phn
MURRAY

An Australian Government Initiative

Needs Assessment 2016

Section 1 - Narrative

This section provides PHNs with the opportunity to provide brief narratives on the process and key issues relating to the Needs Assessment.

Process

A catchment wide needs and service analyses are underway as part of the commissioning cycle for Murray PHN. These analyses are informed by a foresight methodology (Voros, 2001) that moves from problem/gap identification through to options and opportunities that then informs the choice of strategic actions.

Key informants not only identify issues and needs, they subsequently become invested in generating strategic options and shared action. Murray PHN commenced this process in September 2015 and will continue until September 2016 in readiness for the following year's prioritisation and planning process and includes general, mental health and alcohol & other drug assessments that are captured in this overall needs assessment. The foresight process model addresses the following questions:

1. Scanning: what is happening?
Initial scan of data, policy settings and program priorities

2. Analysis: What seems to be happening? November - March
Assembly and presentation for further investigation in response to presenting and emerging needs and service system capability

3. Assessment: What is really happening?
Deeper interpretation of the data with a range of key informants and lenses of equity, effectiveness and efficiency

4. Prospection: What might happen?
Identifying the options based on evidence summaries and the desired outcomes

5. Priority setting: What might we need to do?
Selected options supported by resource mapping based on strategic priorities

6. Validation & Planning: What will we do?
Triangulated evidence & knowledge base for each strategic priority, communicated between stakeholders and communities

7. Strategy Implementation: How do we do this?
Public release of annual work plan with key evidence, reporting and accountabilities through formal stakeholder commitments to collaborative actions

Key issues

The process to date has reinforced the need for Murray PHN to strengthen its future capability in knowledge management in order to build quality health related information that is as contemporaneous as possible, as meaningful as possible, and as accessible as required for broad stakeholder and community consideration.

During this initial process significant demographic data provided a base but limited the efficacy given the age of the data sets. It was determined to use data sets that were no more than five years old, which was generally achieved, however this meant that some data was potentially relating to people and communities where considerable movement may have occurred within a five-year span.

The lack of time series data as outlined in the next section has further limited the level of meaningful conclusions. Subsequently the need arose to consider broader sources of information such as: grey literature focussed on specific regions, communities, and workforces as well as obtaining local action research and/or evaluations of particular service responses to identified needs for populations, cohorts or conditions.

There is considerable data that is currently being assembled and will be invaluable for future planning and monitoring purposes, such as GP data through the PEN suite of tools and Health Pathways software. There is an increasing appreciation that developing health needs and service needs data over multiple years will better inform future decision making that so often needs more than a snapshot approach to assess the desired outcomes and degree of positive change. As it is for rural catchments, the numbers can be too small for sensible interpretation unless taken over time as time series data.

This needs assessment has focussed on the priorities that were established by Murray through its strategic review process late 2015. Other key health needs and service system issues have emerged and will be duly incorporated into future planning as appropriate.

Murray PHN welcomes the opportunity to work with stakeholders and communities within the catchment to collaborate on building better health outcomes for all Murray residents.

Additional Data Needs and Gaps

In determining the data sources, a number of factors influenced the selection, being:

- Traditional suite of demographic data and a set of data related to health status, health behaviours and health conditions
- Access in a form that could provide a base line for future PHN catchment boundary needs
- Opportunity for ongoing time series data to be developed
- Opportunity for data to be integrated into discrete projects, communities and population needs
- Data governance and integrity

Whilst a significantly large selection has been compiled, there are gaps identified in the work to date. These indicate:

- Identified data sets have limited usefulness for analysis specifically for the Aboriginal and Torres Strait Islander population and communities in the catchment because some key data is not as available by Indigenous status
- Inability to conclude whether the population is getting better or worse because time series data are not presented
- Inability to conclude whether Murray PHN is doing better or worse than like PHNs (same age structure / SES profile) because the comparator is either Victorian or Australian levels

Finally, it is worth noting that significant findings are also limited or non-contextual because the data presents mostly as throughput measures which doesn't inform about impact on health outcomes at a population health level.

The PHN website provided helpful data, and over time Murray PHN expects to investigate specific data for more contextual and relational needs, such as planning for market diversity in outlying communities, and to work with the Department to refine data needs.

As part of the analyses, professional judgment of PHN staff, stakeholders and service providers has been taken into account and where possible, needs have been informally validated through feedback and multiple sources of perceived need that could be assessed as normative, felt, expressed, or comparative in their shared understanding.

Significant volumes of data have been viewed in order to establish breadth of knowledge from key informants and provide some indication as to what is privileged through, or validated by, other funding drivers such as chronic disease management and service coordination as an example.

A set of brief regional profiles was developed to which key informants such as GPs, health service providers and specific community health services were invited to respond through consultation sessions. Over 600 individual comments were collected; more than 160 issues perceived as having some level of priority with more than 50 service providers; many of which generated common themes across the catchment.

The establishment of the interim clinical council has been instrumental in assessing the critical themes for future consideration, particularly related to GPs. The imminent establishment of a catchment wide population health planning council to oversight the catchment's future population health and primary care systems knowledge management, and provide timely advice to the Board.

Additional comments or feedback

Murray PHN has developed the 2016 Needs Assessment report as an initial provision of information captured thus far. Through this report Murray PHN has sought to identify, collate and analyse relevant information that will inform planning activities for our commissioning and co-ordination role for a geographical region of rural Victoria that previously was supported by five discrete Medicare Locals.

Accordingly, Murray PHN has been working with key stakeholders to capture relevant information for this needs assessment and planning purposes since our commencement. Broadening scope to include case studies is designed to highlight qualitative as well as quantitative data will be pursued and represents to our stakeholders the value placed on the collaborative approach Murray PHN will continue to foster.

This work to date has indicated a range of significant gaps in population health information and service provision data that Murray PHN will seek to bridge and strengthen to enhance our planning processes. Similarly the capacity to identify and assess health needs across a diverse and complex environment has more dimensions and depth than can be captured in the collation of quantitative data. The capacity to build relationships and to draw understandings through inclusion of qualitative information is critical to effectively identify and assess health needs.

In further understanding both the health needs of our communities and opportunities to develop system improvements we need to move focus to outcome and performance measures rather than outputs and utilisation statistics. Our first year of needs identification and assessment relies heavily upon output and process measures and retrospective reviews of service systems. Future needs identification processes will be enhanced by development of outcome performance measures and provide for greater scope and capacity for predictive and trend analytics.

For these reasons, as a new organisation charged with these significant responsibilities we regard the development of the Murray PHN Needs Assessment report not only as it informs our planning efforts but also as a point in time description of health needs that we can currently identify, and reveals opportunities and areas for further systemized enquiry, in conjunction with our stakeholders. Given current gaps in health data and information and our progressive development in building capacity and opportunity to engage service providers and communities in identifying need and where possible, co-designing solutions that will offer effective and responsive models of care, we consider this needs identification and assessment to be an ongoing and iterative process that will continue to be undertaken well beyond 30 March 2016.

It is with this context that we submit this Needs Assessment report, acknowledging it is a milestone rather than the destination for Murray PHN in our capacity to fulfil our responsibilities within our catchment.

Section 2 – Outcomes of the health needs analysis

This section summarises the findings of the health needs analysis to date, with a particular focus on priorities. As stated the needs assessment summaries will continue to be developed in consultation with the service providers, communities and advisory structures.

The summary is not presented as an exhaustive list or comprehensive evidence base, as it has sought to strategically build on existing local knowledge and professional judgment as to what matters most for the 2016/17 period.

Outcomes of the health needs analysis: Key areas

- Population health
- Aboriginal and Torres Strait Islander health
- Aged care
- Mental health
- Suicide prevention
- Alcohol and other drugs (AOD)
- Child and adolescent mental health
- Oral health
- Chilhood immunisations
- Cancer screenings
- Chronic disease conditions: diabetes and cardic related

Population health

Key issues

- Need for increased access to services, and need for improved
  - Transport options for patients (consistent reporting of lack of available transport is the key barrier to access)
  - Access to dental services
  - Access for young disabled people to access supported care
  - Options for access to after-hours support including improved awareness of supports available
  - Cross border solutions
  - Ageing in place – care in the home models
  - Access to specialist service providers and greater flexibility for better models of coordinated care
  - Discharge planning processes from metro & regional hospitals and improved after care re services required and needing GP coordination
- 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
- In some communities, particularly rural local government areas, such as the Shires of Gannawarra and the Shire of Strathbogie, people aged over 65 years represent more than one quarter of the total local government area population
- Increased number of people and proportion of the population over 65 year and over 85 years means all services need to take more account of the needs of the old and the very old.

Description of evidence

- Total population of approximately 593065 persons in 2014 and projected to grow across the catchment steadily over the next ten year, In round figures, Central Victoria and North East have similar populations around 200,000 and Goulburn Valley about 135,000, and North West reflecting around 80,000
- Approximately 9,900 persons identify as Aboriginal & Torres Strait Islander(1.9%) with significant proportions residing in Swan Hill 4.3%; Mildura 3.6%; and Greater Shepparton 3.4%
- SEIFA data indicates that: at SA 2 level, Central Victoria has 18 of 23 areas above the Victorian average, 5 in the top 2 deciles; Goulburn Valley has 15 of 17 areas above, 5 in the top 2 deciles; North East has 14 of 19 areas above with 6 in the top 2 deciles and 4 of these in NSW; and North West has 8/9 above with 4 in the top 2 deciles
- Korong Vale is identified as special case in one of Victoria's most disadvantaged postcodes
- Specific communities of significant disadvantage include part of Mildura (482); Wodonga (556); and Benalla (552). Murray PHN is the second highest PHN in Victoria with children in low income, welfare dependent families (27.1%) and second highest PHN with 76.1% of people over 65 receiving the aged care pension, although this is similar to other regional/rural PHNs and North Western Melbourne
- 95,300 people aged over 65 years residing within catchment representing 18% of the total catchment population
- Avoidable mortality (0-74years): Central Victoria 5 of 6 areas well above; Goulburn Valley all 5 areas above, notably with Murrindindi at 276.4 is more than double the Victorian rate; North East has 5 of 8 areas above; and North West has all three areas above the Victorian rate per 1,000
- Those receiving disability support payments: approx. 30,000 persons (16 – 64 years) across catchment represents 7.9% population
- For those receiving instances of assistance through HACC: two areas have significant variance to the Victorian population rate, for Gannawarra it is more than double at 372, and for Loddon it is 560 against Victorian rate of 142
- Limited public dental clinics available throughout many rural areas
- For all causes of premature mortality, excluding cerebrovascular diseases, Murray PHN has higher premature mortality than for all conditions in metropolitan Melbourne.
- Major transport issues: access, timetabling, small towns into regional centres/services, costs as identified in local transport plans and reports

Aboriginal and Torres Strait Islander health

Key issues

- Unacceptably high rates of chronic disease, lower life expectancy, increased disadvantage, variability in cultural appropriateness, increased risk factors/ chronic disease family violence, increased complexity and chronicity, and a lack of acknowledgment of the importance of culture within healthcare models
- Expressed levels of need from AHS about access to community mental health services for their clients
- Increasing need for assistance to older community members: health literacy issues, transport needs
- Need for supporting health assessments within community settings for Aboriginal and Torres Strait Islander people
- Need for Aboriginal children and families for special activities aimed at teaching and celebrating their culture
- Need to work in close partnership with Aboriginal health services and community organisations
- Need for partnerships with ACCOs and health service providers to identify needs and provide screening, assessment and early intervention programs more collaboratively: smoking cessation, diabetes management, pain management
- Aboriginal children over represented in out of home care and through child protection data, with increasing concern about levels of risk
- ATSI rates are also above the state average at five years, however below the average at cohort milestones
- Across the catchment there are both ATSI specific (through the 6 ACCHOs) and mainstream services, providing a range of mental health, AOD and Suicide Prevention services to the ATSI community about which deeper knowledge will lead to improved shared action on models of care, best practice and existing service gaps

Description of evidence

- Hospital separations for indigenous population in North West is notably higher with a difference from the general population for the area rate of 89%; and for Goulburn Valley it is 30 %
- Difference in rates between general and indigenous population for ED presentations from 2011/12 to 2013/14 note 89% difference for Goulburn Valley and 52 % in North West, and 44 % for North East, Central Victoria recording 18% difference
- ED presentations for respiratory system illness (2011/12 to 2013/14) indicates that Goulburn Valley's rate difference between general and indigenous populations is 130%, well above Victorian average rate of 81%
- Core activity need for assistance by Indigenous status (2011) Indigenous population: higher in Goulburn Valley and North West than Victoria
- HACC Clients - selected characteristics - Part A (2012/13) Indigenous clients as % of Indigenous population: higher in Central Victoria and Goulburn Valley than Victoria
- Hospital separations by Indigenous status, (2011/12 to 2013/14) Indigenous rates: higher in Goulburn Valley, North East, Murray PHN Indigenous than Victoria
- ED presentations by Indigenous status (2011/12 to 2013/14) Indigenous rates: higher in Goulburn Valley, North East, North West, Murray PHN than Victoria
- ED presentations for respiratory system illness (2011/12 to 2013/14) Indigenous rates: higher in all areas of Murray PHN than Victoria
- Public hospital separations for diseases and disorders of the respiratory system (2011/12 to 2013/14) Indigenous rates: higher in Central Victoria, Goulburn Valley, North West, Murray PHN than Victoria
- Number of emergency department presentations for psychiatric illness MDC by indigenous status (2011-12 to 2013-14) Indigenous rates: higher in North West than Victoria
- Public hospital separations for intentional self-harm injuries by Indigenous status (2011/12 to 2013/14) Indigenous rates: higher in Goulburn Valley than Victoria
- GP data (CAT4) and other means but have not found robust evidence but there is need to investigate based on number of children deemed at risk/high risk
- Elements of this type of service level mapping across the entire catchment are underway but not complete

Aged care

Key issues

- Need a broader primary health focus to support community and aged care residents
- Need for remodeling of general practice to accommodate types of patient care required by older persons such as simple structured assessment and attention to underlying frailties (mobility, undernutrition, pain, incontinence, and cognitive and sensory impairment) that limit disability and dependence
- Lack of communication between patients, staff and relatives in aged care
- Need to ensure health issues in the elderly are identified and appropriate care is accessible
- Improved transport options, especially for those living in isolated areas
- Need for consistent, safe medications management strategy
- Early assessment and intervention in functional decline and complex care coordination
- Need to understand the implications of:
  - significant increase in the number of older people
  - increasing incidence of age-associated disability and disease (e.g. dementia, stroke, COPD, diabetes), along with complex morbidities

Description of evidence

- Murray regions all have considerably higher proportions of population than Victorian population for persons 65 and above. Central Victoria and Goulburn Valley have 19%; North East has 19.29; and North West has 17.9 – against the Victorian percentage of 14.8
- Number of high level care places in residential aged care available across regions: Central Victoria: 955; Goulburn Valley: 669; North East: 887; and North West: 351
- Number of low level care places in residential aged care available across regions: Central Victoria: 1234; Goulburn Valley: 870; North East: 874; and North West: 446
- Number of community places in residential aged care available across regions: Central Victoria: 431; Goulburn Valley: 585; North East: 472; and North West: 356
- For annual health assessments by GPs for persons 75 and over (2009/10): areas where the rate per population was lower than Victoria include: Gannawarra, Loddon, Mt Alexander, Mitchell, Benalla, Albury, Mansfield, and Mildura, with the following having significantly lower rates: Moira, Indigo, Towong, and Wodonga
- Hospitalisation for external injuries caused by falls for person over 65 years of all fall hospitalisations (2011/12- 2013/14) indicates that the catchment has an overall average higher than the Victorian percentage, and Central Victoria, North East and North West are individually higher

Mental health

Key issues

- Poor physical health outcomes of people with mental illness

Description of evidence

- Estimates are that 20% of the Australian (aged 18 to 85) population will experience mental ill health, this equates to approximately 116,000 people across the Murray PHN catchment - of these, estimates indicate 1,565 people will have severe and persistent mental illness with complex needs
- During the 2014/15 financial year, 86,898 MBS item numbers associated with General Practice mental health care plans were recorded across Medicare Local areas now within the catchment
- 89,608 allied mental health MBS item numbers claimed during 2014/15
- Local data from Murray's PIR programs confirm unmet physical health needs as being the 3rd and 4th highest areas of unmet need for people with a severe and persistent mental illness and complex needs, out of a total of 25 domains of need recorded by the use of the Camberwell Assessment of Need Short Assessment Scale (CANSAS)
- Local PIR Consumer and carer consultations have confirmed Physical Health as a priority area of need for people with severe and persistent mental illness
- Estimated percentage of population with mental health/ behavioural problems for the Victorian average is 12.7%, and LGAs with higher prevalence are: Campaspe 14.1%, Greater Bendigo 14.2%, Loddon 14.4%, Mount Alexander 14%, Greater Shepparton 13.5%, Mitchell 13.1%, Moira 14.1%, Strathbogie 13.5%, Albury 14.2%, Alpine 13.4%, , Benalla 14.8%, Wangaratta 14.3%, Wodonga 15.2%, Mildura 14.6%, Swan Hill 13.2%

The Equally Well report identifies that nationally, three out of every five (60%) people living with a mental illness have a co-existing physical illness. In the general population this rate is 12%. People living with a mental illness are also:

- 3 times more likely to have cardiovascular disease
- 3 times more likely to have respiratory disease
- 2 times more likely to have diabetes
- 2 times more likely to have osteoporosis
- 50% more likely to be overweight/obese
- 70% more likely to smoke
- 6 times more likely to have dental problems

Suicide prevention

Key issues

- Above average suicide rates experienced in the Murray PHN regions of North West and Goulburn Valley, with significantly high rates of ambulance attendance of suicide attempts in these regions

Description of evidence

- Relative Risk Profile – Department of Health and Ageing 2011 and Turning Point – Self Harm and Mental Health Related Ambulance Attendances in Australia – 2013 data

Alcohol and other drugs (AOD)

Key issues	Description of evidence
In providing current AOD needs data and priority issues, it is viewed that the category has intrinsic overlap with related and broader priority issues; especially mental health. *Whilst emerging trends in illicit drug use, especially involving amphetamine use require focus in the Murray PHN catchment, the rates of alcohol consumption and related harm indicate an enduring need to be comprehensive in the strategic effort and cognisant of rural community culture, and subsequent impacts.*	
• The Murray PHN catchment LGAs, except Shepparton show higher rates for alcohol consumption at risky/ high risk levels than the Victorian average, with particular concerns for short term risk of alcohol related harm.	• Short term risky / high risk alcohol consumption across all of Murray PHN approximately +5 to +8% above state averages. • Long term risky / high risk alcohol consumption across all of Murray PHN approximately +1 to +2.1% above state averages. (Victorian population health survey 2011-12 Vic Department of Health)
• The rate of alcohol related deaths, assaults and serious road accidents within the catchment are mostly higher than the Victorian averages, with especially North West region having double the average for alcohol related assaults	• Alcohol-related assaults all higher than the state rate with Central Victoria the lowest and North West significantly higher with at more than twice the state rate. • Alcohol-related serious road injuries higher in all regions except for Central Victoria (at approximately 14% lower) compared to Goulburn Valley at 87 % higher. • Alcohol-related deaths higher than the state rate across all regions ranging from North East at the state rate through to Goulburn Valley at 50% higher *(Turning Point June 2015, AOD stats LGA and Victoria map, accessed online March 2016, Rate per 100,000 2012 ERP ** Excluding Albury)*
• The rate of AOD episodes of care for illicit drug related problems was notably higher for the catchment, with the North West region having a substantially higher rate than the Victorian average.	*Turning Point June 2015, AOD stats LGA and Victoria map – accessed March 2016*
• Emergency department presentations for AOD abuse and induced mental disorders is much higher than the Victorian average for particularly the North West region, which is distinct from the lower rates of the other Murray PHN regions.	*Department of Health and Human Services, VAED public hospital data for the period 2011/12 to 2013/14. Commissioned from HosData 2015/16.*
• Unfavorable rates for indigenous population in the catchment for ED presentations and for hospital separations.	• The rate of hospital separations and emergency department presentations for the Indigenous Murray PHN catchment population was notably higher than that for the total population. Rates for the North West region are particularly high.
• Compared to the Victorian average, rates for drug use and possession crime are especially high in the North West region and above the average in Goulburn Valley. These two regions also show higher rates for cultivating and manufacturing drugs. The Goulburn Valley region however shows the highest rate in the catchment for specifically drug dealing and trafficking.	• Criminal offences occur above state averages as detailed below - - Trafficking and dealing – highest in North East then followed by North West - Cultivating / manufacture – highest North West - Use and possession – Highest North West (Crime Statistics Agency 2016 – excludes Albury)
• Community perceived damaging increase in the use of ICE across the catchment by especially younger age groups.	*Anecdotal information through forums conducted in the last 12 have shown a strong community perception that increased ICE use and distribution requires priority attention.*

Child and adolescent mental health

Key issues

- Increasing need for GPs to be supported to meet mental health needs of children and young people (All regions)
- Access to mental health promotion for children and adolescents considered underdeveloped
- Need for coordinated planning across sectors and service systems – complex service environment

Description of evidence

- The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing (June, 2015)
  - Almost one in seven (13.9%) 4-17 year-olds were assessed as having mental disorders in the previous 12 months. This is equivalent to 560,000 Australian children and adolescents
  - Males were more likely than females to have experienced mental disorders in the 12 months prior to the survey (16.3% compared with 11.5%)
  - ADHD was the most common mental disorder in children and adolescents (7.4%), followed by anxiety disorders (6.9%), major depressive disorder (2.8%) and conduct disorder (2.1%)
  - Based on these prevalence rates it is estimated that in the previous 12 months 298,000 Australian children and adolescents aged 4-17 years would have had ADHD, 278,000 had anxiety disorders, 112,000 had major depressive disorder and 83,600 had conduct disorder
  - Almost one third (30.0% or 4.2% of all 4-17 year-olds) of children and adolescents with a disorder had two or more mental disorders at some time in the previous 12 months
  - One in six (17.0%) children and adolescents aged 4-17 years had used services for emotional or behavioural problems in the previous 12 months
  - One in seven (14.8%) used health service and one in nine (11.5%) used school services. Just over half (53.5%) of 4-17 year-olds using services used both health and school services
  - One in eight (12.8%) children and adolescents with mental disorders had taken a medication for emotional or behavioural problems in the previous two weeks
  - The majority (94.6%) of young people with mental disorders using services in the previous 12 months had used health services
  - Just over one third (35.0%) of 4-17 year-olds had seen a general practitioner, almost a quarter (23.9%) had seen a psychologist, one fifth (21.0%) had seen a paediatrician, and one fifth (20.7%) had seen a counsellor or a family therapist
  - One in sixteen (6.2%) 4-17 year-olds with mental disorders were admitted to hospital, or attended an emergency or outpatient department in the previous 12 months
  - Specialist child and adolescent mental health services were used by 3.3% of 4-17 year-olds with mental disorders in the previous 12 months
  - Parents and carers reported that 7.3% of 12-17 year-olds with mental disorders visited a headspace centre in the previous 12 months
  - Schools provided services to 40.2% of the children and adolescents with mental disorders who attended them: 28.4% received individual counselling; 9.2% attended a group counselling or support program; 13.1% used a special class or school; 5.6% had seen a school nurse; and17.1% received other school service.

Oral health

Key issues

- Access to public dental health services very limited in many rural communities, and private dental service may also be quite limited
- Financial burden is acknowledged as a reason for not attending or seeking dental care
- Number of potentially preventable hospital admissions related to children with caries needing extractions points to lack of oral health literacy, barriers such as cost, and access to providers

Description of evidence

- Further investigation required to understand catchment level data however Ambulatory Care Sensitive Conditions data indicates that: hospital rates for dental conditions were higher than the Victorian rate in 4 of 6 areas in Central Victoria; 1 of 5 in Goulburn Valley; 3 of 7 in North East; and all 3 of North West (2013/14)
- Across catchment, 14 of 21 areas report higher rates of persons delaying visiting a dental professional due to cost (2011/12) and every area indicates a lower than Victorian percentage of persons visiting a dental professional in previous 12 months (2011/12)
- Percentage of persons consuming sugar sweetened soft drink was higher across central Victoria, Mitchell, Moira, Strathbogie, Alpine, Benalla, Towong, Wangaratta, Wodonga, Buloke and Swan Hill

Childhood immunisation rates

Key issues

- Coverage rate is above 90% indicator but specific populations and communities are below: need better targeted interventions as this indicates decrease in timeliness of immunisations and impacts on increasing reported cases of pertussis
- Potential impact of implementing 'no jab, no pay' strategy on families re income and child care supports
- Whole of Life approach implementation needs to include:
  - RACF immunisations for residents and staff
  - Immunisation programs for over 65
  - ATSI state funded activity for Aboriginal children
  - Chronic disease high risk groups
  - Pregnant women
  - Hospital staff immunisation
  - Staff of childcare facilities

Description of evidence

- Coverage rates across the Murray PHN for 5 year olds are above 90% (problematic data)
- Children Fully Immunised (2014) at one year: lower proportion in Greater Bendigo, Macedon Ranges, Mount Alexander (Central Victoria), Greater Shepparton, Mitchell, Strathbogie (Goulburn Valley), Alpine, Towong (North East), Buloke, Mildura, Swan Hill (North West) than Victoria
- Children Fully Immunised (2014) at two years: lower proportion in Loddon, Macedon Ranges, Mount Alexander (Central Victoria), Murrindindi (Goulburn Valley), Alpine, Indigo (North East) than Victoria
- Children Fully Immunised (2014) at five years: lower proportion in Macedon Ranges, Mount Alexander (Central Victoria), Greater Shepparton, Murrindindi, Strathbogie (Goulburn Valley), Alpine, Mansfield, Wangaratta (North East), Mildura, Swan Hill (North West) than Victoria
- Children Fully Immunised (2014) percentage of females aged 12 to 13 years who received the 3rd dose HPV: lower proportion in Greater Bendigo, Macedon Ranges, Mount Alexander (Central Victoria), Greater Shepparton, Mitchell, Murrindindi, Strathbogie (Goulburn Valley), Albury, Benalla, Mansfield, Towong, Wangaratta (North East), Mildura, Swan Hill (North West) than Victoria
- ACIR reporting to include a whole of life register
- HPV register for school immunisations and current research to measure the impact of vaccination and cervical cancer
- Informed by Safe Vic records adverse reactions
- Public hospitals through infection control units have localised data that indicates where support is needed – not based on population percentages only that can distort the actual (especially smaller communities)
- Eight of the top 10 GP-supplied medications were vaccines, and rates of most childhood vaccines increased

Cancer screening rates

Key issues

- Cancer survivorship systems are missing
- Although cancer is a chronic disease, many health services including secondary and primary health services don't utilise existing chronic disease systems to support this patient population

Description of evidence

- In general the number of individuals surviving after five years of cancer treatment are living longer, however Victorians living in regional and remote locations commonly have a lower five-year cancer survival rate than those in urban areas
- Across the Loddon Mallee Region, on average over the past 5 years, the cancer that killed most people was prostate cancer (17.1%), bowel cancer (14.4%) and breast cancer (11.6%)
- Current research about residents of the Loddon-Mallee region indicates a 4% lower five-year survival rate (65%) than those in Melbourne (69%) (Victorian Cancer Registry, Cancer Council Victoria 2015)
- Cervical cancer screening by location (2013-2014) lower proportion in Gannawarra, Loddon (Central Victoria), Greater Shepparton, Mitchell, Moira, Murrindindi (Goulburn Valley) than Victoria
- Bowel cancer screening (2013) lower proportion in Loddon (Central Victoria), Mildura, Swan Hill (North West) than Victoria
- Breast Cancer screening (2013) lower in Loddon (Central Victoria), Alpine, Indigo, Towong, Wodonga (North East) than Victoria

Chronic disease conditions

Key issues

Diabetes

- Complications arising from diabetes is the largest Ambulatory Care Sensitive Condition presenting within hospital services across the Murray PHN catchment area (20.8 % of all separations); increasing each year for the past three years
- Despite this, MBS activity associated with GP management planning and review (MBS item numbers 721 723 729 and 731) have remained relatively constant, and in some instances declined, over the same period
- MBS data for patients within aged care facilities (731) is suggests low utilization and/or activity given the significance of this cohort
- Opportunity to enhance practice capacity to better identify patients at risk of, or with chronic disease and to strengthen the multidisciplinary coordination of care of patients in a way that fits with patient needs and contexts
- Improve the integration between discharge planning services from hospital services into primary care settings in a way that connects patients to General Practice, Allied Health and community support structures will be important to mitigate readmission

Cardiac related admissions

- Cardiac related admissions (including Hypertension, congestive heart failure and angina) account for approximately 26% of all ACSC separations within hospital services
- Previously identified with diabetes presentations, the number of cardiac related presentations has increased each year since 2012/2013
- Scale of this issue is significant for the catchment, with half of all LGA areas assessed to be in the highest risk category of heart health, giving regard to risk of heart attack, cardiac arrest, unstable angina and heart failure. Areas of highest assessed risk (and highest in Victoria) are the LGAs of Loddon and Towong
- Earlier comments relating to evidence of primary care activity to mitigate acute onset and / or readmission into hospital facilities also apply; being that MBS activity associated with GP management planning and review of chronic disease has remained constant despite an increase in acute presentation

Description of evidence

Diabetes

- VAED separation data (Victoria) from 2012/2013 to 2014/2015 identify the scale and growth of diabetes related complications within hospital services. 78% of admissions are over 60 years of age. Of these:
  - 60% are male
  - 49% of admissions enter via emergency
  - 42% have not referral or support service arranged before discharge
- Preliminary GP clinical audit tools suggest opportunity to improve practice quality specific areas to better identify and manage patients with diabetes. Specific areas of focus include:
  - Recording of HbA1c results; with 23% of patients diagnosed with diabetes having HbA1c results recorded.
  - Cholesterol results are not recorded in 20% of patients with diabetes.
  - Recording of foot exam at 6 and 12 months
- Prevalence is highest in the Shire of Gannawarra, with National Disability Services Scheme (NDSS) reporting prevalence of 7.5% (against National average of 5.3% and PHN average of 5.7%)
- GP management information sourced from PHN website

Cardiac related admissions

- VAED data has been sourced from Victorian Public hospital information and does not include private hospital admissions. Specific characteristics include:
  - More than half of all admissions enter via Emergency Department (52.8%). LGA areas of significant emergency department points of interest are Swan Hill (66.4%), Mildura (63%) and Wangaratta (56%)
  - 83% of admissions are aged over 60 years* 43% of patients have no referral or support services arranged before discharge
- Early, indicative evidence from clinical audit tools within General Practice identify that 11.6% of patients are diagnosed with hypertension
- Victorian Heart Foundation – Heart Health Maps
- GP management information sourced from PHN website

Section 3 – Outcomes of the service needs analysis

This section summarises the findings of the service needs analysis in the table below. For more information refer to Table 2 in '5. Summarising the Findings' in the Needs Assessment Guide on www.health.gov.au/PHN.

Outcomes of the service needs analysis

- Understanding our catchment profile
- Access to GPs or primary care providers
- Mental health
- Suicide prevention
- Alcohol and other drugs services (AOD)
- Access to allied health practitioners
- Access issues for aged population
- Service coordination
- Referral
- Effective and efficient chronic disease management systems:
  - Diabetes,
  - Cancer
  - Heart related conditions
- After hours
- Potentially preventable hospital admissions
- Patient/client information management systems and eHealth
- Health workforce

Understanding our catchment profile

Key issues	Description of evidence
• **Central Victoria:** six local government areas being Loddon, Campaspe, City of Greater Bendigo, Gannawarra, Mt Alexander, and shares the Macedon LGA with North Melbourne PHN and Western PHN – total population is approximately 225,834 with a total land mass of 21,221 square kms	• **Central Victoria** region has 66 general practices, one large regional health service, 13 small rural health services and two bush nursing hospitals. The Central Victoria office is located with the corporate office in Bendigo.
• **North East:** eight local government areas being Albury, Alpine, Benalla, Indigo, Mansfield, Towong, Wangaratta and Wodonga - total population is approximately 170,780 with a total land mass of 24,080 square kms	• **North East** region has 47 general practices, three regional and rural health services, and a range of small rural health services. The North East office is located in Albury.
• **Goulburn Valley:** five local government areas being Moira, Greater Shepparton, Strathbogie, Mitchell and Murrindindi - total population is approximately 151,237 with a total land mass of 16,522 square kms	• **Goulburn Valley** region consists of approximately 42 general practices, a large regional health service, an Aboriginal Community Controlled Health Organisation, 11 small rural health services and nine community health services. The Goulburn Valley office is located in Shepparton.
• **North West:** three local government areas being Buloke, Mildura and Swan Hill – total population is approximately 67,729 with a total land mass of 34,066 square kms	• **North West** region has 34 general practices, one large regional health service and a range of small rural health services. It also includes two Primary Care Partnership (PCP) regions. The North West office is located in Mildura. • Within the catchment there are significant settlement programs of recent arrivals in Swan Hill, Bendigo, Shepparton and Wodonga

Access to GPs and primary care providers

Key issues

- Need and impact of shortage of GPs in identified communities:
  - Increased use of Urgent Care Centres (UCC) and Emergency Departments (ED) in hospitals
  - Need for and impact of access to GP after hours for smaller communities & RACF and implications when GP has no admitting rights to hospital
  - Impact on GPs now that local government no longer undertake child immunisation programs (Albury)
  - Need and impact of access for patients with complex care needs such as: requiring bariatric support; access to interpreter services; respite care/ aged care
  - GP fatigue re after hours: refer to afterhours section
- Financial burden paying for health care
- Over representation of Overseas Trained Doctors (OTDs) and visiting medical officers in parts of the catchment – in need of local orientation to service systems and local settings to minimize inappropriate referrals, travel and cost imposts; and impact on shared care planning and continuity of care with transient workforce
- GPs not familiar enough with aged care MBS items
- Extremely complex patients need shared care approach from primary and secondary health services
- Secondary services discharge without sufficient planning and provide limited if any ongoing support, despite evidence that the patient's condition will require a return to the secondary health care setting

Description of evidence

- 84% of people saw a GP in previous 12 months (rank 10 of 31 PHNs)
- 14% of people in Murray PHN saw a GP in previous 12 months for urgent medical care (ranked 5 of 31 PHNs)
- 15% of people were admitted to hospital in preceding 12 months (Murray PHN, ranked 5 of 31 PHNs)
- Low use of after hour GPs services with 5% of people saw a GP after hours (Murray PHN ranked 25)

Access to specialist providers

Key issues

- Excessively long wait lists and extended waiting times reaching into years for some specialties, further complexities and barriers to accessible, informed referral to, and appointments at, specialist clinics, and specific specialties identified: rheumatologist, gerontologist, dermatologist, endocrinologist, speech pathologist, pain management specialist, psychiatrist experienced as relative impacts across most areas in the catchment
- Paediatric care, access to specialist services for paediatricians - long waiting lists (years)
- Mental Health related services to support children 10 - 14yrs with medium to severe behaviours – mental health issue or paediatric issue
- Rehabilitation services for pulmonary care is Benalla and transport options
- Need for increased access through telehealth to specialists and addressing problems around financial burden with non-bulk billing facilities

Description of evidence

- 37% saw a medical specialist in preceding 12 months, (Murray PHN ranked 14 of 31 PHNs)
- Likelihood that a problem managed would be referred increased from 8% to 10%. Rate of referral to medical specialists rose from 5.6 per 100 problems managed in 2005–06 to 6.2 per 100 in 2014–15.
- According to the DHHS performance monitoring website there is clear evidence that this is the case, with up to two years wait to be seen by a specialist (e.g. Urology, ENT, orthopaedics)
- Almost 170 medical specialists; 25 allied health professionals providing some level of outreach service through specialist clinics within the catchment

Mental health

Key issues	Description of evidence
• Mechanisms to support greater and more effective consumer and carer participation at an individual and systemic level across the continuum of need	• As profiled in 'Contributing Lives, Thriving Communities - Review of Mental Health Programmes and Services': National Mental Health Commission (2015) • Also identified locally through PIR needs assessment, including through consultation with consumers and carers, feedback from PIR clients and analyses of need at the program governance level • An absence of consultative mechanisms for gaining feedback and input from mental health consumers and carers who use the primary mental health service system • Consultation with mental health consumers, carers and professionals. in the Victorian parts of the catchment included the Loddon Campaspe Southern Mallee Mental Health Consumer Participation Group and the Loddon Mallee Mental Health Carers Network as well as through feedback surveys and interviews with PIR consumers and carers
• Access to care coordination for people with severe mental illness being managed in a primary care setting such as through the Mental Health Nursing Incentive Program (MHNIP) is inequitably distributed across the catchment with limited access in key regional locations	• Refer to geo-mapping of MHNIP Services across Murray PHN catchment
• This is further compounded in some locations by potential service access limitations associated with mental health nurses located within specific General Practices not necessarily aligned to where client needing service may be accessing primary care	• Refer to geo-mapping of ATAPS/MHSRRA services across Murray PHN catchment
• Access to psychological therapy services and state funded Mental Health Services is limited in some smaller regional areas. This is compounded by isolated geography of a number of smaller communities, access to transport, and in the case of ATAPS some communities where service is available but organised through particular GP clinics where access to non-registered patients may be complicated • Focus has been limited on particular needs of children and adolescents that will support access to early identification, intervention and care options	*Latrobe University PIR report 'Where do I start? Mental Health service access in small rural communities in the Southern Mallee Catchment' (Kenny et al, 2015)* • Summary of findings is that entrenched stigmatising attitudes evident in small rural communities' impact on the emotional wellbeing of consumers, carers and family members • Barriers to service access included a lack of understanding of mental illness amongst community members, health professionals and emergency service staff • Participants stated that the only way they could get help was in a crisis situation, and they described contacting multiple services for support • A lack of discharge planning and inadequate service coordination was described and stories consistently family members' perceptions of being excluded from care • Evidence is in part self-evident: travelling from Walpeup to Mildura for any type of appointment can be problematic given Walpeup is about 1.5 hours away from major service centre of Mildura • PIR CANSAS data for the Lower Murray PIR notes 'Transport' as a significant unmet need • `Telehealth in the home' PIR Project report (Bendigo Health Psychiatric Services & Murray PHN), 2015
• Significant barriers for people with severe and persistent mental illness in accessing the community, resulting in social exclusion and lack of participation. • • • •	• Murray PHN's PIR program data confirms unmet needs in the areas of Daytime Activities and Company as consistently within the top 4 highest areas of unmet need in both programs from 2013-2016 out of a total of 25 domains of need recorded by the use of the Camberwell Assessment of Need Short Assessment Scale (CANSAS)

Key issues *continued...*	Description of evidence *continued...*
	• Local CANSAS data from Murray PHN's PIR programs confirm unmet needs • `Pathways Through the Jungle' PIR Project Report – Hume PIR • Client file notes, client plans, use of flexible and brokerage funds – Northwest (PIR and MHCSS) and Central Vic & North East (PIR) regions • Specific evidence (North West): currently 4 people who either cannot live in their community, or are being held in the inpatient unit in Mildura given the lack of supported accommodation
• Barriers in accessing support and intervention for people from culturally and linguistically diverse communities	• Feedback to Hume PIR from local migrant communities in Wangaratta • Goulburn Valley Mental Health Community Support Services Catchment Plan • Lower utilisation of translation services associated with provision of ATAPS/MHSSRA and MHNIP services in communities with high CALD populations
• Lack of collaborative care across the treatment continuum namely in discharge from acute mental health services into community, and poor feedback and collaborative care between GP's and specialist services (Psychological services and mental health service providers)	• Consumer and carer feedback from PIR programs • Feedback from GP workforce engagement events
• Stigma impacts negatively upon the health and wellbeing of people who experience mental illness within the catchment, including stigma from providers of mental health services.	• PIR Consumer and carer feedback and consultations from regions
• Intensive work is required to engage and maintain contact with Aboriginal and Torres Strait Islander people for follow up of primary mental health. The risk to not invest time and effort in engaging and applying culturally safe practices results in poorer health outcomes for this group and higher demand on emergency and the primary health care system	• PIR client files (North West)

Suicide prevention

Key issues	Description of evidence
• Above average suicide rates experienced in the Murray PHN regions of North West and Goulburn Valley, with significantly high rates of Ambulance attendance of suicide attempts in these regions.	• Relative Risk Profile – Department of Health and Ageing 2011 • Turning Point – Self Harm and Mental Health Related Ambulance Attendances in Australia – 2013 data
• Limited access to integrated suicide prevention services across the catchment	• Service system mapping

Alcohol and other drugs services (AOD)

Key issues	Description of evidence
Catchment wide general issues: • Absence of platforms for meaningful and effective consumer and carer engagement across the catchment • Low uptake of technological treatment and support options in rural areas – largely influenced by gaps in telecommunication coverage and internet bandwidth. • Access to housing	• There are no known AOD consumer and carer groups or engagement mechanisms within the catchment • Consultation with AOD Treatment Sectors and other key stakeholders • AOD catchment Plans
Coordination and integration • Service system is fragmented with multiple entry points for various treatment service types. Pathways are unclear • Inadequate support and treatment options for people who experience co-morbid mental illness and substance misuse • Shared-care arrangements are variable, whilst there are pockets of good practice, coordination and mechanisms to support shared- care are generally lacking.	• Consultation with AOD Treatment Sectors and other key stakeholders • Independent Review of New Arrangements for the delivery of Mental Health Community Support Services and Drug Treatment Services • AOD catchment Plans
Treatment Services • Access to the full suite of treatment options is based upon an individual's geography not treatment needs • Limited access to bed-based withdrawal • Availability of targeted youth services is disparate across the catchment • General increased demand, and increased need for access to opioid replacement treatment programs • Not all communities across the catchment have access to bulk billing GPs which is critical to better health outcomes for people from low incomes • Limited access to brief intervention • Access to residential rehabilitation is limited • Access to family support • Lack of detox options within the region • Inadequate treatment models to which support both industry and individuals to maintain economic and social participation	• Service system mapping indicates that access to specialist services such as ATSI specific, youth, and some treatment options such as withdrawal is largely determined upon place of residence • AOD Catchment Plans • HARM Reduction Victoria - consultations • Consultation with local industry employers have raised this a particular concern
Workforce Development • Lack of professional development opportunities in rural areas for AOD workforce, including General Practice • Need for support to GPs in managing AOD, particularly opioid and ICE related issues	• Consultation with AOD Treatment Sectors and other key stakeholders * AOD Catchment Plans
Aboriginal and Torres Strait Islander People • Families lack support • Lack of wrap around service provision • Lack of culturally safe service provision outside of indigenous services • Poor understanding of Mental Health, AOD and Dual Diagnosis amongst the community • Lack of accessible and appropriate rehabilitation and detoxification services for 'ice' and poly drug use • Psychiatric services lacking the capacity to respond to drug-related mental health problems • Lack of systematic alcohol and drug awareness education in schools; and • AOD sector workforce and organisational capacity constraints.	• Consultations with ACCHOS and other key stakeholders • Consultation with Victorian Aboriginal Community Controlled Health Organisation (VACCHO)

Access to allied health practitioners

Key issues

- 2-3 month waiting period for appointment with a dietician or physiotherapist
- Increased demand for and lack of access to exercise physiologists
- Improved continuity of service required, particularly in relation to allied health visits
- Bulk billed allied health care not widespread
- Lack of allied health professionals (podiatry in relationship to diabetes and aged care)
- Lack of access to primary dental care
- Need for extended hours for allied health, dialysis services
- Need for market development and incentives in some rural communities for allied health providers

Description of evidence

- BEACH: GP rate of referral to allied health services increased from 2.0 per 100 problems managed in 2005–06 to 3.3 in 2014–15. Referrals to psychologists rose four-fold and those to podiatrists/ chiropodists doubled.
- Dental care data in ACSC may indicate a lack of access

Access issues for aged population

Key issues

- Lack of confidence in ability of workforce to deliver care required
- Insufficient assessment and communication for aged care request for a visit
- Limited access to geriatricians in aged care
- Lack of leadership in aged care staff inconsistency and decision making
- Improved access to technology for the elderly, many have little or no access to computers
- In some rural areas, the practice population is ageing and creates a primary focus on aged related illness including dementia
- A greater number of GPs and general practices do not want to manage patients in an aged care facility
- Rising expectations about the type and flexibility of care that is received
- Concerns about variability in the quality of care
- Expected relative decline in the number of informal carers
- Quantity of tests especially CTs and MRIs being performed within aged care with anyone having any level of fall being scanned as protocol

Description of evidence

- BEACH: aged 65+ years accounted for an increasing proportion of GPs' workload (from 27% to 31% of encounters). This change affected all aspects of general practice as older patients are more likely to have more problems (particularly chronic conditions) managed at encounters and are more likely to have multi-morbidity
- Hospitalisations for external injuries that occurred in an aged care residential facility (2011-12 to 2013-14) higher rates in Central Victoria than Victoria
- Residential aged care - high-level care places (June 2011) Residential aged care - high level care places: higher rates in North East than Victoria
- Residential aged care - high-level care places (June 2011) Residential aged care - low level care places: higher rates in Central Victoria, Goulburn Valley, North West, Murray PHN than Victoria
- Residential aged care - high-level care places (June 2011) Community places: higher rates in Goulburn Valley, North West, Murray PHN than Victoria

Service coordination

Key issues

- Discharge planning process, admission process and acute stay period needs better alignment and coordination
- Significant number of children living out of home, with a high number of the children being from Aboriginal and Torres Strait Islander background
- Concerns about transition to Commonwealth Home Support Program (CHSP) and any adverse impacts for more isolated communities for whom service coordination is often experienced as an iterative and intuitive local endeavour and fundamental place-based process
- Lack of resourcing for community development in rural areas will impact on intergenerational, innovative solutions
- Local health issues are dynamic, interdependent and benefit from strong linkages to social determinants of health, broader service systems and coordinated with local community resources

Description of evidence

- Victorian DHHS Service Coordination Survey 2015: indicates that a considerable number of agencies across the catchment have used e referral increasingly to support referral and shared care using a range of secure messaging/communications systems (6) that interact to varying capabilities with organisational client/patient information management systems (14)
- Shared Care planning was supported in DHHS Loddon Mallee region through local agreements between 3 or more service providers in 66% of respondents; and in DHHS Hume region 55 %
- Communications with GP was less developed/ implemented, occurring in approximately half of these arrangements
- Information conveyed was primarily patient/consumer information, consents and basic referral information
- Significant involvement of multiple providers but consistent lack of service coordination for this/at risk vulnerable population, including multiple medical records, no prompts in medical software to verify vulnerable child status, despite formalised priority access to services including dental, mental health and paediatric services – GP awareness of this is severely limited
- DHHS policy document states that a child when entering foster care must be seen by a GP within a week and must be seen by a Paediatrician within three months

Referral

Key issues

- Lack of inter-operability between health services, e referral pathways and applications – impediment to effective and efficient discharge planning and information transfer
- Number of legacy systems that don't engage patient or consumer in their own care
- Telehealth referrals have increased over the last 3 years with higher utilization of the MBS financial incentives
- eMessaging systems and secure messaging systems performance
- Lack of current knowledge about system for referring patients with domestic violence issues (including issues relating to children) despite its high profile
- District nursing service in this area in increasing demand and is becoming increasingly more difficult to effectively provide a referral
- Referral to diagnostics and anomalies: health professionals understanding the billing eligibilities and constraints around diagnostic services: if a specialist orders an MRI for health care card holder, it is bulk billed but if the specialist requests the GP to order an MRI for the patient, can result in out of pocket cost of $200
- GPs are left on animated service machines and access lines
- Effective mental health treatment means access to medication and counselling as part of treatment plan
- Delays through redirected triage and timeframe reflected was 6-8 weeks
- For some services and in particular podiatry the demand for service was particularly high, waiting times can be as great as four months and in some instances criteria and method to access the service has been reviewed to manage the demand – level of complexity and acuity continues to increase, impacting on waiting times
- At times service provision changes, (day, frequency, eligibility, referral method), and notification of changes are not always well communicated between agencies
- Reliance on service providers sharing accurate information and direction about their care is problematic, and can increase vulnerability
- Timely and accurate information about costs and eligibility gateways not understood or effectively communicated – confusing and adverse patient experiences being noted
- Significant variances across referral pathways and processes within and between service providers and minimal knowledge or use of the Victorian Service Coordination Practice Manuals and documented agreements or protocols

Description of evidence

- MBS evidence identifies increase of 18% of GPs utilising the telehealth, contributing to a 37% growth in telehealth consultations overall
- Administration resources wasted because of inconsistent messaging systems – also see service coordination section
- Episodic use of telehealth to support discharge planning and shared care arrangements within the areas of cancer survivorship, dermatology and cardiology has been reported

Effective and efficient chronic disease management systems

Key issues	Description of evidence
Shortages of access to specific practitioners or specialists related to CDM identified through consultations: • pain management specialist services (all regions) • dietetic services, especially for young people (North East) • occupational therapists (North West) • ophthalmologist (Robinvale) • endocrinologist (Robinvale, Buloke, Gannawarra) • general physician(Robinvale) • counsellors (North West) • physiotherapist (Sealake, Seymour, Alexandra) • Neurological physiotherapist (Lower Hume) • Paediatricians (all regions) • exercise physiologists (Kerang, Sealake) • Dentist - public (Gannawarra, Buloke, Murrindindi) • Podiatrists – public (Kerang, Gannawarra) • Diabetes educator (Buloke, Sealake, Seymour, Kinglake) • Mental health practitioners (all regions) • Dermatologist (Goulburn Valley)	• BEACH: As a proportion of all MBS/DVA-claimable recorded consultations, short surgery consultations, chronic disease management items, health assessments, and GP mental health care, all increased significantly while standard surgery consultations decreased significantly • Across the decade, the most frequently managed problems were hypertension, check-up and upper respiratory tract infection • Significant increases occurred in management rates of general check-up, depression, back complaints, prescriptions, gastro-oesophageal reflux disease, anxiety, test results, administrative procedure, vitamin/nutritional deficiency, (and) fibrillation/flutter • Management rate of chronic conditions in 2014–15 did not differ from the rate in 2005–06 and most commonly managed were non-gestational hypertension, depressive disorder, non-gestational diabetes, chronic arthritis and lipid disorders • Increased management rates of depressive disorder, oesophageal disease, atrial fibrillation/flutter, chronic back pain and unspecified chronic pain
Notable flexible service responses • Multidisciplinary clinics: to support good patient care for with coordinated care specialist, allied health, nursing, prosthetics, counselling • Local government exploring opportunity of Direct Care Workers training in nail care, in consultation and with East Wimmera Health Service (Buloke) • Local health & community services use video conferencing for case management (Mallee Track) • Foot Care team includes a podiatrist, foot care nurse, and allied health assistant and referral from GP for podiatrist's assessment and for ongoing team care including patient education/self-management (Kerang) • Increasing patient knowledge about physical activity and diabetes management in rural communities • Identification of barriers to physical activity in rural communities and options for older adults, often elderly, to understand GPMP processes • A focus on undertaking group work sessions would be more beneficial and provide additional support and progress towards access to group work based services and programs	• Opportunities to be pursued to build evidence through project funding and collaborations with service providers across the care continuum

Key issues	Description of evidence
Challenges in provision and coordination of outreach and visiting services • Services in rural and outlying communities are limited and in most instances as an outreach service provided from either neighbouring small community or nearest rural centre • Maintaining programs with limited resources, community interest, in smaller communities with less facilities • Specialists identified in the pathways are not always available in rural areas • Duplication and lack of coordination - 3 dieticians from 3 different services that visit community • Not referring for enough treatments – often only one and client has to return to GP for additional referrals • Value of 'Local Resource for Diabetes Services' information sheet • Lack of referrals into tailored programs tension with receiving sufficient and appropriate referrals to demonstrate need • Little or lack of notice regarding the changes to service Capacity of provider to maintain service • Transport limitations – access to and from service either locally or to another community • more support for patients with lifestyle factors seeking to maintain health	• Albury has a higher percentage of amputation - above the state average • All users of electronic data base systems – generally underutilised for capability to support shared care

Diabetes

Key issues

- Loddon Mallee Region Diabetes Pathways identifies twenty health disciplines of which an average of nine of these professionals may be included in the cycle of care for a person with diabetes
- Diabetes Service System Analysis across Buloke, Gannawarra and Swan Hill identifying where service provision is and is not available:
- Predominantly fewer services as identified in the Loddon Mallee Region Diabetes Pathways as being required in the cycle of care for a person with diabetes, (Type 1, Type 2, Gestational and Pre-diabetes) are available in Buloke LGA than Swan Hill and Gannawarra
- All services identified in the Loddon Mallee Region Diabetes Pathways are available in Swan Hill city including public and private providers and with specialist services attending on a cyclic basis. In all instances specialist services require a referral and appointment to be made

Description of evidence

- Potentially Preventable Hospitalisations by Condition, 2013-14 - higher rate of diabetes complications in Murray PHN than Australia
- Estimated Population Aged 18 Years and Over With Diabetes Mellitus, 2011-13 rates in all LGAs of Murray PHN lower or same as Victoria (positive)
- Potentially Preventable Hospitalisations for diabetes (2013-14) higher rates in Bendigo, Loddon-Elmore, Wangaratta-Benalla, Wodonga-Alpine, Murray River-Swan Hill, Moira, Murray PHN than Australia
- Avoidable Deaths From Diabetes, Persons Aged 0 to 74 years (2009-12) higher rates in Campaspe, Gannawarra Greater Bendigo, Loddon, Mount Alexander (Central Victoria), Greater Shepparton, Mitchell, Moira (Goulburn Valley), Albury, Wangaratta, Wodonga (North East), Mildura, Swan Hill (North West) than Victoria

Cancer

Key issues

This disadvantage may be explained by poorer access to cancer services and community support structures. However, data is currently lacking on cancer staging and treatment to assist with further analysis. This is anecdotally supported by health and community agencies across the Southern Mallee and Northern Loddon regions who report lack of health service capacity and patient access as key barriers to achieving quality cancer survivorship care.

Description of evidence

- Average total new cases per year - by sex (2007-2011) and Average new cases per year for the leading cancers in Victoria (2007-2011) cannot be interpreted – needs to be converted to rates
- Avoidable Deaths From Cancers, Persons Aged 0 to 74 years (2009-12) higher rates in Campaspe, Greater Bendigo, Loddon, Mount Alexander (Central Victoria), Greater Shepparton, Mitchell, Strathbogie (Goulburn Valley), Albury, Benalla, Indigo, Wodonga (North East), Buloke (North West) than Victoria

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Understanding our catchment profile

Key issues

- Central Victoria: six local government areas being Loddon, Campaspe, City of Greater Bendigo, Gannawarra, Mt Alexander, and shares the Macedon LGA with North Melbourne PHN and Western PHN – total population is approximately 225,834 with a total land mass of 21,221 square kms
- North East: eight local government areas being Albury, Alpine, Benalla, Indigo, Mansfield, Towong, Wangaratta and Wodonga - total population is approximately 170,780 with a total land mass of 24,080 square kms
- Goulburn Valley: five local government areas being Moira, Greater Shepparton, Strathbogie, Mitchell and Murrindindi - total population is approximately 151,237 with a total land mass of 16,522 square kms
- North West: three local government areas being Buloke, Mildura and Swan Hill – total population is approximately 67,729 with a total land mass of 34,066 square kms

Description of evidence

- Central Victoria region has 66 general practices, one large regional health service, 13 small rural health services and two bush nursing hospitals. The Central Victoria office is located with the corporate office in Bendigo.
- North East region has 47 general practices, three regional and rural health services, and a range of small rural health services. The North East office is located in Albury.
- Goulburn Valley region consists of approximately 42 general practices, a large regional health service, an Aboriginal Community Controlled Health Organisation, 11 small rural health services and nine community health services. The Goulburn Valley office is located in Shepparton.
- North West region has 34 general practices, one large regional health service and a range of small rural health services. It also includes two Primary Care Partnership (PCP) regions. The North West office is located in Mildura.
- Within the catchment there are significant settlement programs of recent arrivals in Swan Hill, Bendigo, Shepparton and Wodonga

After hours

Key issues

- Contemporary GP workforce seeking more flexible work life balance - preference for P/T and no/limited after hours commitments
- Duplication of effort in some communities with General Practices managing after hours arrangements for own practices
- Complexities of after-hours services in rural communities: General Practice and UCC staffed by same medical personnel with no distinction between primary care after hours and urgent care (different funding and responsibilities inconsequential)
- Increasing community expectations of care on demand for non-urgent conditions
- Reliance/ dependence on GPs for after-hours support opportunity for new workforce models e.g. RIPERN nurses and shared care
- Poor 'in hours access' and patients disengaged from GP presenting 'out of hours' to UCC or ED
- New models of care and service delivery to support specific populations e.g. palliative care support after hours
- Availability of video conferencing technology to support remote consultation in after hours- improved support for rural communities with limited GP access
- ATSI community over-represented in ED presentations (NW, Mildura Base) as a consequence of poor understanding of health management, poor engagement with GPs resulting in use of EDs for health management
- Demands and pressures of significant seasonal changes and/or major events to population numbers during peak tourist seasons (Yarrawonga, Mount Beauty, Mount Hotham, Echuca) puts significant strain on local practices and need for additional locum staffing and rosters to meet demand during peak seasons and events
- Access to psychological services, particularly for populations unable to access in business hours
- Access to pharmacies after hours for dispensing medications

Description of evidence

- Anecdotal and informal feedback supported by GP workforce data
- Misconception that all Category 4 and 5 presentations to ED can be treated in primary care- some may best be suited to an ED
- Use of EDs and UCC
- Low rates of utilisation of GP after hours helpline (health direct data)
- Current proposed data analysis and review of ED presentations and drivers proposed by Bendigo Health
- Presented as case evidence for trial of innovative AH models- Heathcote Health, Alexandra Health
- Evidence from Sunraysia Community Health Services is that 70% of clients die in hospital despite many stating preference to die at home
- Proposed trials by St Anthony's Medical Group and Telstra Readycare and Tristar
- Referenced by Mildura Base hospital and Mildura District Aboriginal Services
- Engagement with Ambulance Victoria to understand demand flows & patterns during after-hours that doesn't result in transfers by ambulance

Potentially avoidable hospitalisations

Key issues

- Relationship to lack of access to after-hours GP – lack of support for isolated GPs
- A cohort of community don't have a strong relationship with a GP resulting in overuse of after-hours services often through urgent care centres, to manage health reactively rather than managing proactively
- Lack of communication regarding complex cancer treatment, especially around discharge planning from Metro hospitals and particularly for those within the 50-65yr old
- Further work for the North East discharge planning process, admission process and acute stay period to understand patient admissions to ED and / or Acute
- Communication issues need to be prioritised in developing shared pathways
- Further work required to understand the data relating to
- Lack of public dental services in Buloke or Gannawarra result in admissions for extractions

Description of evidence

- Potentially Preventable Hospitalisations (PPH) by Condition, 2013-14 higher rate of diabetes complications in Murray PHN than Australia
- Estimated Population Aged 18 Years and Over With Diabetes Mellitus, 2011-13 rates in all LGAs of Murray PHN lower or same as Victoria (positive)
- Potentially Preventable Hospitalisations for diabetes (2013-14) higher rates in Bendigo, Loddon-Elmore, Wangaratta-Benalla, Wodonga-Alpine, Murray River-Swan Hill, Moira, Murray PHN than Australia
- Avoidable Deaths From Diabetes, Persons Aged 0 to 74 years (2009-12) higher rates in Campaspe, Gannawarra Greater Bendigo, Loddon, Mount Alexander (Central Victoria), Greater Shepparton, Mitchell, Moira (Goulburn Valley), Albury, Wangaratta, Wodonga (North East), Mildura, Swan Hill (North West) than Victoria
- Higher rates of preventable hospitalisations than most other Victorian Primary Health Networks during 2013/2014 in both acute and chronic categories. Vaccine preventable hospitalisations were the lowest recorded compared to other PHNs
- 17% of people visit to hospital ED in preceding 12 months (Murray PHN ranked 8)
- Vaccine preventable hospitalisations were the lowest recorded compared to other PHNs
- Total PPH 2,470 per 100,000 persons is more than national: 1,225
- Doing better than national in acute and vaccine preventable: 1252
- In numbers: 17,000; total chronic: 9,000 and acute and vaccine: 8,000
- ALOS: total pph: 4.3/3.9; chronic: 4.6/4.4; total acute and vaccine: 3.9/3.6 however ALOS: dental is 1.2 days; diabetes complications: 5.6; and COPD 6.1; and bronchiectasis: 7.9
- By conditions/issue: COPD: 308; dental: 327; kidney & UTI 238; cellulitis: 230; heart failure: 192
- National Health Performance Authority analysis of Admitted Patient Care National Minimum Data Set 2013–14 and Australian Bureau of Statistics, Estimated Resident Population 30 June 2013

eHealth

Key issues

- General lack of uptake, education and understanding, including private allied health practitioners capability for compliance
- eHealth problematic, want one system, won't use until that time, ineffecitve system that doesn't communicate with the hospital, GP or pharmacy systems
- Electronic discharge summaries from medical, nursing and allied health
- Knowledge gap between what the consumer expectations are around the e health record and the reality of how some GPS and specialists are 'using' the record -patients think consent has been given-automatically uploaded and available is misperception

Description of evidence

- Almost all General Practices (97%) have in place the clinical and business software systems that support safe and efficient information exchange between health services and analysis of population health needs and patterns. while 72% of all General Practices were receiving e PIP payments in 2013 – 2014, only 16% were uploading clinical information to the system. Currently 178 General practices (96% of all practices) within Murray PHN receive the e PIP.

  These are the essential building blocks will support improvements in patient care. Opportunity to scale up supporting implementation and improvement in quality of care across the catchment and strengthen integration with pharmacy and allied health services.

Health workforce

Key issues

Key issues raised elsewhere in assessment include:

- Labour shortages across a range of professions and disciplines
- Skill shortages for emerging and growing needs such as aged care, patient and consumer engagement, digital and personalized health care, information management systems and evidence led practice
- Access needs are outlined and future models of care need to be considered with the quantum, availability, capacity of specialists to meet demand
- Specific challenges for rural communities in attracting, training and retaining skilled workforce for residential aged care
- Training opportunities in rural and regional settings and analytics about workforce supply and demand issues at regional level

Description of evidence

- Limited regional health workforce data collection and analytics that is more often historically reported and not as informative about demand and supply issues with the focus is often on workforce skills, clinical education and training placements and continuing professional development for general practitioners
- A focus on strategic engagement of key players to collaborate on workforce strategies that redevelop and support an accessible and sustainable primary health system is planned
- From 2011 data, the catchment had 13% of its workforce employed in the health care and social assistance industry; and for the indigenous population the percentage was higher at almost 19%
- Need for significantly more nurses and personal care workers with enhanced skills (Australian Health and Hospitals Association, 2015)
- Districts of Workforce Shortage (RWAV) General Practice 2015: Mildura, Ouyen, Murrayville, Boort, Wedderburn, Rushworth, Yea, Numurkah, Mayhu, Corryong, Wangaratta, Bethargo
- Movement toward larger practices continued, with decreased proportions of participants working in solo practice (13% to 9%), and in practices of 2–4 individual GPs (35% to 21%), while the proportion in practices of 10 or more GPs more than doubled, from 13% to 29%. Proportion using deputising services for some or all of their after-hours patient care increased from 51% to 57%

Appedix 1 - Case studies

Murray PHN has supported through leadership, sponsorship and funding many of the projects listed below. This brief summary of case studies demonstrates the diverse range of system and community level improvements that is underway in the catchment. Future case studies will be seek to capture benefits and evaluate learning in a more systemized form where possible as part of the grey literature that will inform and guide further primary care system redevelopment and response.

The case study summaries listed are:

a. Tele-health outreach in a cognitive dementia and memory service
b. Effectiveness of implementing an Aged Care Steering Committee
c. Supporting General Practice with Chronic Opioid Dependence project
d. Nurse Practitioner/RIPERN Nurse pilot project
e. Hume PIR Supportive Discharge project
f. Rural ECOH (Engaging Communities in Oral Health) Study
g. Supporting health assessments within community settings for Aboriginal and Torres Strait Islander people
h. Improving patient health outcomes through data driven quality improvement activities

a. Tele-health outreach in a cognitive dementia and memory service (CDAMS)

Purpose:	Provide a local service to ensure continuity of service, as cost restrictions required a reduction in onsite service from Bendigo
Duration:	Commenced May 2012 pre planning with implementation January – June 2013: 28 clients assessed across 15 sessions
Location:	Mildura Private Hospital to transfer to Sunraysia Community Health Service
Target pop:	Existing Community Health dementia client base
Key partners:	Geriatrician from Caulfield Hospital, Psychiatrist from Bendigo Health, CDAMS Nurse Sunraysia Community Health Service, Mildura Private Hospital facility and LMML technical support
Benefits:	A continuation of and improvement in access and delivery of Geriatrician and Psychiatry services to clients with dementia
Learning:	Video conferencing technology can be used to deliver CDAMS medical specialist services to assess cognition and to diagnose dementia in regional areas of Victoria provided clients are screened locally for their suitability to participate in this type of clinic. There is insufficient evidence to support the use of comprehensive CDAMS neuropsychological assessment in video consultations although cognitive testing is possible. Participating clinicians, clients and their carers were very satisfied with video consultations. This project precedes the current organisation and was undertaken by the LMMML.

b. Effectiveness of implementing an Aged Care Steering Committee

Purpose: Oversight of development and implementation of key strategies to improve and optimise timely and responsive access to services for residents of Residential Aged Care Facilities (RACF), focusing on:

- medication management
- service coordination
  - Shared care plans
  - Referral pathways
  - Discharge summaries
  - My health record
- after hours care
- clinical decision making
  - Clinical Deterioration Model
  - Advance care planning
  - Palliative care pathways
  - Outreach models of care

Duration: Ongoing

Location: Bendigo

Target pop: Individuals that reside in an Aged Care Facility within the COGB, includes public and private facilities

Key partners: Lead - Murray PHN, four general practices, Bendigo Health subacute/palliative care services and Access and Demand manager, ED physician, pharmacist, DONs of five private facilities and one DON of public facility

Benefits: Service efficiencies identified and measured, reduced risk to residents of RACF, increased collaboration, and increased GP involvement and leadership (current Chair is GP)

Learning: Ongoing development as identified through review process, need for documentation of learnings to be developed as a guide, with a view to expanding the committee’s scope to the region.

c. Supporting General Practice with Chronic Opioid Dependence Project

Purpose: To assist Heathcote Primary Health in being able to reduce the number of patients dependent on opioids for non-malignant pain. The General Practitioners' (GPs) particular concerns relate to the challenges of:

- reduction or cessation of opioid dependence in patients with history of long term use
- access to an effective chronic pain management service
- inappropriate prescription practices and potential for chronic dependency
- prescribed medication use being associated with self-harm
- potential relationship with the high use of opioids and the increasing use of illicit drugs within Heathcote

Three key strategies being: to increase Heathcote Primary Health staff's knowledge and skills to identify and manage patients with an opioid dependence; to increase the number of patients accessing pharmacotherapy for opioid dependence; and to create a safe environment for all Heathcote Primary Health Care staff and patients. Duration: 8 months with project commenced November 2015 - June 2016

Location: Heathcote

Target pop: Individuals that are registered patients in the Heathcote Primary Health who are on long term opioids for non-malignant pain

Key partners: Heathcote Health, Heathcote Primary Health, Orticare, Alcohol and Drug Nurse Practitioner, Bendigo Community Health Services, Bendigo Health, Heathcote Police

Benefits: Significant CPD, policy and practice changes; increased attraction of addiction medicine specialist for VC/TC support & AOD Nurse Practitioner. Progress is 5 patients admitted to the small rural health service to commence withdrawal. Liaison with Regional Subacute Pain Clinic to understand referral pathways, and service linked to an addiction medicine specialist. Reported perceptions of increased confidence in practitioners to manage this type of patient need as well as prevent increasing number of patients becoming opioid dependent.

Learning: Model of care is being documented and a quality improvement framework developed for general practice to allow transferability across other general practices and health services, with evaluation being undertaken by La Trobe School of Rural Health. Project is informing other regions across the catchment for potential uptake.

d. Nurse Practitioner/RIPERN Nurse pilot project

Purpose:	As a pilot project, implement a Nurse Practitioner/RIPERN nurse service delivery model that targets community members who are frail and elderly and/or those patients who have a chronic or complex disease available over seven days a week. Approx. 20% of patients who present to UCC are suffering from an exacerbation of chronic disease and present in the afterhours period, and have a limited relationship with their General Practitioner (GP) and are using the urgent care centre as their primary care provider. Inpatient separations at Heathcote Health include a large cohort of patients treated for management of chronic diseases that include a large number of patients with respiratory diseases, diabetes and cardiovascular disorders. Heathcote Health Urgent Care Centre treats 1300 – 1500 patients per annum. In addition there was evidence of GP fatigue relating to afterhours obligations, exacerbated by unnecessary urgent care presentations in the afterhours period.
Duration:	Six months
Location:	Heathcote
Target pop:	Frail aged and/or chronic disease residing in own home
Key partners:	Heathcote Health, Heathcote Primary Health, Murray PHN, HARP
Benefits:	Progress to March 2016 includes: 75 patient assessments, 7 ambulance transfers avoided, 23 acute inpatient bed days avoided (HH), 9 Urgent Care presentations avoided (HH) , 4 Bendigo Health patients facilitated early transfer to Heathcote Health, due to improved bed availability.
Learning:	The project is being evaluated externally by La Trobe University. Findings of the project have been requested by other services who have identified key areas of concerns relating to GP fatigue, after hours support, and a subset of patients that utilise the urgent care/health service as a primary care service as well as a subset that do not engage with their GP. The assessment will include business and financial modelling to identify financial sustainability options and consider a range of quantitative and qualitative data and will specifically address cost benefits, service efficiencies and GP and patient satisfaction.

e. Hume PIR Supportive Discharge Project (TBC)

Purpose: The project is the result of the identification by the Hume PIR Consortium that the interface between in-patient facilities (including emergency departments) and the community (including community based services) is a critical issue for the mental health system, one which, with a more planned system change supported by clear monitoring and evaluation processes, will result in improved outcomes for consumers.

The project will focus on the discharge system for people with severe and persistent mental illness at the Albury Campus of the Albury Wodonga Health Service (AWH). This reflects the Commonwealth priority of Mental Health, and specifically the indicator of avoidable hospital admissions. Dr Anthony Millgate (Assistant Secretary Mental Health Services Branch noted at the recent National PIR Meeting, that a key role of PHNs is to support the development of an integrated approach to discharge planning (including as an early intervention and suicide prevention strategy).

The model provides for a Support Facilitator (SF) employed by AWH and based at the Albury campus in Nolan House, to receive referrals for individuals to be discharged from Nolan House/ED/medical or surgical wards, who can then identify system barriers to effective discharge and lead the development of new and/or improved policies/procedures.

Duration: Twelve months - proposed April 2016 – March 2017

Location: Albury Campus, AWH

Target Pop: People with a severe and persistent mental illness at the point of discharge from AWH

Key Partners: AWH mental health directorate; AWH Border North East Mental Health Clinical Manager, PIR Consortium member, Hume PIR Manager, a GP (potentially the Murray PHN NE medical advisor), a carer, two consumers and representatives of other organisations. As a project of Hume PIR, the Hume PIR Consortium comprising 10 other community support services will receive reports and provide advice as requested/required.

Benefits: (Prospective)

- Evidence of principles of Recovery Oriented Practice appropriately embedded and modeled
- Effective discharge systems operating as a shared responsibility across systems and services
- Improved access to timely and accurate information for consumers and carers
- Evidence of engagement with people with severe and persistent mental illness to contribute new perspectives and share options and co-design a better system

Learning: AWH have acknowledged that any systems change in this area will inform other system change – to be monitored and evaluated.
Consumer expertise and experience becomes embedding in learning and system improvement as lived experience is better valued.

f. Rural ECOH (Engaging Communities in Oral Health) Study

Purpose: Dental caries (tooth decay) is one of Australia's most prevalent health problems. Tooth loss and untreated tooth decay is much higher in rural areas than urban. Poor oral health has a major impact on self-esteem and has been linked with mental health issues, cardiac disease, cancer, diabetes and other health conditions. Three-year partnership project, funded by the National Health and Medical Research Council (NH&MRC), aimed to study the translation of the Remote Services Futures (RSF) method to Australian Medicare Local / Primary Health Network settings and to assess the impact of the RSF model on health behaviours and health literacy.

The Royal Flying Doctors Service (RFDS) team comprised of dentists, oral health therapist, dental therapist and oral health therapy students, who conducted screening sessions in five schools, two pre-schools and one aged care facility with a total of 251 examinations across the Gannawarra Shire. Examinations found 69 active caries, nine patients requiring extractions as a result of caries and 16 patients requiring urgent care who were referred to local dental services.

Duration: Project including evaluation is due for completion mid 2016

Location: Kyabram, Swan Hill and the Shire of Gannawarra

Target pop: Communities with high percentages of avoidable hospital admissions relating to preventable dental conditions were selected to participate on the basis of ACSC presentation data, access to fluoride water and characteristics of dental health workforce. Local people in six rural communities across Victoria and Queensland were targeted to partner with health professionals and service planners to explore and design locally responsive oral health care.

Key partners: Professor Jane Farmer – La Trobe University, James Cook University, Dental Health Services Victoria, Northern Australian Primary Health Limited (replacing Townsville McKay Medicare Local), La Trobe University and the Royal Flying Doctors Service (RFDS) with Murray PHN as project lead

Benefits: Action plans have been designed and implemented by local communities reaching across population groups and age spans. Strategies include 'ages and stages' information and resources, development of simple local brochures promoting the Child Dental Benefit Scheme and local services, information provision around fluoridation of water supplies, exploration of a fluoride varnishing program for ATSI children, school screening project and educational campaign, professional development opportunities and a school tooth brushing program pilot.

Learning: Improved health literacy, for example: the correlation between diabetes and cardiac disease, and the development of new local oral health plans that capture local insight and capacity to place-based problem solving

Community members have designed strategies thought to improve local oral health outcomes. Local solutions include screening with early identification and prevention of poor oral health, oral health literacy within child health services and school settings, and better understanding of local services available.

Local Government, local networks and groups and Primary Care Partnerships (PCPs) have continued their commitment to oral health with ongoing oral health strategies.

g. Supporting health assessments within community settings for Aboriginal and Torres Strait Islander people

Purpose:	To provide a setting (The Meeting Place) to bring together Aboriginal children and families for special activities aimed at teaching and celebrating their culture.
Duration:	Ongoing
Location:	Castlemaine
Key Partners:	Castlemaine District Community Health, Castlemaine Secondary College, Mount Alexander Shire Council, Castlemaine Health, Central Victorian Health Alliance
Benefits:	Uptake of health assessments, screening activities and access to childhood immunisations within a culturally accessible community setting. Primary health services and culturally appropriate patient information is provided by General Practitioners from ACCHO and mainstream health services
Learning:	Provision of culturally safe environment with strong community input increased access and early detection of health issues and conditions

h. Improving patient health outcomes through data driven quality improvement activities

Purpose:	A key initiative is underway to support general practice teams with continuous quality improvement is CAT Plus, which is a data extraction and management tool for general practices and PHNs. It is a combination of these technologies that provides decision support tools to health providers (Topbar) extracts general practice data for practice analysis (CAT4 or Pen Cat) and aggregates general practice data for service planning, reporting and population health needs (PAT CAT). PAT CAT is a tool that analyses the needs of a population within a defined catchment
Duration:	February 2016 - June 2018
Location:	General practice locations
Target pop:	200 general practices across catchment and their patients eligible for management care plans
Key partners:	Murray PHN purchased CAT Plus licenses from Pen CS and have an agreement with Pen to provide software installation, help desk and training
Benefits:	Access to primary health data from general practices' clinical information systems; insights to data quality in general practice, evidence to inform general practice early intervention and prevention initiatives Benefits for GPs include: systematic identification for example, timely cancer screening, identification of patients at risk of heart failure, and lifestyle risk factors identification
Learning:	Capability for reporting general practice activity trends such as after hours, immunisation, medication prevalence, pathology, patient demographics and health indicators through aggregated practice evidence that can inform commissioning and identify areas for health system improvement