforce employed part-time doubling between 1978 and 2016.[6]
- Employment in health and social services grew by an average of 3.9 per cent each year between 2006 and 2016, compared to 1.7 per cent across all industries.[7]
- The health and social assistance industry is the largest industry in Australia and now employs more than 1.5 million people or 12.8 per cent of the total Australian workforce[8] and is projected to continue into the foreseeable future.[9]
- For regional and rural communities this growth may benefit local employment.
- Health and social services are likely to face substantial competition for skilled and experienced employees into the future as demand for services grow
- There may be pressure to increase the 'flexibility' of the workforce in response to greater service user choice and control as part of the new models of service provision, such as the NDIS.

New sources of income

- In response to limited government funding growth or even cuts, health and social service organisations are turning to alternative sources of revenue to fund services.
- Fund raising, social enterprise and philanthropic funding are used by many health and social service organisations to provide services not funded by government.
- Social enterprise has seen substantial growth in recent years.

[2] Australian Bureau of Statistics (ABS), Australian National Accounts: National Income, Expenditure and Product, 5206, 2016.

[3] Australian Council of Social Service, Inequality in Australia: A nation divided, ACOSS, 2015.

[4] ibid

[5] Australian Council of Social Service, Poverty in Australia 2016, ACOSS, 2016, p.8.

[6] 15.4% of the workforce was employed part-time in August 1978 compared to 31.7% in 2016. Source: Australian Bureau of Statistics, Labour Force Australia, 6202, 2016.

[7] Australian Bureau of Statistics, Labour Force Australia, Detailed Quarterly, 6291.0.055.003, 2016.

[8] ibid

[9] Community Services and Health Industry Skills Council, Environmental Scan 2015: Building a Healthy Future: Skills, Planning and Enterprise, 2015.

Increased private competition

- As a result of government policy and increasing demand for services, more organisations are offering health and social services
- There is now greater potential for competition from 'for-profit' service providers in some sectors (e.g. aged care and disability services). For-profits have advantages such as access to capital and marketing resources and expertise..
- Not-for-profit health and social services have some competitive advantages over 'for-profit' providers (e.g. community connection, surpluses returned to service provision, and charity status).
- Local services are also competitive as they are familiar, accessible, there may be a sense of community ownership and they are governed by local board members.
- Competition may hinder collaboration between organisations supporting the same service user group.

Varied access to finance

- Finance, as opposed to funding, is either debt or equity capital paid into an organisation with the expectation that it will be repaid with interest.
- Finance is usually used to expand service provision by buying real estate or essential equipment (e.g. vehicles). Services cannot borrow money because they cannot use government funding to repay loans. The lack of finance limits their ability to expand, innovate and develop.[10]

[10] Productivity Commission, Contribution of the Not-for-Profit Sector, Research Report, 2010.

ENVIRONMENTAL SCAN

Social

The major social changes in Australia affecting health and social services are population growth and an ageing population. Both require increases in services. However, the distribution of population growth is uneven and this also affects services.

Main Points

- Population growth in Australia is uneven with some areas in population decline.
- Changes in the distribution of population must eventually result in changes in the distribution of funding.
- The ageing of Australia's population will increase demand for age pensions and for health and aged care spending.
- Health and social services may struggle to provide culturally appropriate services to small migrant communities in rural and regional areas.
- Expectations that health and social needs will be met by service users are rising.

Uneven population growth

- Australia's population grew by about 1.4 per cent in 2015[11] and has grown between 1.4-2.0 per cent per year for much of the past decade.[12]
- This growth has not been evenly distributed across Australia. Recently, Victoria became the fastest growing state in Australia, with a population growth rate of 1.9 per cent.[13]
- Within Victoria, the population of Greater Melbourne grew by 2.5 per cent in 2015 with much of the growth in the outer suburbs.[14]
- The rest of Victoria only grew by 0.6 per cent,[15] despite some regional centres, such as Bendigo and Ballarat, growing at close to the national level, 1.2 and 1.3 per cent respectively.[16]
- Further, many rural areas are in decline. For example, population in the Loddon area fell by 1.1 per cent in 2015.[17]
- Changes in the distribution of population must eventually result in changes in the distribution of funding.
- Health and social service providers may struggle to access funding for areas in population decline when demand for services is growing substantially in other areas.

Ageing population

- Between 1995 and 2015, the median age of the Australian population increased by three years, from 34 to 37.[18] This is due to relatively low birth rates and increasing life expectancy.
- During this period the proportion of the population aged 65 and over grew from around 12 per cent to 15 per cent, while the proportion of the population 15 years and younger fell from 21.5 per cent to 18.8 per cent.[19]
- The ageing of the population will result in a greater demand for age pensions as well as health and aged care spending.[20] This will place greater demands on the working age population to provide services and care. [21]

Migrant and diverse communities

- Over one-quarter (28.2 per cent) of the Australian population was born overseas.[22] The largest group by country were those born in the United Kingdom, followed by New Zealand.[23]
- Refugees and asylum seekers make up only a small proportion of annual immigration.
- In the Loddon Mallee region only 9.4 per cent of the population was born overseas. [24]
- Health and social services may have difficulty in providing culturally appropriate services to small migrant communities in rural and regional areas.

[11] Australian Bureau of Statistics, Australian Demographic Statistics, 3101.0, 2016.
[12] ibid
[13] ibid
[14] Australian Bureau of Statistics, Regional Population Growth, Australia, 3218.0, 2016.
[15] ibid
[16] ibid
[17] ibid
[18] Australian Bureau of Statistics, Australian Demographic Statistics, 3101.0, 2016.
[19] ibid
[20] The Treasury, 2015 Intergenerational Report: Australia in 2055, Australian Government, 2015.
[21] ibid
[22] Australian Bureau of Statistics, Migration, Australia, 2015-2015, 3412.0, 2016.
[23] Ibid.
[24] Australian Bureau of Statistics, Basic Community Profiles 2011, 2001.0, 2013.

Demands for more responsive services

- Health care has improved dramatically over the past few decades. New medications and vaccines, surgical procedures and new technologies have reduced mortality rates for several illnesses.
- As health care has improved, so have expectations that health needs will be met.[25] Such expectations may extend to social services although the evidence is less clear.
- Increasing expectations place pressure on health and social services to improve their services and better meet the needs of service users.

[25] Grattan Institute, Budget Pressures on Australian Governments 2014, Melbourne, 2014.

ENVIRONMENTAL SCAN

Technological

Rapid technological development is leading to new ways of delivering health and social services. It also has the potential to give greater control to service users to select their service provider and even their service workers.

Main Points

- E-health services are becoming more common.
- Common digital identities are set to make access to government service easier.
- Trip Advisor-style online service user reviews are emerging in other services areas, particularly in disability.
- Online start-up 'employment' companies are beginning to compete with traditional health and social services.
- Telehealth Services are becoming available in areas with Internet capability. Increased use of online data storage and information has increased the need for data security.

Rise in e-health services

The term 'e-health' refers to many technologies that increase the use of computer and communication technology to support service users. Examples include:

- **My Health Record or Personally Controlled Electronic Health Record (PCEHR)**

This is a shared electronic health summary set up by the Australian government with implementation overseen by the National Electronic Health Transition Authority (NEHTA). The purpose of the PCEHR is to provide a secure electronic summary of people's medical history which will be available for the Patient/client to share with health practitioners.[1]. This record will include an opportunity to include information such as current medications, adverse drug reactions, allergies and immunisation history. The PCEHR is stored in a network of connected systems with the view to improving the sharing of information amongst health care providers to improve patient outcomes no matter where in Australia a patient presents for treatment.[2][3] It is currently an opt-in system with a unique individual healthcare identifier (IHI) being assigned to participants and the option of masking and limiting information available for viewing controlled by the patient or a nominated representative.The opt-in nature of the system provides barriers for people to register and the take-up of Registration in rural communities is currently low.

- **E-referrals**

E-referrals allow an encrypted referral containing private health information to be made instantly and to transfer a person's clinical and personal information securely between service providers.In the Loddon and Gannawarra Shires many health services currently use the ConnectingCare Secure messaging system for e-referral using standardized referral templates designed by the Victorian Government called Service Coordination Tool Templates.

- **Tele health**

Telehealth encompasses information and communications technologies that can deliver health services, including medical checks and treatments, and transmit health information over any distance. It provides an opportunity for greater access to health and social services including Specialist consultations, secondary consultation availability and health education program streaming.This opportunity however exists only for those with access and capacity for internet usage which is significant barrier in rural communities.

- **E-platforms**

Registration and management of services are increasingly using an internet platform eg My Aged Care, NDIS. Navigation of the platforms require service users to have a level of computer literacy, adequate cognitive ability, and access to computers and the internet.

- **Digital Divide and Disadvantage**

In rural, access to the internet and mobile coverage is considerably lower in regional and remote areas compared to major cities. This creates an increasing 'digital divide' and limits access to services for those in rural areas or cannot afford access to the internet. In areas of socio-economic and geographic disadvantage this compounds the issue of health equity and will be a significant challenge for rural residents and service providers.

- Streamlining digital identity
- The Commonwealth Government's Digital Transition Office is working on a digital identity framework.[26]
- This aims to consolidate multiple identity approaches used by many government departments and agencies to a single approach.

Once implemented, users will only need to establish their identity once to be able to use many government services online, with the aim being to make transactions with government faster and streamlined.

- It is not known at this stage whether state governments and government funded health and social services will use this framework.

Online selection and scrutiny

- Consumers are becoming more reliant on online user reviews to assess whether a service or product is suitable. For example, Trip Advisor assists travellers to select hotels.
- Clickability (https://clickability.com.au) is a disability service directory with ratings and reviews from service users.
- There is potential for such a service to assist NDIS participants to select services based on the ratings of other service users.

Online hiring

- On-line hiring in a casual or employment agency format is a potential outcome of the client funding centred packages such as NDIS and My Aged Care
- This tTechnology will create additional competition for both workforce and clients of health and social services where competition for service users is high.
- Where competition for clients is low due to low or negative financial margins the Not For Profit health and social agencies may be the only option for service delivery, compromising the financial sustainability of the agency

Risks to data security

- Increased reliance on information and communication technology may yield many benefits but it does not come without risk.
- Unauthorised access to or corruption of personal information stored on computers, shared and transferred insecurely are significant risks to organisations and service users.
- Health and social services need to ensure that such data are held, shared and transferred securely and adhere to the Victorian Protective Data Security Standards.

[26] See https://www.dto.gov.au/our-work/identity/.

ENVIRONMENTAL SCAN

Environmental

Where a health or social service organisation operates can affect the nature, cost and quality of the service provided. Organisations in regional and rural areas face different challenges to those operating in metropolitan areas.

Main Points

- Health and social service organisations in regional and rural locations face unique challenges, including recruitment of highly skilled staff.
- Climate change will require health and social service organisations to better prepare for disasters such fires, floods and severe storms.

Locational differences

- Running a health or social service in regional or rural Victoria brings unique challenges.
- Cost and other factors drive the centralisation of services from small towns to larger population centres.
- Outreach models of service provision are then used for small towns or areas of low demand.
- Outreach models may result in lower levels of service or lower quality of service provision due to travel time and costs potentially reducing hours of service.
- Where outreach models are used, it may be more difficult to build relationships between service providers, particularly when their main locations are in different regional centres.
- Further, it becomes harder to align service systems, fill service gaps and remove service duplication.
- Interagency cooperation is required to address complex issues.
- Health and social service organisations participate in multiple networks covering different geographic areas and with different governance and funding arrangements.
- Many health and social service organisations report that it is difficult to recruit highly skilled, professional staff in rural and regional areas.

Impact of climate change

- Climate change brings an increased frequency and intensity of disasters such as bushfires and floods.
- Services and infrastructures are in place to support the community and respond in time of crisis.
- Research indicates that 25% of community service organisations cannot operate at all after a disaster and 50% of organisations will be out of action for a week – at a time when there is increased demand.[27]
- Business Continuity Planning for disaster response by health and social service organisations requires addition investment in time and resources to create response and backup systems and protocols between partner agencies.

[27] ACOSS &NCCARF: Community Sector Disaster Preparedness, 2013

ENVIRONMENTAL SCAN

Legal

There are many legal aspects to establishing and operating health and social services. Consequently, there are multiple accountability requirements including:

- Funding agreements and related laws
- Registration with regulatory bodies such as the Australian Charities and Not-for-profits Commission (ACNC).

Main Points

- Funding agreements are becoming more complex and leading to additional accountability requirements.
- Increased regulatory burden on health and social services is costly.

Governance Arrangements

- Stephan Duckett's report recommendations in, Review of Hospital Safety and Quality Assurance in Victoria, seek to amend the Health Services Act 1988 to reflect the high value expectation on safety and quality.
- It also recommends a number of legislative change to ensure boards are highly skilled, independent, effective and are accountable for improving safety and quality of care, regardless of their size or sector.
- Although this report is specifically targeted to public hospitals, there are some lessons and directions for all boards of health and social services in relation to ensuring that safety and quality is maintained through reforms, restructures and revitalising.

Funding agreements

- Most health and social services are funded through multiple funding streams and hence are accountable to multiple government departments, both state and Commonwealth.[28]
- The Victorian government has a common Service Agreement covering most health and social services.
- Over time this agreement has become more complex with additional accountability requirements added due to government policy changes. For example, privacy requirements were changed when the Privacy and Data Protection Act 2014 was introduced.

Regulatory burden

- Increased accountability and oversight has added to the regulatory burden felt by health and social services. Multiple reporting requirements lead to duplication and unnecessary accountability. The annual cost of this 'red tape' has been estimated to be $23 million in Victoria.[29]
- Compliance with multiple reporting requirements are provided to funding bodies in non-standardised formats resulting in multiple software programs to report data that are not integrated and fail to support data capture for participating organisations to improve service planning, delivery and community health outcomes.
- While supported as an important initiative the introduction of Child Safe Standards for agencies will have a significant t impact in resource allocation to demonstrate compliance.

[28] Victorian Council of Social Service, More than Charity: Victoria's community sector charities, VCOSS, 2016.

[29] ibid.

Implications for health and social service organisations of a changing environment

All these changes have implications for the governance and management of health and social service organisations as well as their service delivery. Some of the significant changes and their implications are outlined below.

Greater competition

- Health and social service organisations are facing greater competition arising from increasing service user choice of service providers and competitive tendering.
- Competition is meant to make service providers become more responsive to service users, increase efficiency and be more innovative. However, it can detract from collaboration and partnerships that are an important feature of health and social service delivery.

Funding uncertainty

- As a result of greater competition and changing government priorities, funding is becoming more uncertain.
- Some health and social service organisations have responded by seeking to diversify their revenue sources.
- This presents a risk that organisational attention focuses on revenue generation which can lead to mission 'drift'.

Control by the service user

- Client directed care and similar changes are placing greater control over services by service users.
- This control is meant to provide the service user with similar levels of control over their lives as people not dependent on services for everyday needs.
- Greater control makes the management and governance of health and social service organisations more complex.

Increased oversight by governments

- Government demands for increased accountability is adding to the regulatory burden on health and social services.

Progressive universalism

- Progressive universalism is the provision of services to all people but at a greater intensity or higher level of service to disadvantaged people proportionate to the level of disadvantage.
- This is meant to ensure that everyone gets the services at the level and intensity they need and requires organisations to ensure they can provide the necessary services.

Place-based approaches

- Place-based approaches are ways of developing and delivering local solutions to local problems.
- They are meant to devolve decision-making to communities and involve local service providers and community members in making decisions regarding complex social problems.
- Health and social service organisations may face multiple demands to participate in place-based initiatives without the necessary resources being provided.

Partnerships

- Partnerships are when organisations work together with a common objective.
- Partnerships are useful for addressing complex issues but are also complex themselves.
- Partnerships are harder to develop and maintain in a competitive environment and require proper and adequate resources to set up and sustain.
- By their nature, partnerships require sharing some control with partner organisations so that decisions can be made jointly.

Workforce

- Health and social service organisations need a multi-skilled and expert workforce that is culturally competent and able to face complex social problems.
- Recruitment is likely to become more difficult as the demand for experienced and qualified workers grows, particularly in regional and rural areas.
- Management and workers may need new skills, knowledge and competencies as service users gain more choice and control.

Outcomes measurement

- Governments are seeking to measure the benefits people or groups of people gain from funding programs by measuring outcomes.

HEALTH ISSUE PRIORITIES - EVIDENCE SUMMARIES

DIABETES: EVIDENCE SUMMARY

INTRODUCTION

Three quarters of Australians over the age of 65 have at least one chronic condition that puts them at risk of serious complications and premature death. Chronic conditions will be the major challenge for health systems in the foreseeable future.

The current Australian health care system of the Pharmaceutical Benefits Scheme (PBS), Medicare Benefits Scheme (MBS) and acute hospital systems is one that was constructed 40 years ago – to address a very different burden of disease to what we face today. Evidence shows that Australia's primary care services are not working anywhere near as well as they should. At best our primary care system provides only half of the recommended care it should for chronic conditions. Nearly a million Australians have been diagnosed with diabetes, but only about a quarter get the care that is recommended each year. Within the Loddon and Gannawarra context, statistics show that there is a higher rate of diabetes than the Victorian average, and it is well documented that those living with disadvantage have more chronic disease.

Many modifiable risk factors influence the development of diabetes. The majority of conditions are preventable and it is known that behavioral risks are often not managed in the primary care sector. Care must be proactive rather than reactive; it must focus on partnership with the patient, rather than the focus on health professionals, and it must focus on outcomes.

The evidence shows that a consistent approach to specific diseases helps primary care more effectively to prevent and manage chronic conditions such as diabetes. Evidence from around the world suggests that much greater emphasis needs to be placed on service coordination and integration for people with chronic disease [47]

The Loddon and Gannawarra Health Services participating in this analysis have collected demand data for Diabetes services and results are outlined in a later section. The opportunity for greater collaboration particularly with General Practice exists and it is envisaged that the HealthPathways initiative currently being implemented by Murray PHN will support this collaboration.

Diabetes is increasing across the Loddon and Gannawarra Shires as it is across Victoria however the rate is greater than the Victorian average trend .The proportion of the population with Diabtes has more than doubled within the Shires in the 10 years between 2001 and 2011. The rate of Avoidable deaths from Diabetes in Victoria is estimated to be 6.3 using the average annual age standardised rate per 100,000 persons. This rate is higher than average for Gannawarra at 7.2 and for Loddon Shire is 15.4 almost double that rate.

Whatever the criteria for assessment Diabetes is a very high health need and should be considered as one of the top three Health Priority areas, particularly for Loddon Shire.

DIABETES: EVIDENCE SUMMARY

RECOMMENDATIONS

Prevention

Prevention focus on the modifiable Risk factors to:

- Increase fruit and vegetable consumption
- Decrease sugar-sweetened beverage consumption
- Reduce obesity in both men and women
- Increase physical activity
- Decrease tobacco use

- Reduce modifiable risk factors in the general population
- Resource and strengthen culturally safe programmes to address the priority group of Aboriginal and Torres Strait Islander peoples
- Make preschool, school and child care diabetes safe environments

Early Intervention

- Identify high-risk individuals and consider effective, evidence-based interventions
- Promote awareness and earlier detection of both Type 1 diabetes and Type 2 diabetes through regular screening and discussion of risk factors and symptoms inclusion in healthcare assessments
- Strengthen the culture of healthcare partnership with the patient/client to expand consumer engagement and self-management

Treatment

- Prioritisation of supported self-management of Diabetes
- Provide mental health care for people with diabetes, with regular monitoring
- Work within and develop nationally agreed clinical guidelines, local care pathways and complications prevention programmes
- Strengthen and expand transition from child to adult services
- Provide high-quality hospital care

Recovery

Expansion and establishment of patient/client groups focused on risk factor reduction such as physical activity and weight management

Health System

- Develop and implement quality improvement processes to support best practice
- Implement Service Coordination to ensure that the person with diabetes, or those at risk of developing diabetes maximise their opportunities for accessing the services, prevent complications or disease progression and achieve their goals.
- Use information and communication technology to support access to services. Build upon the e-referral systems work undertaken by Loddon and Gannawarra Shire health services to support shared care
- Improve workforce capacity to implement consumer focussed best practice
- Emphasise health care professionals partnerships across primary health, community and specialist care services with the person with diabetes to achieve best-practice, high-quality diabetes care
- Extend existing pathways that have been developed to cover both Shires and work towards stronger partnerships with General Practice
- Build upon Shared care Planning practice and workforce development

PROPORTION OF THE POPULATION WITH DIABETES 2011

DIABETES: EVIDENCE SUMMARY

LODDON AND GANNAWARRA SHIRES DIABETES DATA

The estimated number of Loddon residents with diabetes including Type 1, Type 2 and Gestational diabetes, in 2011 was 521 (approximately 6.5%), whilst in Gannawarra there were 758 (6.6%). These figures have significantly increased since 2001. As a proportion of population, the prevalence of diabetes in Loddon increased from 2.3% in 2001 to 6.5% in 2011. In Gannawarra the number of residents with Diabetes grew by 466 people (from 2.3% to 4.5%). In 2011, the rate of diabetes in Gannawarra was equal to and in Loddon was higher than the Victorian average of 4.5%.

Diabetes prevalence (2001 – 2011)

Location		2001	2011
Gannawarra	Number of people with diabetes	2,044	4,819
	Proportion of population with diabetes	2.3%	4.5%
Loddon	Number of people with diabetes	196	521
	Proportion of population with diabetes	2.3%	6.5%
Victoria	**Proportion of population with diabetes**	**2.0%**	**4.5%**

Diabetes Australia - Victoria 2011 *includes diabetes type 1, type 2, gestational diabetes, and other forms of diabetes

TYPE 2 DIABETES

Compared to Victoria (5.0), Loddon had the same proportion of population aged 18 years and over that reported having doctor-diagnosed type 2 diabetes in 2011. Gannawarra had a slightly lower proportion that that of Victoria in 2011(4.9%). (VPHS 2011-12).

Type 2 Diabetes Prevalence* (2011-12)

Location	%
Loddon	5.0
Gannawarra	4.9
Victoria	**5.0**

Victorian Population Health Survey 2011-12 * self reported

State-wide findings from the Victorian Population Health Survey also indicate that across Victoria:

- Type 2 diabetes is more prevalent in males than in females (6.0% v's 4.1%)
- Type 2 diabetes prevalence increases with age
- Males who were employed or who earned more than $40,000 were significantly less likely to report having type 2 diabetes
- Males not in the labour force, who earned less than $40,000, who had high or very high levels of psychological distress or who were sedentary were significantly more likely to report having type 2 diabetes
- Females with tertiary level education, who were employed or who earned $100,000 or more were significantly less likely to report having type 2 diabetes, and
- Females who had high or very high levels of psychological distress or who were sedentary were significantly more likely to report having type 2 diabetes.

People Who Had Type 2 Diabetes And Were Overweight/Obese

- Predictions of the population that had type 2 diabetes and that was also overweight or obese were undertaken in 2008 by the Public Health Information Development Unit. Compared to the regional Victoria (3.2) and Victoria (3.1) average, Loddon and Gannawarra had a similar rate of population that had type 2 diabetes and that was also overweight or obese.

People who had type 2 diabetes and were overweight/obese, ≥18 years (2007-08)

	No	Rate per 100
Gannawarra	357	3.0
Loddon (S) - North	95	3.1
Loddon (S) - South	175	3.2
Regional Victoria	127,536	3.2
Victoria	**37,734**	**3.1**

Source: PHIDU 2016

Avoidable deaths from Diabetes, persons aged 0 to 74 years (2009-12)

Both Gannawarra and Loddon LGA's recorded rates of avoidable deaths from diabetes for persons aged 0-74 years above the state average with Loddon Shire more than double the state average.

Avoidable deaths from diabetes, persons 0-74 years (2009-12)

	No	Rate per 100
Gannawarra	5	7.2
Loddon	7	15.4
Victoria	**1.110**	**6.3**

Social Health Atlas of Australia- Victoria and NSW Government areas, June 2015 Release,PHIDU 2015 *Average annual age standardised rate per 100,000 persons

DIABETES: EVIDENCE SUMMARY

Most Common Ambulatory Care Sensitive Conditions (ACSCs)

In 2014 /15 Diabetes was the 4th most common ACSC requiring hospital admission in the Loddon Shire. The rate was 2.82 admissions per 1000 of the population for Diabetes complications. In the same period Diabetes rated as 7th most common ACSC requiring hospital admission with a rate of 2.60 admissions per 1000 of the population.

Compared to Victorian statistics this admission rate was higher for both Shires with the Victorian rate at 1.83. In Victoria Diabetes is the 7th most common ACSC requiring hospital admission.

Top Ten ACSC Standardised# Admission Rates* by LGA (2014/15)

Loddon			Gannawarra			Victoria		
	No of admissions	Rate per 1000		No of admissions	Rate per 1000		No of admissions	Rate per 1000
COPD	53	4.21	Dental Conditions	50	5.98	Iron deficiency Anaemia	16173	2.74
Dental Conditions	23	3.7	Iron deficiency anaemia	73	5.63	Cellulitis	16071	2.72
Conjestive Heart Failure	45	3.53	COPD	61	3.46	Urinary Tract Infections	15831	2.66
Diabetes Complications	**24**	**2.82**	Cellulitis	42	3.09	Dental Conditions	15599	2.66
Urinary Tract Infections	24	2.8	Angina	48	2.73	Conjestive Cardiac Failure	14849	2.46
Ear, Nose and Throat infections	13	2.72	Urinary Tract Infections	30	2.68	COPD	14701	2.45
Cellulitis	26	2.7	**Diabetes Complications**	**31**	**2.60**	**Diabetes Complications**	**10850**	**1.83**

Victorian Health Information Surveillance System 2014/15 # Age standardised to Victorian population 2011 * Rate per 1,000 person

Health Checks

Both Loddon and Gannawarra had higher proportions of health checks in comparison to Victoria, for blood pressure, and blood glucose checks in the two years preceding 2011-12. (VPHS 2011-12)While Gannawarra Shire has a higher than Victorian rate for Cholesterol checks, Loddon Shire has a significantly lower rate.

Self Reported Health Checks by age

Health check*	Loddon	Gannawarra	Victoria
Blood pressure checked in last two years	82.9	83.9	81.9
Cholesterol checked in last two years	53.3	64.8	60.4
Test for diabetes or blood glucose check in last two years	56.7	60.2	55.6

Source: VPHS 2011-12

State-wide findings from the 2011-12 Victorian Population Health Survey also indicate that, over the two years prior to the survey:

- Females were more likely than males to have had a blood pressure check
- Males were more likely than females to have had a blood test for cholesterol and were slightly more likely to have had a blood glucose check, and
- The probability of having had any of the three checks increased with age.

DIABETES: EVIDENCE SUMMARY

POLICY REVIEW

Commonwealth

The Australian National Diabetes Strategy 2016-2020[4] outlines seven goals for action, with listed potential areas for action and measure;

1. Prevent people developing type 2 diabetes
2. Promote awareness and earlier detection of type 1 and type 2 diabetes
3. Reduce the occurrence of diabetes-related complications and improve quality of life among people with diabetes
4. Reduce the impact of pre-existing and gestational diabetes in pregnancy
5. Reduce the impact of diabetes among Aboriginal and Torres Strait Islander peoples
6. Reduce the impact of diabetes among other priority groups
7. Strengthen prevention and care through research, evidence and data

Funding Structures

The Medicare Benefits Schedule (MBS): The MBS provides subsidies for patient care, including Medicare items;

- Chronic Disease Management items[6], for the planning and management of chronic and terminal conditions (GPMP).
- Up to five Medicare subsidised allied health services that are directly related to the treatment of their chronic condition. This includes diabetes[2]
- Diabetes Annual Cycle of Care [21]
- Telehealth[33]
- Case Conferencing[34]
- Health Checks for those at risk
- The Pharmaceutical Benefits Scheme (PBS) provides subsidies for medicines used in the treatment of diabetes[2]
- The National Diabetes Services Scheme (NDSS)
- The NDSS, which is managed by Diabetes Australia through an agreement with the Department of Health provides subsidised to persons with diagnosed diabetes who are registered with the Scheme[2]
- National Health and Medical Research Council (NHMRC) research into diabetes conditions has been identified by the NHMRC as a major focus in its 2013-15 Strategic Plan[2]
- Murray Primary Health Network - Murray Health Pathways Project 2016[32], Telehealth

Data Collection

- The Australian Institute of Health and Welfare (AIHW) is funded to support national surveillance and monitoring of chronic conditions, including diabetes[2].
- The Australian Bureau of Statistics monitors prevalence of diabetes through the Australian Health Survey covering the National Health Survey (NHS); the National Nutrition and Physical Activity Survey (NNPAS); and the National Health Measures Survey (NHMS)[3].

Victorian Context

Chronic Disease Management

Department of Health and Human Services Chronic Disease Management Guidelines from 2008 are currently being updated[30]

Primary Care Partnerships – 2013-2017 Program Logic includes;

- Early Intervention and Integrated Care (including Integrated Chronic Disease Management and Service Coordination)[29]
- Bendigo Loddon Primary Care Partnership Strategic Plan 2013-17[31]

CLINICAL GUIDELINES

A number of resources exist for the clinical support and pathways for diabetes types. The following is a list of the guidelines available with links provided in the references section. The evidence shows that a consistent approach to clinical care pathways for specific chronic diseases can make a real difference to outcomes.[47]

All Types

Loddon Mallee Region Pathways for Prediabetes, Type 1, Type 2 and Gestational Diabetes: Developed for the Department of Health and Human Services - Loddon Mallee Region [21] outlining clinical indicators, desired outcomes, and the roles of the multidisciplinary practitioners.

Type I

- Type 1 diabetes in children - emergency management[13]
- NHMRC approved - National evidence based clinical care guidelines for type 1 diabetes in children, adolescents and adults [18] – these guidelines also refer to the mental health component with type I diabetes.

Type II

- NHMRC approved National Evidence Based Guideline on Secondary Prevention of Cardiovascular Disease in Type 2 Diabetes [12] for the management of hypertension, hyperlipidemia and application of anti-thrombotic therapy.
- NHMRC approved National Evidence-Based Guideline on Prevention, Identification and Management of Foot Complications in Diabetes[20]
- General Practice Clinical Guidelines of Type 2 Diabetes (a joint initiative between RACGP and Diabetes Australia)[6]
- The Chronic Care Model[9] has been acknowledged as tool to identify fundamental elements of a healthcare system that supports high quality care to those with chronic disease such as diabetes [8, 21]
- Type 2 diabetes - kidney disease; prevention and management[14] and kidney function assessment[15]
- NHMRC approved Guidelines for the Management of Absolute Cardiovascular Disease Risk
- Campaspe Type 2 Diabetes Consumer Information/Education Guidelines Package – 2011

Type I & II

- Dietary Management in Diabetes[16]
- Peri-Operative Diabetes Management Guidelines[19]
- Medicare Annual Cycle of Care Guidelines, reflecting the minimum standard of care for patients with type I and II diabetes[21]
- Guidelines for Managing Diabetes at the End of Life[44]

Gestational Diabetes Mellitus

- ADIPS Consensus Guidelines for the Testing and Diagnosis of Hyperglycaemia in Pregnancy in Australia and New Zealand[23]
- The Australasian Diabetes in Pregnancy Society consensus guidelines for the management of type 1 and type 2 diabetes in relation to pregnancy[24]

DIABETES: EVIDENCE SUMMARY

EVIDENCE BASED STRATEGIES/ INTERVENTION EVIDENCE

Systematic reviews and meta-analysis

Best-practice, high-quality diabetes care is best achieved when health care professionals work seamlessly and in partnership across primary health, community and specialist care services with direct consumer (the person with diabetes) – Primary Health Networks have been identified at a national level to support service coordination4. The role of the Service Coordination Framework[22] in supporting this work is acknowledged in ensuring that the person with diabetes, or those at risk of developing diabetes maximise their opportunities for accessing the services, prevent complications or disease progression and achieve their goals[21].

The Australian National Diabetes Strategy[4] lists the following areas;

For Health Promotion and Primary Interventions

- Reduce modifiable risk factors in the general population
- Develop and implement community-wide, culturally relevant awareness programmes to address the priority group of Aboriginal and Torres Strait Islander peoples
- Develop and implement strategies that acknowledge the priority groups culturally and linguistically diverse communities (CALD), older Australians, rural and remote communities and mental health consumers
- Make preschool, school and child care diabetes safe environments

For Secondary Interventions

- Identify high-risk individuals and consider effective, evidence-based interventions
- Promote awareness and earlier detection of both Type 1 diabetes and Type 2 diabetes
- Expand consumer engagement and self-management

For Tertiary Interventions

- Develop and implement quality improvement processes
  - an example of a quality strategy would be the uptake of the Patient Administered Assessment of Chronic Illness Care (PACIC) audit tool that Campaspe PCP is reporting on in 2016 to DHHS
  - an example would be the National Association of Diabetes Centres[45], that is being undertaken by the Hume Region, known as the "Hume Diabetes Service Improvement Collaborative"
- Use information and communication technology
- Improve workforce capacity
- Provide mental health care for people with diabetes, with regular monitoring
- Improve affordable access to medicines and devices
- Improve funding mechanisms
- Develop nationally agreed clinical guidelines, local care pathways and complications prevention programmes
- Strengthen and expand transition from child to adult services
- Provide high-quality hospital care
- Develop a national research agenda / Improve and expand data linkage and facilitate ease of access

HEART HEALTH: EVIDENCE SUMMARY

INTRODUCTION

The Health Priority of Heart Health encompasses a variety of different conditions affecting the heart and blood vessels including heart disease and hypertension, and includes several modifiable risk factors such as poor nutrition, low levels of physical activity, obesity and smoking.

Across the world, 80% of all cardiovascular disease deaths are due to heart attacks and strokes, and a total of 17.5 million people, more men than women, die each year from cardiovascular disease, an estimated 31% of all deaths worldwide.

Poor heart health has a significant impact on Australia's growing significant burden of chronic disease. The Heart Foundation reports that cardiovascular disease is a major cause of death in Australia. Nine in every 10 adult Australians have at least one risk factor for cardiovascular disease and one in four (25%) have three or more risk factors. Heart Foundation 2016

In Australia, cardiovascular disease accounted for 25.8% of the years of life lost (YLL) burden of disease in 2010 with the prevalence for women being slightly higher than men (26.5% vs. 25.3%). In 2010, ischaemic heart disease accounted for 15.0% of the burden of disease with the prevalence for men being slightly higher than that of women (16.1% vs. 15.0%).

In 2013, regional residents across Australia were more likely to suffer from heart disease (one in four people) than those in metropolitan areas (one in five people).

Indigenous Australians were more likely to suffer from heart disease than non-indigenous Australians with 12% of total deaths amongst Aboriginal and Torres Strait Islander peoples attributable to heart disease in 2013. Heart Foundation 2016

Risk factors for heart health can be measured in primary care facilities and provide information to patients/ clients to support self –management as well as identifying people requiring immediate treatment. "Identifying those at highest risk of CVDs and ensuring they receive appropriate treatment can prevent premature deaths." World Health Organisation 2016.

According to data from the Heart Foundation Loddon residents have some of the highest rates of heart conditions in the state including heart attack, heart failure, unstable angina and cardiac arrest. The heart attack rates for the Loddon Shire are over 2.5 times higher than the state average. Hypertension rates are significantly higher than the State average.

Gannawarra Shire has higher rates than the Victorian average for heart attack, unstable angina, hypertension and heart failure however the rates of cardiac arrest are lower.

Rates of avoidable Deaths due to cerebrovascular diseases in the Gannawarra shire are slightly higher than state average. Numbers in Loddon were too low to be considered statistically.

Risk factors for heart disease include inadequate fruit, vegetable and water consumption, inadequate physical activity, smoking, and high consumption of sugar-sweetened beverages contributing to overweight and obesity. For both Loddon and Gannawarra Shires the fruit and vegetable intake equaled the Victorian average, which is much less than the recommended intake. Water intake and the levels of physical activity were better than the Victorian average. Obesity is an issue for both men and women in both Shires with higher than state average rates. Smoking rates in Loddon Shire are significantly higher than the State average while Gannawarra rates are equal to or below the State average.

Indigenous heart health in Victoria is poorer compared to the heart health of non-indigenous residents.

RECOMMENDATIONS

Prevention

Prevention focus on the modifiable Risk factors to:

- Increase fruit and vegetable consumption
- Decrease sugar-sweetened beverage consumption
- Reduce obesity in both men and women
- Increase physical activity

For Loddon Shire

- Focus on reduction of extremely high Heart disease rates
- Develop campaign and strategies to reduce high smoking rates

Early Intervention

- Consider early intervention and self –management strategies development across primary care system

Health System

- Consider review of capacity of Cardiac Rehabilitation Service systems to meet local needs

HEART HEALTH: EVIDENCE SUMMARY

LODDON GANNAWARRA HEART HEALTH DATA

Heart (Cardio vascular) Disease

Overall heart health in the Loddon Shire is well below that of the state average. This is shown by the significantly higher than average rates of hypertension, heart attack, unstable angina, heart failure and cardiac arrest in the Loddon Shire.

According to data from the Heart Foundation Loddon residents have some of the highest rates of heart conditions in the state. The heart attack rates for the Loddon Shire are over 2.5 times higher than the state average. In addition to this this rates of unstable angina, heart failure and cardiac arrest are all significantly higher than the state average.

Hospital separation rate per 10,000 Rate based on LGA of residence 2013

	Heart Attack	Unstable Angina	Heart Failure	Cardiac Arrest
Loddon	63.78	17.27	46.51	11.96
Gannawarra	36.56	16.36	41.37	5.77
Loddon Mallee	32.98	13.76	35.03	8.27
Victoria	**25.97**	**11.74**	**28.00**	**7.64**

Heart Foundation 2016, The Victorian Heart Maps.

In the Gannawarra Shire the rates of heart attack, unstable angina and heart failure are all higher then the state average however rates of cardiac arrest are lower than the state average. Overall heart health of Gannawarra residents is similar to the state average.

Indigenous heart health in Victoria is poorer compared to the heart health of non-indigenous residents.

Self-reported doctor-diagnosed Heart Disease

Self- reported doctor diagnosed statistics collected in the Victorian Population Health Survey in 2014 showed the proportion of Loddon residents who reported they had been diagnosed with heart disease at any point in their lifetime. Results also showed a significantly higher prevalence observed in males compared with females.

Self-reported doctor-diagnosed heart disease (2014)

Location	% Heart Disease
Loddon	7.7
Gannawarra	6.7
Loddon Mallee	6.5
Rural Victoria	7.1
Victoria	**7.2**

Victorian Population Health Survey 2014, DHHS 2016.

Avoidable Deaths

Loddon LGA recorded rates of avoidable deaths from ischaemic heart disease significantly higher the state average. Gannawarra rates were very similar to the state average.

Avoidable Deaths from ischemic heart disease, persons aged 0 to 74 years (2009 to 2013)

Location	Number	Rate in 100,000
Loddon	23	43.1
Gannawarra	15	21.1
Regional Victoria	1,955	26.1
Victoria	**5,643**	**21.9**

Public Health Information Development Unit- 2016 .

Hypertension

The proportion of the adult population diagnosed with high blood pressure was age-related, increasing with age to 58.2 per cent of people 85 years of age or older compared with 4.0 per cent of 18–24-year-old people. A significantly higher proportion of men and women 55 years of age or older within the Loddon and Gannawarra Shires were diagnosed with high blood pressure compared with all Victorian men and women.

These rates show a trend of increasing hypertension from data in 2011-13 where the Shires had a lower estimated rate of hypertensive disease per 100 population than the Victorian average. Public Health Information Development Unit- 2016.

Proportion (%) of adult population diagnosed with high blood pressure (2014)

Loddon	**32.9**
Gannawarra	28.4
Loddon Mallee	26.7
Victoria	**23.3**

Health Checks

Both Loddon and Gannawarra had higher proportions of health checks in comparison to Victoria, for blood pressure, and blood glucose checks in the two years preceding 2011-12. (VPHS 2011-12)While Gannawarra Shire has a higher than Victorian rate for Cholesterol checks, Loddon Shire has a significantly lower rate.

Self Reported Health Checks by age

Health check*	Loddon	Gannawarra	Victoria
Blood pressure checked in last two years	82.9	83.9	81.9
Cholesterol checked in last two years	53.3	64.8	60.4
Test for diabetes or blood glucose check in last two years	56.7	60.2	55.6

Source: VPHS 2011-12

HEART HEALTH: EVIDENCE SUMMARY

Ambulatory Care Sensitive Conditions

Heart disease conditions are amongst the top ten Ambulatory Care Sensitive Conditions in the Loddon and Gannawarra Shires resulting in hospital admissions. These include Angina and Congestive Heart Failure (CHF). In the Loddon Shire CHF is the 3rd highest reason for admission and Angina is 7th out of 10. Angina is 5th and CHF is 8th on the scale in the Gannawarra Shire. Across Victoria CHF rates 5th and Angina 8th for the number of admissions for Ambulatory Care Sensitive Conditions.

In Loddon Shire the CHF rate of admissions per 1000 people is significantly higher than both Gannawarra and Victoria while in Gannawarra Shire the rate of admissions for people with Angina is significantly higher than both Loddon and Victoria.

Top Ten ACSC Standardised# Admission Rates* by LGA (2014/15)

Loddon			Gannawarra			Victoria		
	No of admissions	Rate per 1000		No of admissions	Rate per 1000		No of admissions	Rate per 1000
COPD	53	4.21	Dental Conditions	50	5.98	Iron deficiency Anaemia	16173	2.74
Dental Conditions	23	3.7	Iron deficiency anaemia	73	5.63	Cellulitis	16071	2.72
Conjestive Heart Failure	45	3.53	COPD	61	3.46	Urinary Tract Infections	15831	2.66
Diabetes Complications	24	2.82	Cellulitis	42	3.09	Dental Conditions	15599	2.66
Urinary Tract Infections	24	2.8	Angina	48	2.73	**Conjestive Heart Failure**	**14849**	**2.46**
Ear, Nose and Throat infections	13	2.72	Urinary Tract Infections	30	2.68	COPD	14701	2.45
Cellulitis	26	2.7	Diabetes Complications	31	2.60	Diabetes Complications	10850	1.83
Angina	26	2.37	**Congestive Heart Failure**	**48**	**2.56**	**Angina**	**9204**	**1.54**

Victorian Health Information Surveillance System 2014/15 # Age standardised to Victorian population 2011 * Rate per 1,000 person

Indigenous Heart Health

Data specific to the Indigenous population of the Gannawarra and Loddon Shires was not possible to obtain for this Needs analysis. National and Victorian data will be drawn on to consider the health needs of the indigenous population.

Results of the 2012-13 Australian Aboriginal and Torres Strait Islander Health Survey Indicate that one in ten Indigenous persons living in Victoria has a heart or circulatory system problem. Results are not comparable to the Victorian Population Health Survey results due to different methodologies used.

About 1 in 8 Indigenous Australians reported having cardiovascular disease as a long-term condition in 2012–13. Indigenous people were 1.2 times as likely as non-Indigenous people to report having cardiovascular disease (based on age-standardised rates).

Indigenous Victorians- Heart and Circulatory Problems (2012-13)

	% Proportion of the population
Heart and circulatory problems/diseases Includes hypertensive disease; ischaemic heart diseases; other heart diseases; tachycardia; cerebrovascular diseases; oedema; diseases of the arteries, arterioles and capillaries; diseases of the veins, lymphatic vessels, etc.; other diseases of the circulatory system; and symptoms and signs involving the circulatory system	10.0
Hypertensive disease	2.3
Heart, stroke and vascular diseases** Includes ischaemic heart disease, stroke and other cerebrovascular disease, oedema, heart failure, and diseases of the arteries, arterioles and capillaries	4.1

Bendigo Loddon Primary Care Partnership Indigenous Population Health and Wellbeing Profile 2015

(Australian Aboriginal and Torres Strait Islander Health Survey, updated results, 2012-13, ABS June 2014)

Lifetime Prevalence of Heart Disease (Doctor Diagnosed) by Indigenous Status and Sex (2008)

	Indigenous	Non-indigenous
Males	13.2*	8.1
Females	6.1*	5.1
Total Persons	8.1*	6.5

Bendigo Loddon Primary Care Partnership Indigenous Population Health and Wellbeing Profile 2015

(The Health and Wellbeing of Aboriginal Victorians –

Victorian Population Health Survey 2008 Supplementary Report, DoH 2011)

* Estimate has a relative standard error of between 25 and 50 per cent and should be interpreted with caution.

HEART HEALTH: EVIDENCE SUMMARY

CEREBROVASCULAR DISEASE

Cerebrovascular Disease is a form of cardiovascular disease that affects blood flow and oxygen supply to the brain and can result in stroke.

Loddon and Gannawarra LGAs reported rates of self-reported doctor diagnosed stroke below the State average in 2011-12. It was also reported that a relative standard error between 25 and 50 per cent; point estimate (%) occurred and the results should be interpreted with caution, which indicates that actual levels may be higher than those shown in the data.

Lifetime Age standardised prevalence of self-reported doctor diagnosed stroke (2011-12)

	%
Loddon	1.3*
Gannawarra	1.3*
Victoria	**2.4**

Victorian Population Health Survey 2011-12, DoH 2014.
* RSE between 25 and 50 per cent; point estimate (%) should be interpreted with caution.

The number of avoidable deaths due to cerebrovascular disease in 2009-13 where not reported on for Loddon due to very low numbers. Gannawarra figures show a rate of 8.3 which is similar to the state average, and lower than the regional average for Victoria.

Avoidable Deaths at Ages 0 to 74 Years: Cerebrovascular Diseases (2009 to 2013)

	No.	Rate*
Loddon	#	..
Gannawarra	6	8.3
Regional Victoria	567	9.1
Victoria	**2,077**	**8.0**

Public Health Information Development Unit- 2016
*Average annual rate per 100,000 population.
#Number was not published in the source document as it was too small.

Rates of avoidable Deaths due to cerebrovascular diseases in the Gannawarra shire are slightly higher than state average.

Statistics collected on cerebrovascular disease rates across Loddon and Gannawarra are mostly subject to relative standard error rates between 25 and 50 per cent and should be interpreted with caution. The reported rates are low, as compared with state and regional figures, but due to this level of statistical error actual rates may be higher than reported levels.

SELF REPORTED CHOLESTEROL CHECKED IN THE PAST TWO YEARS 2011-12

Victoria	60.4%
Gannawarra	64.8%
Loddon	53.3%

HEART HEALTH: EVIDENCE SUMMARY

RISK FACTORS FOR HEART HEALTH

Risk Factors for Chronic Diseases are mostly the same with a different empahasis for each particular disease. The Risk factors present in high levels that contribute to poor heart health in Loddon Shire include high rates of food insecurity, low fruit and vegetable intake, high sugar sweetened beverage intake, insufficient physical activity levels, high proportion of pre-obese and obese residents and high smoking rates. Similarly in the Gannawarra Shire residents were at increased risk of poor heart health due to high rates of low fruit and vegetable intake, high sugar sweetened beverage intake, insufficient physical activity levels and a high proportion of pre-obese and obese residents.

In both Loddon and Gannawarra Shires risk factors that are present at levels that can decrease the risk of poor heart health, as compared to Victorian averages, are higher water consumption and occupational related physical activity and lower sedentary behaviour levels.

RISK FACTOR

Food Insecurity and Access

"Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. The four pillars of food security are availability, access, utilization and stability." Food and Agriculture Organization,2009.

Access to food (2011-12

	Ran out of food in the previous 12 months & couldn't afford to buy anymore	Stated reasons why people don't always have the quality or variety of foods they want:				
		Some foods are too expensive	Can't always get right quality	Can't always get right variety	Can't always get culturally appropriate	Inadequate and unreliable public transport
Loddon	7.2	29.0	35.9	24.5	4.2	14.9
Gannawarra	3.7*	17.8	24.4	13.3*	3.3*	4.1*
Loddon Mallee Region	7.7	24.5	25.1	11.1	3.2	7.5
Rural Victoria	6.1	22.8	23.4	8.8	3.7	6.5
Victoria	**4.6**	**21.3**	**19.8**	**9.3**	**4.2**	**5.8**

Victorian Population Health Survey (2011-12), Department of Health 2014 Data age standardised to the 2011 Victorian population
*VPHS states that this figure has a relative standard error of between 25 and 50 per cent and should be interpreted with caution

State-wide findings from the Victorian Population Health Survey also indicate that across Victoria:

- Females were slightly more likely than males to report running out of food in the previous 12 months (5.0% v's 4.2%)
- Males and females aged 18-24 years, followed by those aged 25-34 years, reported the highest rate of food insecurity compared to other age groups, and
- The most common reason stated for why people do not always have the quality or variety of foods they want was that 'Some foods are too expensive'.

RISK FACTOR

Nutrition – Inadequate Recommended Intake

Fruit and Vegetable Consumption

The Australian Dietary Guidelines 2013 recommend a minimum daily vegetable intake of five serves (75g per serve) for women, and six serves for men and a recommended minimum daily fruit intake of two serves (150g per serve) for persons aged 19 to 50 years who wish to achieve and maintain a healthy weight. These recommendations vary depending on age and sex.

According to the NHMRC recent survey results show that consumption of vegetables and legumes/beans in Australia is generally less than half that recommended for adults and children, to address this and meet the recommended consumption levels most adults would need to increase their daily intake of vegetables by more than 30%. NHMRC 2013.

The VicHealth Indicators Survey Healthy eating indicators were vegetable and fruit consumption. Results showed that Loddon residents ate an average of 2.3 serves of vegetables per day, which is similar to the Victorian average of 2.2. Loddon residents reported eating an average of 1.5 serves of fruit each day, which is similar to the Victorian average of 1.6.

Gannawarra residents ate an average of 2.4 serves of vegetables per day, which is similar to the Victorian average of 2.2. Gannawarra residents reported eating an average of 1.6 serves of fruit each day, which is the same as the Victorian average. VicHealth 2016

A slighly higher proportion of Loddon and residents aged 18 years and over met the vegetable consumption guidelines, compared to the Victorian average however the estimate has a relative standard error between 25 and 50 per cent and should be interpreted with caution. Gannawarra residents consumed vegetables at a level slightly lower than the state average. Significantly lower proportions of both Loddon and Gannawarra residents met the fruit consumption guidelines, compared to Victoria.

Daily Vegetable consumption, % Population Aged 18 Years and Over (2014)

	<1 serve/day	1-2 serve/day	3-4 serve/day	5+ serve/day
Loddon	3.5*	58.3	22.5	8.8*
Gannawarra	6.0*	51.5	27.8	7.1
Loddon Mallee Region	3.6	57.6	28.3	9.0
Rural Victoria	4.6	56.6	28.4	9.0
Victoria	**5.8**	**59.1**	**26.2**	**7.4**

Victorian Population Health Survey 2014, DHHS 2016. * Estimate has a relative standard error between 25 and 50 per cent and should be interpreted with caution.

HEART HEALTH: EVIDENCE SUMMARY

Daily Fruit consumption, % Population Aged 18 Years and Over (2014)

	<2 serves/day	2+ serves/day
Loddon	56.9	42.0
Gannawarra	61.0	38.2
Loddon Mallee Region	54.5	44.8
Rural Victoria	46.6	52.7
Victoria	**51.2**	**47.8**

Victorian Population Health Survey 2014, DHHS 2016.

State-wide findings from the Victorian Population Health Survey also indicate that across Victoria:

- Only 6.4% of adults met the recommended minimum daily intake for vegetables
- More males than females did not meet the vegetable intake guidelines
- 54.6% of persons aged ≥18 years did not meet the guidelines for fruit intake
- Females were more than three times as likely as males to meet vegetable intake guidelines
- More males than females did not meet the fruit intake guidelines

Sugar Sweetened Beverages

The 2014 Victorian Population Health Survey measured consumption of sugar-sweetened soft drinks. It found that Loddon and Gannawrras population aged 18 years and over were more likely to consume sugar-sweetened soft drinks each day than the state average. However the mean number of millilitres consumed each day by 'daily' consumers of sugar-sweetened soft drinks within Loddon and Gannawarra was lower than the regional, rural and Victorian figures, meaning those that consumed softdrink on a daily basis consumed less than those who drank soft drink on a daily basis in other lgas and regions across the state. Findings also indicate that males are over twice as likely to consume sugar-sweetened soft drinks daily than females.

Population who drink sugar-sweetened soft drink every day (2011-12)

	%	LGA Rank	Average no. of millilitres consumed each day
Loddon	24.6	5	540
Gannawarra	24.6	4	507
Loddon Mallee Region	19.1		670
Rural Victoria	18.8		649
Victoria	**15.8**		**596**

Victorian Population Health Survey 2011-12, DoH 2014.

Department of Health, LGA Profiles 2013

Daily Water Intake

The VicHealth Indicators Survey Healthy eating indicators also included water consumption. On average, Loddon residents drank 4.8 cups of water per day, similar to the Victorian average of 5.4. On average, Gannawarra residents drank 5.1 cups of water per day.

Victorian Population health Survey findings found that in 2011-12 compared to Victoria, Loddon Mallee Region and Regional Victoria averages Loddon and Gannawarra residents had a higher mean daily intake of water. VicHealth 2016

Mean daily water intake (litres per day) (2011-12)

	Mean litres
Loddon	1.41
Gannawarra	1.31
Loddon Mallee Region	1.25
Rural Victoria	1.24
Victoria	**1.25**

Victorian Population Health Survey 2011-12, DoH 2014.

INDIGENOUS DATA

Nutrition – Inadequate Recommended Intake

In Victoria, Indigenous males were much less likely to meet daily fruit intake guidelines when compared with Indigenous females. Between 2003 and 2013 the number of Indigenous Victorians who did not consume the recommended amount of fruit, as classified by the NHMRC Guidelines decreased however over 60% of the population are still not meeting guidelines. Vegetable intake figures show that almost 95% of the indigenous population of Victoria did not meet the NHMRC guidelines in 2013, an increase on 2003 figures.

Inadequate daily Fruit and Vegetable Intake – Indigenous Persons aged 15 years and older (2012 - 2013)

	Victoria
Inadequate daily fruit intake (2013 NHMRC Guidelines)*	62.0%
Inadequate daily fruit intake (2003 NHMRC Guidelines)*	64.9%
Inadequate daily vegetable intake (2013 NHMRC Guidelines) #	**94.7%**
Inadequate daily vegetable intake (2003 NHMRC Guidelines)#	93.3%

Australian Aboriginal and Torres Strait Islander Health Survey: Updated Results, 2012–13, Australian Bureau of Statistics 2014

(a) Persons aged 15 years and over.

*Includes people who did not eat fruit. # Includes people who did not eat vegetables.

HEART HEALTH: EVIDENCE SUMMARY

RISK FACTOR

Physical Inactivity

Physical Activity is a major modifiable risk factor for cardiovascular disease and general heart health. Australia's physical activity and sedentary behaviour guidelines (DoH 2014) states that to obtain health benefit physical activity requires participation in 150 or more minutes of moderate-intensity physical activity (such as walking) or 75 or more minutes of vigorous physical activity and doing muscle-strengthening activities on at least two days on a regular basis over one week. These national guidelines also recommend minimising the amount of time spent in prolonged sitting and to break up long periods of sitting as often as possible. DoH 2014

Definition of sufficient physical activity

Category	Age group (years)	
	18–64	65 or over
Sedentary	0 minutes of moderate or vigorous intensity physical activity and 0 muscle strengthening sessions each week	0 minutes
Insufficient	Less than 150 minutes of moderate intensity or 75 minutes of vigorous intensity physical activity, or an equivalent combination of both moderate and vigorous activities and/or less than 2 days muscle strengthening activities each week	Less than 30 minutes of moderate intensity physical activity every day
Sufficient	150 minutes of moderate intensity or 75 minutes of vigorous intensity physical activity, or an equivalent combination of both moderate and vigorous activities and muscle strengthening activities on at least 2 days each week	30 minutes of moderate intensity physical activity every day

Australia's physical activity and sedentary behaviour guidelines, Department of Health, 2014.

Lower proportions of the population of the Loddon and Ganawarra Shires were sedentary, as compared to the regional and state averages. However, a higher proportion had insufficient physical activity time, and in addidtion to this a lower proportion of the population had sufficient physical activity levels. Loddon and Ganawarra residents were much more likely to have occupations that involved physical activity such as walking and heavy labour.

Physical Inactivity, Population Aged 18 Years and Over (2014)

	Loddon	Gannawarra	Loddon Mallee	Victoria
Physical activity levels	%	%	%	%
Sedentary *	3.3	2.8*	2.7	**3.6**
Insufficient time and/or sessions	54.6	51.6	50.4	**50.4**
Sufficient time and sessions	39.1	40.5	41.3	**41.4**
Occupational physical activity				
Sitting	40.7	25.8	36.8	**49.6**
Standing	11.1**	19.2*	16.5	**18.4**
Walking	20.4*	28.9*	21.5	**16.0**
Mostly heavy labour or physically demanding work	18.2*	22.1	20.5	**12.8**

Victorian Population Health Survey 2011-12, DoH 2014. Excludes adults aged less than 19 years. *No physical activity time
** Estimate has a relative standard error between 25 and 50 per cent and should be interpreted with caution.

State-wide findings from the Victorian Population Health Survey also indicate that:

- Males (44.4%) were more likely than females (38.6%) to have sufficient physical activity
- Males aged 65-74 years had the highest incidence of sufficient physical activity
- Females aged 65-74 years had the highest incidence of sufficient physical activity out of all females
- Persons aged 55-64 years reported the lowest incidence of sufficient physical activity
- A higher proportion of women who lived in the metropolitan regions engaged in sedentary behaviour compared with their rural counterparts

The VicHealth Indicators Survey physical activity indicators were number of days of being physically active for at least half an hour (specifically, zero days = inactive; four or more days = adequately active), indicators of type of organised and non-organised physical activity, and an indicator for sedentary behaviour at work.

Compared to all Victorians (18.9%), a significantly larger proportion of Loddon (30.1%) and Gannawarra (26.2%) residents engaged in no physical activity during the week. A similar proportion of Loddon (36.1%) and Gannawarra (38.0%) residents engaged in physical activity four or more days per week compared with the Victorian estimate (41.3%). The three most popular non-organised physical activities in both Loddon and Gannawarra were walking, jogging or running, and cycling. VicHealth 2016

In 2012, compared to Victoria (32.6), Loddon (19.2) and Gannawarra (21.1) had much lower proportion of people who sit for more than 7 hours every day. Of the 78 Victorian LGAs, Loddon Shire ranked 74th and Gannawarra Shire ranked 67.

Population who sit for at least 7 hours every day (2012)

	%	LGA Rank (of 78)
Loddon	19.2	74
Gannawarra	21.1	67
Victoria	32.6	

Department of Health, LGA Profiles 2013.

In 2012, compared to Victoria Loddon and Gannawarra Shires had lower proportions of people who visit green space at least once per week. Of the 78 LGAs Loddon ranked 72 and Gannawarra ranked 69.

Population who visit green space at least once per week (2012)

	%	LGA Rank (of 78)
Loddon	37.8	72
Gannawarra	40.5	69
Victoria	50.7	

Department of Health, LGA Profiles 2013.

HEART HEALTH: EVIDENCE SUMMARY

RISK FACTOR

Body Weight

Victorian Population Health Survey 2014 collected data on pre-obseity and obesity rates as determined by BMI. In 2014, compared to Victoria, a higher proportion of Loddon males and females aged 18 years and over were obese. Obesity rates in the Gannawarra Shire were signifcantly higher than those in Loddon, and the state and regional averages. However, a significantly higher number of Loddon residents were pre-obese (overweight) compared to Gannawarra and the Victorian average.

Pre-obese and Obese (A) Population, Population Aged 18 Years and Over (2014)

	% Pre-obese	% Obese
Loddon	65.7	26.7
Gannawarra	40.0	45.4
Loddon Mallee	28.6	24.2
Rural Victoria	32.1	22.0
Victoria	**31.2**	**18.8**

Victorian Population Health Survey, 2014, DHHS 2016. (a) Determined by calculation of body mass index (BMI).

State-wide findings from the Victorian Population Health Survey also indicate that across Victoria:

- Rates of obesity are the same in males and females
- Obesity is most prevalent in the 45-64 years age cohort
- 31.2% of Victorian adults were categorised as pre-obese (overweight) according to their BMI
- Males and females living in rural areas are more likely to be obese than those living in metropolitan areas.

According to data from the Public Health Information Development Unit, compared to Victoria, Loddon and Gannawarra had a higher rate of males and females who were obese in 2012/13 however, the numbers of overweight people was similar to the state average. In both Loddon and Gannawarra shires, as with state trends, males are more likely to be overweight than females but females are more likely to be obese than males. Males in Loddon and Gannawarra have lower overweight rates than the state average but higher obesity rates. Females in Loddon and Gannawarra have higher rates for both overweight and obesity, as compared to the state average. PHIDU 2016

Overweight and Obese Persons #, 18 Years and Over (2011-13)

		Overweight (not obese)		Obese	
		No.	Rate per 100	No.	Rate per 100
Males	Loddon	1128	42.8	770	27.5
	Gannawarra	1473	43.0	972	27.1
	Regional Victoria	185,265	43.4	116,737	**26.7**
	Victoria	**757,200**	**43.4**	**424,996**	**24.5**
Females	Loddon	667	27.8	852	35.6
	Gannawarra	921	27.4	1019	30.5
	Regional Victoria	118,337	27.8	139,939	**32.9**
	Victoria	**465,820**	**27.3**	**463,992**	**27.2**

Public Health Information Development Unit – 2016 #Synthetic prediction

INDIGENOUS DATA

Body Weight

National figures from the Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) suggest that the proportion of Indigenous persons aged 15 years over who are obese has increased from 29% in 2004-05 to 37% in 2012-13. BLPCP Community Profile 2016

Body Weight Status of Indigenous Persons Aged 15 years and over Living in Victoria (2012/13)

	% of persons surveyed
Overweight	31.7%
Obese	34.1%
Overweight/obese	65.8%

Bendigo Loddon Primary Care Partnership Indigenous Population Health and Wellbeing Profile 2015

(Australian Aboriginal and Torres Strait Islander Health Survey, updated results, 2012-13, ABS June 2014)

* Measured BMI. Excludes people for whom height and/or weight were not measured (16.2% of Aboriginal and Torres Strait Islander people aged 15 years and over).

Body Weight Status, by Sex and Indigenous Status (2008)

	Body Weight Status	Indigenous	Non-Indigenous
		%	%
Males	Overweight	31.7	40.1
	Obese	27.1	17.2
Females	Overweight	29.5	24.3
	Obese	21.6	16.2

Bendigo Loddon Primary Care Partnership Indigenous Population Health and Wellbeing Profile 2015.

(The Health and Wellbeing of Aboriginal Victorians --- Victorian Population Health Survey 2008 Supplementary Report, DoH 2011).

Note: Data are age---standardised to the 2006 Victorian population.

HEART HEALTH: EVIDENCE SUMMARY

RISK FACTOR

Smoking

Smoking is a major risk factor for heart disease, especially when combined with other risk factors such as obesity and hypertension. The prevalence of current smoking in Victoria continues to decline in both men and women. According to the Victorian Population Health Survey 2014, compared to Victoria (13.1%), Loddon (23.0%) had a significantly higher proportion of population aged 18 years and over who were current smokers. In comparison, smoking prevalence in Gannawarra was much lower (12.0) however this data should be interpreted within caution due to a margin of relative standard error (25%-50%).

The data in the table below shows the smoking prevalence of those in the Loddon and Gannawarra shires in 2014 as compared to the broader Loddon Mallee region and Victoria.

Prevalence of Smoking (2014)

	% Current smoker	% Ex-smoker	% Non-smoker
Loddon	23.0	21.7	55.0
Gannawarra	12.0*	16.0	71.8
Loddon Mallee	16.0	20.5	63.0
Victoria	**13.1**	**24.8**	**61.5**

Victorian Population Health Survey, 2014, DHHS 2016.
Data were age-standardised to the 2011 Victorian population.
Estimates may not add to 100 per cent due to a proportion of 'don't know' or 'refused to say' responses, not reported here.
Relative standard error (RSE) = standard error/point estimate * 100; interpretation below:
* RSE between 25 and 50 per cent; point estimate (%) should be interpreted with caution.
** RSE greater than, or equal to 50 per cent; point estimate (%) is unreliable, hence not reported.

The Victorian Population Health Survey defines smokers as 'daily' or 'occasional' and combines the two to report on 'current smokers'. A person is categorised as an 'ex-smoker' if he/she has smoked at least 100 cigarettes or a similar amount of tobacco in their lifetime.[2] The data below shows the smoking frequency of those in the Loddon and Gannawarra shires in 2014 as compared to the broader Loddon Mallee region and Victoria.

Smoking Frequency (2014)

	Daily %	Occasional %
Loddon	20.1	**
Gannawarra	10.7*	1.3*
Loddon Mallee	12.6	2.4*
Victoria	**9.8**	**3.4**

Victorian Population Health Survey, 2014 , DHHS 2016.
Data were age-standardised to the 2011 Victorian population.
Estimates may not add to 100 per cent due to a proportion of 'don't know' or 'refused to say' responses, not reported here.
* RSE between 25 and 50 per cent; point estimate (%) should be interpreted with caution.
** RSE greater than, or equal to 50 per cent; point estimate (%) is unreliable, hence not reported.

State-wide findings from the 2014 Victorian Population Health Survey also indicate that across Victoria:

- Males aged 18 - 24 years were most likely to be current smokers, from all ages groups across both genders,
- Females aged 45-54 years were most likely to be current smokers, compared to other females, and
- The prevalence of current smokers declined by almost 40% (3.6% per year) between 2003 and 2014.

Compared to Victoria (13.1%), Loddon (23.0%) had a higher proportion of population aged 18 years and over who were current smokers. Both Loddon (20.1%) and Gannawarra (10.7%*) compared to Victoria (9.8%) had a higher frequency of daily smoking.

INDIGENOUS DATA

Smoking

"Tobacco use is a major preventable contributor to the gap in life expectancy between Aboriginal and Torres Strait Islander people and other Australians. Much of this difference is due to high rates of cardiovascular disease, respiratory disease and other diseases related to tobacco."

Bendigo Loddon Primary Care Partnership Indigenous Population Health and Wellbeing Profile 2015.
(Anti-tobacco programs for Aboriginal and Torres Strait Islander people, Resource sheet no. 4 produced for the Closing the Gap Clearinghouse, Rowena Ivers, January 2011) .

Results of the 2012-2013 Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) indicate a higher proportion of Victorian Indigenous persons that are current daily smokers (40.8%) compared to the 2008 Victorian Population Health Survey (VPHS) results for Indigenous population (30.4%). The 2008 VPHS results indicate that, across Victoria, Indigenous persons aged 18 years and over were significantly more likely to be smokers than non-Indigenous persons aged 18 years and over. The Indigenous female population had a particularly high prevalence of smokers and this figure was almost double the figure for non-Indigenous females.

CANCER: EVIDENCE SUMMARY

INTRODUCTION

Cancer is a diverse group of several hundred diseases in which some of the body's cells become abnormal and begin to multiply out of control. The abnormal cells can invade and damage the tissue around them, and spread to other parts of the body, causing further damage and eventually death. Despite a decline in cancer deaths and an increase in survival over time, cancer is still the second-most common cause of death in Australia—after cardiovascular diseases. Cancer has a significant impact on individuals, families and the health-care system and has had a prominent policy focus for decades. Cancer is the leading cause of mortality in Victoria and generates a high level of consumer concern. The care of cancer patients represents a significant proportion of all healthcare delivered in Victoria.

Across Victoria in the years between 1982 and 2014, the number of new cancer cases diagnosed more than doubled. This increase can be largely attributed to the rise in the incidence of prostate cancer, colorectal cancer, breast cancer in females and lung cancer. The increase can also be partly explained by the ageing and increasing size of the population, improved diagnoses through population health screening programs, and improvements in technologies and techniques used to identify and diagnose cancer.

Cancer outcomes differ by Aboriginal and Torres Strait Islander status and remoteness area. In 2008–2012, for all cancers combined, Indigenous Australians experienced higher mortality rates than non-Indigenous Australians. In 2005–2009, incidence rates were highest for those living in Inner regional areas of Australia; in 2008–2012, mortality rates were highest for those living in Very remote areas.

RECOMMENDATIONS

Prevention

Prevention focus on the modifiable Risk factors to:

- Develop campaign and strategies to reduce high smoking rates in Loddon
- Support increase in breast and cervical screening rates
- Highlight risks of alcohol use
- Reduce obesity in both men and women
- Increase physical activity
- Sun exposure

Recovery

- Consider Review of Cancer Survivorship Programs

Health System

- Consider review of access to Breast Care Nurse programs
- Capacity building for supportive care
- Linkages between services within and across sectors to provide a network of supportive care resources and services that are accessible and responsive to the needs of those affected by cancer.

GANNAWARRA AND LODDON CANCER DATA

LODDON SHIRE

Between 2010 and 2012, in Loddon, the 70 years and over age bracket had the highest proportion of cancer deaths, followed by the 50-69 years bracket. Males made up a larger proportion of all cancer deaths. Compared to Victoria, Loddon had a notably higher proportion of all cancer deaths in the 70 years and over age bracket, and had lower proportions of cancer deaths in the age brackets under 50 years of age. Note that data is not age standardised.

New Cases

Between 2010 and 2012 in Loddon, compared to the Victorian average, a greater proportion of all new cancer cases were cancers of the bowel, head and neck, lung, bladder, uterus and leukemia. The most common new cancer cases (of all cancers) were prostate and bowel, followed by lung and then breast. Compared to females, males had a higher number of new cancer cases for cancer of the bowel, lung, head and neck, kidney, lymphoma, melanoma, and leukaemia (and prostate cancer). Females had a higher number of new cancer cases for bladder cancer (and breast and uterine cancer). (as sourced from BLPCP Community Profile 2015).

Deaths

Between 2010 and 2012 in Loddon, compared to the Victorian average, a greater proportion of all cancer deaths were cancers of the lung, breast, and bladder. The most common cancers causing death (of all cancers) were lung, bowel and breast. Compared to females, males had a higher proportion of deaths from cancer of the bowel, head and neck, lung, bladder and melanoma (and prostate cancer). Females had a higher proportion of deaths from lymphoma and leukaemia (and breast and uterine cancers).

GANNAWARRA SHIRE

Comparitive data with Loddon Shire is not available for Gannawarra for the period 2010-2012. The data from 2008-2010 data shows that the Gannawarra population aged 0 - 74 years had a higher average annual rate of avoidable mortality from all cancers compared to Victoria. Within the region, Gannawarra had the highest rate.

New Cases

Between 2008 and 2010 in Gannawarra, compared to the Victorian average, a greater proportion of all new cancer cases were cancers of the bladder, bowel, brain and central nervous system, kidney, lung, and prostate. The most common new cancer cases (of all cancers) were prostate, followed by bowel and then lung. Males had a higher number of new cancer cases for cancer of the bowel, bladder, brain and central nervous system, lung, lymphoma, melanoma, pancreas, and prostate. Females had a higher number of new cancer cases for cancer of the breast.

Deaths

Between 2008 and 2010 in Gannawarra, compared to the Victorian average, a greater proportion of all cancer deaths were cancers of the bladder, bowel, brain and central nervous system, kidney, melanoma and prostate. The most common cancers causing death (of all cancers) were bowel, lung and prostate. Males had a higher number of deaths from cancer of the bladder, bowel, brain and central nervous system, kidney, lung, lymphoma, melanoma, pancreas and prostate. Females had a higher number of deaths from cancer of the breast.

CANCER: EVIDENCE SUMMARY

Cancer Prevalence

The prevalence of cancer in Victorians was 7.4 per cent in 2014. Although this was not significantly different between the sexes, there was an age-related increase in both males and females, with significantly higher prevalence observed in males and females 55 years or older compared with all Victorian males and females.

In Loddon Shire there was 5.8% of the population who were diagnosed with malignant cancer whilst in Gannawarra 7.2% were affected. (VPHS 2014)

Cancer incidence and mortality in Gannawarra and Loddon Shires, 2007-2011

During the period 2007-2011, there were on average 96 and 63 new cancers diagnosed each year in the Gannawarra and Loddon Shires respectively.

Total malignant cancers diagnosed each year

	Males	Females	Total no of cases	% of Victorian cases
Gannawarra	61	35	96	0.34%
Loddon	42	21	63	0.22%

Source: Cancer Council Victoria, statistics from the Victorian Cancer Registry.

Most common cancers

The most commonly occurring cancers for Loddon and Gannawarra Shires are both prostate, bowel, lung and breast cancer (refer to table below).

Gannawarra	Number of cases	% of Victorian cases in Gannawarra	Loddon	Number of cases	% of Victorian cases in Loddon
Prostate	**20**	**0.39%**	**Prostate**	**13**	**0.25%**
Bowel	15	0.41%	Bowel	9	0.24%
Lung	9	0.36%	Lung	6	0.24%
Breast	7	0.20%	Breast	6	0.17%
Melanoma	8	0.36%	Melanoma	Below 5	NA

Source: Cancer Council Victoria 2007-2011.

Summary of Cancer Incidence and Deaths in Three Years: 2010 - 2012

Cancer Measure	Category	Gannawarra	Loddon	Victoria
INCIDENCE (New diagnoses in 3 years 2010-2012)	Average new cancers per year	Only 2008-2010 data available)	63	**28,995**
	% Male		62%	**55%**
	% Female		38%	**45%**
	% under 40 years at diagnosis		2%	**7%**
	% aged over 70 years at diagnosis		50%	**44%**
MORTALITY (Deaths in 3 years 2010-2012)	Average cancer deaths per year		29	10,697
	% Male		60%	56%
	% Female		40%	44%
	% under 40 years at death		1%	2%
	% aged over 70 years at death		55%	66%

Cancer Council Victoria - Commissioned data May 2014.

Cancer deaths by sex and age (2010 – 2012)

Age in Years	Loddon						Victoria		
	Male		Female		Total		Male	Female	Total
	No	%	No	%	**No**	%	%	%	%
< 29	0	0%	0	**0%**	**0**	**0%**	**1%**	**1%**	**1%**
30-49	1	2%	2	**6%**	**3**	**3%**	**4%**	**6%**	**5%**
50-69	22	42%	14	41%	36	42%	29%	29%	29%
70 +	29	56%	18	53%	47	55%	66%	65%	66%
Total	52	100%	34	100%	86	100%	100%	100%	100%
%	60%		40%				56%	44%	

Victorian Cancer Registry – commissioned data 2014.

CANCER: EVIDENCE SUMMARY

BREAST CANCER SCREENING

The VPHS 2014 reports that a higher percentage of both Loddon and Gannawarra females aged 50 years or over had undertaken a mammogram when compared to Victoria and the Loddon Mallee region.

Percentage of females who had ever had a Mammogram

Area	% of Surveyed Women Aged 50-69 Years
Loddon	91.8
Gannawarra	95.2
Loddon Mallee Region	91.2
Victoria	**90**

Victorian Population Health Survey 2014. Data were age-standardised to the 2011 Victorian population.

State-wide findings from the Victorian Population Health Survey (2014) also indicate that across Victoria:

- In 2009-2013, there were 25,219 deaths from breast cancer
- Overall, 90 per cent of females 50–74 years of age had ever had a mammogram. The percentage of females 50–54 years of age who had ever had a mammogram was significantly lower compared with all Victorian females 50–74 years.

CERVICAL CANCER

The 2014 Victorian Population Health Survey collected information about participation in pap smear tests and this is based on self-reported information from the survey respondents. Largely reflecting the Victorian Cervical Cytology statistics, the VPHS results indicate that, compared to Victorian averages, Gannawarra females had a lower participation rate while Loddon women were reported as significantly lower in their participation.

Had a Pap Smear*in The Past Two Years 2014

Area	% of cervical cancer screening
Loddon	48.6%
Gannawarra	**71.2%**
Loddon Mallee Region	**72.7**
Victoria	**72.1**

Victorian Population Health Survey 2014.

BOWEL CANCER CHECKS

Compared to Victoria and rural Victoria averages, a significantly higher percentage of Gannawarra and Loddon residents returned the faecal occult blood test (FOBT) than Victoria .

Completed and returned the NBCSP FOBT kit for testing, by LGA in Loddon Mallee Region, Victoria, 2014

Area	Completed and Returned FOBT kit	Did not Complete and Returned FOBT kit
Loddon	67.1	32.0
Gannawarra	60.6	39.4
Victoria	**59.9**	**39.4**

Victorian Population Health Survey 2014.

CANCER: EVIDENCE SUMMARY

POLICY REVIEW

The Cancer Australia Act 2006

Cancer Australia is a statutory agency within the health portfolio, established under the Cancer Australia Act 2006, to reduce the impact of cancer for all Australians. It provides strategic leadership in cancer care by bringing together key cancer organisations and aims to lessen the divide in outcomes for groups of people who have poorer than average survival rates or cancer experiences, including Aboriginal and Torres Strait Islander peoples, people living in rural and regional areas, people from culturally and linguistically diverse backgrounds, and people from low socioeconomic backgrounds.

The Cancer Australia Act 2006 (Part 2, Section 7) specifies the following functions for Cancer Australia:

a) To provide national leadership in cancer control

b) To guide scientific improvements to cancer prevention, treatment and care

c) To coordinate and liaise between the wide range of groups and health care providers with an interest in cancer

d) To make recommendations to the Commonwealth Government about cancer policy and priorities

e) To oversee a dedicated budget for research into cancer

f) To assist with the implementation of Commonwealth Government policies and programs in cancer control

g) To provide financial assistance, out of money appropriated by the Parliament, for research mentioned

h) In paragraph (e) and for the implementation of policies and programs mentioned in paragraph

i) Any functions that the Minister, by writing, directs Cancer Australia to perform.

National Aboriginal and Torres Strait Islander Cancer Framework

The National Aboriginal and Torres Strait Islander Cancer Framework (the Framework) provides high-level guidance and direction for the many individuals, communities, organisations and governments whose combined efforts are required to address disparities and improve cancer outcomes for Aboriginal and Torres Strait Islander peoples.

The National Tobacco Strategy 2012–2018 is a policy framework for the Australian Government, and State and Territory Governments to work with non-government agencies to reduce the burden of tobacco-related harm in Australia. The goal of the strategy is to improve the health of Australians though reducing the smoking rate, and the health, social and financial costs associated with tobacco use. (IGCD 2012)http://wiki.cancer.org.au/policy/Tobacco_control/Policy_context..

Occupational Cancer

In Australia there are a number of government agencies and structures in place for development and implementation of policy addressing occupational cancer risk, including:

- Safe Work Australia;
- National Industrial Chemical Notification and Assessment Scheme, within the Federal Department of Health;
- Cancer Australia, which has links with the International Agency for Research on Cancer;
- Australian Pesticides and Veterinary Medicines Authority; and
- Jurisdictional work safety agencies.

Primary Health Networks

Primary Health Networks (PHNs) have been established with the key objectives of increasing the efficiency and effectiveness of medical services for patients, particularly those at risk of poor health outcomes, and improving coordination of care to ensure patients receive the right care in the right place at the right time. The Government has agreed to six key priorities for targeted work by PHNs. These are mental health, Aboriginal and Torres Strait Islander health, population health, health workforce, eHealth and aged care. Cancer Prevention is a national performance indicator for PHNs.

VICTORIAN CONTEXT

Improving Cancer Outcomes Act 2014

The Improving Cancer Outcomes Act 2014 (the Act) supports the government's overall strategy for cancer control and strengthens our ability to respond to scientific, technological and policy developments in cancer. The Act establishes a modern, flexible and principles-based legislative framework that provides for the collection, use and disclosure of cancer and cancer screening information. For the first time the Act requires the preparation of a regular four-yearly Cancer Plan, providing an essential strategic policy framework for cancer in Victoria.

The Act repeals the Cancer Act 1958 and addresses the issues and barriers that existed within the previous legislation. It also provides for the transition of the Cancer Council of Victoria to a more modern governance structure.

In summary, the Act:

- Articulates the role and functions of the Secretary with respect to cancer
- Authorises the collection of information relating to cancer
- Establishes a framework for the appropriate management use and disclosure of the information
- Requires the preparation of a Cancer Plan every four years
- Provides for the registration of Cancer Council Victoria as a company
- Repeals the Cancer Act 1958.

Victoria's cancer action plan 2008–2011

Released in December 2008, Victoria's cancer action plan was developed to provide policy leadership and common goals for government, health services, research institutes, peak bodies, health professionals and consumer organisations working in the cancer control arena in Victoria. The Improving Cancer Outcomes

Act requires the preparation of a cancer plan every four years. The next plan is due to be released by October 2016.

Linking Cancer Care: Cancer care coordination policy

The purpose of this policy is to:

- identify strategic directions for cancer care coordination in Victoria;
- promote the development and implementation of activities and initiatives that facilitate the coordination of cancer care at one or more levels of the health and community care system.

Victorian Cancer Screening Regulations

On 1 October 2015 new regulations come into effect to provide for the continued notification of screening tests and cancer diagnoses to cancer registries. The new regulations are:

- Improving Cancer Outcomes (Diagnosis Reporting) Regulations 2015; and
- Improving Cancer Outcomes (Screening Reporting) Regulations 2015.

Providing optimal cancer care: Supportive care policy for Victoria

The purpose of this policy is to promote:

- A strategic, population-based, person-centred approach to the provision and enhancement of supportive care for all Victorians affected by cancer;
- Capacity building for supportive care;
- Efficient and effective use of supportive care resources to meet the needs of those affected by cancer;
- Linkages between services within and across sectors to provide a network of supportive care resources and services that are accessible and responsive to the needs of those affected by cancer.

Integrated Cancer Services

Victoria's Integrated Cancer Services (ICS) are the Victorian Cancer Clinical Network and comprise clusters of hospitals and associated health services that deliver services for people with all types of cancers within a geographic area. Services include public hospitals, community-based services, general practitioners and other primary health organisations, private hospitals and supportive care services. The role of the ICS is to build relationships, implement best practice models of care, improve the effectiveness of cancer care and monitor systems and processes to improve performance.

- Loddon Mallee ICS - http://www.lmics.org.au/
- Paediatric ICS - http://www.pics.org.au/

CANCER: EVIDENCE SUMMARY

Victorian Solarium Regulations

The Victorian solarium industry has been regulated since 2008. From January 2015, the Victorian Government banned commercial tanning units in Victoria.

CLINICAL GUIDELINES

The Cancer services framework for Victoria recommended that tumour streams be developed to reduce unwanted variation in practice. Optimal care pathways (OCPs, formerly 'patient management frameworks') were developed to provide a consistent statewide approach to care management in each tumour stream and are intended to improve patient outcomes. The OCPs were revised during 2015 and are currently available on the Victorian Government Department of Health and Human Services website.

Optimal care pathways:

- Provide a clear description of the care pathway, identifying the critical points along that pathway and the optimal model of care;
- Set out the key requirements for providing optimal care;
- Guide the patient journey to ensure patients with cancer and their families receive optimal care and support.

The OCPs have been developed in collaboration with a wide range of practitioners, consumers and carers. Wherever possible, they are based on current best practice, including clinical guidelines, care pathways, standards and research. In many cases, however, they are a statement of consensus regarding currently accepted approaches to optimal treatment.

As a guide, the OCPs are to be followed subject to the health professional's independent medical judgment and the patient's preference in each individual case.

Preventable Risk Factors

Around one third of all cancer deaths in Australia are caused by modifiable risk factors, which are predominantly lifestyle-related. Tobacco smoking is the highest preventable risk factor, attributable for around 20% of all cancer deaths in Australia. The combined and individual effects of obesity/overweight, physical inactivity and poor nutrition are also important cancer risk factors, along with alcohol consumption and exposure to ultraviolet radiation and occupational carcinogens (cancer-causing agents).

Smoking

Comprehensive epidemiological studies over many years have established a clear link between tobacco smoking and a number of cancer types. There are over 60 known carcinogens in cigarette smoke, the most important of which are polycyclic aromatic hydrocarbons, N-nitrosamines, aromatic amines, 1,3-butadiene, benzene, aldehydes, and ethylene oxide due to their carcinogenicity and levels[3]. Smoking has been identified as a risk factor for 16 cancer types: lung, oral cavity, pharynx, oesophagus, stomach, bowel, liver, pancreas, nasal cavity and paranasal sinuses, larynx, uterine cervix, ovary, urinary bladder, kidney, ureter and bone marrow (myeloid leukaemia)[4]. There is limited evidence for a link between tobacco smoking and breast cancer[4]. Smoking and alcohol together have a synergistic effect on upper gastrointestinal and aero-digestive cancer risk, meaning the combined effects exceed the risk from either alone[20]. It has been estimated that over 75% of cancers of the upper aero-digestive tract in developed countries can be attributed to this effect.

Obesity

The links between body mass, nutrition, physical activity and cancer causation are complex, because each risk factor has a direct impact on cancer risk but the risk factors can also combine. It can be difficult to separate these combined effects. For example, poor nutrition contributes to overweight and obesity, which are independent cancer risk factors. In addition, inadequate consumption of fresh fruit and vegetables can increase cancer risk directly, as these healthy food choices can help to protect against some cancers. In the same way, physical inactivity contributes to overweight and obesity, and can also be a direct cancer risk factor, even in people who are not overweight.

Sun exposure

The major cause of melanoma and NMSC is UV radiation exposure[1]. Childhood and adolescent sun exposure is thought to be important in determining the lifetime potential for skin cancer. Adult exposure appears to contribute to the extent to which this potential is realised. The exact exposure needed to develop various skin cancers is not entirely clear. It is likely that both episodic and cumulative exposures are important; episodic exposures have been shown to more strongly determine the risk of melanoma. Based on a review of recalled sun exposure by period of life in studies of melanoma, the relative risk of melanoma with a history of childhood sunburn has been estimated to be 1.8, while for sunburn in adulthood it is 1.5[2].

Alcohol

In 1988 the International Agency for Research on Cancer classed alcohol as a Group 1 carcinogen (the highest IARC classification) for cancers of the mouth, pharynx, larynx, oesophagus and liver[1]. Cancer risk is increased because of the ethanol in alcohol, irrespective of the type of alcoholic beverage[2]. Ethanol, the chemical in alcoholic beverages that induces the physical and mental responses experienced with alcohol use, is also a Group 1 carcinogen[3]. Alcohol use and cancer have a dose-response relationship; the more alcohol consumed over time, the higher the risk. The relationship is not a straight line, but shows upward curvature at higher drinking levels over time; the relationship appears to be consistent for women and men[4].

Occupational

The association between occupation and cancer has been known for centuries and in some instances this link has lead to the identification of carcinogens. In Australia, mesothelioma caused by asbestos exposure is probably the best known occupational cancer. In terms of occupational exposure, the most common carcinogens are estimated to be solar UV radiation, diesel engine exhaust, second-hand tobacco smoke, benzene, lead and silica.

CANCER: EVIDENCE SUMMARY

EVIDENCE BASED STRATEGIES/ INTERVENTION EVIDENCE

Protection and Prevention

Interventions targeting preventable risk factors:

- Smoking
- Alcohol
- Obesity
- Sun Exposure
- Occupational Cancers

Illness Prevention

Australia currently has three population screening programs for cancer which meet the World Health Organization criteria including breast, cervical and bowel. There is currently insufficient evidence for screening for prostate cancer and melanoma.

Cervical Cancer immunisation & screening

In 2006 the TGA approved the quadrivalent HPV vaccine Gardasil for use in women aged 9–26 years and males aged 9–15 years. The national Human Papillomavirus (HPV) vaccination program began in 2007 and is an Australian, State and Territory Government initiative. The Program provides the HPV vaccine free of charge to eligible children to protect against the most common types of HPV infection that can lead to HPV-related cancer and disease The TGA subsequently approved extension of the age ranges, up to 45 years for females and up to 26 years for males. The bivalent vaccine Cervarix was approved by the TGA in 2007 and is registered for use in women aged 10–45 years.

The National Cervical Screening Program. (NCSP) was implemented in 1991 as a joint initiative of the Australian, State and Territory Governments. The national policy for Australia's NCSP guidelines for screening state:

- Routine screening with Pap smears should be carried out every two years for women who have no symptoms or history suggestive of cervical pathology.
- All women who have ever been sexually active should start having Pap smears between the ages of 18 and 20 years, or one or two years after first having sexual intercourse, whichever is later.
- Pap smears may cease at the age of 70 years for women who have had two normal Pap smears within the last five years. Women over 70 years who have never had a Pap smear, or who request a Pap smear, should be screened.
- Women with abnormal Pap test results are managed in accordance with the National Health and Medical Research Council guidelines.

The Australian Government has now accepted the evidence based recommendations of the Medical Services Advisory Committee (MSAC) that a primary human papillomavirus (HP) test should replace the current Pap test for cervical screening. This will ensure Australian women will have access to a cervical screening program that is safe, effective, efficient and based on current evidence.

The renewed National Cervical Screening Program will commence on 1 May 2017 when the HPV screening test will become available on the Medicare Benefits Schedule and the National Cancer.

Breast screening & risk assessment

BreastScreen Australia invites women aged 50-74 to have free two-yearly mammogram. Women aged 40-49 and 75 and over are eligible to receive free mammograms but do not receive an invitation to attend.

There are a number of validated computerised breast cancer risk assessment tools that estimate an individual woman's breast cancer risk based on her personal risk factors:

- The IBIS tool available at <www.ems-trials.org/riskevaluator/>
- The Cancer Australia tool available at < http://canceraustralia.gov.au/affected-cancer/cancer- types/breast-cancer/your-risk/calculate>
- The Cancer Australia Familial Risk Assessment tool available at <http://canceraustralia.gov.au/affected-cancer/cancer-types/breast-cancer/your-

Bowel Cancer Screening

The National Bowel Cancer Screening Program (NBCSP) aims to reduce illness and death from bowel cancer by offering people over the age of 50 a free screening test to complete in the privacy of their own home. The NBCSP is currently inviting men and women turning 50, 55, 60, 64, 65, 70, 72 and 74 to screen for bowel cancer. Participants are sent a free, easy to use screening kit that can be completed at home.

Between 2015 and 2020, more age groups will be added to the screening program:

- 2017 – 68, 58 and 54 year olds
- 2018 - 62 and 66 year olds
- People aged 52 and 56 will be included from 2019 to 2020.

Screening - Lung

No form of population screening has been shown to improve lung cancer outcomes (Cancer Australia 2012). Low-dose CT lung cancer screening may reduce lung cancer mortality but is not considered ready for a national screening program.

Screening – Prostate

There is no population screening program for Prostate cancer. GP's may routinely undertake the following assessments based on the age and risk profile of a client. Digital Rectal Examination (DRE) involves the doctor inserting a gloved finger into the rectum to feel the prostate gland. Some abnormality may be felt, but it is not possible to feel the entire prostate or a small cancer. A tumour that is out of reach of the finger may be missed. The PSA test measures the level of PSA in your blood. It does not specifically test for cancer. Virtually all PSA is produced by the prostate gland. The normal range depends on your age. A PSA above the typical range may indicate the possibility of prostate cancer. However, two thirds of cases of elevated PSA are due to non-cancerous conditions such as prostatitis and BPH. If either of these tests suggest an abnormality, other tests are necessary to confirm a diagnosis of prostate cancer, usually a trans-rectal ultrasound (TRUS) and biopsy.

CANCER TREATMENT OPTIONS

The communities of Loddon and Gannawarra Shire have variable access to cancer treatment options. For most patients accessing treatment will require travel and or accommodation in either Melbourne or Bendigo to access imaging, surgical procedures and radiation therapy services. This inevitably has a cost and health impact for the patient and carer. Currently there is an opportunity for some patients to access Chemotherapy and low risk surgery at Kerang District Health.

As is outlined in the Summary of Gaps Identified within the Loddon and Gannawarra Shires (Section 5) there are particular gaps in consistency and coverage by Breast Care Nurses and a lack of Stoma nurses. Transport options to access treatment are a significant barrier to access.

Imaging

including mammography; Ultrasound; CT scan; FDG PET;MRI.

Surgery

Chemotherapy or drug therapy

Care Coordination

In the context of cancer, care coordination encompasses multiple aspects of care delivery including multidisciplinary team meetings, supportive care screening/ assessment, referral practices, data collection, development of common protocols, information provision and individual clinical treatment.

Multidisciplinary cancer care

Multidisciplinary care (MDC) is considered best practice in the treatment planning and care for patients with cancer. MDC is an integrated team approach to health care in which medical and allied health care professionals consider all relevant treatment options and collaboratively develop an individual treatment and care plan for each patient. MDC involves all relevant health professionals discussing options and making joint decisions about treatment and supportive care plans, taking into account the personal preferences of the patient.

McGrath Specialist Breast Care Nurses

The Commonwealth-supported McGrath Foundation breast care nurses are trained, registered nurses who provide information, care, and practical and emotional support to women diagnosed with breast cancer, their families and carers.

Telehealth

Research and clinical trials

CANCER: EVIDENCE SUMMARY

Supportive Care

Many localservices provide this care within their program and funding capacity. A significant gap identified through the local needs analysis was the role of coordinator of care to access treatment and follow up treatment options and referrals ensuring access to existing services

Supportive care in cancer refers to the following five domains:

- Physical needs
- Ppsychological needs
- Social needs
- Information needs
- Spiritual needs.

Referral to an appropriate health professional(s) and/ or organisation(s) should be considered.including:

- Community-based support services (such as Cancer Council Victoria)
- Peer support groups (contact the Cancer Council on 13 11 20 or Breast Cancer Network Australia on 1800 500 258 for more information)
- A nurse practitioner and/or specialist nurse
- A psychologist or psychiatrist
- A social worker
- A dietitian
- An exercise physiologist
- A genetic counsellor
- An occupational therapist
- A physiotherapist
- Specialist palliative care.

Rehabilitation

Rehabilitation may be required at any point of the care pathway from preparing for treatment through to disease-free survival and palliative care.

Issues that may need to be addressed include managing cancer-related fatigue, cognitive changes, mood disturbances, improving physical endurance, achieving independence in daily tasks, returning to work and ongoing adjustment to disease and its sequelae.

Survivorship

Many cancer survivors experience persisting side effects at the end of treatment. Emotional and psychological issues include distress, anxiety, depression, cognitive changes and fear of cancer recurrence. Late effects may occur months or years later and are dependent on the type of cancer treatment. Survivors may experience altered relationships and may encounter practical issues including difficulties with return to work or study, and financial hardship.

Survivorship care

Survivorship care, as defined by the Institute of Medicine (USA), is 'the phase of care that follows primary treatment for cancer'. Survivorship care is a complex area that encompasses: transitioning patients off active treatment; providing support for rehabilitation and return to work; planning for disease-specific and treatment-related follow-up; and providing psychosocial and community-based support.

Collaborative models of care

The Victorian Cancer Survivorship Program (VCSP) was established in 2011 to help develop innovative models of follow-up care and to address the needs of survivors following treatment. In its first phase (2011–14) the focus of the VCSP was on trialling collaborative models of care across acute and primary/ community care sectors. Six pilot projects were funded and evaluated for effectiveness, acceptability, sustainability and transferability. The VCSP pilot projects sought to: improve our understanding of the specific survivorship care needs of different groups; to develop resources tailored to survivors' and health professionals' needs; and to inform future survivorship care in Victoria. From 2015, three of the pilot projects have been supporting a select number of cancer services across Victoria to implement their models of care.

The Victorian Cancer Survivorship Program phase II grants closed February 2016.

End of Life

Palliative care

Early referral to palliative care can improve quality of life and in some cases survival. Referral should be based on need, not prognosis. Ensure that an advance care plan is in place.

HAD A PAP SMEAR IN THE PAST TWO YEARS 2014

MENTAL HEALTH: EVIDENCE SUMMARY

INTRODUCTION

Mental health' is often used as a substitute term for mental health conditions – such as depression, anxiety, schizophrenia, and others. According to the World Health Organization, however, mental health is "a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community." World Health Organization, 2012

Mental health disorders constitute 10 per cent of the global burden of disease. In Australia, one in five will experience a mental health disorder at some stage in their lifetime. The human, social and economic consequences of mental health disorders and illness are increasingly being recognised, as are the limitations of spending more resources on treatment and medical services only.

Three key determinants found in the literature that are indisputably linked to mental health and well-being are social inclusion (supportive relationships, involvement in community and group activity; and civic engagement); freedom from discrimination and violence (valuing diversity, physical security, self-determination and control of one's life); and access to economic resources (work, education, housing, money). There is also strong evidence supporting the effectiveness of interventions and activities in a wide range of areas which can be successful in the promotion of mental health.

Primary health care is the first point of call for most people living in Australia with a mental health concern, and it is the point in the system where most care is delivered. In recent years, mental health treatment has moved to recovery-oriented mental health practice to ensure that mental health services are being delivered in a way that supports the recovery of mental health consumers, beyond management of symptoms. This has been supported by an updated Victorian Mental Health Act (2014) and a national review of mental health programmes and services which was completed April 2015.

RECOMMENDATIONS

Prevention

Identify place-based strategies within the VicHealth identified four areas of action to promote mental health and wellbeing including:

- Arts and social connection;
- Preventing violence against women;
- Reducing race-based discrimination; and
- Young people and resilience.

Early Intervention

- Consider early intervention and self –management strategies development across primary care system
- Review access to and promotion of mental health services available across the lifespan to community members

Recovery

- Better service coordination to support client/patient transition between acute care and community mental health support services

Health System

- Focus on social inclusion of all community members through health service and community leadership and resourcing
- Review access to and promotion of mental health services available to referring health and community service practitioners particularly General practitioners
- Develop place–based pathways for response to acute mental health episode and supported recovery
- Consider review of capacity and promotion of Alcohol and Drug Service systems to meet local needs
- Review access to and promotion of family violence services available to community members. Increase health services' capacity to identify and respond to family violence through awareness, training and resourcing

MENTAL HEALTH: EVIDENCE SUMMARY

LODDON AND GANNAWARRA MENTAL HEALTH DATA

Mental Health and Wellbeing

The 2015 VicHealth Indicators Survey results found that according to the indicators measured, the level of resilience, and indicators of neighbourhood connection and trust, both Loddon and Gannawarra had higher levels of mental wellbeing compared to the Victorian average. However other data around mental health indicators indicate that the number of admissions for mental health related conditions in Loddon and Gannawarra Shires are higher than state average while hospital separations are lower.

Mental and behavioural problems

Overall rates of mental and behavioural problems in Gannawarra are equivalent with the Victorian average with Loddon at a higher rate.

Mental Health Clients

Mental health clients who were Loddon or Gannawarra residents, were both present at higher levels compared to state averages, especially in the aged and children client groups.

Mental Health Care Plans

In 2009/10, compared to the regional Victoria and Victoria average, Loddon and Gannawarra all had a lower rate of mental health care plans per 100,000 population that had been prepared by GPs through the Better Access Program.

Depression and Anxiety

The lifetime prevalence of depression or anxiety in Loddon and Gannawarra shires have been recorded as being lower than the state average.

Psychological distress

Compared to Victoria, Loddon and Ganawarra had similar rates of population that had high or very psychological distress levels.

Suicide and self-inflicted injuries

In both Loddon and Ganawarra emergency department Presentations - Intentional Self Harm were lower than the state average however Gannawarra had a higher average annual rate of avoidable deaths attributed to suicide and self-inflicted injuries.

Substance Abuse and Alcohol Consumption

Generally alcohol consumption and associated risks in the Loddon and Gannawarra Shires were present at levels similar to the Victorian averages. However, both Loddon and Gannawarra residents were more likely to be involved in an alcohol-related family violence incident. Loddon and Ganawarra residents were less likely, compared to the Victorian figures, to have been involved in an illicit drug related assault or injury with very few emergency presentations, hospitalizations, ambulance attendances and deaths being recorded due to illicit drug use.

Racism

A recent Victorian study found of 800 Aboriginal people surveyed nearly all participants reported at least one racist incident within the preceding 12-months. Participants also indicated that racism was most commonly experienced in shops and public spaces and nearly one third of participants reported experiencing racism within health settings. (Kelaher, M. 2014).

Family Violence

Family Violence rates within Loddon were recorded at levels that were lower or similar to those of the state average however in the neighboring LGAs of Central Goldfields and Campaspe the reported rates of Family Violence are very high., Gannawarra data shows levels much higher than those of the state averages.

Mental Wellbeing

The VicHealth Indicators Survey mental wellbeing indicators included level of resilience, and indicators of neighbourhood connection and trust. The results of this survey showed that Loddon residents reported an average resilience score of 6.8 out of 8. Similarly, Gannawarra residents reported an average resilience score of 6.6 out of 8. This is higher than the Victorian average resilience score of 6.4. The proportion of Loddon (90.1%) and Gannawarra (86.3%) residents who agreed that people in their neighbourhood are willing to help each other out were significantly more than the Victorian estimate (74.1%). Four in five (80.5%) Loddon residents felt that they live in a close-knit neighbourhood, compared to just over eight out of 10 (83.4%) Gannawarra residents, both of which are significantly more than the Victorian estimate (61.0%). A significantly larger proportion of Loddon (82.9%) and Gannawarra (83.5%) residents agreed that people in their neighbourhood can be trusted compared to the proportion of Victorians who agreed (71.9%). VicHealth Indicators Survey 2015 Results LGA Profiles

Public hospital admission rates (per 100,000) for mental health related conditions in 2012/13 in Loddon (1334.2) and Gannawarra (961.6) were both significantly higher than rates in regional Victoria. When compared to Victoria rates, Public Hospital admission rates for mental health related conditions were significantly higher in both Gannawarra and Loddon Shires with Loddon at almost double the Victorian rate.

Admissions for mental health related conditions, persons - Public hospitals (2012/13)

	Number	Rate in 100,000
Loddon	102	1334.2
Gannawarra	101	961.6
Regional Victoria	10,854	792.2
Victoria	**40,673**	**715.8**

Public Health Information Development Unit- 2016.

Hospital Separations

In 2010/11, hospital separations rates for mental diseases and disorders for residents in Loddon and Gannawarra were lower than the figure for all of Victoria.

Hospital Separations for Mental Diseases and Disorders per population (2010/11)

	Loddon		Gannawarra		Victoria
	No.	% of all admissions	No.	% of all admissions	% of all admissions
2010/11	**56**	**0.7%**	**108**	**0.9%**	**1.12%**

Source: Victorian Admitted Episode Dataset (VAED) 2006/07 and 2010/11 (Public and Private Hospital files) – commissioned data.

MENTAL HEALTH: EVIDENCE SUMMARY

Intentional Self Harm

Emergency Department Presentations

In 2010/11 just over 0.3% of all emergency department presentations for Loddon residents were for injuries that had been classified as intentional self harm. This figure was lower than the Victorian average.

The Victorian Episode Minimum Dataset (VEMD) for 2010/11 indicated that the number and proportion of presentations classified as intentional self-harm (out of all ED presentations) for Loddon residents increased slightly but was also lower than the Victorian figure. For the same time period emergency department presentations classified as intentional self- harm in Gannawarra were less than five and therefore could not be published.

Emergency Department Presentations - Intentional Self Harm (2010/11)

	Loddon		Victoria
	No.	% of all admissions	% of all admissions
2010/11	6	0.33%	0.43%

Source: VEMD 2010/11 (Public Hospitals only) commissioned data from Dept of Health.

Deaths

Between 2009 and 2013, compared to the regional Victoria and Victoria average, Gannawarra had a higher average annual rate of avoidable deaths attributed to suicide and self-inflicted injuries. No data was recorded for avoidable deaths from suicide and other self-inflicted injuries for Loddon.

Avoidable Deaths from suicide and other self-inflicted injuries, persons aged 0 to 74 years (2009 to 2013)

Location	Number	Rate in 100,000
Loddon	#	..
Gannawarra	**6**	**13.1**
Regional Victoria	**739**	**11.9**
Victoria	**2,453**	**9.4**

Public Health Information Development Unit- 2016

Self Assessed Mental and Behavioural Problems

Estimates of mental and behavioural problems and mood problems were undertaken in 2016 by the Public Health Information Development Unit. In 2011-13, compared to Victoria and Regional Victoria males from Loddon and Gannawarra were more likely to report a mental or behavioural problem. Females in Loddon reported very high levels of mental or behavioural problems matching that of Rural Victorian rates. Overall rates in Gannawarra are equivalent with the Victorian average with Loddon at a higher rate.

Estimated population with Mental and Behavioural Problems (2011-13)

	Males		Females		Persons	
Location	**Number**	**Rate in 100**	**Number**	**Rate in 100**	**Number**	**Rate in 100**
Loddon	504	12.6	613	16.6	1,118	14.4
Gannawarra	640	12.0	714	13.8	1,353	12.8
Regional Victoria	82,111	12.0	109,671	16.0	191,782	14.0
Victoria	**296,800**	**10.8**	**410,739**	**14.6**	**707,539**	**12.7**

Public Health Information Development Unit – 2016.

Psychological Distress Levels

The 2014 National Health Survey included a measure of psychological distress: the Kessler 10 Psychological Distress Scale (K10). The scale categorises levels of psychological distress and has been validated as a simple measure of anxiety, depression and worry. Based on their score, individuals are categorised as having low, moderate, high or very high levels of psychological distress.

In 2011-13, compared to regional Victoria, Loddon Shire had a slightly lower rate of the population reporting high or very psychological distress levels. Within the Gannawarra Shire rates of high or very psychological distress levels were slightly above the state average, however rates for both LGAs were lower than the regional Victorian average.

High or Very High Psychological Distress Levels (K-10), ≥18 yrs (2011-13)

Location	Number	Rate in 100
Loddon	615	10.6
Gannawarra	916	11.6
Regional Victoria	125,161	12.1
Victoria	**493,410**	**11.4**

Public Health Information Development Unit – 2016.
Figures for psychological distress very high Loddon and High Gannawarra had relative standard error of above 50 per cent and were therefore not recorded.

According to the Victorian Population Health Survey 2014 data collected on levels of psychological distress within the adult population of the Loddon and Gannawarra shires showed a lower proportion of residents with high/very levels of psychological distress compared to regional Victoria and Victorian averages. However it is indicated that these figures contain relative standard error between 25 and 50 per cent; point estimate (%) should be interpreted with caution. Missing figures indicate data collected had a 50 per cent or higher relative standard error, making it unreliable.

Proportion (%) of adult population with psychological distress a (2014)

Location	Low (K10:<16)	Moderate (K10:16-21)	High (K10:22-29)	Very High (K10:30+)	High/very high (K10:22+)
Loddon	59.9	27.1	3.8	**	7.9*
Gannawarra	**70.0**	**16.9**	**	1.1*	11.5*
Loddon Mallee	**63.0**	**20.3**	8.9	3.0	12.0
Regional Victoria	**62.2**	**21.4**	9.1	3.9	13.1
Victoria	61.3	22.4	8.8	3.9	12.6

Victorian Population Health Survey 2014.
Data were age-standardised to the 2011 Victorian population.
* RSE between 25 and 50 per cent; point estimate (%) should be interpreted with caution. ** RSE greater than, or equal to 50 per cent; point estimate (%) is unreliable, hence not reported. a Based on the Kessler 10 scale for psychological distress.

MENTAL HEALTH: EVIDENCE SUMMARY

Lifetime prevalence of depression and anxiety

Respondents were asked if they had ever been diagnosed with depression or anxiety by a doctor. This is a measure of the lifetime prevalence of these two disorders and does not necessarily mean that the respondent was experiencing symptoms at the time of interview.

Lifetime prevalence of depression and anxiety were higher in rural areas and females, reflected in the proportion of rural Victorian and Loddon Mallee region residents who had ever been diagnosed with depression or anxiety by a doctor. Loddon and Gannawarra prevalence of depression or anxiety is lower than the state average however Gannawarra figures contain relative standard error between 25 and 50 per cent; point estimate (%) should be interpreted with caution.

Lifetime prevalence of depression and anxiety (2014)

Area	Males	Females	Persons
Loddon	-	-	21.7
Gannawarra	-	-	19.5*
Loddon Mallee Region	19.2	32.7	25.8
Rural Victoria	22.1	35.4	28.7
Victoria	**18.1**	**30.1**	**24.2**

Victorian Population Health Survey 2014.

Significantly lower than average rates of people sought professional help for mental health related problem in 12 months prior to the survey in Gannawarra.

Sought professional help for mental health related problem in 12 months prior to the survey (2011-12)

Area	Persons
Loddon	13.6
Gannawarra	**7.8**
Loddon Mallee Region	13.5
Rural Victoria	13.2
Victoria	**12.4**

Victorian Population Health Survey 2011-12.

State-wide findings from the Victorian Population Health Survey also indicate that across Victoria:

- Females had higher rates of moderate, high and very high levels of psychological distress compared with males
- Males and females aged 18-24 years had the highest rates of high level psychological distress, compared to other age groups, and
- Males and females aged 65 years and over had the lowest rates of high or very high level psychological distress, compared to other age groups.

Mental Health Client Figures

The following table sets out the number and proportion of residents, by LGA of residence, who are registered as clients with a mental health service in the Victorian public mental health client information management system.

In 2010/11, there were 113 mental health clients who were Loddon residents, representing 1.4% of the 2010 estimated resident population. In Gannawarra there were 141 mental health clients representing 1.21% of the 2010 estimated resident population. Compared to the Victorian percentage of population total figure of 1.10 both Loddon and Gannawarra had higher percentage rates especially in the Aged and Children client groups.

Mental Health Clients by LGA and Type of Service (2010/11)

		Loddon	Gannawarra	Victoria
	2010 est. population	**8,047**	**11,617**	**5,545,932**
ADULT	No. Clients	76	103	**44,663**
	% of 2010 est. pop.	0.9%	0.89%	**0.80%**
AGED	No. Clients	22	19	**7,961**
	% of 2010 est. pop.	0.3%	0.16%	**0.10%**
CAMHS*	No. Clients	14	19	**7,835**
	% of 2010 est. pop.	0.2%	0.16%	**0.10%**
FORENSIC	No. Clients	<5	-	**621**
	% of 2010 est. pop.	-	0.0%	**0.01%**
SPECIALIST	No. Clients	0	-	**543**
	% of 2010 est. pop.	0.0%	0.0%	**0.00%**
TOTAL	No. Clients	113	141	**61,623**
	% of 2010 est. pop.	1.4%	1.21%	**1.10%**

Source: Case Files 2010 - 11, MH&DD, DoH. * CAMHS = Child and adolescent mental health services.

Mental Health Care Plans

The Commonwealth Better Access initiative aims to provide better access to mental health practitioners through Medicare. It aims to increase community access to mental health professionals and team-based mental health care, by encouraging general practitioners to work more closely and collaboratively with psychiatrists, clinical psychologists, registered psychologists and appropriately trained social workers and occupational therapists.

In 2009/10, compared to the regional Victoria and Victoria average, Loddon – north and South SLAs and Gannawarra all had a lower rate of mental health care plans per 100,000 population that had been prepared by GPs through the Better Access Program. Access to the Program is dependent upon referral from a General Practitioner. It is important to note that a high rate of mental health care plans prepared does not necessarily translate to a high rate of mental illness in that population and the reverse is also true.

Better Access Program - Preparation of Mental Health Care Plan by GPs (2009/10)

Statistical Local Area	No.	Rate*
Loddon - North	103	3,412.6
Loddon - South	289	6,510.8
Gannawarra	592	5,478.2
Regional Victoria	124,700	8,838.4
Victoria	**498,786**	**9,030.3**

Public Health Information Development Unit – 2011 Compiled by PHIDU using data from the Department of Health and Ageing, 2009/10; and ABS Estimated Resident Population, average of 30 June 2009 and 30 June 2010. *per 100,000 population

MENTAL HEALTH: EVIDENCE SUMMARY

SUBSTANCE ABUSE AND ALCOHOL CONSUMPTION

2015 The VicHealth Indicators Survey

Risk and attitudes

The VicHealth Indicators Survey alcohol indicators included risk of short-term harm from alcohol consumption (five drinks or more on a single occasion), very high risk of short-term harm from alcohol consumption (11 or more drinks on a single occasion) and respondents' attitude towards getting drunk to the point of losing balance.

Thirty-two per cent of Loddon residents and three in 10 (30.2%) of Gannawarra residents were identified as being at risk of short-term harm from alcohol in a given month, similar to the Victorian estimate (29.4%).

Compared to all Victorians, a similar proportion of Loddon and Gannawarra residents were identified as being at very high risk of short-term harm each month (Loddon= 6.7%, Gannawarra= 11.6%, Victoria = 9.2%).

Just over one in five residents living in Loddon (20.8%) and Gannawarra (22.0%) agreed that getting drunk every now and then is okay. This is slightly lower than to the proportion of Victorians who agreed (27.9%).

VicHealth Indicators Survey 2015 Results LGA Profiles

2014 Victorian Population Health Survey

Alcohol Consumption

Regular, excessive consumption of alcohol over time places people at increased risk of chronic ill health and premature death, and episodes of heavy drinking may place the drinker (and others) at risk of injury or death. The consequences of heavy, regular use of alcohol may include cirrhosis of the liver, cognitive impairment, heart and blood disorders, ulcers, cancers and damage to the pancreas. Victorian Population Health Survey 2011-12

Excessive consumption of alcohol also has wide-reaching consequences on families, communities, workplaces and the economy. Economic impacts include costs to government health and welfare systems and industry through factors such as crime and violence, treatment costs, loss of productivity and premature death.

The 2009 Australian Guidelines: to Reduce Health Risks from Drinking Alcohol were used for the 2014 Victorian Population Health Survey. The guidelines identified two main patterns of drinking behaviour as creating a risk to an individual's health:

1. excessive alcohol intake on a particular occasion; and,

2. consistent high-level intake over months and years.

Risk of alcohol-related injury on a single occasion

On a single occasion of drinking, the risk of alcohol-related injury increases with the amount consumed. The 2009 Australian alcohol guidelines indicate that people who drink no more than four standard drinks on any on a single occasion are at less risk of alcohol-related injury arising from that occasion. Victorian Population Health Survey 2014, Department of Health 2016.

In 2014, Loddon had a lower proportion of population that had consumed alcohol at risky or high risk levels for health in the short term compared to the Victoria and regional Victoria average. Gannawarra figures show that a much lower proportion of residents consumed alcohol at risky or high risk levels for health in the short term compared to the Victoria and regional Victoria average. Data was not collected at LGA level by sex only total persons.

Proportion (%) of the adult population at risk of alcohol-related injury on a single occasion* (2014)

	Males	Females	Persons
Loddon	-	-	41.0
Gannawarra	-	-	29.3
Loddon Mallee Region	53.1	39.4	45.3
Regional Victoria	61.4	34.8	47.8
Victoria	**54.7**	**30.9**	**42.5**

Victorian Population Health Survey 2011-12, Department of Health 2014. *Includes those who consumed alcohol at risky or high risk levels weekly, monthly or yearly.

State-wide findings from the Victorian Population Health Survey also indicate that across Victoria:

- Males are more likely than females to consume alcohol at levels which put them at risk of alcohol-related injury on a single occasion – particularly on a weekly basis
- Males and females aged 18-24 years were most likely to consume alcohol at levels that put the, at risk of alcohol-related injury on a single occasion

The 2014 Victorian Population Health Survey did not provide the frequency of risk/high risk alcohol consumption for health in the short term by LGA. However, the Loddon Mallee region as a whole had a higher proportion of the population at increased risk of alcohol-related injury on a single occasion by frequency.

Proportion (%) of the adult population at increased risk of alcohol-related injury on a single occasion by frequency (2014)

	At least yearly	At least monthly	At least weekly
Loddon Mallee	22.7	10.9	11.7
Rural Victoria	23.5	13.5	10.8
Victoria	**22.3**	**11.6**	**8.6**

Victorian Population Health Survey 2014, Department of Health 2016.

MENTAL HEALTH: EVIDENCE SUMMARY

Life-time risk of alcohol consumption-related harm

Based on the 2009 guidelines, for healthy men and women, drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury.

Lifetime risk of alcohol-related harm attempts to measure the risk associated with developing an illness such as cirrhosis of the liver, dementia, other cognitive problems, various cancers and alcohol dependence.

There was a significantly higher proportion of men and women 35–44 years of age at 'increased lifetime risk' of alcohol-related harm compared with all Victorian men and women, respectively. There was also a significantly higher proportion of women and adults 18–24 years of age at 'increased risk' of alcohol-related harm in the lifetime compared with all Victorian women and adults, respectively. The proportion at 'increased risk' of alcohol-related harm was significantly higher among men compared with women in every age group except 18–24 years age group.

Victorian Population Health Survey 2014.

State-wide findings from the Victorian Population Health Survey also indicate that across Victoria:

- Males and females aged 18-24 were most likely to be consuming alcohol monthly or more frequently at above short-term risk levels, and
- Males aged 45-54 years and females aged 25-34 years were most likely to be consuming alcohol at high risk levels for long term alcohol-related harm.

Drug and Alcohol Clients

In 2012, Loddon (7.3) had a higher rate of residents that had received treatment from drug and alcohol treatment services in that year, compared to Victoria (5.8). Gannawarra data showed that in the same year, drug and Alcohol Clients per 1,000 people were the highest in the state (17.7). Figures refer to the number of individuals and not the completed courses of treatment.

Drug and Alcohol Clients per 1,000 Population (2012)

Loddon	Gannawarra	Loddon Mallee	Victoria
7.3	17.7	10.9	11.7
LGA Rank 24	LGA Rank 1	LGA Region Rank 2	

2012 Local Government Area Statistical Profiles, DoH 2013.

Hospital Separations for Drug or Alcohol Problems

In 2010/11, there were 13 hospital separations for Loddon residents who had alcohol-related conditions or injuries (not necessarily as the major diagnostic category) and this figure made up 0.4% of all separations and in Gannawarra Shire 27 (0.49%) residents who had alcohol-related conditions or injuries. Compared to Victoria, Loddon had a slightly lower proportion of separations for residents who had alcohol-related conditions or injuries and the Gannawarra rate was the same as the Victorian average.

There were 16 hospital separations for Loddon residents and 23 for Gannawarra residents who had a drug-related condition or injury (not necessarily as the major diagnostic category) and this figure made up 0.4% of all separations for residents. Compared to Victoria, there was a slightly higher proportion of separations for Loddon and Gannawarra residents who had a drug-related condition or injury.

Note: Figures include both separations where alcohol or drug consumption was the primary diagnosis and admissions where alcohol or drug consumption was considered relevant to the primary diagnosis (e.g. intoxicated person falling out of a tree and breaking a leg).

People Treated for Alcohol or Drug Problem During Episode of Care (2010/11)

	Loddon		Gannawarra		Victoria	
	No.	% of all admissions	No.	% of all admissions	No.	% of all admissions
Alcohol problem	13	0.4%	27	0.5 (0.49)%	11,889	0.49
Drug problem	16	0.4%	23	0.4 (0.42)%	9,012	0.37

Source: Victorian Admitted Episode Dataset (VAED) 2010/11 (Public and Private Hospital files).

Alcohol Related Harm

In 2012/13, Loddon residents were more likely, compared to the Victorian figures, to have been involved in an alcohol-related family violence incident, hospitalisation or death and Gannawarra residents were more likely to have been involved in an alcohol-related family violence incident.

Alcohol-related Assault and Injuries (2012/13)

	Assault		Family Violence incidents		Serious road injury		Emergency Presentations		Hospitalisations		Ambulance Attendance		Deaths	
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	
Loddon	5	6	31	37	<5	N/A	5	6.6	45	59.8	19	25.5	6	8
Gannawarra	10	9.1	39	40.5	<5	N/A	<5	N/A	46	44.3	23	22.3	<5	N/A
Loddon Mallee Region averages	56.5	17.1	122.6	37.2	10	2.1	47.7	10.9	120.4	43.6	97.6	28.7	8.6	3.3
Victoria	**7,352**	**13.1**	**12,297**	**15.8**	**985**	**1.7**	**7,744**	**13.8**	**26,444**	**47**	**19,760**	**34.4**	**819**	**1.5**

Turning Point Alcohol and Drug Centre - 2016 * per 10,000 people .

MENTAL HEALTH: EVIDENCE SUMMARY

Illicit Drugs

In 2013/14, Loddon and Ganawarra residents were less likely, compared to the Victorian figures, to have been involved in an illicit drug related assault or injury with very few emergency presentations, hospitalizations, ambulance attendances and deaths being recorded due to illicit drug use.

Turning Point Alcohol and Drug Centre reported ambulance attendances specifcally for crystal methamphetamine in Gannawarra at 29 in 2013/14 (rate of 2.1 per 10,000) which is lower than the state average rate of 2.7, however these Gannawarra figures are much higher than those of all other shires in the Loddon Mallee region. Turning Point 2016

Illicit Drug related Assault and Injuries (2013/14)

	Emergency Presentations		Hospitalisations		Ambulance Attendance		Deaths	
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*
Loddon	0	0	<5	N/A	<5	N/A	0	0
Gannawarra	<5	N/A	8	7.7	<5	N/A	0	0
Loddon Mallee Region averages	6.2	0.85	48.6	12.3	29.9	7.8	0	0.04
Victoria	**1206**	**2.1**	**8083**	**14.4**	**7015**	**12.2**	**66**	**0.12**

Turning Point Alcohol and Drug Centre - 2016 * per 10,000 people .

Family Violence

Violence against women occurs on a continuum from psychological, economic and emotional abuse through to physical and sexual violence. It is the biggest contributor to ill health and premature death in women aged 15–44.

Family Violence is defined in the Victoria Police Code of Practice for Investigation of Family Violence in accordance with the Family Violence Protection Act (2008). Family violence is defined as any behaviour that in any way controls or dominates a family member and causes them to feel fear for their own, or other family members' safety or well-being. It includes violent, threatening, coercive or controlling behaviour that occurs in current or former family, domestic or intimate relationships.

Family means any family or family-like relationship, including current and former intimate partners, relatives, child/parent, same-sex partners and carers. In its statistical reports, Victoria Police use the term Family Incident while the Victorian Family Violence Database (which uses Victoria Police data) uses the term Family Violence Incident. These terms refer to the same incidents (as defined above). Please note that the figures are for any family incidents attended by Victoria Police and may or may not involve violence and may not result in charges being laid.

The following data sets out figures for family incidents that were reported to Victoria Police in 2009/10. The Crime Statistics Agency - which is responsible for processing, analysing and publishing Victorian crime statistics - defines a family incident as: "An incident attended by Victoria Police where a Risk Assessment and Risk Management Report (also known as an L17 form) was completed. The report is completed when family violence incidents, interfamilial-related sexual offences, and child abuse are reported to police." BLPCP 2015.

Between 2009/10 and 2012/13 the rate of reported family incidents per 100,000 population increased markedly in Loddon and Gannawarra, and similarly across the state. In 2012/13 the Gannawarra rate was higher than the Victorian average, while the rate in Loddon was lower. The rate of reported family incidents where charges were laid and/or where an IVO (intervention order) was higher than the state average in both LGAs, significantly more so in Gannawarra. BLPCP 2015 & SMPCP 2013.

Note: Changes to legislation, and the manner in which family incidents are investigated and reported by Victoria Police, are a known contributing factor to increasing rates of reported family incidents. Time trend rates should be interpreted with caution.

Reported family incidents rates*(2009/10)

	Family Incidents	Where Charges Laid	Where IVO was applied for
Loddon	408.2	197.2	111.3
Gannawarra	796.8	308.4	239.9
Victoria	**641.1**	**168.3**	**105.0**

Reported family incident reports - rates per 100,000 population, Victoria Police Corporate Statistics 2013. *per 100,000 population.

MENTAL HEALTH: EVIDENCE SUMMARY

POLICY REVIEW:

National Context

National Health Priority Areas

The National Health Priority Areas (NHPAs) are diseases and conditions that Australian governments have chosen for focused attention because they contribute significantly to the burden of illness and injury in the Australian community. Mental Health is one of the nine priorities identified in the initiative which is overseen by the National Health Priority Action Council (NHPAC).

Mental Health Reform

On 16 April 2015 the Australian Government released the Final Report of the national Review of Mental Health Programmes and Services - Contributing Lives, Thriving Communities - undertaken by the National Mental Health Commission. The Australian Government released its response to the review in November 2015, outlining a system-level change in the Australian Government's role in mental health funding and reform.

It lists nine, interconnected, concrete areas of reform:

- Locally planned and commissioned mental health services through Primary Health Networks (PHNs) and the establishment of a flexible primary mental health care funding pool
- A new easy to access digital mental health gateway
- Refocusing primary mental health care programmes and services to support a stepped care model
- Joined up support for child mental health
- An integrated and equitable approach to youth mental health
- Integrating Aboriginal and Torres Strait Islander mental health and social and emotional wellbeing services
- A renewed approach to suicide prevention
- Improving services and coordination of care for people with severe and complex mental illness
- National leadership in mental health reform

Primary Health Networks

Primary Health Networks (PHNs) have been established with the key objectives of increasing the efficiency and effectiveness of medical services for patients, particularly those at risk of poor health outcomes, and improving coordination of care to ensure patients receive the right care in the right place at the right time. The Government has agreed to six key priorities for targeted work by PHNs. These are mental health, Aboriginal and Torres Strait Islander health, population health, health workforce, eHealth and aged care. Murray PHN is providing the Partners in Recovery Project Program to support people with long-term and severe mental health issues.

Better Access to Psychiatrists, Psychologists and General Practitioners

The purpose of the Better Access initiative is to improve treatment and management of mental illness within the community. The Better Access initiative is increasing community access to mental health professionals and team-based mental health care, with general practitioners encouraged to work more closely and collaboratively with psychiatrists, clinical psychologists, registered psychologists and appropriately trained social workers and occupational therapists. Under the Better Access initiative MBS items provide Medicare benefits for the these mental health services.

Mental Health Services in Rural and Remote Areas (MHSRRA)

The MHSRRA programme provides rural and remote areas with more allied and nursing mental health services. MHSRRA provides funding to non-government health organisations such as Primary Health Networks, Aboriginal Medical Services and the Royal Flying Doctor Service to deliver mental health services by social workers, psychologists, occupational therapists, mental health nurses, Aboriginal health workers and Aboriginal mental health workers in rural and remote communities that would otherwise have little or no access to mental health services, including in areas where access to Medicare-subsidised mental health services is low.

Rural Health Outreach Fund (RHOF)

The RHOF supports appropriate outreach health activities to address health issues identified in regional, rural and remote locations, including through improved coordination and combination of health activities.

Under the RHOF the following four health priorities are specifically addressed:

- Maternity and paediatric health;
- Eye health;
- Mental health; and
- Support for chronic disease management.

Victorian Context:

The Mental Health Act

The Mental Health Act 2014 came into effect on 1 July 2014. It delivers major reforms to Victoria's mental health system, placing people with a mental illness at the centre of their treatment, care and recovery.

The Act promotes supported decision-making and encourages strong communication between health practitioners, consumers, their families and carers. It supports people with a mental illness to make and participate in treatment decisions and to have their views and preferences considered and respected.

Victorian Public Health and Wellbeing plan 2015-2019

Improving mental health is one of the priorities included in the Victorian public health and wellbeing plan 2015-2019.

The plan identifies the following strategic directions for improving mental health in Victoria:

- Enhance and develop strategies to promote mental health and wellbeing and reduce current high levels of psychological distress
- Increase the intensity of targeted action for those who experience greater social and economic disadvantage
- Specifically consider and support the social and emotional wellbeing of Aboriginal Victorians
- Invest in early identification and intervention with vulnerable children and families
- Focus on promoting wellbeing and preventing suicide in at-risk populations including Aboriginal Victorians, young Victorians and those living in low socioeconomic areas.

Koolin Balit – Aboriginal Health Strategy

Koolin Balit is the Victorian Government's strategic directions for Aboriginal health over the next 10 years. A significant strategy of Koolin Balit is to improve accessibility to culturally appropriate mental health support and services for Aboriginal Victorians.

Victorian Royal Commission into Family Violence

The Royal Commission has provided practical recommendations to prevent and address family violence, based on an examination of the current service system and best practice approaches. The Victorian Government has committed to implementing each of the Family Violence Royal Commission Report recommendations.

MENTAL HEALTH: EVIDENCE SUMMARY

"Ending Family Violence: Victoria's Plan for Change"

The Victorian Government has released a 10-year plan to end family violence. Ending family violence: Victoria's plan for change details how the government will deliver the 227 recommendations made by Australia's first Royal Commission into Family Violence and build a new system that supports families and strengthens victims' protection from perpetrators.

Under the plan the government will:

- Establish a network of support and safety hubs across Victoria, where victim survivors can access the support they need to stay safe
- Recruit new specialist family violence workers to support women and their children access services they need to stay safe and get back on their feet
- Invest in social housing and private rental assistance
- Strengthen intervention orders, tighten up the bail process, and allow for the better sharing of information so victims' safety is better protected
- Provide specialist training to Victoria Police officers who play a critical role in responding to family violence
- Upgrade courts to provide greater security for victim survivors
- Initiate a primary prevention strategy, alongside a statewide behavioural change campaign, to help stop family violence happening in the first place.

To implement these reforms a number of new bodies will be created:

- A coordination agency to oversee the operation of the support and safety hubs
- A prevention agency with dedicated funding focusing on providing advice on best practice
- A centre for workforce excellence to build the strongest possible workforce.

The Victorian Centre for Data Insights will change the way that government collects information and will build new capabilities to analyse data to protect families at risk.

Alongside this plan is a 10 year Plan to work with the Indigenous community to address Family Violence issues.

Clinical Standards:

The 2010 National standards for mental health services (the standards) provide a framework for quality mental health care that is recovery focused, consumer and carer centric, integrated and evidenced based.

The standards apply to Victorian mental health services – public, private and non-government – and services that deliver mental health care in community and primary care settings.

Principles of the national standards

The standards use the following principles of care:

- Mental health services should promote optimal quality of life.
- Services are delivered with the aim of facilitating sustained recovery.
- Consumers should be involved, as far as possible, in all decisions of treatment and care, and their treatment and setting.
- Consumers have the right to have a nominated carer involved in all aspects of care.
- Role, needs, capacity and requirement of carers are recognised.
- Participation of consumers and carers in development, planning, delivery and evaluation of mental health services is encouraged.
- Mental health treatment, care and support should be tailored to meet the specific needs of the consumer.
- Mental health treatment, care and support should impose the least personal restrictions on rights and choices of the consumer.

Risk Factors

Depression and Anxiety:

While we don't know exactly what causes depression or anxiety, a number of things are often linked to its development. Depression usually results from a combination of recent events and other longer-term or personal factors, rather than one immediate issue or event.

- Life events
- Personal factors such as Family history, personality traits, serious medical illness, drug and alcohol use, life circumstances
- Ongoing stressful events
- Physical health problems
- Substance use

Factors affecting Aboriginal and Torres Strait Islanders:

While there are risk and protective factors such as housing, employment and education that affect everyone, there are also specific risk and protective factors that have a high impact on the social emotional wellbeing and rates of depression among Aboriginal and Torres Strait Islander people.

Protective factors among Aboriginal and Torres Strait Islander communities enable people to feel strong and resilient.

These factors include:

- Social connectedness and sense of belonging
- Connection to land, culture, spirituality and ancestry
- Living on or near traditional lands
- Self-determination
- Community governance
- Passing on of cultural practices.

Significant risk factors that impact on the social emotional wellbeing of Aboriginal and Torres Strait Islander communities include:

- Widespread grief and loss
- Impacts of the Stolen Generations and removal of children
- Unresolved trauma
- Separation from culture and identity issues
- Discrimination based on race or culture
- Economic and social disadvantage
- Physical health problems
- Incarceration
- Violence
- Substance misuse.

An additional, important risk factor is the experience of racial discrimination. Over half (56 per cent) of Aboriginal and Torres Strait Islander people who experience discrimination report feelings of psychological distress (AIHW, 2011).

Evidence based strategies/ Intervention evidence:

Protection and Health Promotion:

VicHealth have identified four areas of action to promote mental health and wellbeing. They include:

- Arts and social connection;
- Preventing violence against women;
- Reducing race-based discrimination; and
- Young people and resilience.

The following provides a summary of evidence - based strategies, from the World Health Organisation, which have been found to improve mental health, enhance resilience and reduce the risk for mental illness:

- Improving nutrition
- Improving housing
- Improving access to education
- Reducing economic insecurity
- Strengthening community networks
- Reducing the harm from addictive substances (such as through taxation, reduced availability, reduced use during pregnancy)
- Intervening after disasters
- Preventing violence
- Promoting a healthy start in life (such as prenatal and infancy home visiting programs, and parenting interventions)
- Reducing child abuse and neglect (such as home-based interventions and self-defence strategies for children)
- Coping with parental mental illness
- Enhancing resilience and reducing risk behaviours in schools (e.g. Reach Foundation Programs)
- Dealing with family disruption
- Intervening in the workplace
- Supporting refugees
- Mentally healthy ageing (such as exercise, social support, early screening in primary care, depression and suicide prevention interventions) WHO, 2004.

RESPIRATORY HEALTH: EVIDENCE SUMMARY

INTRODUCTION

Respiratory Health encompasses a range of conditions that affect the airways and lungs, such as the Asthma and chronic obstructive pulmonary disease (COPD). According to the Australian Institute of Health and Welfare, 1 in 10 Australians, over 2 million people, are affected by asthma, and in 2016 more than one in 20 Australians aged 55 and over have COPD (5.7%), based on self-reported data this equates to 310,700 people.

In 2013 COPD was the fifth leading cause of death in Australia, causing 6,462 people deaths from COPD in the year (4.4% of all deaths). AIHW, 2016.

The burden of respiratory diseases affects individuals and their families, schools, workplaces, and communities.

In the majority of cases COPD is caused by exposure to cigarette smoke. In addition, other environmental exposures, such as those in the workplace, may cause COPD. Genetic factors can strongly influence the development of the disease.

RECOMMENDATIONS

Prevention

- Promote respiratory health through better prevention strategies such as QUIT
- Promote respiratory health through greater community awareness of asthma
- Target Loddon Shire for development of a campaign and strategies to reduce high smoking rates

Early Intervention

- Ensure best practice school community education about Asthma and emergency response
- Campaign to support individual Asthma plan for each person
- Promote respiratory health through better early detection, education and treatment

Treatment

- Promote respiratory health through better early detection, education and treatment

LODDON GANNAWARRA RESPIRATORY HEALTH DATA

Overall respiratory health in the Loddon Shire is lower than the state average, with Loddon Shire recording higher rates of Asthma, COPD and respiratory diseases as a whole. The respiratory health of the people in the Gannawarra Shire is also lower than the state average, evidenced by higher rates of Asthma, COPD and respiratory diseases than the state average.

Both Loddon and Gannawarra had significantly higher avoidable death rates related to respiratory health than regional Victorian and state averages.

Indigenous respiratory health within Victoria is below that of non-indigenous Victorians, with Indigenous Victorians much more likely to have respiratory related diseases or chronic conditions such as asthma.

Asthma

In 2011/12, the Victorian Population Health Survey showed a higher overall prevalence of Asthma in Loddon Shire than regional Victoria and Victoria. Asthma prevalence in Gannawarra was lower than the state average and the same as the regional Victorian prevalence. The prevalence of asthma in females was higher than that in males.

Prevalence of current asthma (2011-12)

	% Males	% Females	% Persons
Loddon	7.6*	17.0	12.4
Gannawarra	7.8*	13.9*	10.6
Loddon Mallee	8.7	12.8	10.6
Victoria	**9.4**	**12.4**	**10.9**

Victorian Population Health Survey 2011-12, DOH 2014.

* Estimate has a relative standard error between 25 and 50 per cent and should be interpreted with caution.

Chronic Obstructive Pulmonary Disease (COPD)

In 2012/13, Regional Victoria including both Loddon and Gannawarra Shires had a slightly higher estimated rate of respiratory system diseases, asthma and COPD per 100 population than Victorian rates.

Respiratory System Diseases# (2011 – 2013)

	Respiratory system diseases		Asthma		COPD	
	No.	Rate*	No.	Rate*	No.	Rate*
Loddon	2,291	30.3	885	11.7	206	2.1
Gannawarra	3,365	32.2	1,444	13.8	284	2.2
Regional Victoria	355,748	32.1	152,332	13.7	26,165	2.1
Victoria	**1,655,044**	**29.7**	**604,850**	**10.9**	**103,728**	**1.9**

Public Health Information Development Unit- 2016 .

* average annual rate per 100 population.

Synthetic prediction.

Both Gannawarra and Loddon LGA's recorded rates of avoidable deaths from COPD above the state average.

RESPIRATORY HEALTH: EVIDENCE SUMMARY

Avoidable deaths from COPD, persons aged 0 to 74 years (2009-12)

	No.	Rate*
Loddon	9	16.0
Gannawarra	7	15.6
Victoria	**1372**	**7.4**

Public Health Information Development Unit- 2016.
*Average annual age standardised rate per 100,000.

Avoidable deaths from respiratory system diseases, persons aged 0 to 74 years (2009-13)

	No.	Rate*
Loddon	13	24.5
Gannawarra	13	17.5
Regional Victoria	1,150	15.1
Victoria	**3,159**	**12.2**

Public Health Information Development Unit- 2016.
*Average annual age standardised rate per 100,000.

Ambulatory Care Sensitive Conditions

Chronic Obstructive Pulmonary Disease (COPD) is amongst the top ten Ambulatory Care Sensitive Conditions in the Loddon and Gannawarra Shires resulting in hospital admissions. In the Loddon Shire COPD is the highest reason for admission. COPD is 3rd on the scale in the Gannawarra Shire and the 6th for Victoria.

In Loddon Shire the COPD rate of admissions per 1000 people is significantly higher than both Gannawarra and Victoria while in Gannawarra Shire the rate of admissions for people with Angina is significantly higher than both Loddon and Victoria.

Top Ten ACSC Standardised# Admission Rates* by LGA (2014/15)

Loddon			Gannawarra			Victoria		
	No of admissions	Rate per 1000		No of admissions	Rate per 1000		No of admissions	Rate per 1000
COPD	53	4.21	Dental Conditions	50	5.98	Iron deficiency Anaemia	16173	2.74
Dental Conditions	23	3.7	Iron deficiency anaemia	73	5.63	Cellulitis	16071	2.72
Conjestive Heart Failure	**45**	**3.53**	COPD	61	3.46	Urinary Tract Infections	15831	2.66
Diabetes Complications	24	2.82	Cellulitis	42	3.09	Dental Conditions	15599	2.66
Urinary Tract Infections	24	2.8	**Angina**	**48**	**2.73**	**Conjestive Cardiac Failure**	**14849**	**2.46**
Ear, Nose and Throat infections	13	2.72	Urinary Tract Infections	30	2.68	**COPD**	**14701**	**2.45**

Victorian Health Information Surveillance System 2014/15 # Age standardised to Victorian population 2011 * Rate per 1,000 person.

Indigenous Respiratory Health

Victorian figures from The Health and Wellbeing of Aboriginal Victorians -Victorian Population Health Survey 2008 Supplementary Report (DoH, 2011) indicate that asthma is more prevalent in the Indigenous population than in the non-Indigenous population and that rates are particularly high for Indigenous females.

Lifetime Prevalence of Asthma (Doctor Diagnosed) By Sex in Victoria (2008)

	No.	Rate*
Males	26.7	19.6
Females	33.2	22.7
Total Persons	**29.3**	**21.2**

Bendigo Loddon Primary Care Partnership Indigenous Population Health and Wellbeing Profile 2015.
(The Health and Wellbeing of Aboriginal Victorians --- Victorian Population Health Survey 2008 Supplementary Report, DoH 2011).

SEXUAL HEALTH: EVIDENCE SUMMARY

INTRODUCTION

'Sexual health is a state of physical, mental and social well-being in relation to sexuality. It requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence'
(World Health Organisation).

Sexual health for the purpose of this summary includes local and state-wide Birth and Fertility Rates (incorporating teenage births for females aged 15-19 years) in addition to Sexually Transmissible Infections (STI's), including Indigenous populations.

In 2012 and 2013, there were 78,410 and 78,360 births reported in Victoria reported respectively, an increase of six per cent from 2011. This increase in births reflects a growing number of women in the child-bearing age group (15 to 44 years) and an increase in the size of families. The rate of births for women of child-bearing age has also increased whilst there has been a small reduction in the number of women giving birth who were aged younger than 20 years.

Whilst most Australian States and Territories collect comprehensive data on pregnancy outcomes after 20 weeks, including births, stillbirths, congenital abnormalities and terminations, not all States report in the same way, or report the same data, and in many cases termination data is unavailable. Statewide data from the Victorian Department of Health shows that of the 78,360 births in Victoria in 2013, 358 were terminated, an increase of 28 from the previous year (Victoria's Mothers, Babies and Children 2012 and 2013).

The incidence of the most common STIs varies according to sex and age. While STIs predominantly affect the young, the rates of infection for older age groups are increasing as well. Indeed, there are select STIs that affect more people aged between 30 and 44 years than those aged between 18 and 29 years. Whilst bacterial STIs, such as chlamydia, gonorrhoea and syphilis are usually curable, they can cause significant complications if left untreated, including chronic abdominal pain, infertility, and genital, heart and brain damage. Viral infections, including human immunodeficiency virus (HIV) and herpes simplex virus (HSV), are incurable and may lead to lesions, ulcers, cirrhosis and increase susceptibility to opportunistic infections, such as tuberculosis and meningitis.

While the best way to avoid STIs is to avoid sex altogether, there are ways to improve safety by always using condoms and having regular STI tests. Education and prevention programs are also significant. Together with access to prevention methods and testing, education and prevention programs have an important role in abating the spread of STIs.

RECOMMENDATIONS

Health System

- Review of Sexual Health services and referral pathways within the Shires and to services outside the district
- Focus on mental health needs of LGBTI community members particularly young people and cultural change to address discrimination

SEXUAL HEALTH: EVIDENCE SUMMARY

GANNAWARRA AND LODDON DATA:

Birth Rate

The average total fertility rate in 2011 was higher in Gannawarra and Loddon LGA's than the Victoria average. Since 2006 the number of births has reduced, whilst the fertility rate has remained relatively similar. For Loddon both the fertility rate and birth rates have reduced in the same timeframe.

Total fertility rate (2011)

Location	2011	
	Births	Total fertility rate
Gannawarra	97	2.23
Loddon	66	2.34
Regional Victoria	**16,865**	**2.07**
Victoria	**71,444**	**1.79**

Public Health Information Development Unit 2016.

Teenage Births

This data measures the number of female residents aged 15 to 19 years who have ever given birth. It does not measure the location that the birth took place. It provides an indication of the prevalence of teenage mothers in Gannawarra and Loddon.

Recent data for Gannawarra is unavailable to this analysis. Census data from 2011 indicates that Loddon (3.0%) had a higher proportion of female residents aged 15 - 19 years who have given birth to at least one child, compared to the state average (1.2%) or to the regional Victoria average (2.1%). Of all 79 Victorian LGAs, Loddon had the 10th highest and proportion of females aged 15 - 19 years who have given birth to one child or more.

Teenage Births (2011)

	Females aged 15-19 with one child or more	Total females aged 15-19	% of total females aged 15-19	Rate per 1,000	Rank Victoria LGAs (79)
Loddon	6	202	3.0%	29.7	10
Victoria	2,050	168,334	1.2%	12.2	-

2011 Census of Population and Housing, ABS, 2012.
Note that the Loddon rate should be interpreted with caution due to low total number.

Between 2005 and 2008, the teenage birth rate in Gannawarra increased and remained consistently around double the Victorian rate.

Teenage Births (2005 - 2008)

	2005		2006		2007		2008	
	No.	Rate#	No.	Rate#	No.	Rate#	No.	Rate#
Gannawarra	7	19.8	9	25.4	11	28.3	10	25.1
Victoria	1,740	10.3	1,893	11.2	1,790	10.4	1,857	10.6

Adolescent Community Profiles 2010 – DEECD 2011 # per 1000 females aged 15 – 19 years.

Sexually Transmissible Infections

The Victorian Government's Department of Health and Human Services monitors the incidence of infectious diseases including sexually transmitted infections. Data is obtained from and limited to the numbers from medical practitioners and laboratories, and de-identified reports are produced on a regular basis. In many instances, people with sexually transmitted infections do not present for treatment and as a result not recorded in this data collection. As such, the data should only be interpreted in terms of what diseases have been measured and reported, not the actual prevalence of a disease. Data is updated regularly on the Department's website and should be referred to for the most up to date figures. Rates for data are not age standardised.

Sexually transmissible infections are diseases in which an infectious agent is transmitted from an infected individual to a susceptible individual through body fluids during sexual contact; including vaginal intercourse, oral sex, and anal sex. - Infectious Diseases Epidemiology & Surveillance, Department of Health - January 2012

In 2016, compared to the Victorian average, Loddon and Gannawarra Shire had lower rates or nil rates for most reported sexually transmitted infections. In the Loddon Mallee Region the rate of Human Immunodeficiency Virus Infection - Unspecified was higher than the state average but this rate is associated with only one new case. There were no new reported cases of HIV in Loddon.

Reported notifiable sexually transmissible infectious diseases rates (11 December 2016)

	Loddon		Gannawarra		Loddon Mallee		Victoria	
	Rate*	No.*	Rate*	No.*	Rate*	No.*	Rate*	No.*
AIDS	-	-	-	-	0.3	1	0.6	31
Gonococcal infection	106.5	8	19.1	2	25.9	80	87.5	4852
HIV Infection - Newly acquired	-	-	-	-	1.0	3	2.2	124
HIV Infection - Unspecified	-	-	9.6	1	1.6	5	3.3	184
Syphilis - Infectious	-	-	-	-	11	3.6	17.8	986
Syphilis - Late	-	-	0	0.0	3.9	12	17.1	949

* for past 12 months as of December2016.
# Rate per 100,000 for the 12 month period 12-Dec-2015 to 11-Dec-2016 calculated using 2011 estimated resident population (preliminary) (Victoria - 5,534,526; Loddon Mallee Region - 308,782; Loddon (S) - 7,514; Gannawarra (S) - 10,461).
Surveillance of notifiable conditions in Victoria 2016, Department of Health and Human Services.

SEXUAL HEALTH: EVIDENCE SUMMARY

In 2012, compared to the Victorian average, Loddon and Gannawarra Shires had significantly lower rates of reported chlamydia trachomatis infections.

Chlamydia rates (2012)

Chlamydia trachomatis infection	Births
Loddon	268.6
Gannawarra	103.3
Victoria	**360.6**

* Rate per 100,000.
Infectious Diseases Epidemiology & Surveillance, Department of Health – April 2014. * Rate per 100,000.

Screening

Refer to Cancer Evidence Summary for details on breast and cervical screening rates.

Lesbian, gay, bisexual, trans and intersex people

Equality and freedom from discrimination are fundamental human rights that belong to all people, regardless of sexual orientation, gender identity or because they are intersex.

On 1 August 2013, the Sex Discrimination Act 1984 was amended to make discrimination on the basis of a person's sexual orientation, gender identity and intersex status against the law.

Despite this important step forward, lesbian, gay, bisexual, trans and intersex (LGBTI) people in Australia still experience discrimination, harassment and hostility in many parts of everyday life; in public, at work and study, accessing health and other services and securing proper recognition of their sex in official documents.

About LGBTI people

- Australians of diverse sexual orientation, sex or gender identity may account for up to 11 per cent of the Australian population.
- Same-sex couples make up about 1 per cent of all couples in Australia. In 2011, the reported number of same-sex couples in Australia was around 33,700, which included 17,600 male same-sex couples and 16,100 female same-sex couples. The reported number of same-sex couples has more than tripled between 1996 and 2011.
- In 2011, there were around 6,300 children living in same-sex couple families, up from 3,400 in 2001. Most of these children (89 per cent) are in female same-sex couple families.
- Intersex people are people born with physical, hormonal or genetic features that are neither wholly female nor wholly male, or a combination of female and male, or neither female nor male. As with the general population, people with intersex variations have a broad range of gender identities and sexual orientations.

Key issues for LGBTI people

- A large number of LGBTI people hide their sexuality or gender identity when accessing services (34 per cent), at social and community events (42 per cent) and at work (39 per cent). Young people aged 16 to 24 years are most likely to hide their sexuality or gender identity. LGBTI young people report experiencing verbal homophobic abuse (61 per cent), physical homophobic abuse (18 per cent) and other types of homophobia (9 per cent), including cyberbullying, graffiti, social exclusion and humiliation.
- 80 per cent of homophobic bullying involving LGBTI young people occurs at school and has a profound impact on their well-being and education.
- Gay, lesbian, bisexual and transgender people are three times more likely to experience depression compared to the broader population.
- Around 61 per cent of same-sex attracted and gender-questioning young people said they experienced verbal abuse because of their sexuality, while 18 per cent reported experiencing physical abuse. Young men (70 per cent) and gender-questioning young people (66 per cent) were more likely than young women (53 per cent) to experience verbal abuse.

Positive developments

- LGBTI young people at schools where protective policies are in place are more likely to feel safe compared with those in schools without similar policies (75 per cent compared with 45 per cent). They are almost 50 per cent less likely to be physically abused at school, less likely to suffer other forms of homophobic abuse, less likely to self-harm and less likely to attempt suicide.

ORAL HEALTH: EVIDENCE SUMMARY

INTRODUCTION

Dental conditions have significant impacts upon the overall health and wellbeing of the population.

Oral health is linked to overall health and wellbeing in a number of ways. The ability to chew and swallow our food is essential for nutrition to maintain good health. Other adverse impacts of poor dental health include problems with speech and poor self-esteem. Dental health conditions have the highest admission rates for avoidable hospital admissions for young people in Victoria aged up to 19 years. (Rogers and Morgan 2012) Gannawarra Shire rates dental health conditions as the number one Ambulatory Care Sensitive Condition for hospital admission. Loddon Shire rates Dental Conditions as second to Chronic Obstructive Pulmonary Disease. In Victoria in 2006/07, there were 9,038 avoidable hospitalisations for dental conditions and make up 8% of preventable hospitalisations in Australia, amounting to 43,667 admissions a year.

The total expenditure on dental services in Australia was $8,336 million in 2011–12. The major causes of dental disease are dental caries (decay) and periodontal disease (gum disease). Over 95% of people born before 1970 have experienced dental decay and approximately 76% of people born in the years 1970 to 1990 have experienced dental decay. Approximately one in five Australian adults has moderate (20.5% of people) or severe (2.4% of people) forms of gum disease.

About 90% of tooth loss can be attributed to tooth decay and gum disease health problems (AIWH 2011). Tooth decay levels can be reduced with modifiable factors such as good nutrition, exposure to fluoride, maintenance of oral hygiene and regular dental visits.

There are particular groups at risk of dental health problems and this includes people with diabetes, people with a disability, pregnant women and those without fluoride in their drinking water. (DHSV) In Australia, Indigenous people have more caries, periodontal disease, and tooth loss than other Australians. In the past dental problems were more likely to go untreated and aboriginal people are more likely to have teeth removed.

Oral Health Programs within Victoria have been introduced including "Smiles for Miles" aimed at pre-schools, "Healthy Families, Healthy Smiles" with a focus on pregnant women and the 0-3 years age group, a partnership with pilot site health services called "Smokefree Smiles", and partnerships with Disability Services providers undertaking projects to improve the oral health of people with a disability.

RECOMMENDATIONS

Prevention

- Promotion of prevention programs such as "Smiles for Miles" and "Healthy Families, Healthy Smiles" supporting oral hygiene and healthy eating
- Oral health perspective emphasised in QUIT and other tobacco use information provided in smoking reduction campaigns
- Access to regular dentistry through private or public services such as the Dental
- Health Service in Boort and the intermittent Flying Doctor Service in Kerang
- Continue dental service access through transport support for aboriginal people

Early Intervention

- Ongoing promotion of positive oral health behaviours
- Access to regular dentistry through private or public services
- Dental service access through transport support for aboriginal people

Treatment

- Access to regular dentistry through private or public services

Health System

- Review of and support for collaborative partnerships across health, education and community services to develop prevention and early intervention strategies to reduce avoidable hospital admissions for dental conditions
- Greater focus on oral health link with overall health
- Ensure consideration of oral health referrals when undertaking health assessments particularly for groups at risk

ORAL HEALTH: EVIDENCE SUMMARY

GANNAWARRA AND LODDON ORAL DATA

Self Rated Dental Health

In 2011-12, compared to Victoria, residents of Greater Bendigo were less likely to rate their dental health as "Excellent", "Very Good", "Fair" or "Poor"; while they were much more likely to rate their dental health as "Good". Compared to the Victorian average, Greater Bendigo also had a higher proportion of respondents who had dentures and/or no natural teeth.

Compared to Victoria, residents of Loddon were almost twice as likely to rate their dental health as "Poor" or report that they had dentures and/or no natural teeth. Loddon residents were slightly more likely to rate their dental health as "Excellent" but less likely to rate it as "Very Good", "Good" or "Fair". Note that figures for "Excellent" and "Poor" should be interpreted with caution due to a high relative standard error.

Self-rated dental health (2011-12)

Location	Excellent	Very Good	Good	Fair	Poor	Not applicable#
Gannawarra	7.4	31.2	30.0	17.0	4.2*	10.2
Loddon	16.7*	26.1	28.6	8.2	9.8*	10.6
Victoria	**15.9**	**27.6**	**31.7**	**13.4**	**5.6**	**5.6**

Victorian Population Health Survey, 2011-12 # Respondent has dentures / no natural teeth. * Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Last Visit to a Dental Health Professional

In 2011-12, compared to Victoria, residents of Gannawarra and Loddon were significantly less likely to have visited a dental professional in the previous year. Greater Bendigo and Loddon residents were significantly more likely to have not visited for more than ten years.

Last visit to a dental health professional (2011-12)

Location	Less than 12 months	1 to 2 years	2 to 5 years	5 to 10 years	More than 10 years
Gannawarra	42.3	19.4	20.6	8.9	8.2
Loddon	45.7	12.7	25.4	5.8*	10.1
Victoria	**57.1**	**18.1**	**14.0**	**5.1**	**4.9**

Victorian Population Health Survey, 2011-12 * Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Avoided or Delayed Dental Treatment Due to Cost

In 2011 - 12, compared to the Victorian average, Gannawarra residents were much more likely to report that in the last 12 months they had avoided or delayed dental health visits due to cost, while residents of Loddon were less likely.

Population that avoided or delayed visiting a dental health professional due to cost (2011-12)

	%
Gannawarra	35.0
Loddon	27.5
Victoria	**29.8**

Victorian Population Health Survey, 2011-12.

Child Oral health status (children aged 6 months to 12 years)

The Victorian Health and Wellbeing Survey documents that the majority of children (76.2 per cent) were reported to have excellent or very good oral health.

- 19.5 per cent children had a filling.
- 8.2 per cent of children have had a tooth extracted.

Reports of children's oral health status did not differ from the 2009 data. As in 2009, there was compelling evidence that children living in regional Victoria were more likely to have experienced dental health problems. Significantly higher proportions of children in regional Victoria had had a filling (24.0 per cent compared with 17.9 per cent in metropolitan Victoria), and had had a tooth extracted due to a dental problem (11.3 per cent compared with 7.1 per cent).

The disparity in the oral health status of children living in regional and metropolitan areas of Victoria is likely to be explained (in part) by access to fluoridated drinking water.

ORAL HEALTH: EVIDENCE SUMMARY

VICTORIAN KEY CHILD ORAL HEALTH STATISTICS AT A GLANCE

Area	2013 value	Trend (from 2009)	Cohorts/areas of note
Prenatal health – children exposed to alcohol in utero.	46.7%	↓ 13.1%	Children from areas of low socioeconomic disadvantage were more likely to be exposed the alcohol in utero than children from areas of high socioeconomic disadvantage.
General health – children with 'good, very good or excellent' health.	97.9%	↓ 0.6%	Parents of children listed on a Health Care Card were less likely to rate their child's health as 'good, very good or excellent'.
Asthma – children with current asthma.	11.3%	↑ 0.1%	Boys were significantly more likely to have current asthma than girls.
Oral health – children who have had a filling.	19.5%	↑ 2.0%	Children in regional Victoria were significantly more likely to have had a filling compared with children in metropolitan Victoria.
Physical activity –children aged 5-12 who are active for 60 minutes a day.	62.2%	↑ 1.9%	Children in regional Victoria were more likely to meet the physical activity guidelines compared with children in metropolitan Victoria.
Electronic media – children aged 5-12 who exceed recommended screen time.	17.7%	↓ 1.1%	Boys were more likely to exceed recommended daily screen time limits than girls.
Nutrition – children meeting fruit intake guidelines.	73.2%	NA	Guidelines changed in 2013. Children in regional Victoria were more likely to meet fruit guidelines compared with children in Metropolitan areas.
Nutrition–children meeting vegetable intake guidelines.	2.9%	NA	Guidelines changed in 2013.
Exposure to tobacco smoke–children living in a smoke free home.	81.5%	↑ 6.7%	Children listed on a Health Care Card were significantly more likely to be exposed to tobacco smoke in the home compared with other children.
Reading–children under 5 read to every day by a family member.	69.6%	↓ 4.7%	Children in more advantaged socioeconomic areas were more likely to be read to every day than children in more disadvantaged areas.
Food insecurity – children from households reporting running out of food in the last 12 months.	4.9%	↔	One parent families were far more likely than couple families to experience food insecurity.
Financial insecurity–children from households unable to raise $2000 in an emergency.	12.3%	↑ 0.8%	One parent families were far more likely than couple families to experience financial insecurity.
Family functioning –children from families with unhealthy family functioning.	7.6%	↑ 0.7%	Children from one parent families and from areas of high socioeconomic disadvantage were more likely to be living in families with unhealthy functioning.

Reference: Victorian Child Health and Wellbeing Survey 2013

Oral Health Related Behaviours

As in 2009, most children aged 8 to 12 years were reported to brush their teeth at least twice a day (74.0 per cent in 2009, 70.7 per cent in 2013) across Victoria.

Parents with children aged under 8 years are advised to assist with tooth brushing as young children lack the manual dexterity to brush their teeth effectively (Dental Health Services Victoria

General Dental advice for Children). Most parents reported assisting their child to brush their teeth either once a day (35.4 per cent) or twice a day or more (42.2 per cent). Approximately one in eight children (13.4 per cent) had a parent or carer who reported never assisting their child with tooth cleaning.Reference: Victorian Child Health and Wellbeing Survey 2013

A range of Health related Behaviours influence the oral health status and health risk profile of individuals. The following table indicates health related behaviors influencing oral health including tobacco smoking, fruit and vegetable intake, soft-drink consumption and breastfeeding.

Health Related Behaviours by LGA in Victoria

Local Government Area	Health Related Behaviors			
	% 18+ who are current smokers[1]	% who do not meet fruit and vegetable guidelines [1]	% who drink soft drink every day [2]	% infants fully breastfed at 3 months [3]
Loddon	21	56	12	46
Gannawarra	10	54	14	52
Victoria	**16**	**51**	**12**	**52**

VPHS Survey 2011-2012 Department of Health(1), Victorian Indicators Survey 2011 VicHealth(2), DEECD and ABS 2010-11(3)

Avoidable Hospital admission rates

Gannawarra Shire rates dental health conditions as the number one Ambulatory Care Sensitive Condition for hospital admission in 2014-2015. Loddon Shire rates Dental Conditions as second to Chronic Obstructive Pulmonary Disease.

Top Ten ACSC Standardised# Admission Rates* by LGA (2014/15)

Loddon			Gannawarra			Victoria		
	No of admissions	Rate per 1000		No of admissions	Rate per 1000		No of admissions	Rate per 1000
COPD	53	4.21	Dental Conditions	50	5.98	Iron deficiency Anaemia	16173	2.74
Dental Conditions	23	3.7	Iron deficiency anaemia	73	5.63	Cellulitis	16071	2.72
Conjestive Heart Failure	45	3.53	COPD	61	3.46	Urinary Tract Infections	15831	2.66
Diabetes Complications	24	2.82	Cellulitis	42	3.09	Dental Conditions	15599	2.66

Victorian Health Information Surveillance System 2014/15 # Age standardised to Vi.

COMMUNITY IDENTIFIED HEALTH NEEDS

SUMMARY

This report includes reference to Community Plans where LGHSEN agencies are located. The voice of the community as to the health needs is heard through community planning consultations and the health service's Community Advisory Committees.

Whole of community consultations occur through the development of Community Plans. Consultations have occurred that have directly involved children, parents, young people, older people and those people with a disability in the development of action plans to meet the needs of particular groups of people with specific needs. Service providers in each area of focus were also consulted and as informed members of the community offer additional insights mostly reinforcing the views of the community.

Community Priorities for both Shires

- Access to local health services – medical, dental, hospital and aged care
- Workforce available to provide local health and community services where possible
- Transport to distant health services, including emergency response, and to support social and community participation
- Infrastructure to support healthy lifestyles for all people of all ages and abilities
- Increased childcare places and facilities, and parent networks
- Better information access available to the community about local and visiting services, events and opportunities
- Social inclusion in community activities, decision making, participation in social structures of children, young people, parents, older people, people with disabilities and those on low incomes
- Partnerships and collaboration between services supported by improved shared information and referrals
- Mental Health a key consideration for all people of all ages and abilities

RECOMMENDATIONS

Prevention

- Ensure focus on Child immunisation rates and Child Vulnerability
- Ensure focus on Mental health for all people of all ages and abilities

Health System

- Review of Communications and development of Communications strategy across the Shires to support community access to information about the availability of health and community services, emergency response options, transport options
- Enhance service collaboration and partnerships across health and community services to support client-centred care and place-based responses to address health needs within the social model of health
- Exploration of opportunities to expand childcare options across the Shires
- Development of public transport plan linked to support access to health and community services, education and employment places
- Develop an "Aging in Place" strategy for each community including considerations of information provision for older people and their carers, local health and community service access, services to the home, aged care facilities and infrastructure needs , community activities and transport
- Health service collaboration to develop Health Service Planning to maximise service access in the rural context through referral processes, infrastructure, workforce and development of centres of practice excellence

LODDON AND GANNAWARRA SHIRE COMMUNITY PLANS

Loddon Shire Community Plans

Loddon Communities planning has taken place between 20013 and 2014 . The following are the references in the Community plans to Health and Wellbeing priorities. Progress towards the fulfilment of the communities" identified needs at 2016 is included.

The themes of all communities are:

- Access to health services with a strong preference for local services,
- The expansion and maintenance of local health service infrastructure and workforce to support the health needs of the community,
- Development of infrastructure to support active lifestyles with a recognition of the link between physical activity and good health.

Loddon Shire Towns Community Consultations

COMMUNITY PLAN (YEAR)	COMMUNITY CONSULTATION OUTCOMES WITH HEALTH REFERENCES	PROGRESS AT 2016
Boort (2003)	Attracting, and keeping doctors & dentists	General Practice through St Anthony's Family Medical Clinic. 2 GPs one male one female. Coverage 2 weekends a month. Dentist employed by Boort District Health fulltime and second Saturdays . Public and Private patients.
	Upgrade of hospital & aged care facility	Project nearing completion
	Greater access to patient transport to Bendigo	Volunteer drivers support medical appointments in Bendigo and Kerang.
Dingee (2009)	**Footpaths - Walking tracks & Trails** - Extend existing walking track around the cricket oval to form a loop and link up with already established walking track. - Walking/Bike Riding trail 5km. east of town to the Tang Tang Wildlife Reserve. - Long term to cover all other residential and recreational areas with paved access. Creating a safe pedestrian access within the residential area with appropriate resting areas	This is currently in progress Not progressing
	Health - Bush Nursing Centre - Urgent need to improve town water pressure from the non potable supply - Applying to undertake a community needs analysis then develop a strategic plan for the next 3 years offering services as identified by the community	DBNC Strategic Plan developed 2015 Newly announced paramedic and ambulance service for Dingee, Pyramid Hill and Lockington

COMMUNITY PLAN (YEAR)	COMMUNITY CONSULTATION OUTCOMES WITH HEALTH REFERENCES	PROGRESS AT 2016
Wedderburn (2014)	**Health** Better health services particularly for the aged	
	Health Goal 1 Establish an aged care centre in Wedderburn	Lions Club in Wedderburn has taken on this as a project to attract an aged care provider and then source funding
	Health Goal 2 Establish an ambulance station in Wedderburn	Vehicle booking service for scheduled medical appointments in place. Ongoing issue An ambulance officer and ambulance has been stationed in Wedderburn
	Health Goal 3 Obtain Dental services in Wedderburn.	
	Health Goal 4 Undertake a review of health services already provided and identify what other services may be needed. For example full-time doctor, physiotherapist, after hours medical service/ chemist, cardiac & chronic illness rehabilitation, hydrotherapy and well-being workshops for the unemployed.	IDHS has worked towards five day per week practice cover. For urgent care there is 24/7 cover. IDHS Provides for visiting podiatry services through Rural Health. There is no funding for pediatric services in Loddon. IDHS is negotiating with Bendigo Health support Cardiac Rehabilitation or Chronic Illness Rehabilitation program Gymnasium established at Community Centre MCH is now housed in the community centre.
	Recreation To create a multidimensional and active environment promoting health, vigour and vitality	
	Recreation Goal 1 Develop infrastructure to support sport and recreational activities	A business case has been adopted by council for the redevelopment of the Donaldson Park sporting facility
	Recreation Goal 2 Investigate the opportunities to develop bike and BMX tracks, art walks, and a skate park	
	Recreation Goal 3 Investigate the opportunity to introduce a pedal powered event	

Reference – Boort Community Plan 2003, Wedderburn Community Plan 2014, Dingee Community Plan 2009, Inglewood Community Plan 2010.

GANNAWARRA INTEGRATED COMMUNITY PLAN (2013)

Gannawarra Shire Community Plans are integrated into the one document with individual town plans included. There are no specific references to health facilities in any of the Community Plans.

Community Aspirations

The following section outlines the specific aspirations for improving life in Gannawarra as was articulated by stakeholders during the stakeholder engagement process:

1. To have an education system that offers state of the art facilities and a breadth of learning options.
2. To provide career pathways that keep our young people working locally in rewarding jobs.
3. To encourage the young professionals who have left the area to come back to raise their families.
4. To prevent chronic illness and deliver improved respite care and allied health care services for all citizens, especially those who are disadvantaged.
5. To have transport services that give our younger and older residents greater independence.
6. To achieve population growth and diversity, but without compromising our 'small town' values.
7. To have streetscapes, bridges and roads that are safe as well as attractive.
8. To build a tourism industry that creates jobs and infrastructure and allows us to proudly show our visitors the beauty of our natural environment and the depth of our aboriginal heritage.
9. To improve entertainment options, particularly for our youth.
10. To foster new ways of best practice farming in response to a low water future.
11. To support our entrepreneurs and thinkers, celebrate their successes and help them lead us into new industries and initiatives.
12. To be able to enjoy the same richness of food, street life, lifestyle and culture that other Victorians enjoy.
13. To keep our smaller towns alive through social and sporting initiatives driven by the passion of community volunteers.
14. To recover our sense of optimism and self-confidence.

Reference- Gannawarra Integrated Community Plan 2013

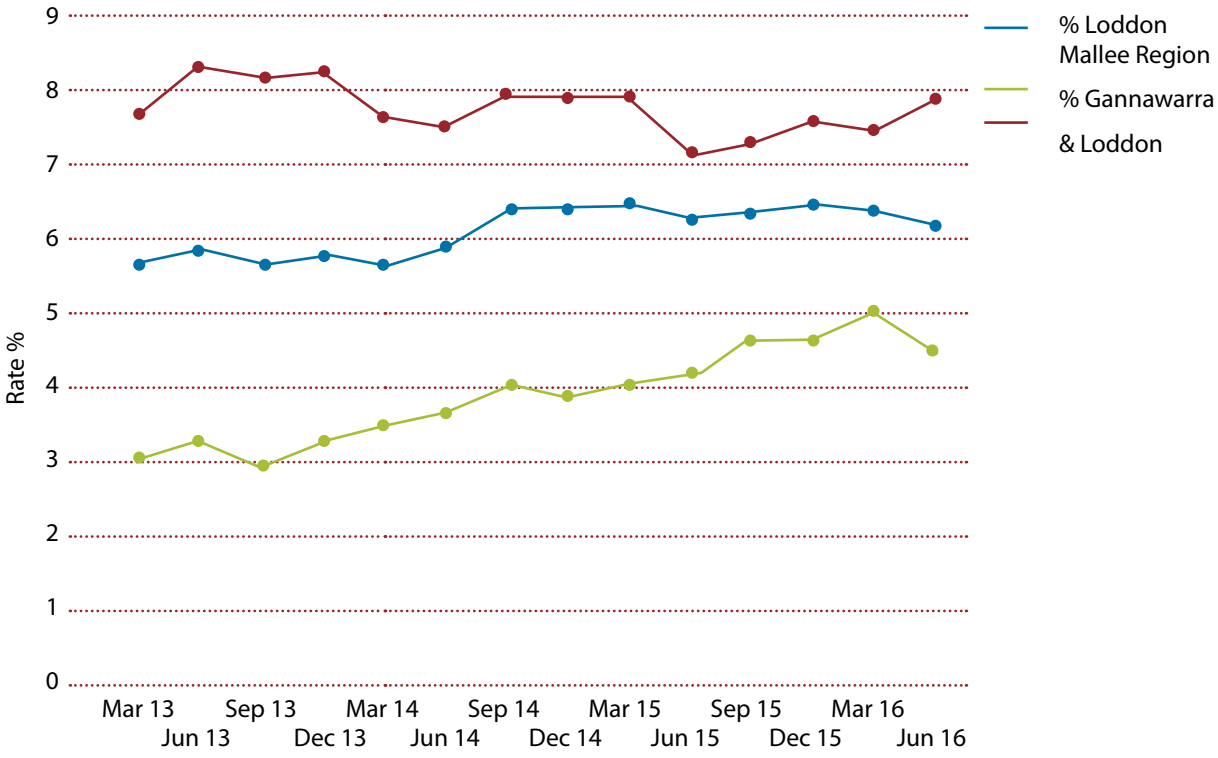
Employment Status

The unemployment rate for Gannawarra Shire is significantly lower than that of the average Loddon Mallee Region wheras Loddon Shire has a significantly higher unemployment rate.

The population of both Shires participate strongly in voluntary work. The rates of people caring for a person with a disability, long term illness or old age is 10% in Gannawarra Shire and 11% in Loddon Shire.

Loddon Mallee Region

Unemployment Rate



Reference - Regional Development Australia

http://www.economicprofile.com.au/loddonmallee/trends/unemployment

Gannawarra Shire

The 2015 Estimated Resident Population for Gannawarra Shire is 10,019, with a population density of 0.03 persons per hectare.

Employment

- 4,381 people living in Gannawarra Shire in 2011 were employed, of which 61% worked full-time and 37% part-time.
- More Gannawarra Shire residents worked in agriculture, forestry and fishing than any other industry in 2011.
- There were more managers in Gannawarra Shire in 2011 than any other occupation.

Unpaid Work

- In Gannawarra Shire 32% of the population reported doing some form of voluntary work in 2011. In Gannawarra Shire 29% of the population over 15 did more than 14 hours of housework each week in 2011.
- 721 people in Gannawarra Shire provided unpaid care for children other than their own in 2011.
- In Gannawarra Shire there were 1,018 carers providing unpaid assistance to a person with a disability, long term illness or old age in 2011. This equates to 10% of the population.

Young People

- In 2014, the number of young people aged 15-19 year olds not participating in education, training or the labour force was 4.6% (31 young people) not in the labour force, another 2.4% (16 young people) not in the labour force and unemployed.
  - Completion of years 8, 9, 10 and 11 is much higher than the Victorian and Australian averages indicating that it is more common for students within the Gannawarra Shire to leave school after completing year 11 to seek employment opportunities or begin a traineeship or apprenticeship.
- There is a much lower percentage of people living in the Gannawarra Shire who have completed year 12 or an equivalent (24.3%) compared to averages of Victoria (51.7%) and Australia (49.2%). Given the ageing population, this may suggest that many of the older residents of the shire left school at a younger age.
- 16.4% of people living in Gannawarra Shire have attained a bachelor degree or higher compared to 37.1% in Victoria and 33.7% nationally.
- 43.5% of people living in Gannawarra Shire have attained a Certificate. This is higher than the state average (29.2%) and the national average (32.3%).
- In 2008, the rate of births to females between 15-19 years of age in Gannawarra was 25.1 per 1000 teenage females. This rate was higher than the rate in the Loddon Mallee region (19.1 per 1000 teenage women) and more than double the Victorian rate.

Loddon Shire

The 2015 Estimated Resident Population for Loddon Shire is 7,283, with a population density of 0.01 persons per hectare.

Employment

- 2,932 people living in Loddon Shire in 2011 were employed, of which 61% worked full-time and 36% part-time.
- More Loddon Shire residents worked in agriculture, forestry and fishing than any other industry in 2011.
- There were more managers in Loddon Shire in 2011 than any other occupation.

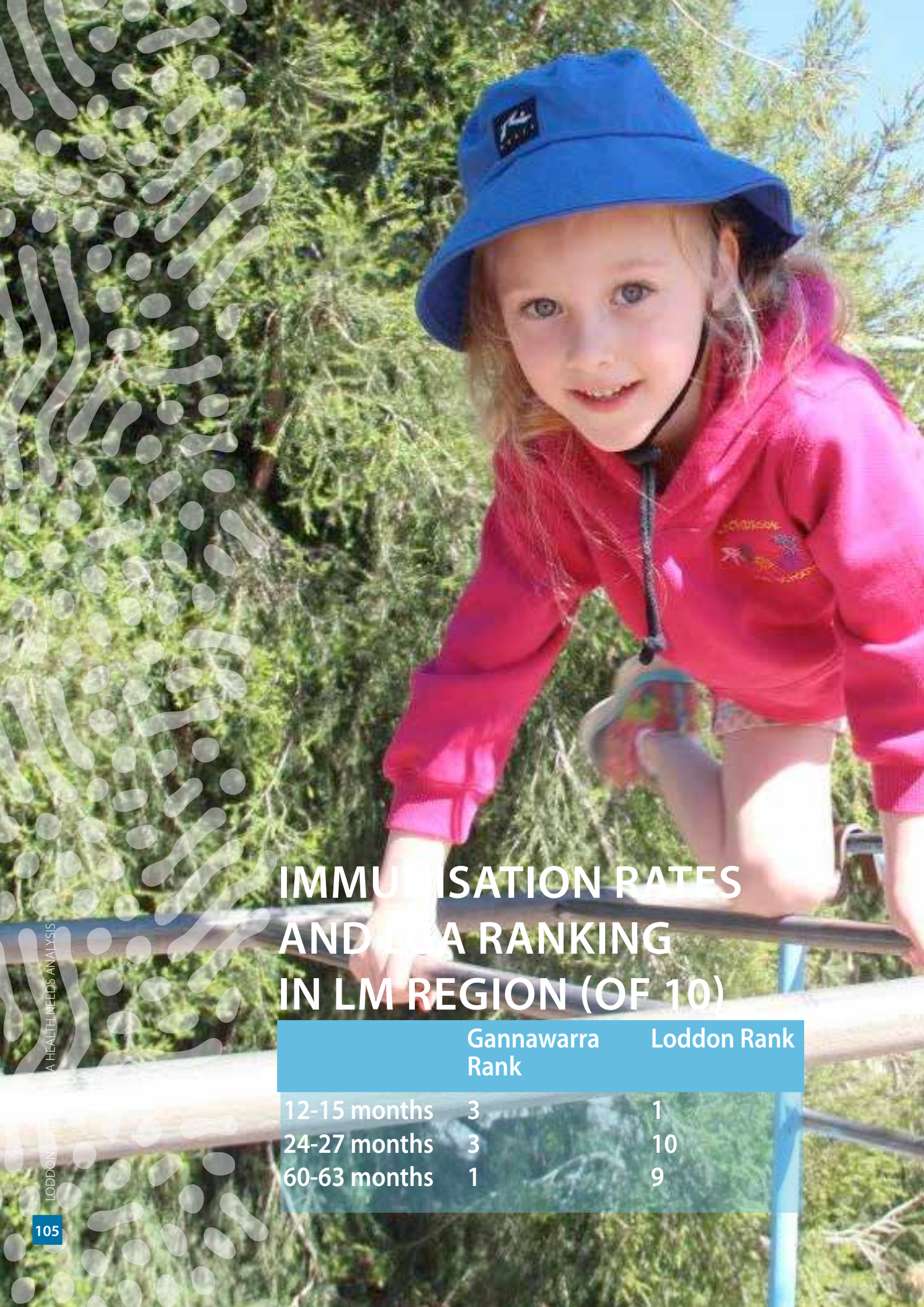
Unpaid Work

- In Loddon Shire 34% of the population reported doing some form of voluntary work in 2011.
- In Loddon Shire 29% of the population over 15 did more than 14 hours of housework each week in 2011.
- 486 people in Loddon Shire provided unpaid care for children other than their own in 2011.
- In Loddon Shire there were 823 carers providing unpaid assistance to a person with a disability, long term illness or old age in 2011.This equates to 11% of the population.

Young People

The Youth strategy refers to 2007 data when :

- contrary to Victoria as a whole, early school leavers and year 12 completers in Loddon had very low rates of unemployment or underemployment at 6-8%, compared to Victoria at 14-30%.
- the relative percentage of young people 15-19 in the North Central LLEN region that are identified as 'at risk' was around 36%, approximately 25% higher than for Victoria as a whole. [1]



IMMUNISATION RATES AND LGA RANKING IN LM REGION (OF 10)

	Gannawarra Rank	Loddon Rank
12-15 months	3	1
24-27 months	3	10
60-63 months	1	9

EARLY YEARS

An Australian report by Access Economics on the benefits of early intervention demonstrated that:

- early childhood education programs (such as kindergarten) improved outcomes in primary and secondary school, with a benefit-cost ratio (BCR) of around 2.36 from meta-analysis (due largely to higher earnings and lower crime rates).
- infant and toddler programs can return a Benefit Cost Ratio of between 1.26 for low risk to 5.68 for high risk groups (Access Economics, 2008, iii).

Child Health Indicators

There is a consistently high level of immunisation rate in Gannawarra Shire exceeding or equal to the Victorian State average. Loddon Shire has a very high rate of immunisations in the 12-15 months category but underperforms in the higher age groups.

Immunisation Rates - Loddon Mallee Region LGAs 30th June 2016

Immunisation Rates and LGA ranking					Total LGAs =10	
	12-15 months		24-27 months		60-63 months	
	Percentage	Ranking	Percentage	Ranking	Percentage	Ranking
Gannawarra	96.77	3	97.44	3	100	1
Loddon	100	1	86.96	10	88.24	9
Victoria	**96.77**		**92.30**		**94**	

EARLY YEARS

Vulnerability - The Australian Early Development Index (AEDI)

The AEDI is a population measure of children's development in communities across Australia. The index provides an indication of children's health and development at a local, regional and national level and enables comparisons to be made between local areas, municipalities and states. The index covers five developmental domains, with higher index scores indicative of poorer results:

The EDI covers 5 domains:

- Physical health and wellbeing,
- Emotional maturity,
- Communication skills and general knowledge
- Social competence,
- Language and cognitive development and

Percentage of children developmentally vulnerable by AEDC domain

AEDI domain	2015 Loddon % of children	2015 Gannawarra % of children	2015 Victoria % of children
Physical health and wellbeing	16.9	13.8	7.9
Social competence	6.2	3.2	8.7
Emotional maturity	10.8	8.5	8.0
Language and cognitive skills (school-based)	3.1	18.1	6.3
Communication skills and general knowledge	9.2	12.8	7.6

Percentage of children developmentally vulnerable on one or more domain(s), and on two or more domains

Summary indicator	2015 Loddon % of children	2015 Gannawarra % of children	2015 Victoria % of children
Vulnerable on one or more domain(s)	27.7	28.7	19.9
Vulnerable on two or more domains	9.2	12.8	9.9

EARLY YEARS SHIRE BASED CONSULTATIONS

Gannawarra Shire Early Years Plan 2015-2018

Through the consultations designed to hear the voice of the different stakeholder groups the themes of identified needs expressed were:

- The inclusion of children in consideration of the design of community built and natural environments
- A need for increased affordable childcare places and options to support working families
- Facilitation of parent networks and provision of early years information to parents to support access and reduce isolation
- Opportunity for greater cross-services collaboration and connection to support families
- Transport, especially public transport

Children Consultation Recommendations

- We need to consider local neighborhood connection, online engagement of children, space for free play and social /family connection opportunities.
- We need to consider children's spaces in our community facilities, sporting facilities, urban design that is child friendly and safe walking trails
- We need to consider water play, park development and street landscapes, places to hang out with relevant activities, like skate parks or adventure parks and safe pedestrian treatments.

Parent Consultation

Health and wellbeing related services were rated for importance, quality of the facility and access. The services were Doctors/ General Practice, Maternal and Child Health, Dentist, Allied Health (eg. Speech therapy), Mental Health services and School of Nursing.

All services were rated as important however only Maternal and Child Health services rated highly in terms of quality. G.P. and mental health services rated most highly with regard to services that needed to be improved.

Although 70 percent of parents who responded to the consultation survey feel part of their community, 20 percent felt isolated as a parent and did not feel they had friends or family they could call on to help with child care.

Parent Recommendations

- Increased childcare services and facilities was a common priority.
- Improved facilities such as toilets at playgrounds, road crossings and footpaths, particularly to schools
- Improve promotion of parent network opportunities such as Library Rhyme Time, Playgroups etc.
- More navigable website, better information distribution

Service Provider Consultation

- 6 of the 12 services surveyed were either at capacity or had waiting lists for service delivery.
- Only 4 services believed that families know what services they can contact for support.
- 9 services believed there was good communication between services and that services are good at connecting families to other support mechanisms.
- 10 services indicated that most families have to repeat their story every time they access a service.
- 6 services felt that more collaboration was a priority

Key barriers to service access	Major challenges for services
Poor access to public transport	Transport
Lack of awareness	Not enough housing
Cost	Lack of funding to allow innovative models of service delivery
Geographic location	After hours care
Service at capacity	Helping families afford family day care

Service Provider Recommendations

- One stop information portal/ person/service
- Transport Cost Assistance
- Increased availability of childcare with rebate
- Support around domestic violence issues
- Fluoride in the water
- Video conferencing with GP's and specialists
- Breakfast availability at all educational facilities
- Family friendly events and festivals

EARLY YEARS SHIRE BASED CONSULTATIONS

The Loddon Shire Early Years Plan 2014-2017

Loddon Shire Council consulted broadly in the development of the Early Years Plan in 2013 and 2014 to develop a whole of community plan focused on improving outcomes for children from birth to eight years of age and their families.

Themes emerging from the stakeholder consultations were:

Need for a range of affordable childcare options and places as the overwhelming priority to support better outcomes for children and families

- Inclusion of all families in community activities through low-cost opportunities to participate
- Coordination and accessible supports for vulnerable children and their families
- Facilitation of parent support and education through networks and information provision
- Stronger partnerships and collaboration between services

The stakeholder consultation included community organisations, schools, kindergartens, community groups, parents/caregivers and interested community members. Methods of consultation included:

- Completing a parent/caregiver survey
- Taking part in a parent/caregiver small discussion group
- Completing a children's drawing activity
- Completing a service provider survey
- Taking part in a service provider small discussion group;
- Attending the action planning workshop

Health & Community Services	Schools & Kindergartens	Community Groups
Northern District Community Health Service	Boort Preschool	BRIC
Inglewood and District Health Service	Dingee Preschool	Boort Baptist Church
St. Luke's Anglicare	Pyramid Hill Preschool	Tarnagulla Community Centre
Centacare Family Services	Wedderburn Kindergarten	Eddington Community Centre
Bendigo Loddon Primary Care Partnership	St. Mary's Primary School Inglewood	East Loddon Community Centre
Boort District Health	Wedderburn College	Pyramid Hill Neighbourhood House
Dingee Bush Nursing Centre	East Loddon P-12 College	Inglewood Community Resource Centre
	Boort District P-12 School]	
	Bridgewater Primary School	
	Pyramid Hill College	
	Inglewood Primary School	
	Tarnagulla Primary School	
	St Patrick's School	

Children Consultation

When children were asked to draw what they loved about where they lived, preschool aged children shared that what they loved the most was family (21%), pets (21%), nature/outdoors (19%), their house (19%) and playing (8%).

Parent Consultation

Parents/caregivers agreed with children that people/community (30%) helps to make Loddon Shire a positive place for children and their families along with education (44%) and sport (40%). Service providers agreed with parents/caregivers that community (73%), education (60%) and sports (47%) helps to make the Loddon Shire a positive place for children aged 0-8 years and their families.

Parent and Service Provider Recommendations

Childcare:

- Childcare availability was the number one enhancement that both service providers and parents/caregivers thought could support better outcomes for children and their families.
- The parent/caregiver survey indicated that the need was for part-time, occasional and after-school care rather than full time care, which only 3% of respondents indicated a need for.

Activities:

- Activities for children in the 0-4 age range and a broader range of arts/culture activities.
- Low or no cost activities crucial in ensuring the inclusion of families from lower socio-economic backgrounds.

Support for vulnerable children:

- Key area of need for well-coordinated and accessible supports for vulnerable children including children with additional needs.
- Service mapping to strengthen understanding of what services and supports are already available.

Parent support and education:

- Parent education and support via parent groups and parent sessions relating to the health, welfare, literacy and language and developmental stages of childhood.
- Parent support in easily understanding the range of services, supports and activities that are available across Loddon Shire for children aged 0-8 years and their families.

Enhanced service collaboration:

- Enhanced service collaboration and partnerships (especially for vulnerable children and families) would support improved outcomes for children.
- Information sharing across agencies and with parents/ caregivers and joint planning and delivery of services and initiatives.

Children and Youth Area Partnerships

The purpose of the Children and Youth Area Partnerships is to reduce children and youth vulnerability through a community and agency partnership approach drawing on a Collective Impact framework. The scope of the initiative is children and young people 0–18 years and the goals are to prevent abuse and neglect, to act earlier when children are vulnerable and to improve outcomes for children in statutory care.

This Victorian State Government initiative covers both the Loddon and Gannawarra Shires and is funded through to June2019.

YOUNG PEOPLE

Issues raised by young people in the Loddon and Gannawarra Shires youth consultations are consistent. Mental Health including body image and eating disorders is the most frequently identified issue. Linked issues include use of alcohol and other drugs and the presence of support networks. A number of young people feel misunderstood by others in their communities and disappointed that they are judged by the anti-social behaviour of an isolated few. Health behaviour risk factors including smoking, low fruit and vegetable intake, "at risk" drinking and low rates of physical activity are noted. Young people identified a lack of activities outside of Sporting Clubs and transport to access services as significant issues.

YOUNG PEOPLE IN THE GANNAWARRA SHIRE

In 2011 the population of young people aged 0-24 years was 3381 which equates to 29% of the total population of Gannawarra Shire.

By 2026 it is predicted there will be 2862 young people aged 0-24 years equating to 25% of the total population of Gannawarra Shire.

In 2014, the number of young people aged 15-19 year olds not participating in education, training or the labour force was 4.6% (31 young people) not in the labour force, another 2.4% (16 young people) not in the labour force and unemployed.

Gannawarra Shire Children and Youth Strategy 2016-2020

To gain greater insight into young people's needs and future goals Gannawarra Shire Council together with Gannawarra Shire Youth Council developed and administered a youth survey, focus groups and age appropriate consultation tools to engage the middle years (children aged 9-11 years) during 2015 and 2016. The survey and consultation questions were designed with young people so that they were both relevant and child and youth friendly.

Youth Consultation Survey Results

- Mental Health - Young people surveyed were twice as concerned about mental health (31%) as they were in 2010 (15%).
- Body Image - Females were almost four times more concerned about body image (49%) than males and five times more concerned about eating disorders (26%) than males.
- Community Connections - 33% (125 young people) surveyed were either neutral, disagreed or strongly disagreed that they regularly got involved in community activities.
- Drug & Alcohol - In the 16-18 year old age group 78% of those surveyed had used alcohol, 27% had smoked cigarettes and 14% had tried marijuana.
- Physical Activity - 82% of young people were engaged in sport, an increase of 8% when compared to the 2010 Gannawarra Youth Survey.
- Supports - 85% of young people surveyed had trusted adults in their lives and 86% had close friends they could rely on. A greater number of young people (18%) said they would use the internet to seek support and advice compared to a lesser 5% in 2010.

Gannawarra Shire Council Action Plan

- Support providers to promote available services and supports for young people (and their families) to organisations, schools, parents, young people and the wider community.
- Involve young people in exploring ways to improve social inclusion and acceptance of diversity/ culture amongst youth and the broader community.
- Engage Youth Council, schools, Northern District Community Health and relevant service providers to create youth led campaigns to tackle health and wellbeing concerns (e.g. drugs/ alcohol/smoking/, safe partying, mental health, body image and bullying).
- Work closely with headspace to optimise their future support of Gannawarra Shire youth.
- Continue to build on the development of community gyms or parks/outdoor spaces with exercise equipment.
- Advocate for improved and local access to health and wellbeing supports for children, young people and their families.
- Continue to work closely with the Mallee Children & Youth Area Partnership to improve outcomes for vulnerable children, young people and their families.

YOUNG PEOPLE

YOUNG PEOPLE IN THE LODDON SHIRE

In 2011 the population of young people aged 0-24 years was 2106 which equates to 26% of the total population of Loddon Shire . By 2026 it is predicted there will be 1763 young people aged 0-24 years equating to 23% of the total population of Loddon Shire.

An Australian report by Access Economics on the benefits of early intervention to prevent youth disengagement found that interventions that reduce youth disengagement could potentially return 23.6 times the initial government investment to society and 7.6 times directly to the government through increased taxation revenues (under a scenario assuming a 50% potential return) (ASIB, 2010).

Loddon Shire Youth Strategy 2016-2020

As part of the development of the Youth Strategy for Loddon Shire Youth surveys within Primary and Secondary Schools were initiated 2003, 2008, 2012-13.

Youth Consultation Survey Results - Needs and Issues Identified

Community Engagement and Connectedness

- Lack of formal support structures in the region other than sporting clubs.
- Lack of informal recreation engagement opportunities eg: bike and walking trails, and skate facilities.
- Reduction in uptake of youth volunteerism. A lack of motivation (59%) and confidence (64%) and the need to feel valued (64%) are likely to be the key and intrinsic barriers to involvement. Volunteering.
- Need opportunity for young people to celebrate and 'be' in their community. Some events are attracting an element of young people that exhibit inappropriate and anti-social behaviours creating barriers for other young people to participate.
- Young people want to have a legitimate place in the public landscape without fear of being judged or their intentions misunderstood.
- Many young people feel misunderstood and disappointed that they are judged by the anti-social behaviour of an isolated few.
- Young people report feeling unwelcome in public places such as parks and shopping centres, particularly when they 'hang around' in groups or don't conform e.g. dress codes, 'posturing'.
- The survey indicates that as young people get older in Loddon they are feeling less positive about themselves, their community and their role in it and the level of support they have around them.
- Young people are looking for more adults that they can respect and turn to.
- Despondency about negative image portrayed of young people in the media.
- Many 18-25 year olds are not associated with any formal education or social networks, which is particularly the case if they are unemployed, homeless or not involved in ongoing education.

Health and Wellbeing

Key health and wellbeing issues identified for rural young people are likely to face young people in Loddon. Factors thought to contribute to mental health problems among young people in rural Australia included higher unemployment, lack of opportunities for social interaction, and ostracism by the community for rebelling against social norms.

- Access to dental care and experience of dental decay.
- Overweight and obesity.
- Low proportions meet recommended levels of fruit and vegetable consumption.
- Levels of physical activity among young people are also lower than recommended.
- 10 per cent of young women (who did not have a diagnosed eating disorder) reported that they experienced at least two symptoms associated with anorexia or bulimia at some point between adolescence and young adulthood.
- Significant smoking rates.
- Increases in the proportion of young people who drink at levels that risk short-term harm.
- Rural adolescent males have high suicide rates tending to rise with increasing remoteness.
- Significant rates of psychiatric disorder in rural populations
- Significant rates of psychological distress particularly in young women.

Economic Wellbeing, Housing and Homelessness

Key economic wellbeing, housing and homelessness issues identified for rural young people are likely to face young people in Loddon.

- Under-representation in decision making on issues that are important to them.
- Significantly less represented (than people aged 25 and over) on decision-making boards and committees.
- Less likely (than people aged 25 and over) to rate their area as having characteristics of an active community.
- Lack of public transport in their area and restrictions on their travel. In rural Victoria this figure increases to nearly one half of young people aged 18–24.
- Within the 2016 the ABS Labour Force Survey data for the Bendigo Region covers both Loddon and Gannawarra Shires. This data indicates that the overall Unemployment Rate is 5.5% and the Youth Unemployment Rate is 5.9%. The Youth unemployment rate is likely to be higher than this figure given the smaller number of employment opportunities in rural areas.

Education and Employment

- The survey conducted for the Youth Strategy identifies that 30% of the Shire's young people worry about having to leave home to study or to find work. This issue is likely to worry young males (32%) slightly more than young females (28%).
- School to Community Engagement Pathways are a critical link with the community for young people in Loddon,
- Schools support introduce young people to community engagement opportunities.
- School a significant source of community contacts, services and support.

Services Support and Information

- Information Survey findings and anecdotal information sourced for the project indicates 76% of young people stated that more or better information on engagement opportunities would incline them to get more involved in their community.
- important to have information about what was going on in other towns or areas.
- opportunity to improve information sharing between service providers identified by Loddon Shire – database, referral, information sharing about program changes.

Access to Services

- Reluctance in young people in rural areas to acknowledge health problems, particularly mental health problems.
- Reasons understood include fear of social stigma, a culture of self-reliance, and in relation to mental illness a view that equates mental illness with 'insanity'.
- Many girls and young women feel uncomfortable visiting a male doctor and delay access because they cannot access a female doctor in their local area.
- Lack of doctors both male and female.
- Transport is also a key impact on young people being able to access services and at a time and place that affords them the privacy they are often looking for.
- 54% of the young people of Loddon said access to counselling and support services for young people was important or very important.

Loddon Shire Council Action Plan

In response to the needs identified the Loddon Shire Youth Strategy 2013-2018 outlines the focus of Council action to address the Health and Wellbeing needs of children and young people.

In Loddon Shire these areas of action include:

- Physical Activity
- Youth events
- Arts Participation
- Inclusion and Mental Health
- Positive messaging
- Building Resilience
- Vulnerable young people
- Education, employment and Leadership opportunities
- Participation and Decision making

AGING AND DISABILITY

The aging demographic of both Loddon and Gannawarra Shires is a prominent consideration with implications for the health needs of the population. Age related chronic conditions such as diabetes heart disease and respiratory disease will be a high health priority and coordinated planning to support prevention, service access pathways and service design for treatment are indicated. Cancer treatment service planning will also be required. Access to local services and transport to distant services is a significant concern to many people. Dementia prevalence is significant and carer support is an important need. Volunteers in many areas are reducing in number due to the aging of the population.

With the aging population the availability of aged care services and residential care options will require consideration. Community concerns include distance of aged care placements from life partners and other family members. There is an identified need for a range of "aging in place" options including home support services, supported accommodation, nursing home and hostel placements.

Community engagement and inclusion activities are highly valued by community members.

The role of prevention by reducing the risk factors of chronic diseases plays a significant role in improving and maintaining health. Community response to these initiatives is increasing reflected in the Loddon and Gannawarra Health Services' demand data for Prevention programs across the Shires.

Early intervention supporting self-management and lifestyle changes are well attended where available.

Loddon Shire Community Care Strategy 2013- 2017

Compared with Victoria, Loddon has lower average life expectancy for both men and women. The average life expectancy in Loddon for men is 75.3 years (Victoria 80.3) and for females is 83.0 years (Victoria 84.4).

Clear themes emerged from the resident consultations including:

- Residents valued Loddon's caring and friendly community and reported this as a main reason why they were happy to live and age in Loddon.
- The variety of clubs, activities and recreational opportunities available was reported by many residents as a positive aspect of Loddon for people as they age. A need for more diversity in activities however, such as social outings, dinners, films and shopping trips for older people was reported.
- A need to facilitate access and inclusion of people with disabilities in sport and in community life .
- A need for better communication to residents about what is on/ what is available throughout the municipality.
- Difficulties with a lack of access to transport within and outside the municipality. This was a key issue identified, particularly for people as they age who no longer drive.
- A limited access to independent living units or supported accommodation in some parts of the municipality.

Key health issues for people as they age in Loddon

- A majority of older people continue to report their health as good, very good or excellent.
- Older women are more likely to rate their health higher than older men.
- A number of factors influence older people's ability to maintain good health and to participate in their community, such as sufficient income, adequate and safe housing, and a physical environment that facilitates independence and mobility.
- Older people's own behaviours regarding health risks are also an important influence on their health status. It is worth noting that people's health experiences in later life are affected by their health behaviour during their younger years and in later life.

Some key health conditions affecting health and wellbeing of people as they age include:

- An increase in the incidence of age-related disability and disease, especially dementia. Loddon has some of the highest age-adjusted rates of disability in Victorian municipalities.
- An increase in dementia. Dementia prevalence is strongly age related and higher for females. The Australian Institute of Health and Welfare (AIHW) reports the prevalence of dementia in 2011 to be 9% for people over 65 years and 30% for people over 85 years. Applying 2011 census figures this suggests 160 people over 65 years (69 people over 85 years) in Loddon may have dementia. Dementia has profound consequences on quality of life of people with the condition and their families.[2]
- An increase in diabetes. Loddon had the highest prevalence of diabetes in Victoria, 2.7 times the national average (as at June 2008). The vast majority is Type 2 diabetes which is acquired rather than genetic, and obesity is a major contributor. The prevalence of Type 2 diabetes rises with age.
- A higher risk of falls as people age.
- An increase in people with high blood pressure. High blood pressure commonly increases with age.

Key considerations for community care services planning from Loddon's census and population projections data include:

- Growing numbers and proportion of the 50 + years population with a declining overall population.
- Growing numbers of people reaching the higher demand for care and support age group. (An increase of 66 people over the age of 80 years between 2006 and 2011 census).
- The 50+ population living throughout the municipality, many in very small towns or areas with very small population numbers.
- Limited access to communication and information via the internet with just over half of Loddon's households having internet access.
- Access to and support for volunteering as people age, with significant numbers of people from across all of the age groups involved in volunteering.
- Comparatively high proportions of the 50+ population who need support with daily activities, as well as a number of young people under fifty years.

Key issues raised in the Councillor, council staff and stakeholder meetings include:

- Loddon's declining population primarily in young people and families in the 20-60 years age group.
- The ageing of volunteers who make a significant contribution to community work • the ageing of the aged care workforce•
- The lack of transport both within and outside the municipality.
- The viability of stand alone facilities and venues and the need for greater efficiency of infrastructure and shared facilities.
- A lack of dementia specific facilities within the municipality.
- A lack of accommodation options (nursing home / hostel facilities, independent living units) to cater for the demand within the municipality.
- The safety and access of footpaths / roads for older people and people with mobility issues.
- The need to continually explore opportunities for local and regional partnerships and collaborations in supporting people with disabilities and people as they age.

AGING AND DISABILITY

Gannawarra Shire Positive Aging Strategy 2016-2020

The World Health Organisation (WHO) has defined "active ageing" as "the process of optimising opportunities for health, participation and security in order to enhance quality of life as people age". Positive and active ageing requires an environment that is age-friendly and where older people have access to programs and services that fulfil their needs and interests. Age-friendly communities provide opportunities for the whole community

An age friendly environment has eight key domains of community living that enable older people with varying needs and capacities to feel safe, have good health and to participate fully in the community.

- Transport
- Housing
- Social participation
- Respect and social inclusion
- Civic participation and employment
- Communication and information
- Community support and health services
- Outdoor spaces and buildings

Aging related Community Profile and Consultations

Community consultation outcomes were not directly included in the Positive Aging Strategy 2016-2020 document however community consultation occurred in 2015 and 2016.The community consultation underpins the Strategy document.

Demographics, Social and Living Context

- Gannawarra Shire is home to 2,494 older people. This includes 24% aged 65 and over at the last census in 2011 compared to the Victorian average of 14%. By 2031 it is estimated that this will increase to 39.2%, compared to 24.2% by 2031.*
- 89.54% of residents were born in Australia and 94.1% speak only English in the home.
- 1.6% of the population identify as aboriginal (165 people). This is higher than the state average of 1.3%.
- 23.9% of employment is in agriculture, 14.6% manufacturing and construction and 10.5% in health care and social assistance.
- Levels of social housing are higher than other areas, 14.1% compared to 11.4% for Victoria.
- There is a much lower percentage of people living in the Gannawarra Shire who have completed year 12 or an equivalent (24.3%) compared to averages of Victoria (51.7%) and Australia (49.2%). Given the ageing population, this may suggest that many of the older residents left school at a younger age.
- There is a higher proportion of lone person households 31.9% compared to the Victorian average of 24.5% placing them at increased risk of social isolation and negatively impacting on health and wellbeing.
- 60% of older people live in some form of partnership.

Health and Community Care Issues Identified

- In 2010-11, Gannawarra had a higher proportion of population that were aged mental health clients 0.16% compared to Victoria 0.14%
- 13.9% of adults are at risk of short term harm from alcohol 2012 compared to 10.2% for Victoria.
- A higher proportion of the population aged 70 years and over were living in low level residential aged care (54.7 per 1000 people) compared to the Victorian average (46.3 per 1000 people). This figure reflects the age structure of the population as well as the availability of aged care places at various levels.
- In 2010, Gannawarra Shire had a significantly higher rate per 1000 people aged 70 years and over that were receiving Home and Community Care services, 723.3 per 1000 people compared to 368.3 for Victoria.
- 2011 Census information indicates that 34% of households across the Shire have no internet connection. This has significant implications with the introduction of the "My Aged Care" e-Health platform
- 800 older people or 32% currently receive a form of community care.
- By 2031 it is estimated that around 1,150 older persons will be in need of some form of community care.
- 7% of older people in the Gannawarra Shire are using some form of residential aged care.
- There are currently 169 places at four local aged care provider services.

By 2031 more than 250 residential aged care places will be required to meet demand. The significant growth in the population of older people will place a greater demand for activities and services that meet their needs.

DISABILITY ACCESS AND SERVICES

The community consultations in both Loddon and Gannawarra Shires indicated the priorities for this group were primarily about access and equity. Infrastructure to support access, inclusivity of community organisations and community activities and greater information sharing were identified. The themes were about reducing barriers for people with a disability including discrimination and community assumptions and attitudes.

Gannawarra Shire Disability Action Plan 2012-2015

It is estimated that more than 2260 Gannawarra Shire residents Council have some form of impairment or disability.

Community Consultation

In 2011 a media campaign in Gannawarra Shire was launched through print media, local newsletters and networks to raise awareness of the consultation process. Consultation was undertaken with organisation staff, service providers and residents between July 2011 and August 2011 and included:

- Focus group meetings for the community
- One to one interviews with service providers
- Staff surveys
- Reference group meetings.

Issues raised through consultation

- Existing footpaths in need of repairs and new footpaths needed
- Not enough accessible parking bays
- Not enough compliant accessible toilets
- Inaccessible retail outlets and other businesses
- Retrofitting in general of all Council's infrastructure
- Need for disability awareness training for staff
- Lack of effective communication and partnerships with Council
- Lack of direct information about the Councils projects or forums
- Lack of accessible transport (public and community)

Key Priority Areas Identified for Action

- Awareness or marketing of services
- Infrastructure updated
- Communication and disability awareness training
- Community Engagement and Partnering.

Loddon Shire Community Access and Inclusion Plan 2013-2015

A review of the achievements of the Community Access and Inclusion Plan 2013-2015 and community consultation and for the Loddon Shire Community Access and Inclusion Plan 2016-2021 is currently underway at the writing of this report. In 2013 it was estimated that approximately 1400 Loddon Shire residents could have some form of disability.

At the commencement of the Community Access and Inclusion Plan 2013-2015 there was a commitment made by Loddon Shire Council to work in partnership with all its citizens to build an inclusive community using the following guiding principles:

- Social Inclusion
- Human Rights and Social Justice
- Diversity
- Community Engagement

The guiding principle of Community Engagement committed the Loddon Shire Council to continue to actively engage, consult and collaborate with people with disabilities, their families and carers as well as service providers to develop and deliver appropriate and relevant projects and services to the community.

The Community Access and Inclusion Plan 2013-2015 identified four objectives based on the four key principles:

- Reducing barriers to persons with a disability accessing goods, services and facilities
- Reducing barriers to persons with a disability obtaining and maintaining employment
- Promoting inclusion and participation in the community of persons with a disability
- Achieving tangible changes in attitudes and practices which discriminate against persons with a disability

LODDON AND GANNAWARRA SHIRES HEALTH SERVICES COMMUNITY/CONSUMER ADVISORY COMMITTEES CONSULTATION

The primary concern for members of health service Community Advisory Committees was access to local services and workforce to support them. Some resistance to technology was identified.Aged Care and Carer support were also highlighted.

Identified Health Gaps and Issues of Concern and to Health Service Community/ Consumer Advisory Committee Members

Gannawarra Shire Agencies	
Workforce	GP Obstetrician as a matter of urgency
	GP workforce
Services	Mental health services
Loddon Shire Agencies	
Aged Care	Lack of aged care places.
	Development of care in the home
	Changes to aged care confusing and not well understood
Workforce	Concern that Boort does not have a GP to do face to face visits 7 days a week
	Nursing staff need to be able to do more – i.e. stitching wounds
	A member of the committee has been fund raising and installing defibrillators in response to perceived high incidences of heart issues
Community Health and Wellbeing	Support for carers
	Concern for farmers health and wellbeing
	Concerned about poverty and how this can be addressed
Other Concerns	Mental health support is too hard to access – local visiting services providing for catchment including Cohuna, St Arnaud, Charlton, Pyramid Hill, Quambatook, Donald
	No maternity shared care in Boort
	One dental chair in Boort –does outreach to Cohuna, Charlton, Pyramid Hill, Kerang
	Unsure what visiting services are available – will do anything to stop driving out of town!
	Concern that Tele-health and e-Health are being used to cut face to face services
	Services for children and young people
	Concerned about cancer and how can the patient and carer be supported

SOCIAL INCLUSION AND PARTICIPATION IN ACTIVITIES ARE A VERY HIGH PRIORITY FOR OLDER PEOPLE IN BOTH LODDON AND GANNAWARRA

COUNCIL'S ROLE IN HEALTH

Know Your Council information provides indicators of Council performance, services provided and financial assets, income and expenditure . This table highlights the achievements and challenges for the Shires and benchmarks the indicators against similar rural councils and Victoria overall. The particular challenges for Loddon Shire are the low rate base, the small population and the scattered townships across the Shire.

Shire Council Performance Indicators

$ rounded up to next dollar value

	Gannawarra Shire	Loddon Shire	Similar Council Average	Victoria Average	Comments
Aquatic Facilities					
Cost of providing outdoor aquatic facilities per visit	$18	$19	Approx $16	Approx $14	Higher than average for Gannawarra Very high for Loddon
Number of Visits to aquatic facilities per head of municipal population	2.16	3.03	3.1	5	Low for Gannawarra
Food Safety					
Percentage of Food Safety Assessments undertaken	82%	109%	Approx 78%	Approx 90%	Higher than average for both Gannawarra and Loddon
Cost of Food Safety Service per premises	$407	$139		$580	Low for Loddon
Governance					
Council decisions made at meetings closed to the Public	7%	13%	11.5%	12%	Low for Gannawarra
Community satisfaction with community consultation and engagement	65/100	60/100	58/100	59/100	Higher than average for both Gannawarra and Loddon
Home and Community Care					
Percentage of eligible residents receiving HACC services	51%	58%	38%	30%	Higher than average for both Gannawarra and Loddon
Percentage of eligible CALD residents receiving HACC services	17%	28%	29%	23%	Low for Gannawarra
Libraries					
Cost of Library service per visit	$6	$22	Approx $10	Approx $6	Higher than average for Loddon
Proportion of library resources less than 5 years old	34%	70%	67%	64%	Higher than average for Loddon Low for Gannawarra
Active library members in municipality	13%	14%		19%	Lower than average for both Gannawarra and Loddon

Shire Council Performance Indicators

$ rounded up to next dollar value

	Gannawarra Shire	Loddon Shire	Similar Council Average	Victoria Average	Comments
Maternal and Child Health					
Participation in first MCH Home Visit	100%	109%	100%	100%	Equal to Average for both Gannawarra and Loddon
Infant enrolments in the MCH service	100%	102%	97%	98%	Higher than average for both Gannawarra and Loddon
Participation in the MCH service	73%	66%	82%	80%	Lower than average for both Gannawarra and Loddon
Participation in the MCH service by Aboriginal children	59%	60%	68%	72%	Lower than average for both Gannawarra and Loddon
Financial Performance					
Average residential rate per residential property assessment	$1081	$699	Approx $1200	Approx $1400	Low for Gannawarra Very low for Loddon
Expenses per Property assessment	$3462	$3410	Approx $3400	Approx $3000	Equal to Average for both Gannawarra and Loddon
Percentage of Staff Turnover	6.75%	8.18%	12.5%	10.5%	Lower than average for both Gannawarra and Loddon
Sustainable Capacity					
Expenses per head of municipal population	$2389	$3597	Approx $2900	Approx $1900	High for Loddon
Infrastructure per head of municipal population	$15942	$37811	Approx $2200	Approx $1200	Low for Gannawarra High for Loddon
Own source revenue per head of municipal population	$1496	$1808	Approx $1700	Approx $1300	Higher than average for Loddon

HEALTH ISSUE PRIORITIES - LOCAL HEALTH SERVICE DEMAND

SUMMARY

INTRODUCTION

A data capture process was undertaken to provide a picture of the demand on local health services for each of the Health Issues. Difficulties in this process occurred due to the disparity between data collection systems across organisations and incomplete data. The process highlighted the need for health services to be able to access and retrieve data it is has provided to the range of funding streams for accountability .The standardisation of measures and the software platforms to provide data is of a priority to achieve comparable data. . Data will then be able to be used to its full potential to inform a needs analysis and service planning. A commitment from funding bodies to enable collated agency data to be accessed is also required The software capability challenges have impacted upon the data able to be collected. Despite the challenges participating agencies worked exceptionally hard to provide data to the Project in a spirit of collaboration and transparency. Other LGHSEN agencies were unable to participate due to limited people resources and data capture issues within the time period analysed.

The participating agencies in the data capture have been:

- Boort District Health (BDH)
- Cohuna Hospital (CH)
- Inglewood District Health Service (IDHS)
- Kerang District Health (KDH)
- Northern District Community Health Service (NDCHS)

Local Health Service Demand by Health Priority

The tables on pages X and X provide a Chart representation of data related to the participating agencies located in the Shires of Gannawarra and Loddon. NDCHS data has been included in the Gannawarra Health Services data though the agency provides services directly into both Loddon and Gannawarra Shires. NDCHS data was unable to be provided for the months of July 2013 to March 2014 which has affected the overall results for this time period.

The data was collected to discover the catchment of the health services and was divided into Loddon Shire postcodes, Gannawarra Shire postcodes and other postcodes. The numbers of clients attending health services to address the health priority health issues was documented as well as the number of overall interactions. These figures are presented in the two graphs for each Shire and relate to the financial years of 2013-14, 20114-15, and 2015-16.

RECOMMENDATIONS

- Consideration of common data capture software platforms to support standardisation of measures and comparable data outcomes to inform needs analysis and service planning
- Data capture systems should include age, gender, aboriginal and Torres Strait Islander status, and health priority area as standard baseline information. The opportunity to explore Waiting list demand would provide additional useful information for service planning
- Development of service plans with a focus around pathways to support best practice, e-referrals and shared care planning for the service demand priorities of Diabetes, Heart Health and Mental Health

SUMMARY

Local Health Service Demand by Health Priority

The tables on pages 131 and 132 provide a Chart representation of data related to the participating agencies located in the Shires of Gannawarra and Loddon. NDCHS data has been included in the Gannawarra Health Services data though the agency provides services directly into both Loddon and Gannawarra Shires. NDCHS data was unable to be provided for the months of July 2013 to March 2014 which has affected the overall results for this time period.

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Gannawarra Health Services

The data for Gannawarra health services show an increasing demand for services in all Health Priority areas. The Health Priority with the greatest number of clients and interactions was Diabetes, followed by Mental Health and then Heart Health. Data provided indicates the number of clients registered with health services for Diabetes client has more than tripled in the three year period though this should be understood in the context of the absence of NDCHS data from July 2013 to March 2014. Nevertheless the increasing trend is noted.

Gannawarra health services are accessed by residents in the Loddon Shire in small numbers. Diabetes and Mental Health services attracted the largest number of Loddon clients to Gannawarra health services.

Numbers of clients and interactions are low for Cancer, Oral Health, Respiratory Health and Sexual Health.

Loddon Health Services

Loddon Health services demonstrate a more variable demand pattern. Oral Health services registered by far the most number of clients of any Health Priority and this demand is significant from Gannawarra residents making up almost half the client numbers in 2015-2016. Despite this it should be noted that Oral Health interaction numbers were lower than the for the Health Priorities of Diabetes, Heart Health and Mental Health.

There appears to be a spike in access to health services to address the health issues of Diabetes, Heart Health and Mental Health in the 2014-2015 financial year both in client numbers and interactions .Of these three health issues there were more Diabetes clients registered than Mental Health or Heart Health clients with Loddon services in 2014-2014 however the highest number of interactions were for Mental Health followed by Heart Health.

Numbers of clients and interactions are low for Cancer, Respiratory Health and Sexual Health.

Age Profile of Health Service Demand by Health Priority

Collation of all interactions data provided by the health services in Loddon and Gannawarra gives an indication of the age profile for demand in each Priority Area. The charts indicating the collected data is on Pages 133 to 136.

As is to be expected in the age related chronic disease health priority areas of Diabetes and Heart Health the rise in demand for services later in life peaking in the 70s age cohort. The demand for services appears to commence in the early 50s age group for Diabetes and mid 40s age group for Heart Health.

Cancer interactions are negligible in the ealy decades and begin to register from around 50 years. Services are predominantly in demand from people in the 70s, 80s and 90s age groups.

The Age Profiles for the Mental Health and Sexual Health Priority Areas shows a much greater spread across the lifespan. There appears to be peaks in access of Mental Health services in the very early years, in the mid 20s age group, in the mid 40s to 50s age group. The demand for Sexual Health services peak around 20 years and taper off for the early 70s age group. Demand is sustained with a gradually decreasing trend throughout the intervening age groups.

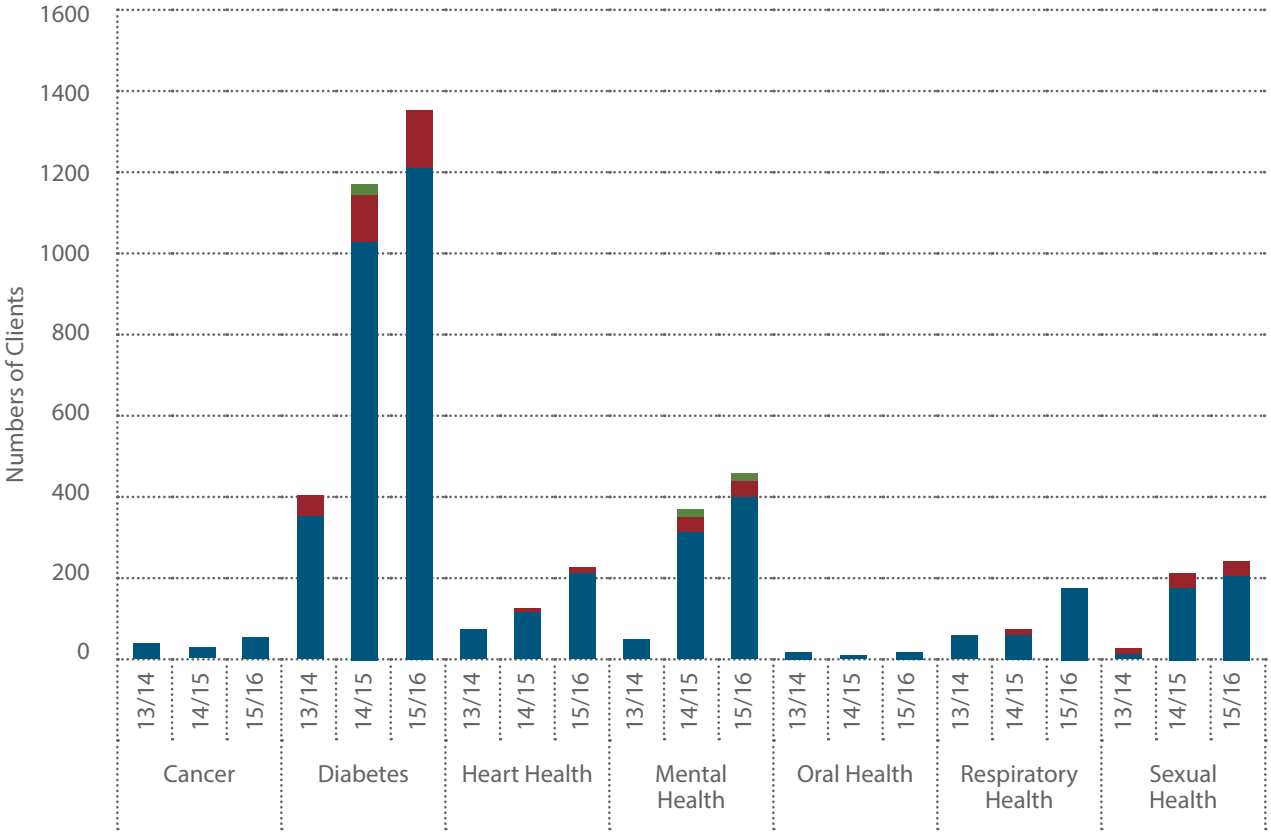
The Oral Health Profile demonstrates that children and young people are the primary service users with a peak at age 10 years reducing from age 20 to relatively even demand across the lifespan.

As with the other age related chronic disease health priorities Respiratory Health reflects a peak in demand in the later years but is also a significant health issue for people in their 20s, 30s, 40s, and 50 year age groups

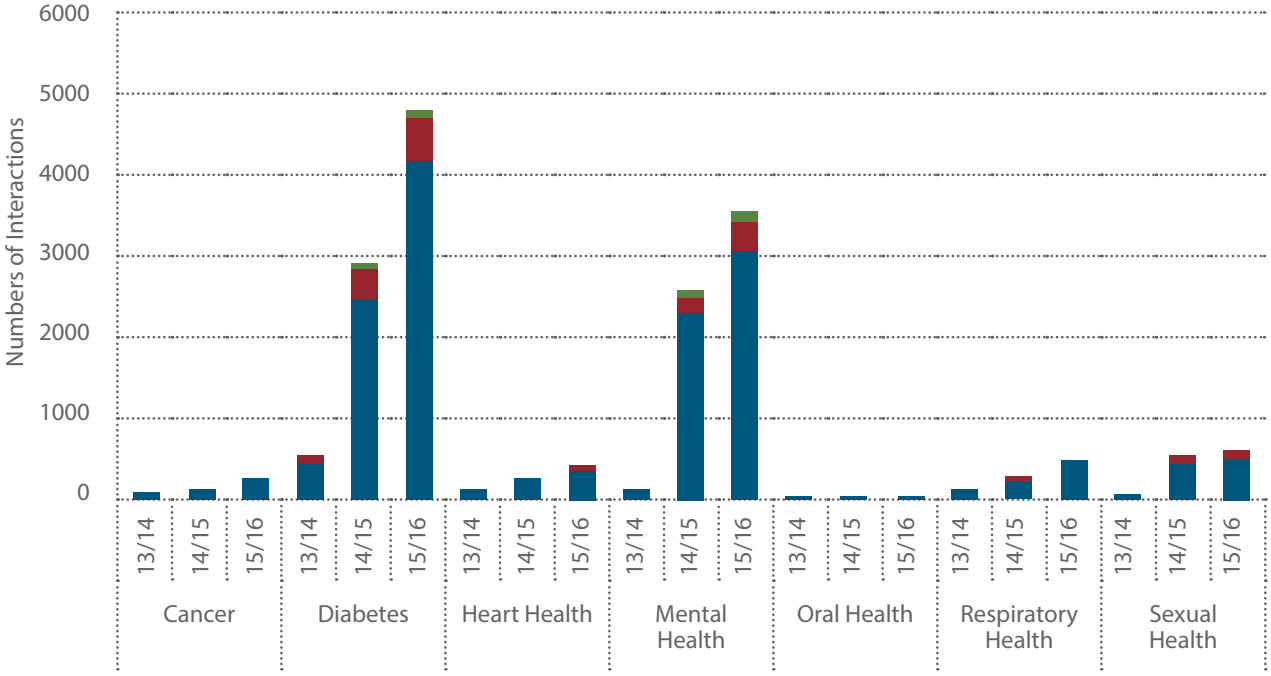
LOCAL HEALTH SERVICE DEMAND BY HEALTH PRIORITY

GANNAWARRA HEALTH SERVICES

All Health Issues Clients by LGA Origin Treated by Gannawarra Providers

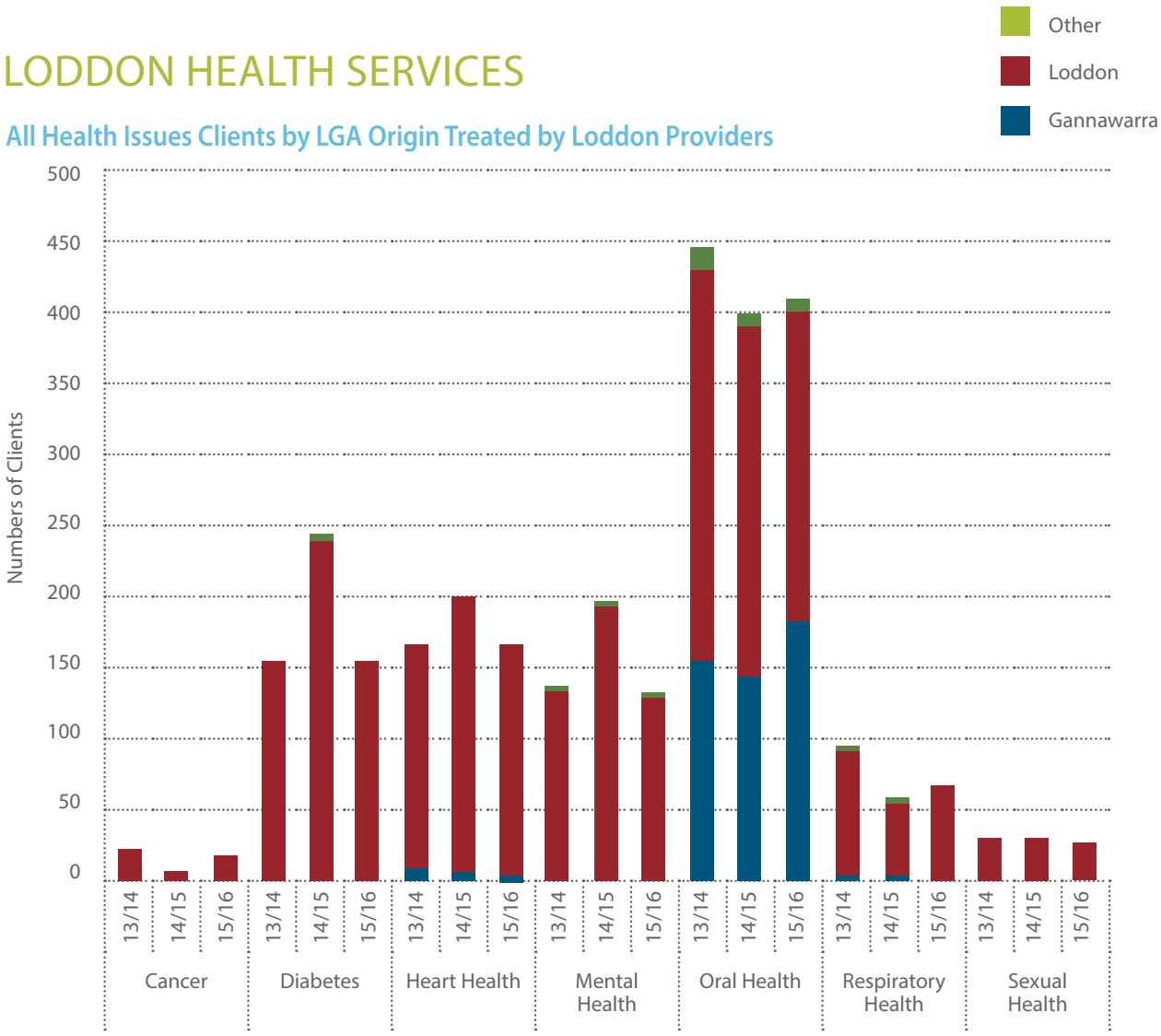


All Health Issues Interactions by LGA Origin Treated by Gannawarra Providers

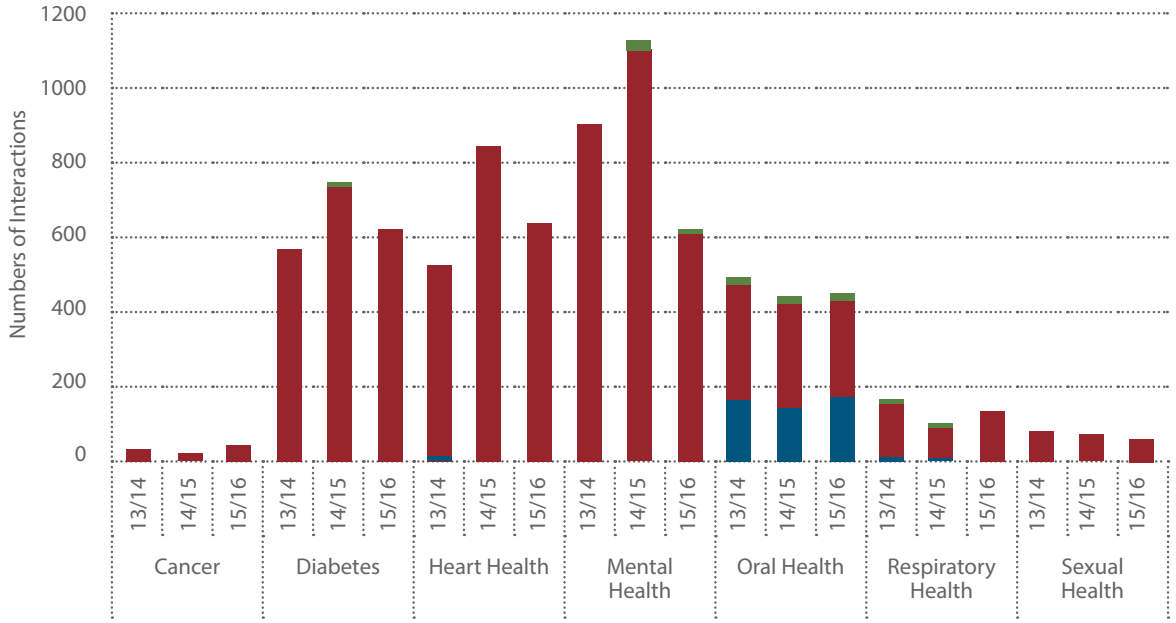


LODDON HEALTH SERVICES

All Health Issues Clients by LGA Origin Treated by Loddon Providers

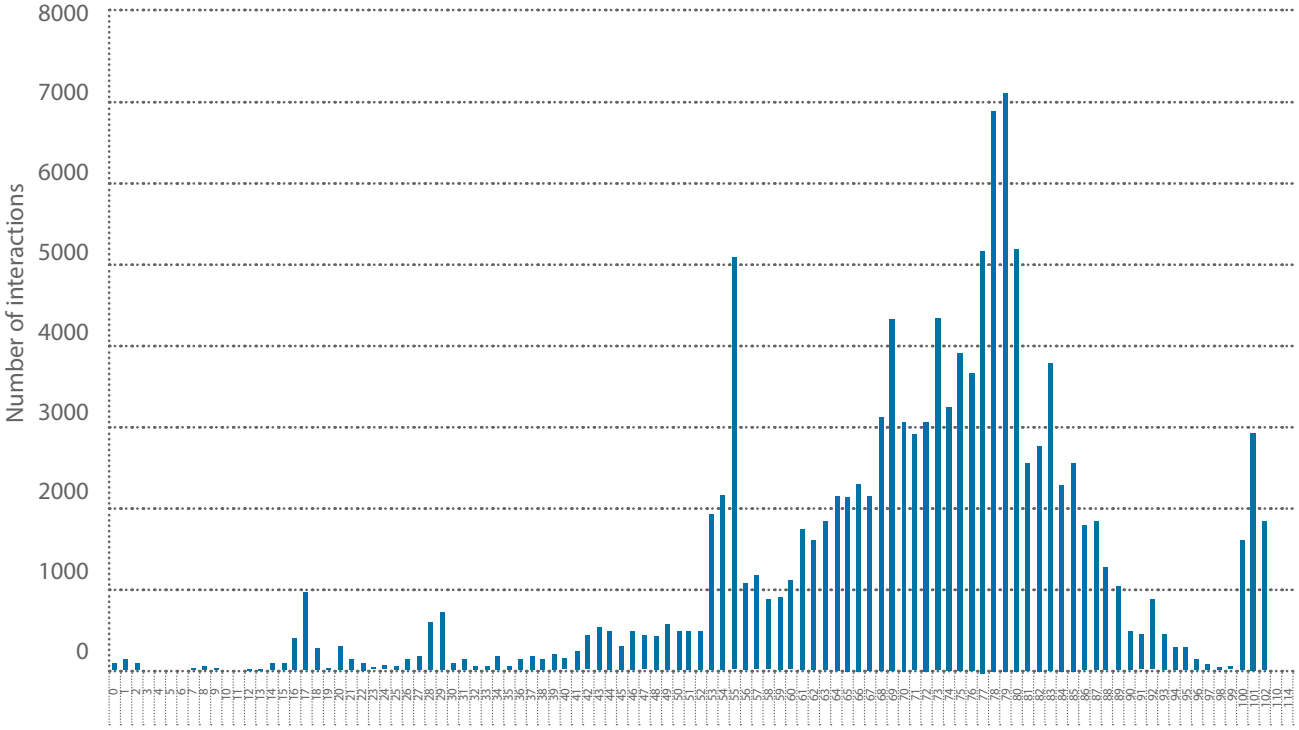


All Health Issues Interactions by LGA Origin Treated by Gannawarra Providers

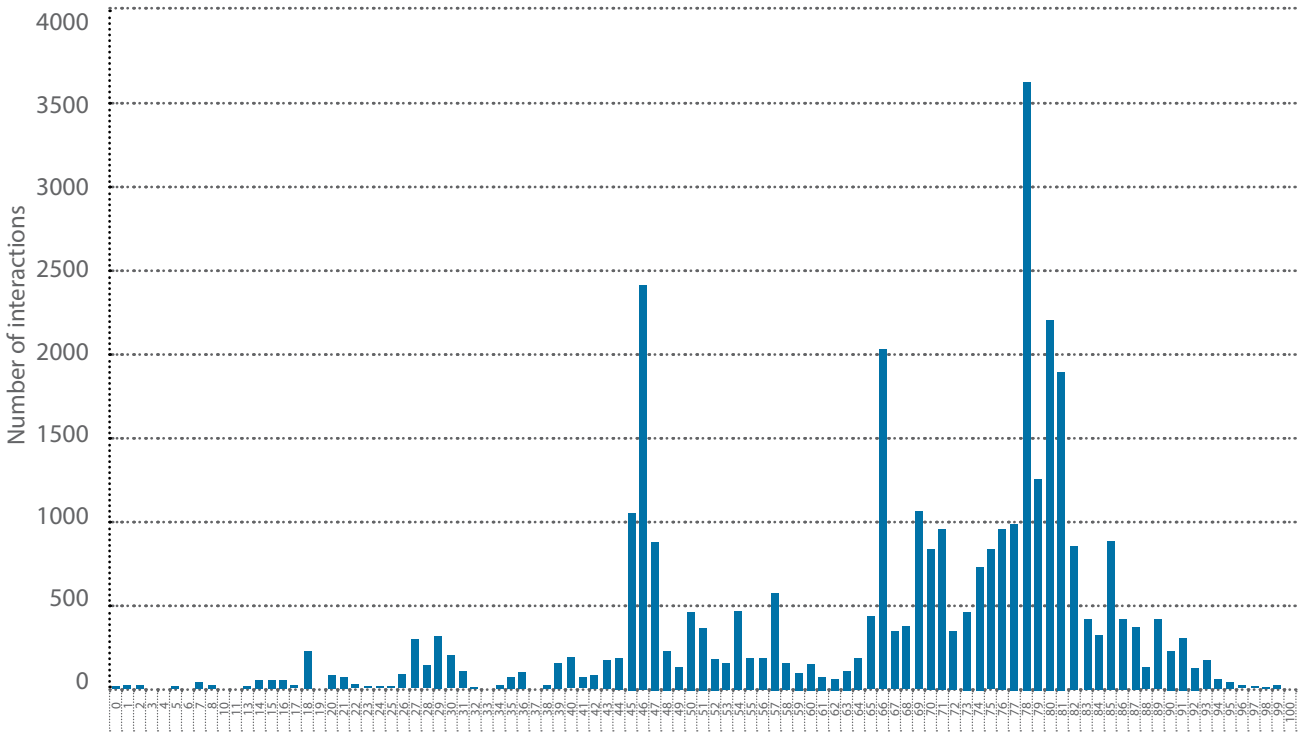


AGE PROFILE OF HEALTH SERVICE DEMAND BY HEALTH PRIORITY

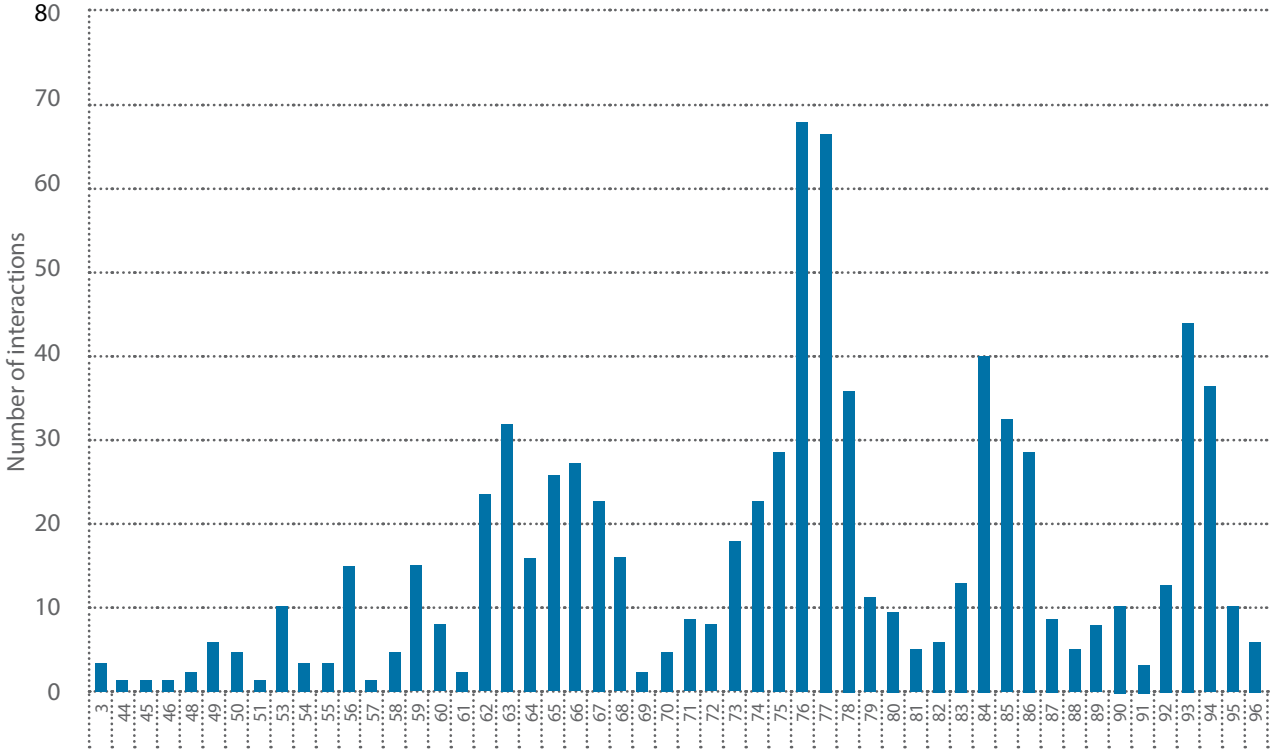
DIABETES AGE PROFILE



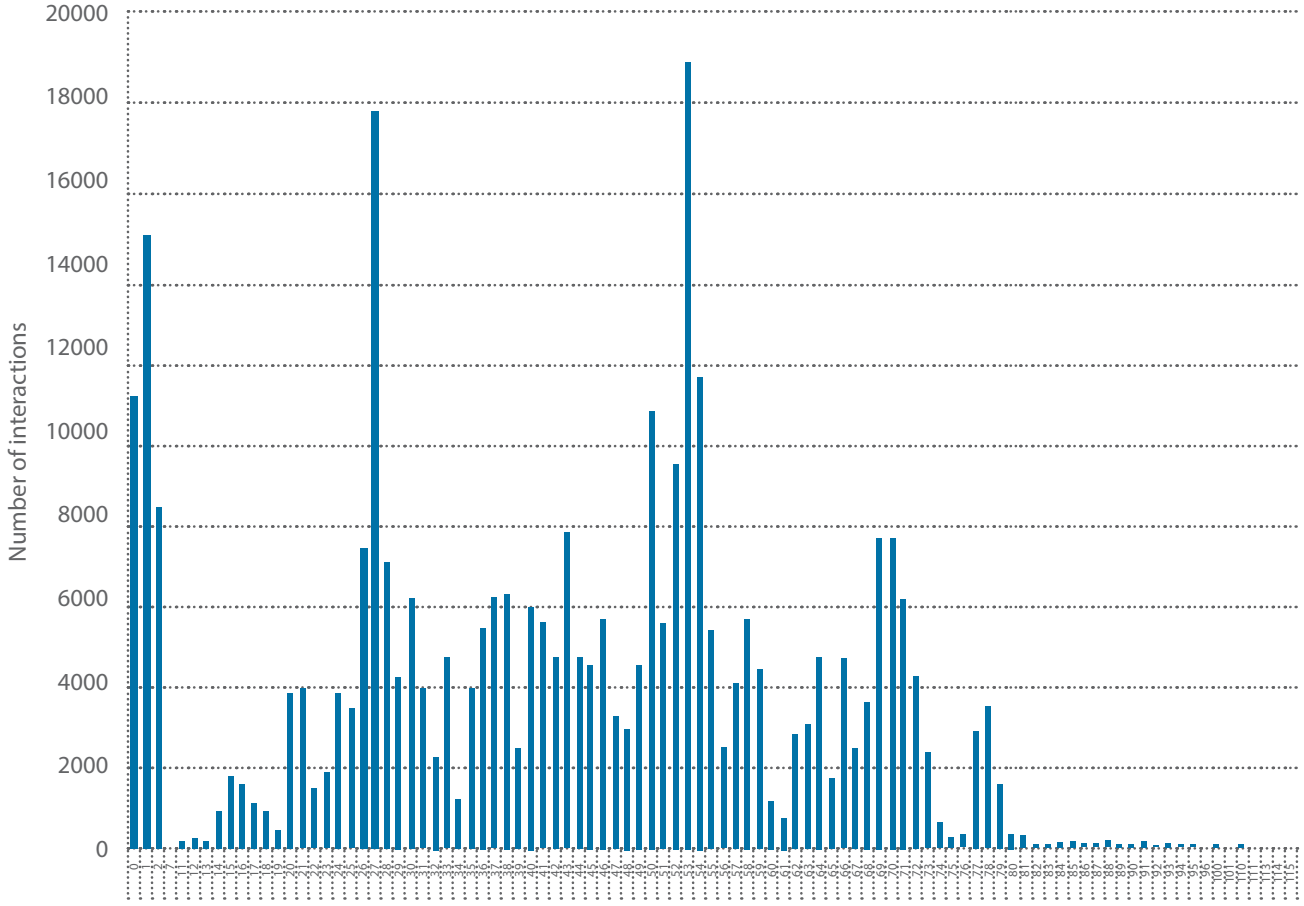
HEART HEALTH AGE PROFILE



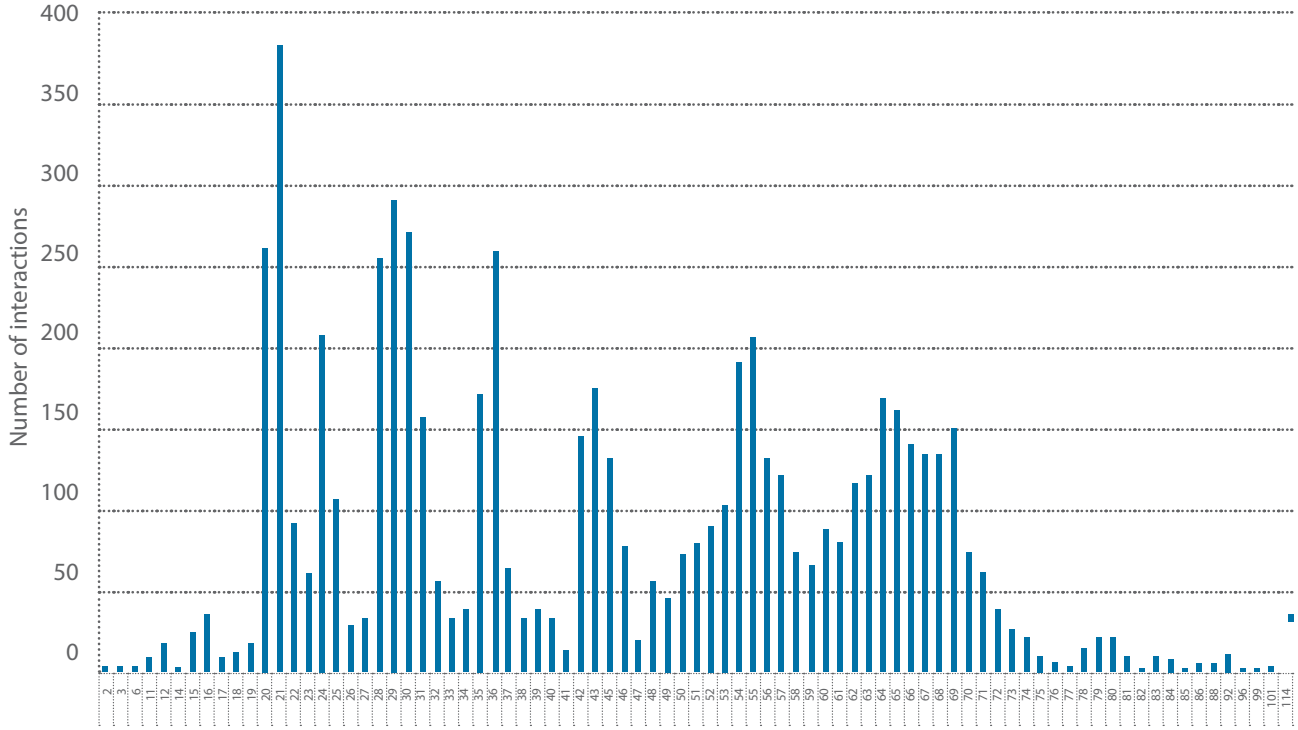
CANCER AGE PROFILE



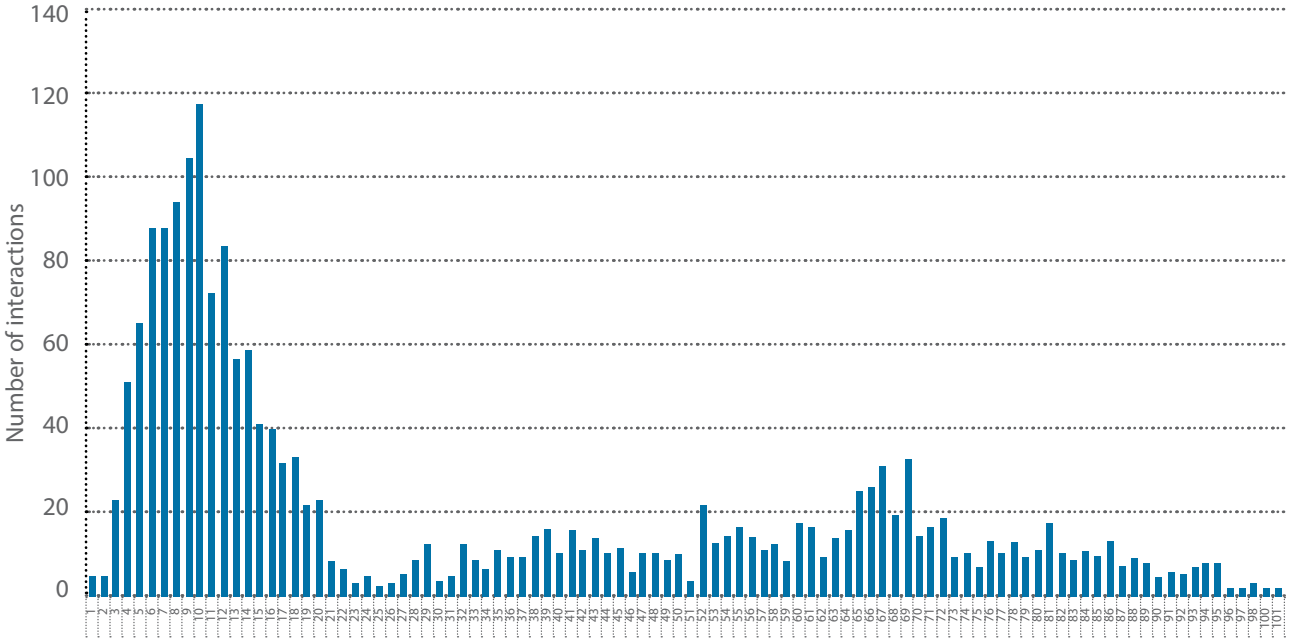
MENTAL HEALTH AGE PROFILE



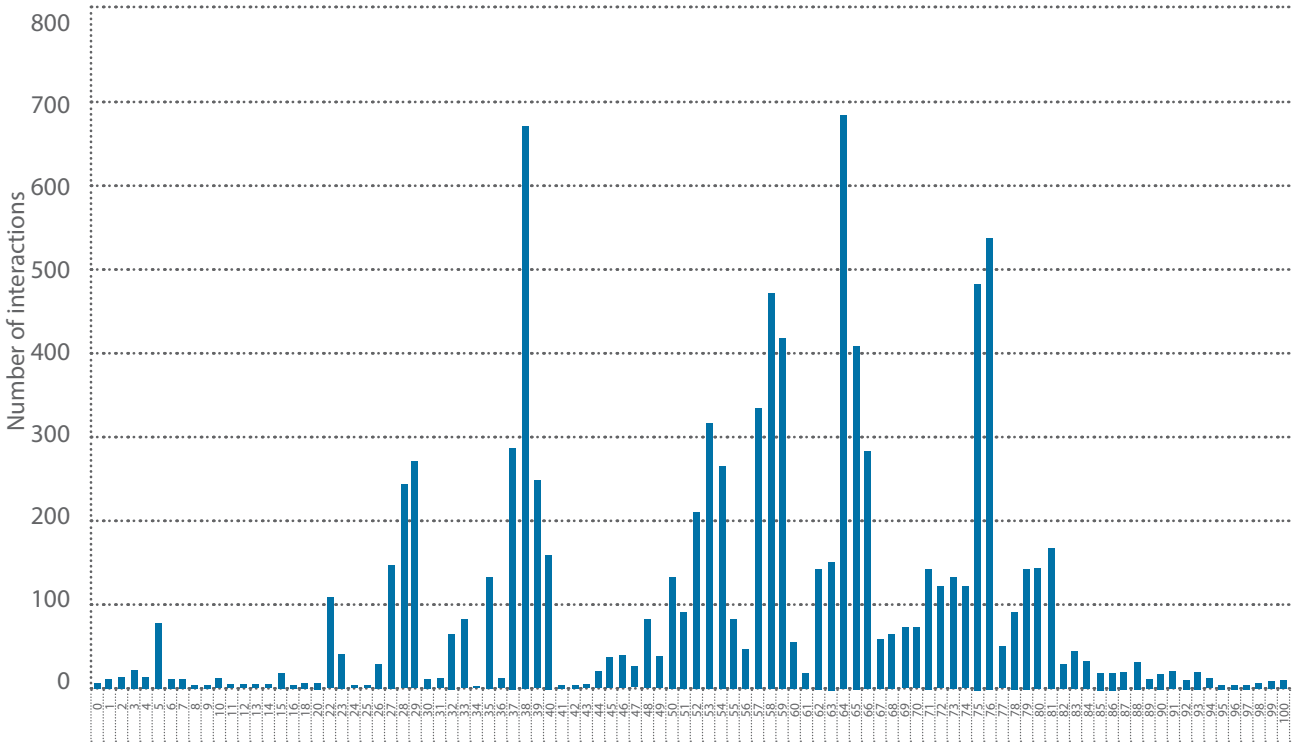
SEXUAL HEALTH AGE PROFILE



ORAL HEALTH AGE PROFILE



RESPIRATORY AGE PROFILE



HEALTH ISSUE PRIORITIES SERVICE MAPPING – LGHSEN SERVICE RESPONSE CAPACITY

HEALTH PRIORITIES SERVICE MAPPING - GAPS

Health Priorities were identified by the LGHSEN as the most likely issues to be of Priority within the Shires at the commencement of the Project.. The LGHSEN organisations participated in 4 Health Priority Workshops conducted in October 2016.

The purpose of the workshops was to support cross organisational knowledge and identify system gaps for those people experiencing the identified Health issue. The workshops were designed to support a patient/client centred approach. Gaps in the system were documented from a client/patient perspective by using a scenario around which to explore what is available and what is missing to support community members..

The Priority areas explored through the workshops were:

Diabetes

- Type 1 Diabetes
- Type 2 Diabetes
- Gestational Diabetes

Mental Health

- Acute Crisis
- Family Violence
- Anxiety and Depression
- Alcohol and Other Drugs

Cancer

- Breast Cancer
- Prostate Cancer
- Bowel Cancer

Heart Health

- Heart Attack
- Stroke

Respiratory Health

- Asthma
- Chronic Obstructive Pulmonary (Lung) Disease

The capacity of Health Services to respond to people and the community in addressing these Health Priority Areas was mapped within this Process and the results are outlined in Section 6 Health Service Mapping and Service Response Capacity.

RECOMMENDATIONS

- That consideration be given to the gaps identified under each Health Priority within Service planning
- That priority actions include Prevention strategies and Service planning for Heart Health

IDENTIFIED GAPS SUMMARY

Diabetes

Workforce

- Gaps identified in all disciplines related to Diabetes Best practice care including General Practice, Allied Health, Mental health and aboriginal midwifery.

Patient/ Client Access

- Barriers to access include constrained ophthalmology services in South Loddon, Type 1 Diabetes Parent support and sharps disposal facilities.

Patient/ Client engagement

- Identified need for greater focus on client centred care within some GP practices.
- Family support gaps .

Tools of Trade including pathways, education, technology and leadership

- Lack of consistent diabetes education for school staff.
- Development of Gannawarra Diabetes Pathway required.
- Family health promotion pack identifying "at risk" people to support prevention could be developed.

Funding/ Infrastructure/ System issues

- Allied Health and Management program resource gaps.

Mental Health

Workforce

- Family Violence identification and response training required for health service's staff.
- Mental Health practitioners need to be across farming issues
- Uncertainty about NDIS implementation.
- Lack of Primary Mental Health workforce and training in local services.
- Cuts to Alcohol and Other Drug workforce have had impact on service access.

Patient/ Client Access

- For rural communities "services in place" means outreach for health services which is limited.
- Travel the only option for some communities to access mental health services.
- Local withdrawal service in Kerang limited to alcohol and cannabis.

Patient/ Client engagement

- Promotion of and referral to visiting Family Violence services.
- Alcohol most significant substance abuse issue and require community strategies to address.

Tools of Trade including pathways, education, technology and leadership

- Need for consideration of Family Violence response policies and procedures in health services.
- Development and implementation of Family Violence referral pathways required.
- Case coordination needed for people with anxiety and depression.
- Better collaboration between service organisations required to support clients.
- Review of Mental Health pathways required.
- Waiting lists for funded services need to be understood.

Funding/ Infrastructure/ System issues

- Gaps in police coverage in Loddon Shire.
- Outreach services threatened when resources are limited.
- Local services undertaking complexity and crisis not funded for due to lack of local referral options.
- Better coordination and information sharing across services required to support case coordination.
- Outcomes for clients compromised by holding pattern of intervention rather than long-term planning.
- General Practice the gatekeeper of some funded Mental Health services therefore identification, diagnosis and referral by GP critical for early intervention.

Cancer

Workforce

- Management of co-morbidities and coordination of care between services.
- Post-operative management gaps.

Patient/ Client Access

- Patients mostly have to travel for care.

Patient/ Client engagement

- Cancer survivorship support gap Tools of Trade including pathways, education, technology and leadership.
- Health pathways need to include inclusion of "at risk" family member engagement.
- People want to be treated locally where practicable and links via e-health to services across Victoria will improve outcomes.

Funding/ Infrastructure/ System issues

- Patchy coverage of Breast Care Nurse service from Bendigo Health – significant for outcomes.
- Some gaps in GP referral through Team Care arrangements to Allied Health services.
- Funding of Allied Health services in Community Health not eligible under GP management plan.
- People with co-morbidities only eligible for funding for one chronic disease.

Heart Health

Workforce

- Limited access to treatment programs in Loddon.
- Training of staff required to meet competencies across nursing workforce.
- Cardiac Rehabilitation system needs to be developed.

Patient/ Client Access

- Allied health and community health interventions access problematic including GP referral, cost, local availability.

Patient/ Client engagement

- Prevention partnerships neededTools of Trade including pathways, education, technology and leadership.
- Significant Prevention focus required to respond to extremely high incidence.

Funding/ Infrastructure/ System issues

- Strengthen links between all health services in Primary Care and Cardiac Rehabilitation.
- Undertake Service Planning and Pathway development for management of Heart Health.

Respiratory Health Workforce

- Community asthma education workforce capacity required.
- Respiratory physician waiting list and distance to travel.

Patient/ Client Access

- Support for expansion of Care-coordination supplementary programs in Aboriginal Health Service considering chronic disease co-morbidities.
- Oxygen costs significant and availability unreliable.

Patient/ Client engagement

- Smoking prevention focus required Tools of Trade including pathways, education, technology and leadership.
- Requires a campaign to raise awareness and support Asthma Plan development for each patient/client.
- Support GP referral to Asthma education.
- COPD Pathway and best practice review recommended.

Funding/ Infrastructure/ System issues

- Advance Care Plans support.
- Bed-based funding system doesn't support COPD management well.

IDENTIFIED GAPS

Identified Gaps

The following tables set out the specific gaps for each Health Priority with reference to specific areas explored within the priority.

DIABETES	
TYPE 1 DIABETES	**GAPS**
Workforce	Specialist endocrinology – Bendigo, possibly Swan Hill
	Tele-health opportunities Royal Flying Doctor Service
Patient/ Client Access	Cohuna Type 1 - (no local parent group in Cohuna)
Patient/ Client engagement	Family support for transition paediatric – adult service
Tools of Trade including pathways, technology, education and leadership	Barrier to school staff in attending education ○ Cost – subsidising ○ Distance
	Department of Education policy
	App review package – technology based care
Funding/ Infrastructure/ System Issues	IDHS Dietician
	Local Diabetes Educator education into schools better organised
	Smooth scheduling of education – promote it

DIABETES	
TYPE 2 DIABETES	**GAPS**
Workforce	Workforce gaps in all diabetes related Allied Health disciplines – Diabetes Educator, Dietician, Podiatry Physiotherapy, Ophthalmology
Patient/ Client Access	Extend ophthalmology IDHS – community- beyond aged care
	Sharps disposal – free usually – one disposal bin at KDH. Barriers to access
Patient/ Client engagement	Client centred care missed out by GP/practice nurse – not involved in decision making – not all but some
Tools of Trade including pathways, education, technology and leadership	Family health promotion – info pack
	Gannawarra for pathway like DiLag (Diabetes in Loddon Action Group) in Loddon
Funding/ Infrastructure/ System issues	Exercise groups missing ○ Especially strength based training program. ○ IDHS runs 5 days per week and still. Waiting list. ○ Young Women's exercise program Bridgewater ○ Water aerobics Inglewood
	Koolin Balit submission for grant submitted

DIABETES

GESTATIONAL DIABETES	GAPS
Workforce	Koorie midwife
Tools of Trade including pathways, education, technology and leadership	"Felt Mum" is a resource sharable through MDAS Kerang
Patient/ Client engagement	Respite childcare for older children

MENTAL HEALTH

ACUTE CRISIS	GAPS
Workforce	Training Gap for hospitals KDH provides Withdrawal Services ○ Alcohol and cannabis locally ○ Methamphetamine referral BDH has no capacity or capability in the organisation to manage Mental Health crisis presentation in an ongoing way
Patient/ Client Access	Bendigo Health service from Echuca and Swan Hill office. This can be a challenge re defining catchment areas.
	BDH No acute services ○ no capacity or capability in the organisation to manage Mental Health crisis presentation in an ongoing way. ○ A person presenting would be sent via Ambulance Victoria to Bendigo Health
	BDH seeks opportunities to be involved in prevention work and assisting people to access services
	Phams is covered by Mallee Family Care for a majority of Gannawarra (Kerang, Koondrook, Lake Charm, Macorna) but not all
	Nexus Primary Health (located in Melbourne) cover Cohuna, Koondrook and Leitchville
Funding/ Infrastructure/ System issues	Infrastructure in health services ○ Need safe spots for patient/client to go when approach service to enhance long term support for clients - stigma in small communities
	BDH would require a total service redesign to meet the needs of people presenting with an acute episode.
	Significant gaps in discharge planning into rural areas
	GP Clinic notified of acute presentation at hospital facility days later or not notified ○ Patient often told to make a GP appointment themselves ○ Patient presents to clinic and GP has to get all the details from patient or following up details. ○ GP could ring to organise an appointment ○ Begins treatment plan of reviewing and/or referring to appropriate services later than optimal for patient

SUMMARY OF GAPS IDENTIFIED

MENTAL HEALTH

FAMILY VIOLENCE	GAPS
Workforce	Not everyone being asked "are you safe at home?" as part of intake assessment - KDH – culture change on the way
	Focus on staff Training required. BDH needs to provide opportunities for people to tell their stories and be believed
Tools of Trade including pathways, education, technology and leadership	Promotion of integrated Family Violence unit
	Mental health presentation – instigated by police – supported through GLAM (Gannawarra Local Agency Meeting)
	Family Violence training - There is a mindset that family violence wouldn't happen in Boort and it is a problem elsewhere
	Implementation of Family Violence strategy – linkages to local services
Patient/ Client Access	Housing Crisis accommodation/caravan Transitional
	Legal Aid – partners sharing this service. Cost.
	Boort - Opportunities to be involved in assisting people to access services
Patient/Client Engagement	Promotion of visiting services – need to invite the Kerang population
	Opportunities to be involved in prevention work and assisting people to access services
Funding/ Infrastructure/ System issues	Gaps police coverage Loddon
	Police attitudes
	Cultural shift within organisations

MENTAL HEALTH

ANXIETY AND DEPRESSION	GAPS
Workforce	Bendigo workforce less across farming issues
	Impact of NDIS - change or unavailable ○ PIR ○ Carer support services
	Lack of Primary Mental Health Training and medications
Tools of Trade including pathways, education, technology and leadership	Sustainable model of follow up care – predictable pathway without intervention.
	Dual/multiple diagnosis patient- requires collaboration between service organisations
	Need for case coordination/poor discharge planning from Bendigo Health
	Mental Health Pathways include both Echuca and Swan Hill for Gannawarra
	GP knowledge about services/opportunities that exist – Health pathways will assist
Patient/ Client Access	KDH and Cohuna ○ Bendigo Health – Psychiatry ○ Alexander Bayne Centre referral
	GP referral Mental Health Plan ○ Delay BOHMC in Bendigo Services
	"services in place" is outreach
	GPs a resource for clients with physical health needs also
	Bulk billing options ○ GP ○ Psychiatry ○ GP confusion re Psychiatry referrals ->No early intervention- need communication ○ Mentorship/secondary consult ○ PIR – play coordination role for seriously unwell
	PHAMS - Some of Gannawarra not covered ○ Mallee Family Care ○ Nexus –
	Transport
Patient/Client Engagement	Service variability in patient engagement – captures some but not all
	10 years ago ○ Less knowledge of services available ○ Less services available

SUMMARY OF GAPS IDENTIFIED

MENTAL HEALTH	
ANXIETY AND DEPRESSION	**GAPS**
Funding/ Infrastructure/ System Issues	Remote services get dropped first when central services under pressure
	Mental Health Nurse 1 day/2 days per week – home visits, medication
	Money and waitlist
	Infrastructure to support – in community, not in GP practice
	NDCHS ○ not a crisis service - Business hours only ○ Mental Health clients coming to NDCHS ○ Cannot carry load ○ Doing things not funded to do ○ No wrong door but not the one stop shop – long waiting list ○ Community service module ○ Need appropriate referral for NDCHS intake
	Confusion about Psychiatry referrals for GP's – Swan Hill or Bendigo
	Pointy end focus
	Patient is discharged from community services at mental health admission and therefore community services have a gap in knowledge in patient returning to community
	Holding pattern rather than longer term
	GP gatekeeper of service access– education to support referrals to existing mental health

MENTAL HEALTH	
ALCOHOL AND OTHER DRUGS	**GAPS**
Workforce	NDCHS workforce reduced
	BDH no capacity or capability in the organisation to manage Mental Health A&OD crisis presentation in an ongoing way
	Primary mental health workforce has gone
Patient/ Client Access	None in Cohuna – long waiting lists
	BDH No acute services ○ A person presenting would be sent via Ambulance Victoria to Bendigo Health
	KDH Withdrawal Services ○ Alcohol and cannabis local ○ Methamphetamine is referred to Bendigo Health
Patient/Client Engagement	Alcohol and drugs in the community is an ongoing issue and it is "socialised" at various sporting events across the region
	Alcohol is an enormous issue and causes widespread problems
	Opportunities to be involved in prevention work and assisting people to access services

SUMMARY OF GAPS IDENTIFIED

CANCER	
BREAST CANCER	**GAPS**
Workforce	Gap – management of co-morbidities between Specialist/Oncologist/GP/Allied Health/Aged Care
	Case conferencing challenges. Coordination. Who "owns" the patient – seniority/ hierarchy
Patient/ Client Access	Cohuna – Bendigo referrals – sometimes Melbourne
	Radiation in Bendigo/Melbourne
	Follow up distance and cost
	NDCHS and BHCG are both in breast cancer services space – can be confusing
Patient/ Client engagement	KDH Wig library – Loddon gap -> possibly Bendigo
	Breast checks focus – awareness
	NDCHS - Awareness of genetic risk factors
	BDH working in partnership with services in the Gannawarra and Loddon to improve cancer survivorship
	Isolation - Don't tell anyone - Reproductive systems cancer
	Cancer support groups ○ Kerang – existing formed group (closed) Need another group opportunity ○ Neighbourhood House Cohuna
Tools of Trade including pathways, education and leadership	Family History mammograms
	General Practice ○ MPHN mapping coming ○ Health pathways – need to ensure inclusion of appropriate information to family members
	Pathways need to include family support and circumstances
	Supportive screen tool training for post chemo identifying issues -Quambatook and Pyramid Hill
	DBNC -Transport challenges but some opportunities
	People want to be treated locally where practicable and being linked in via e-health to services across Victoria will improve survivorship
Funding/ Infrastructure/ System Issues	Patchy coverage of Breast Care Nurses within the Shires ○ backed up by Community Care Nurses ○ Bendigo Health service is not consistent

CANCER	
PROSTATE CANCER	**GAPS**
Patient/ Client Access	**Cohuna** Post op management Continence support Counselling for possible impotence
	KDH Low risk TURP's only – Bendigo Melbourne Social support referral as part of discharge plan
Funding/ Infrastructure/ System Issues	GP management plan – funding Allied Health Team Care Arrangements. – not always referred
	Comorbidities only eligible for funding for one chronic disease
	Allied Health in Community Health – not funded under GP management

CANCER	
BOWEL CANCER	**GAPS**
Workforce	KDH - 3 tier list for colonoscopy – demand Visiting surgeon from Swan Hill
	Stoma nurse/bowel cancer support nurse in Bendigo
	Palliative care – travel to Swan Hill
	Gap- stoma nurse Cohuna
Patient/ Client Access	**Cohuna** ○ Significant comorbidities likely ○ Influences where care is accessed ○ Who supports the family? ○ Stoma nurse for follow up not provided locally
	General Practice Screening ○ Not everyone receiving kit ○ Endorse bowel kits ○ Free kits through pathology services
Funding/ Infrastructure/ System Issues	Screening ○ Not everyone receiving kit ○ Screening gap – need some funded kit supplies for Community Health to access

SUMMARY OF GAPS IDENTIFIED

HEART HEALTH

HEART ATTACK	GAPS
Workforce	BDH doesn't have the expertise to offer treatment program
	Ensure BDH has a reputation for well trained and dynamic staff – seen as a SRHS leader where students and staff have a great rural experience where they are clinically well supported
	Ensure every nurse meets basic competencies and have the following qualifications: ○ RIPERN ○ Nurse Led X-ray ○ ALS
	Allied Health access – physio
	Cardiac rehabilitation system needs to be developed
Patient/ Client Access	Bendigo or Melbourne for initial treatment
	Cardiac rehabilitation system
	Cost is barrier
	Waiting list management through triage
	Offer transport
	Health checks each 9 months
	GP management plan
	Cohuna ○ Service access via Echuca-Bendigo ○ Echuca/Swan Hill Cardiac Rehab ○ Allied Health dependent on GP Referral
	BDH ○ Does not have any extra resources to clinics or treat patients ○ Being a Small Rural Health Service (SRHS) we can only triage category 4 and 5 pts in the Urgent Care Centre
	Allied Health access – physio
	Referrals to exercise programs
	HACC/NDIS referrals other than NDCHS
Patient/ Client engagement	Local supports to work in partnership to build an emphasis on prevention e.g. partnerships with NDCHS and general practice
	Prevention partnerships
	Strengthen link to primary care to provide preventative strategies
Tools of Trade including pathways, education and leadership	Local supports to work in partnership to build an emphasis on prevention e.g. partnerships with NDCHS and general practice
	Prevention partnerships
	Strengthen link to primary care to provide preventative strategies
Funding/ Infrastructure/ System Issues	Swan Hill CT but no MRI Strengthen link between DBNC and IDHS

HEART HEALTH

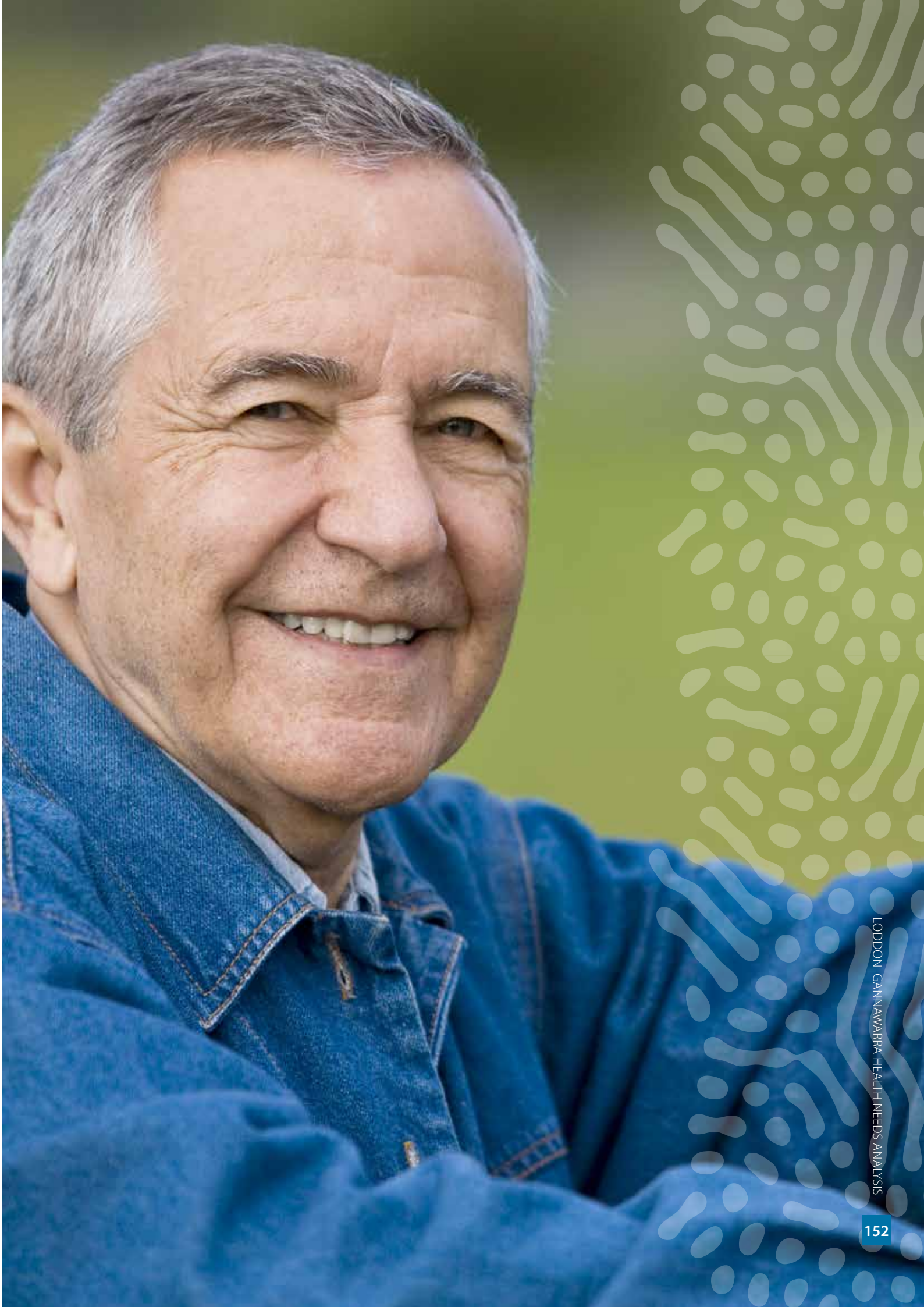
STROKE	GAPS
Workforce	BDH doesn't have the expertise to offer treatment program
	Ensure BDH has a reputation for well trained and dynamic staff – seen as a SRHS leader where students and staff have a great rural experience where they are clinically well supported
	Ensure every nurse meets basic competencies and have the following qualifications: ○ RIPERN ○ Nurse Led X-ray ○ ALS
Patient/ Client Access	Access to CT in golden hour
	Ambulance – geographic
	Being a Small Rural Health Service (SRHS) we can only triage category 4 and 5 pts in the Urgent Care Centre
Patient/ Client engagement	○ BDH Local supports to work in partnership to build an emphasis on prevention e.g. partnerships with NDCHS and general practice
Tools of Trade including pathways, education and leadership	Links for Tele-health – clot busting drug – Echuca, Bendigo, ? Swan Hill
	Prevention partnerships
	Strengthen link to primary care to provide preventative strategies
Funding/ Infrastructure/ System Issues	BDH does not have any extra resources to clinics or treat patients

RESPIRATORY HEALTH

ASTHMA	GAPS
Patient/ Client engagement	School Education – IDHS do this in schools but not within IDHS
Tools of Trade including pathways, education and leadership	School Education – IDHS do this in schools but not within IDHS
	Campaign Asthma plans
	VicTOR charts useful Victorian Children's Tool for Observation and Response
Funding/ Infrastructure/ System Issues	Streamline asthma planning
	GP's low referral to Asthma Education

SUMMARY OF GAPS IDENTIFIED

RESPIRATORY HEALTH	
CHRONIC OBSTUCTIVE PULMONARY DISEASE	GAPS
Patient/ Client Access	MDAS- Support for Care Co-ordination supplementary program
	Cohuna ○ get home oxygen – testing/access/no means testing ○ Timely delivery expense ○ Electricity supply
	MPHN ○ Questionable access to respiratory physicians – 3 per region ○ Pulmonary rehab ○ NDCHS/KDH – local service ○ Need COPD and Cardiac Rehab opportunities
Patient/ Client engagement	MDAS -Education/experience of close people/behavioural change
	Smoking – prevention – passive/environmental
	NDCHS ○ Lack of profile within community ○ Fuzzy understanding
Tools of Trade including pathways, education and leadership	Highest readmission category for IDHS ○ Pathways not explicit ○ Trajectory to aged care
Funding/ Infrastructure/ System Issues	DBNC – environmental - dry/harvest –> increased acute exacerbation incidence
	KDH-HARP program - Some exploration about pathways for COPD
	Advance Care Plan – GP can open options and conversation with patient, family, key clinicians
	TPC beds – goals based - COPD management doesn't fit well



LGHSEN HEALTH SERVICE RESPONSE CAPACITY

DIABETES TYPE 1

Case Study: 15 year old young man

BOORT DISTRICT HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Urgent Care Centre Response	
	BDH provides District Nursing where patients have a need for extra support	

COHUNA HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
General Health Promotion messages for Mum and Dad particularly around thirst	Specialist paediatric referral	Advice re ○ Sport ○ Hormones ○ Drinking ○ Extreme study ○ Extreme everything through later teenage years
	Endocrinologist	This is a specialised service very much shared care model
	Melbourne clinic treatment - transport cost	Annual cycle of care
	Shared care with GP locally	
	Diabetes educator	
	Link into Diabetes Australia support	
	Diabetes Educator - Will usually be Type 1 so need support with insulin pens etc.	
	Mum and Dad may need some support (no local group in Cohuna)	
	Education at local schools/sports where the boy studies/attends	

DIABETES TYPE 1

DINGEE BUSH NURSING CENTRE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Health care assessment	Point of Care test	Follow up support and education
Staff awareness of signs and symptoms	Pathology	Referral IDHS Diabetes Educator
Education and support in community	Support	Dietician
	Dietician	Monitor development of complication
	Education re: medication monitoring	Support for family re transition (parents) to adult service
	GP liaison	Social Work for counselling
	Specialist liaison	
	Acute events 000	

GENERAL PRACTICE (same as Type 2?)

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Diabetes program LIFE	Refer ○ Diabetes Nurse Educator ○ Podiatrist ○ Opthamologist ○ Dietician	Clinical monitoring Ongoing review of care plans Nurse led diabetes clinic
Treat BP, cholesterol	Exercise program, support groups	
MBS Care Plan Team Care arrangement Annual cycle of care	Medication management Medication reviews	
Complete history		

DIABETES TYPE 1

INGLEWOOD & DISTRICTS HEALTH SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Genetic testing of Family	Acute setting – Bendigo/Melbourne	Ongoing care
	Referral to support services	Transition - Ensuring that they have support as adult in Adult Diabetes Services
	Local support, information, parental support	
	Linking support groups	
	Diabetes in schools training (teacher training)	
	Advocacy	
	Basics –monitoring, info	

KERANG DISTRICT HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
MCH Support (5 years)	GP Clinic	Referral Endocrinologist
GP Clinic Support	Welfare Support	NDCHS ○ Diabetes Educator ○ Dietician
Welfare Support	School based support ???	
Urgent Care Centre Presentation	NDCHS referral ○ Diabetes Educator ○ Dietician	
	Urgent Care Centre Presentation	

DIABETES TYPE 1

NORTHERN DISTRICT COMMUNITY HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Health Promotion	Diabetes Educator	Diabetes Educator
Diabetes in Schools program	Pathology	Pathology
GP	Diabetes in schools	Diabetes in schools
Vic Health Programs	Podiatry	Podiatry
	Telehealth	Telehealth
	Referral to optometry	Referral to optometry
	NDSS registration	NDSS registration
	Carer's Support	Carer's Support
	Diabetes Australia ○ Advocacy ○ Camps	Diabetes Australia - Advocacy - Camps
	Counselling	Pharmacist
	Pharmacist (external)	GP
	GP	Exercise Groups/Clubs
	Bendigo Health ○ Carb Counting Group ○ Endocrinologist ○ Social Worker	Dietician
	Exercise Groups/Clubs	
	Dietician	

MALLEE DISTRICT ABORIGINAL SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Regular health checks	GP Referrals	GP - medication
Family history	Diabetes educator	Diabetes educator
Clients history	Dietician	Dietician
Healthy for life programs	ATSI Health worker ○ Health checks ○ Care plans ○ DACC reviews, foot care, eye checks	ATSI health worker ○ Health checks ○ Care plans ○ DACC reviews
Health promotions	Medications	Allied health ○ Optometry ○ Podiatry
Health education		

HEART ATTACK

Case Study: 48 year old man

BOORT DISTRICT HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Urgent Care Centre Response	
	BDH provides District Nursing where patients have a need for extra support	

COHUNA HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Community services eg pharmacy	GP Clinic	Referral Endocrinologist
Some community info	Immediately seen by nurse (? Whoever is on ? critical care trained)	Follow up by GP + District nurse if have wound.
	GP summoned	Many go to cardiac rehab but not in Cohuna.
	Pain relief, fluid, ECG. Sent to Bendigo via Ambulance.	
	Rx in Bendigo +/- transfer to Melbourne for Intervention.	

HEART ATTACK

DINGEE BUSH NURSING CENTRE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Communicate with GP ○ Encourage attendance at GP	Ambulance – Bendigo Health or as per AV	Continued liaison with GP
Community Education ○ Healthy eating ○ Obesity	Initial treatment by nursing staff (RAN trained)	Social work referral (via Inglewood)
BNC ○ BP Checks ○ Drop in assessment ○ Identify early changes	Presenting with heart attack or stroke	Other Allied health and ref (via Inglewood)
BNC ○ Health assessment ○ Dietician – referral self/ nurse		Nursing home and clinic visits - Shower assessments (for OT)
		Post Care
		Assessment Post ○ BP checks ○ Early Intervention

GENERAL PRACTICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Complete medical history	Discharge planning	Cardiologist follow up
Identify risk factors	000 Urgent care, emergency department	Chronic disease management plan
Standard coding for data extraction	Stroke CT within 1 hour	Team Care
Recall reminder systems for at risk patients	ECG troponin for diagnosis	Arrangement MBS - item
Incorporate health promotion into consultation GP or P nurse		Regular R/V
Motivational interviewing, health coaching and address risk factors		Medication R/v's MBS item
Refer to exercise program		Cardiac rehab
Refer to A Health		
Pathology and investigation		
Refer to cardiologist		

HEART ATTACK

INGLEWOOD & DISTRICTS HEALTH SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Strength training	Stabilise and transfer to Bendigo	Healthy eating program when available
Men matters day		Social work referral
Healthy eating program		On return, refer to Cardiac rehab then strength training

KERANG DISTRICT HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
GP follow up	Treatment	Day activity centre
Outpatient/urgent care treatment for presentation	Diagnosis	Men's Shed if early retirement
Welfare support to family	Pathology – point of care testing	District nursing
NDCH referral weight loss	NFR	Exercise strength based training
Referral cardiologist BHCG	Referral for cardiology	
Halter monitoring and evaluation	Referral to specialist BHGG/metro	
	OT	
	Welfare support	
	Cardiac rehab program	
	District nursing	
	Physio	
	Transition back to home	
	Advance Care Planning	

HEART ATTACK

NORTHERN DISTRICT COMMUNITY HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Life program	Cardiac rehab ilitation ○ One on one ○ Group referral ○ Referrals GP/cardiologist/pharmacist	Tele-health cardiologist
Dietician/Diabetes Educator	Pathology	Physio
Counselling	District nursing	Working groups
Smoking cessation	Counselling	Men's health
AOD	Dietician	Dietician
Achievement program	HACC – referrals domestic assistance	Counselling
Pathology	Centrelink assistance	
Community exercise program	Advance care planning	
Good sport program		
Men's health		
Health promotion		

MALLEE DISTRICT ABORIGINAL SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Unhealthy lifestyle ○ Diet ○ Activity levels ○ stress	GP referral to cardiologist	ATSI Health Worker
	Medications/reviews Bendigo	Support and monitoring – ECG's
		Transport to attend specialist appointmentss
		Regular health checks
		Care Plans
		Reviews ○ CCSS referral

STROKE

Case Study: 68 year old woman

BOORT DISTRICT HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Urgent Care Centre Response	
	BDH provides District Nursing where patients have a need for extra support	

COHUNA HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Community services eg pharmacy	Ambulance – may take to service which is part of VSN or Cohuna if time exceeded.	When come back – home visit prior discharge (timely) difficult (OT) +/- District Nurse
Some community info	Immediate Rx – transfer to Bendigo for CT and admission or transfer for CT only.	Limited Allied Health follow up.
		Physio mainly but as an outpatient.
		? PAG for social support and respite.

DINGEE BUSH NURSING CENTRE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
DBNC - Health assessment - Dietician – referral self/ nurse		Nursing home and clinic visits ○ Shower assessments (for OT)
		Post Care Assessment Post ○ BP checks ○ Early Intervention
Health Assessments	Nurse assessment	Nursing care and ongoing assessment
Dietician	000 call to AV	BP Checks
BP checks		Early intervention
Drop in for early intervention		Home and clinic
GP Liaison		Shower assessment (for OT)
Community education		Allied health referral (Inglewood)
		GP Liaison

STROKE

GENERAL PRACTICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Refer to HARP	Tele-health cardiologist
		Outpatient rehab
		Physiotherapy
		Medication Review
		Recognition of signs ○ Symptoms ○ What to do
		Discuss ACP and documentation

INGLEWOOD & DISTRICTS HEALTH SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Strength training	Stabilise and transfer to Bendigo	District nursing service
Healthy eating		Social Work
		Strength Training

KERANG DISTRICT HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Refer to NDCH support	Advance care planning	ACAS
GP Clinic follow up	Physio	OT
Nursing	NFR	District nursing
VCC Presentations for TIA's	Transitional Care Program	Day activity centre
	Transition back to home	Exercise strength based program
	Referral and transfer BHCG – Golden hour (CTSC)	
	Diagnosis	
	Refer SOG for home support	

STROKE

NORTHERN DISTRICT COMMUNITY HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Health promotion	Aides and applicances	Women's Health
Partnership with community		Physio
Carer support		
Pathology PH/Quamby		
Good sports		
Woman Health Clinic		

MALLEE DISTRICT ABORIGINAL SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Lifestyle	GP referral to Bendigo Health	Regular health checks
Diet	Medications	Support and monitoring
Physical activities	Reviews	Transport to help attend apps
Stress		Care plans
		Care reviews
		CCSS

ASTHMA

Case Study: 7 year old child

BOORT DISTRICT HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Urgent Care Centre Response	
	BDH provides District Nursing where patients have a need for extra support	

COHUNA HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Assume presenting in status asthmaticus – transfer to Children's Hospital in Melbourne	Post acute episode GP involve – asthma plan
		Education of patients/hit and miss (GP dependent)
		Smoking rates in home?
		May have access to Physiotherapy

DINGEE BUSH NURSING CENTRE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Drop in clinic for Review	000	Home/clinic Review
Community awareness around high risk times	Acute presentation	Spirometry
	RAN guidelines	Family support

GENERAL PRACTICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Refer asthma education	000	Regular monitory and ongoing education
Device education		
Asthma action plan		
History and diagnosis		

ASTHMA

INGLEWOOD & DISTRICTS HEALTH SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Asthma Education sessions at school	Aides and applicances	Women's Health
	Urgent care if needs admission	Physio

KERANG DISTRICT HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Ante natal care and QUIT advice	Asthma education/referral	Refer RCH
Parents QUIT program NDCH	Parent education	VCC treatment for deterioration
	Refer RCH	GP clinic refer to
	Refer MCH	
	Treatment	
	Diagnosis	

NORTHERN DISTRICT COMMUNITY HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
School program, plans etc	Individual/family consult	Trigger education
Healthy eating – anaphylaxis avoidance	Asthma care plan	Baseline assessment - more effective engagement of clinic/family/GP/Pharm
	Carers support	School engagement
Individual education	Resources/advocacy	
District nurses	School training	
Engagement with GP		

MALLEE DISTRICT ABORIGINAL SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Lifestyle	GP referral to Bendigo Health or Swan Hill District Hospital	Regular health checks
Environment (parents smoking around children)	Medications	Care plans
		Reviews
		Transport services
		Make sure using spacer

CHRONIC OBSTRUCIVE PULMONARY DISEASE

Case Study: 79 year old woman

BOORT DISTRICT HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Urgent Care Centre Response	
	BDH provides District Nursing where patients have a need for extra support	

COHUNA HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
General advice re smoking cessation	Acute Exacerbation Hospitalised via GP	District Nursing Service may assist post discharge for Assisted Daily Living
	Specialist consult (outpatient)	Possible access to respiratory. rehab program in a town other than Cohuna.
	Likely to be cared for in Cohuna Hospital	

DINGEE BUSH NURSING CENTRE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Nursing assessment GP referral	RAN guidelines if acute exacerbation	In home or clinic review
Health Education Community	Respiratory distress 000	Education on management Reassurance Spirometry
	Nursing assessment Clinic or home	Referral to allied health IDHS
	Acute presentation and chronic COPD	

CHRONIC OBSTRUCIVE PULMONARY DISEASE

GENERAL PRACTICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Refer respiratory physician	Discharge planning	Self monitoring and management plan
Care plan r/v's MBS Team care arrangement	Acute exacerbation 000 or could be a planned admission	Exercise program
Device use refer Asthma education		Pulmonary rehab
Smoking cessation referral to Quit facilitator		Patient education – recognition of symptoms and management
Care plan in place Treatment of exacerbation Education		ACP Guidelines used to support GP best practice
Same as cardiac stroke		

INGLEWOOD & DISTRICTS HEALTH SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Quit program	Treat at IDHS	Physiotherapy referral
		Other services as needed

KERANG DISTRICT HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
GP referral	Advance care planning	Exercise – strength based program
VCC presentation	NFR	Day Activity Centre
Physio	Respiratory Physician referral BHCG	District Nursing
NDCH referral Quit?	Physio	SOG referral home service
	Xray	
	Rx	
	Diagnosis	
	Pathology	

CHRONIC OBSTRUCIVE PULMONARY DISEASE

NORTHERN DISTRICT COMMUNITY HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
District Nurse	Individual education	District Nursing
Pathology	Access Bendigo Health Respiratory specialists	Men's health
Smoking cessation	Occupational Therapist	Tele-health with specialist
Podiatrist	Dietician	Dietician
Dietician	Counselling	
Men's/women's health	Carers group	
	Smoking cessation	

MALLEE DISTRICT ABORIGINAL SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Lifestyle	GP referral to chest specialist (Robert Cap)	Spirometry
Environment	Medications	Regular health checks
	Reviews	Support and monitoring
		Transport services to attend apps
		Care Plans
		Reviews
		CCSS
		Peak Flow

BREAST CANCER

Case Study: 42 year old woman

BOORT DISTRICT HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Links to primary care to provide preventative strategies.	Urgent Care Centre and referral	Prevention partnerships
	District Nursing care	District Nursing care

COHUNA HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Regular mammograms	Referral to – ○ Surgeon ○ Oncologist ○ Chemo/radiation All of the above require travel from Cohuna	"Survivorship" issues
Breast examination	If radiation Bendigo, may need to stay in Bendigo. Cost/family/isolation.	Regular reviews and tests – done in Bendigo or Melbourne
	Post Treatment appointments + breast care nurse	Lymphoedema management (Bendigo)
	Community nurses	Costs and need to travel continue
	Need for info from acute service/ oncologist	GP as care coordinator
	GP coordinating care	Like to not have follow ups for things that do not seem important
	Referral to supporting orgsanisations + VPTAS, Centrelink	
	Dietician (local)	
	Physiotherapy (local)	

BREAST CANCER

DINGEE BUSH NURSING CENTRE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Health assessment	Support/advocacy – patient/family	Support/advocacy – patient/family
Drop in service	Clinic/home visits – health monitor	Clinic/home visits
Early Intervention	Referral to Allied Health (IDHS)	Palliative care
Community education	Education	Referral to Allied Health (IDHS)
	Transport	Liaison with specialist
	Liaison with specialist	
	Pathology	

GENERAL PRACTICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Educate around breast checks	Presenting with signs/symptoms or other health issues	Referral to Allied Health as appropriate
Family history review	Referral for diagnostic imaging/biopsy	Ongoing management
Awareness/health promotion materials in practice	Referral (timely) to oncologist/specialist	Rapid entry back to specialist etc, as appropriate
Referral as appropriate for genetic testing	Patient education consultation	Shared care
	Ongoing management referral	
	Management co-morbidities	

INGLEWOOD & DISTRICTS HEALTH SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Quit Program	Admission for care/Palliative care if required	Social work for patient and family
Rural Health days	Social work for patient and family	District Nursing Service
	District Nursing Service	Physiotherapy
Healthy eating programs	Liaison with Bendigo Community Palliative Care Service	Strength training
Strength training	Referral to specialist doctors or hospital services	

BREAST CANCER

KERANG DISTRICT HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
GP clinic	Diagnosis and referral to Bendigo Health - Mark Warren	GP
NDCH Women's Health	Pathology	NDCH referral dietician
Antenatal/post natal care	X-Ray – referral tertiary centre surgery	District nurse
Family history check referral breast Clinic	Cytotoxic Treatment	Welfare support
	Wig library – referral to Breast Clinic	Cancer support nurse
	Referral dietician NDCH	Advance care planning conversation?
	Cancer support screen tool	

NORTHERN DISTRICT HEALTH SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Health promotion ○ Smoking cessation ○ Alcohol – AOD counselling ○ Fruit and vegie – Dietician ○ SBE – Health ○ Exercise ○ Genetic	Referral to Allied Health ○ OT ○ Dietician ○ Smoking cessation ○ Breast care nurse in Swan Hill ○ GNets for transport support	Referral – ○ OT ○ Lymphodema ○ Local support at neighbourhood
	Housing	Generalist counsellor ○ Body image ○ Talk to work place ○ Talk to children
	Generalist counselling and support	Ongoing prevention
	Support for family – youth counselling	Good general health
	V.P.T.A.S. (transport support)	Nursing support in Pyramid Hill and Quambatook
	Nursing support in Pyramid Hill or Quambatook	Liaise with palliative care/oncology team re: ongoing treatment or symptom relief
	Liaising with oncology team at Swan Hill	

PROSTATE CANCER

Case Study: 80 year old man

BOORT DISTRICT HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Links to primary care to provide preventative strategies.	Urgent Care Centre and referral	Prevention partnerships
	District Nursing care	District Nursing care

COHUNA HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Prostate screening	Surgery +/- chemo, radiation	Continence services
Blood tests/exam	Needs to be done somewhere other than Cohuna. ○ Cost etc. ○ GP co-ord. ○ Travel time	Counselling for side effects of surgery
GP focussed	Risks associated with surgery at 80 – do comorbidities develop?	General issues associated with an elderly client
General HP ○ Diet ○ Exercise		Social support ○ PAG ○ Counselling
		Deal with comorbidities

DINGEE BUSH NURSING CENTRE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Health assessment	Support/advocacy	Support/advocacy
Early intervention - Drop in service	Clinic/home visits – health monitoring	Clinic/home visits – health monitoring
Community education	Referral to Allied Health	Allied Health
Pathology	Education	Palliative care
	Transport	
	Liaison with specialist	
	Pathology	

PROSTATE CANCER

GENERAL PRACTICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Family history	Referral for investigation	Ongoing management of patient
Screening	Management comorbidities	Ongoing referrals as indicated
Education	Referral for specialist	

INGLEWOOD & DISTRICTS HEALTH SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Quit Program	Admission for care/Palliative care if required	Social work for patient and family
Rural Health days	Social work for patient and family	District Nursing Service
	District Nursing Service	Physiotherapy
Healthy eating programs	Liaison with Bendigo Community Palliative Care Service	Strength training
Strength training	Referral to specialist doctors or hospital services	

KERANG DISTRICT HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
GP regular checks	Referral tertiary centre surgery	Men's shed
Family history	If Low risk TURP at KDH	NDCH dietician
	Pathology	Cancer support nurse
	Transfer back to recovery	Advance care planning
	Referral oncology cytotoxics	Welfare support
	Supportive screening tool	

NORTHERN DISTRICT COMMUNITY HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
50 year check	Generalist counselling (relationship)	Refer to continence nurse
Men's Health worker	Dietician	CAPS funding
General health	Podiatrist	Counselling
Staff access health	OT	
	Management of other chronic illness eg. diabetes	
	Look at whole family	
	What are their needs eg. Nursing of other family members	

BOWEL CANCER

Case Study: 70 year old man

BOORT DISTRICT HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Links to primary care to provide preventative strategies.	Urgent Care Centre and referral	Prevention partnerships
	District Nursing care	District Nursing care

COHUNA HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Advice on diet	Surgery chemo/radiation (travel issue)-	Community Nurse for follow up (local)
Screening	Management of stoma if needed All treatment needed will occur in Bendigo, Echuca, Melbourne. Travel and costare issues but the system is good. GP will coordinate?	GP – co ordination of care
	Dependent on spouse or no support	Dietician – local
		Stoma nurse for follow up not provided locally - travel
		General ○ Fitness ○ Social support ○ Social worker ○ Local community support PAG

DINGEE BUSH NURSING CENTRE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Health assessment	Support/advocacy – pt/family	Support/advocacy
Drop in service – Early Intervention	Clinic/home visits Health monitoring	Clinic/home visits
Community education	Referral to Allied Health (IDHS)	Palliative care
Pathology	Education	Referral to Allied Health
	Transport	Liaison with specialist
	Liaison with specialist	Dietician
	Pathology	
	Dietician	

BOWEL CANCER

GENERAL PRACTICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
2 yearly screening	Positive Faecal Occult Blood Test	Surveillance
Family history	Signs/symptoms	Referrals Allied Health
	Referral for colonoscopy	Management Palliative Care
	Management of comorbidities	

INGLEWOOD & DISTRICTS HEALTH SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Quit Program	Admission for care/Palliative care if required	Social work for patient and family
Rural Health days	Social work for patient and family	District Nursing Service
	District Nursing Service	Physiotherapy
Healthy eating programs	Liaison with Bendigo Community Palliative Care Service	Strength training
Strength training	Referral to specialist doctors or hospital services	

KERANG DISTRICT HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Family history. Flag with GP consultation	Colonoscopy Sigmoidoscopy	GP
Referral to NDCHS dietician	Referral to oncologist	Men's shed
QUITsmoking	Referral tertiary system surgery	Welfare support
Alcohol & Other Drug intervention referral to NDCHS	Cytotoxic treatment	District names
GP - risk taking behaviour modification	Referral NDCHS dietician	Cancer support name
	X-Ray	Advance care planning
	Pathology	Bowel CA Support Name BCHG referral
	Cancer support screen tool	

BOWEL CANCER

NORTHERN DISTRICT COMMUNITY HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Health promotion	Counselling re: cope with diagnosis	Nursing care eg. Stoma care with nurses at Quambatook/Pyramid Hill Refer/liaise with Bendigo stoma nurse
Smoking cessation	Work with other health services eg. Quambatook and Pyramid Hill nurses participate in treatment	General counselling
LIFE program	Housing/transport – VPTAS/G-Nets	Advocate to local shire for HACC services eg. Meals on wheels, home care.
Encourage bowel screening	AOD	
Exercise	Smoking cessation	
Dietician	Refer to financial counsellor	
AOD (alcohol)	Support with Centrelink	
Men's Health worker and health sessions in the community	Family support re: refer	
	Management of other chronic conditions eg. Diabetes, nutrition	
	Nutrition support	

ACUTE MENTAL HEALTH CRISIS- PSYCHOSIS

Case Study: 22 year old man

BOORT DISTRICT HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Referral only	

COHUNA HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Good Health strategies	Brought in by Police or Ambulance ○ Violent ○ Aggressive ○ Irrational ○ Possible self harm	Ongoing counselling depending on where they live.
Make support often sport	Seen by nursing staff who do their best – including. GP	May be in local community or Bendigo
Alcohol and Drugs	Contact Bendigo Mental health who will assess (not in person) may take many hours	Issue with ○ Finance ○ Housing ○ Re using alcohol and drugs – possible self medication
	Assuming they accept client – transported to Bendigo	GP involvement
		Drug and Alcohol counselling if this is part of the problem

DINGEE BUSH NURSING CENTRE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Community engagement ○ Remaining stigma	Crisis – 000 or Mental Health Bendigo	Support Social Work referral
Staff education re: management		
Rapport building		

GENERAL PRACTICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Patient presents at GP clinic, violent and threating. ○ 000 called – ○ taken to hospital for triage.	May end up back at GP clinic in the future, with or without treatment occurring.

FAMILY VIOLENCE

Case Study: 33 year old woman with children

BOORT DISTRICT HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Referral only	Prevention programs especially with a focus on staff. BDH needs to provide opportunities for people to tell their stories and be believed
		Implementation of Family Violence strategy – linkages to local services

COHUNA HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Gender equality	Make her feel safe!	
	Encourage by asking the question ○ Do you feel safe at home? ○ Are there any children at home?	Support for housing, counselling, children
	Refer to Centre for Non Violence based in Bendigo	Refer to local groups. Stigma!
	Counselling (intermittent)	If legal system involvement, this is another stressor.
	GP involvement	
	Does she need a shelter? If so, she withdraws from local supports, eg. Schools for children as not in local area	

DINGEE BUSH NURSING CENTRE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Community education and engagement	Treatment of physical injuries	Support and advocacy
Removal of stigma	Centre for Non Violence (Bendigo) – support	Continued community education
Staff education	Possible police referral	Social Work referral
	Social Work referral	

ACUTE MENTAL HEALTH CRISIS- PSYCHOSIS

LODDON SHIRE COUNCIL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	LG no direct service provision so if contacted by community re Mental Health issue refer to local community health services as initial entry point and for information	• Respond post emergency event to advocate for M Health supports for community.
	Host Loddon Healthy Minds Network website and use media to promote Mental Health messaging, available services/contact numbers for help lines.	Promote use of website and PCP MH resource.
	Promote use of BLPCP website and BLPCP Mental Health directory resource.	Community activities to raise awareness and reduce stigma.
	Community activities to raise awareness and reduce stigma.	

NORTHERN DISTRICT COMMUNITY HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Youth worker	Receive referral from KDH	Counselling
Freeza	Possible withdrawal	Housing
ICE peer support	Possible refer to rehab (ASCO)	Financial – refer
Alcohol and Other Drugs education (schools)	Police	Child protection/Child first
Work with Gannawarra Shire with Youth Council	Triage	
Might have worked with family previously or previous involvement with DHS		

SOUTHERN MALLEE PCP (GANNAWARRA)

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
GP	Bendigo Health Echuca/Swan Hill	
NDCHS	Mallee Family Care ○ Mental Health Pathways program ○ Phams	
	NDCHS – Partners In Recovery	
	Anglicare – Partners In Recovery	

ACUTE MENTAL HEALTH CRISIS- PSYCHOSIS

INGLEWOOD & DISTRICTS HEALTH SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Social work	Mental Health Nurse for patient	Mental Health Nurse for patient
Quit Program	Social work for patient and family	Social work for patient and family
Rural Health days	A&OD worker if needed	District nursing Service
Healthy eating programs	Liaison with Bendigo Psychiatric Service	Physiotherapy
Strength training	Referral to specialist doctors or hospital services	Strength training
		A&OD worker if needed
		Quit Program
		Rural Health days
		Healthy eating programs
		Strength training

KERANG DISTRICT HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
GP Clinic	Secure safe room at KDH VCC	NDCHS drug and alcohol support
Urgent Care Centre if required	Police/ambulance support	GP clinic
Welfare support	Urgent Care Centre presentation - liaise with Bendigo Health Mental Health	
School welfare support	Transfer Bendigo Health Mental Health	
	Bendigo Mental Health Nurse	
	NDCHS worker - contact/phone number	
	Mental Health First Aid	
	Police/mental health KDH care review meeting	

GENERAL PRACTICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE

ACUTE MENTAL HEALTH CRISIS- PSYCHOSIS

INGLEWOOD & DISTRICTS HEALTH SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Social work	Mental Health Nurse for patient	Mental Health Nurse for patient
Quit Program	Social work for patient and family	Social work for patient and family
Rural Health days	A&OD worker if needed	District nursing Service
Healthy eating programs	Liaison with Bendigo Psychiatric Service	Physiotherapy
Strength training	Referral to specialist doctors or hospital services	Strength training
		A&OD worker if needed
		Quit Program
		Rural Health days
		Healthy eating programs
		Strength training

KERANG DISTRICT HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Ante Natal Clinic asked violence question	Urgent Care Centre presentation	NDCHS follow up support counselling
GP clinic	Admit for support and safety	Mallee Family Care social support referral
Post natal care – asked violence question	Police referral	Child First referral
Referred to Maternal and Child Health Nurse who asked family violence question	Referral to Mallee Sexual Assault Service	Maternal and Child Health referral for children development checks
	Welfare support	GP clinic
	NDCHS housing	

LODDON SHIRE COUNCIL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	LG no direct service provision so if contacted by community re Mental Health issue refer to local community health services as initial entry point and for information	• Respond post emergency event to advocate for M Health supports for community.
	Host Loddon Healthy Minds Network website and use media to promote Mental Health messaging, available services/contact numbers for help lines.	Promote use of website and PCP MH resource.
	Promote use of BLPCP website and BLPCP Mental Health directory resource.	Community activities to raise awareness and reduce stigma.
	Community activities to raise awareness and reduce stigma.	

ACUTE MENTAL HEALTH CRISIS- PSYCHOSIS

MALLEE DISTRICT ABORIGINAL SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Respectful relationship program	Counselling	Centrelink
Bumps to babes	Refer NDCHS	Accommodation
	Refer to BAUDINET Service BOMHC	Engaged with children and general pop
	Family Services	Tiypen Kwe program
	Strong families project	
	Kinship care arrangements	

NORTHERN DISTRICT COMMUNITY HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Counselling	Refer to Domestic Violence service in Swan Hill	Counselling
Relationship support	No appropriate safe house (caravan park)	Youth counselling
	Child First	
	Centrelink/emergency payments	
	Housing	
	St. Vinnies	
	Distance (rural)	
	Legal Aid	

SOUTHERN MALLEE PCP (GANNAWARRA)

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Social connection – community groups	GP and Mental Health services MH Nurse Incentive	
Inclusion	NDCHS	
	Anglicare – Financial counselling if needed	
	Mallee Family Care ○ Relationship centre ○ Financial counselling	
	MDAS – emotional wellbeing support	

DRUG & ALCOHOL ISSUES

Case Study: 48 year old man

BOORT DISTRICT HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Referral only	

COHUNA HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Good education re harm Alcohol and Other Drugs	If Violence or crime associated – involvement of police	Strong communities
Involvement of community groups	Altered thinking regarding impact on children and partner	Ongoing counselling
	Possible homelessness	Link to education/employment or family
	Irrational behaviour	Takes enormous work to succeed
	Access Alcohol and Other Drugs counselling	Labelled
	Court system involvement	
	Referral to access detox and access to rehab	

DINGEE BUSH NURSING CENTRE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Community education	Depends on severity of presentation ○ GP ○ 000	Support /advocacy
Support/advocacy	Support and advocacy	Social Work referral
	Social Work referral	

DRUG & ALCOHOL ISSUES

GENERAL PRACTICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Scheduled appointments	Follow up with GP for med reviews, check in.
	Medication	
	Physical Health check	
	Referral To ○ Psychologist ○ Psychiatrist Using ○ ATAPS ○ Better Access ○ Private Health ○ Partners In Recovery Program for severe & persistent condition with complex needs ○ Mental Health Nurse Incentive Program	
	Health Service for triage	
	Acute inpatient	
	Community managed	
	Mental Health Community Supprt Services	

INGLEWOOD & DISTRICTS HEALTH SERVICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Social work	Mental Health Nurse for patient	Mental Health Nurse for patient
Quit Program	Social work for patient and family	Social work for patient and family
Rural Health days	A&OD worker if needed	District nursing Service
Healthy eating programs	Liaison with Bendigo Psychiatric Service	Physiotherapy
Strength training	Referral to specialist doctors or hospital services	Strength training
		A&OD worker if needed
		Quit Program
		Rural Health days
		Healthy eating programs
		Strength training

DRUG & ALCOHOL ISSUES

KERANG DISTRICT HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
GP Clinic	Admit- possible detox at KDH with NDCHS support	GP clinic
NDCHS referral for lifestyle choices and risks	Withdrawal support	NDCHS referral counselling
	Welfare support	NDCHS referral alcohol and other drug service
	NDCHS Financial advice	

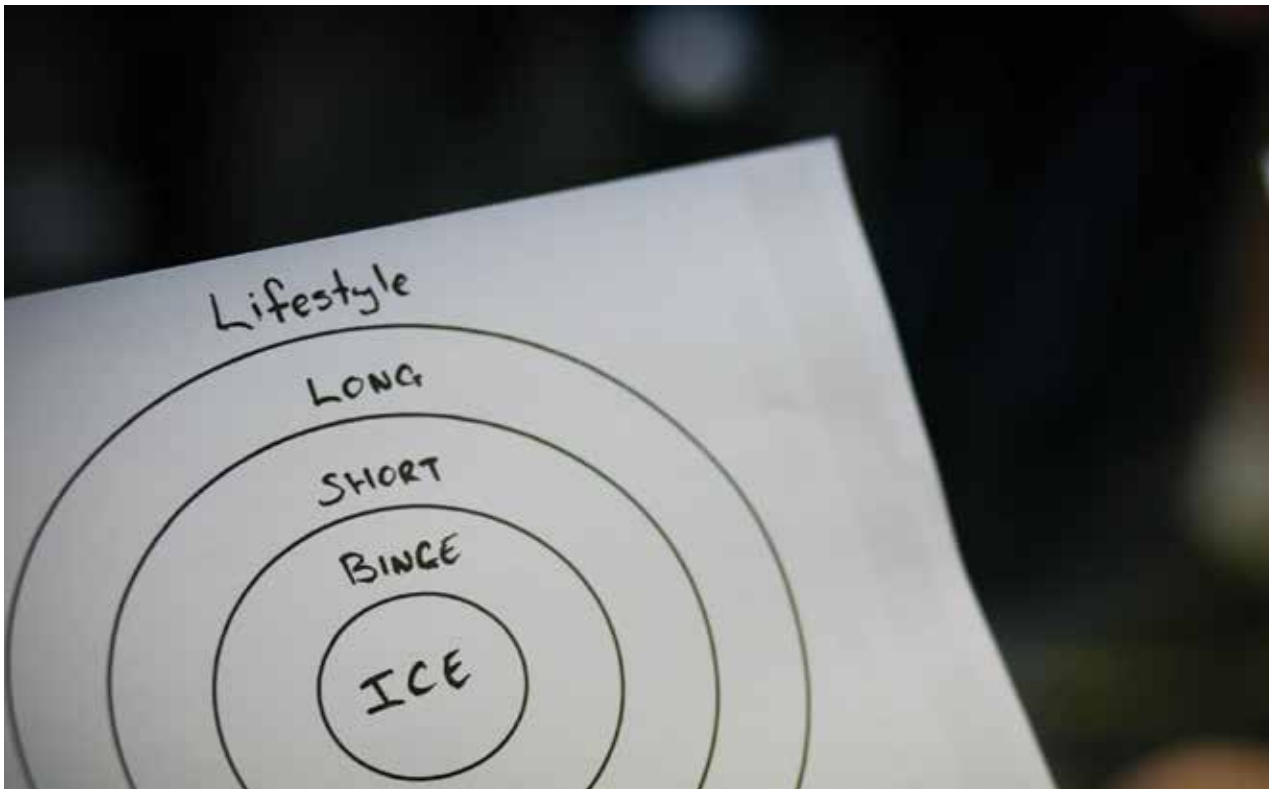
LODDON SHIRE COUNCIL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	LG no direct service provision so if contacted by community re Mental Health issue refer to local community health services as initial entry point and for information	○ Respond post emergency event to advocate for M Health supports for community.
	Host Loddon Healthy Minds Network website and use media to promote Mental Health messaging, available services/contact numbers for help lines.	Promote use of website and PCP MH resource.
	Promote use of BLPCP website and BLPCP Mental Health directory resource.	Community activities to raise awareness and reduce stigma.
	Community activities to raise awareness and reduce stigma.	

DRUG & ALCOHOL ISSUES

NORTHERN DISTRICT COMMUNITY HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
GAP(?) Education	Assessment (ACSO Referral)	Maintenance of lifestyle change
GoodSports Program	Risk Assessment – possible triage referral	Link with community groups
Responsible Serving of Alcohol courses	Identify precipitating/protective factors	Men's Shed
Counselling ○ Relationships ○ Alcohol and Other Drugs	Identify what drug/amount/pattern of use	Anxiety and depression management
	Explore contact with family	
	Drink/drug driver	
	Corrections	
	Relationships/kids	
	General health	
	Job issues	
	Refer to GP (medications)	
	Gym	



ANXIETY AND DEPRESSION

Case Study: 75 year old woman

BOORT DISTRICT HEALTH

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Referral only	

COHUNA HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Healthy messages and impact on mood	GP Care	Ongoing medication
Early intervention	Medication	Ongoing stigma of being "nervy"
GP	Counselling services at Cohuna (intermittent)	Impact on family – partner and children
	Impact on family	Social connectedness ○ Support groups (PAG, KWA) ○ Exercise ○ General health issues
		Counselling patchy in Cohuna. Not able to be fast turnaround.

DINGEE BUSH NURSING CENTRE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
Raising awareness "How are you going" resources "Black Dog Ride"	Support and Advocacy	Support and Advocacy
"Drop in" rapport in service	Referral to Social Worker (IDHS)	Referral to Social Worker (IDHS)
Community events and engagement	Encouragement to seek GP support	Engagement
Staff education and awareness	Bendigo Mental Health Care team or 000 if crisis	

ANXIETY AND DEPRESSION

GENERAL PRACTICE

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
	Scheduled appts	Follow up with GP for med reviews, check in.
	Medication	
	Physical Health check	
	Referral To ○ Psychologist ○ Psychiatrist Using ○ ATAPS ○ Better Access ○ Private Health ○ Partners In Recovery Program for severe & persistent condition with complex needs ○ Mental Health Nurse Incentive Program	
	Health Service for triage	
	Acute inpatient	
	Community managed	
	Mental Health Community Supprt Services	

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Strength training	Referral to specialist doctors or hospital services	Strength training
		A&OD worker if needed
		Quit Program
		Rural Health days
		Healthy eating programs
		Strength training

ANXIETY AND DEPRESSION

KERANG DISTRICT HOSPITAL

10 YEARS BEFORE DIAGNOSIS	TIME OF CONTACT/DIAGNOSIS	FUTURE CARE
GP Clinic	VCC Presentation	Aged mental health referral
Counselling NDCHS Referral	Welfare Support	GP Clinic
	Admission for support. Mental Health Support Bendigo Health	NDCHs Counselling
	Mental health Acute episode. Bendigo Health- Alexander Bayne Centre referral.	Family support. NDCH counselling
		Better outcomes for mental health referrals
		Exercise and mindfulness Tai Chi
		Exercises Strength Training

LODDON SHIRE COUNCIL

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	Community activities to raise awareness and reduce stigma.	

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