LOWER HUME

POPULATION HEALTH & WELLBEING PROFILE

SUMMARY

MARCH 2018

Lower Hume Primary Care Partnership
www.lhpcp.org.au

Acknowledgements

Primary Care Partnerships are supported by the Victorian Government

Individuals and organisations whose data and advice is utilised and referred to throughout the report.

The history, culture, diversity and value of the Aboriginal and Torres Strait Islander people are recognised, acknowledged and respected.

Introduction

The Lower Hume Population Health and Wellbeing Profile provides extensive information to assess the health and wellbeing of the Lower Hume population. Health and wellbeing are assessed against outcomes and ambitious targets set by the Victorian Government towards the aim of *"a Victoria free of the avoidable burden of disease and injury so that all Victorians can enjoy the highest standards of health, wellbeing and participation at every age"*.[23]

Over 50 different data sources have been analysed and collated to enable a comprehensive understanding of the health of the catchment, as well as avoidable differences in outcomes between sub-groups of the population. It is hoped that this resource will further support partnerships between and across sectors to enable collaborative work that improves health and wellbeing outcomes and reduces inequities.

This summary report provides an overview of the indicators within the *Victorian Public Health and Wellbeing Outcomes Framework* as they relate to Lower Hume. The full report provides more detailed measures and analysis, including an overview of key demographic indicators.

Summary of the outcomes framework

Domain 1: Victorians are healthy & well

Outcome 1.1
Victorians have good physical health
Indicators
- Increase healthy start to life
- Reduce premature death
- Reduce preventable chronic diseases
- Increase self-rated health
- Decrease unintentional injury
- Increase oral health
- Increase sexual & reproductive health

Outcome 1.2
Victorians have good mental health
Indicators
- Increase mental wellbeing
- Decrease suicide

Outcome 1.3
Victorians act to protect & promote health
Indicators
- Increase healthy eating & active living
- Reduce overweight & obesity
- Reduce smoking
- Reduce harmful alcohol & drug use
- Increase immunisation

"The outcomes framework aims to provide a clear sense of direction for all contributors & stakeholders on what needs to be achieved in the longer-term, better define how we will measure and report on progress, and guide how we calibrate and improve efforts to achieve change"

Domain 2: Victorians are safe & secure

Outcome 2.1
Victorians live free from violence & abuse
Indicators
- Reduce prevalence & impact of abuse & neglect of children
- Reduce prevalence & impact of family violence
- Increase community safety

Outcome 2.2
Victorians have suitable & stable housing
Indicators
- Decrease homelessness

Domain 3: Victorians have the capabilities to participate

Outcome 3.1
Victorians participate in learning & education
Indicators
- Decrease developmental vulnerability
- Increase educational attainment

Outcome 3.2
Victorians participate in & contribute to the economy
Indicators
- Increase labour market participation

Outcome 3.3
Victorians have financial security
Indicators
- Decrease financial stress

Domain 4: Victorians are connected to culture & community

Outcome 4.1
Victorians are socially engaged & live in inclusive communities
Indicators
- Increase connection to community & culture
- Increase access to social support

Outcome 4.2
Victorians can safely identify and connect with their culture & identity
Indicators
- Increase tolerance of diversity

Domain 5: Victoria is liveable

Outcome 5.1
Victorians belong to resilient & liveable communities
Indicators
- Increase neighbourhood liveability
- Increase adaption to the impacts of climate change

Outcome 5.2
Victorians have access to sustainable built & natural environments
Indicators
- Increase environmental sustainability & quality

Source: DHHS Victorian Public Health and Wellbeing Outcomes Framework, 2016.

SNAPSHOT OF KEY FINDINGS

DOMAIN 1: VICTORIANS ARE HEALTHY & WELL

Compared with state average **people living in Lower Hume were less likely to:**

- Rate their health as very good or excellent
- Participate in organised sport
- Meet fruit & vegetable guidelines (children)
- Walk or cycle to get around

and were **more likely to:**

- Have high/very high psychological distress
- Have a physically demanding job
- Drink alcohol at risk of harm
- Consume sugar sweetened beverages daily
- Be above the healthy weight range
- Ever drank alcohol or smoked (young people)

Throughout Victoria those with **lower household income were more likely to:**

- Have type 2 diabetes
- Rate their health poorly
- Have 2 or more chronic conditions
- Smoke cigarettes
- Be diagnosed with depression and/or anxiety
- Not meet physical activity guidelines
- Not meet fruit & vegetable guidelines (females)
- Be above the healthy weight range (females)

Throughout Victoria **Aboriginal and Torres Strait Islander people were more likely to:**

- Smoke cigarettes during pregnancy
- Have high/very high psychological distress
- Have type 2 diabetes
- Have depression and/or anxiety
- Be admitted to hospital for dental problems (children)
- Not meet physical activity guidelines
- Consume discretionary food & soft drinks
- Be above the healthy weight range
- Smoke cigarettes

Similar to state average but **still needs improving:**

- The proportion of people meeting fruit & vegetable guidelines
- The proportion of people smoking cigarettes, especially during pregnancy
- The proportion of mothers drinking alcohol during pregnancy

DOMAIN 2: VICTORIANS ARE SAFE & SECURE

Compared with state average **in Lower Hume there were higher rates of:**

- Substantiated child abuse
- Family violence incidents with children involved
- Sexual offences
- Hospitalisation due to external causes

Aboriginal and Torres Strait Islander people throughout Victoria experienced higher rates of:

- Substantiated child abuse
- Children in out of home care
- Hospitalisation due to assault
- Homelessness

DOMAIN 3: VICTORIANS HAVE THE CAPABILITIES TO PARTICIPATE

Compared with state average **people living in Lower Hume were less likely to:**

- Be developmentally on track at school entry
- Study full-time (young people)
- Undertake a bachelor degree
- Plan or intend to complete tertiary education
- Have a high household income

Throughout Victoria **Aboriginal and Torres Strait Islander people were more likely to:**

- Be developmentally vulnerable at school entry
- Experience financial stress

and **less likely** to complete tertiary education.

DOMAIN 4: VICTORIANS ARE CONNECTED TO CULTURE & COMMUNITY

Compared with state average **people living in Lower Hume were less likely to:**

- Be involved in a religious group
- Have a trusted adult in their lives (young people)
- Feel valued by society
- Think that multiculturalism makes life in their community better

Throughout Victoria a high proportion of Aboriginal and Torres Strait Islander people felt they had been unfairly treated because they were Aboriginal and/or Torres Strait Islander.

DOMAIN 5: VICTORIA IS LIVEABLE

Compared with state average **people living in Lower Hume were more likely to:**

- Rely on motor vehicle transport
- Experience socio-economic disadvantage
- Have food poisoning
- Feel safe walking alone after dark
- Participate in their community
- Own their home
- Experience heatwaves

DOMAIN ONE: VICTORIANS ARE HEALTHY AND WELL

Outcome 1.1: Victorians have good physical health

Indicator 1.1.1: Increase Healthy Start to Life

The infant death rate for the region was lower than the Victorian average during 2008-12. Babies born in Mitchell shire were slightly more likely to be low birth weight, compared to state average in 2012-14. The proportion of mothers who smoked during pregnancy reduced within Lower Hume by 2% from 2009 to 2014, bringing it closer to state average which increased by 4% during this time. In 2014 16% of mothers within Lower Hume reported smoking during pregnancy, compared with 15% across Victoria. Babies within the Goulburn region were less likely than the state average to be exposed to alcohol in utero in 2013.[9, 13]

Inequities in outcomes exist between the Aboriginal and Torres Strait Islander community and non-Indigenous population living throughout Victoria. In 2014 babies of Aboriginal and Torres Strait Islander mothers were two times more likely to be born low birth weight. Smoking during pregnancy was identified as a large contributor to the high prevalence of low birth weight babies. Low socio-economic status (SES), stress, social norms and lack of knowledge regarding smoking in pregnancy are contributors to Indigenous mothers smoking during pregnancy. The majority of Indigenous mothers throughout Australia reported that they did not consume alcohol or use illicit drugs during pregnancy.[61]

Table 1: Summary of healthy start to life indicators

	Mitchell	Murrindindi	Goulburn	Indigenous Victorians	Victoria
Infant death rate#	2.1	**	2.8	**	3.4
Low birth weight	7%	6%	**	11%	6%
Smoked during pregnancy	16%	16%	**	46%^	15%
Exposed to alcohol in utero	**	**	42%	9%^	47%

Source: Public Health Information Development Unit, 2017. Victorian Child and Adolescent Monitoring System, 2017. Aboriginal and Torres Strait Islander Health Performance Framework Report, 2017. #Per 1,000 live births. ** Not available. ^Australian average.

Indicator 1.1.2: Reduce Premature Death

Target:
25% decrease in premature deaths due to chronic disease by 2025 from 2010 baseline.

Premature mortality from all causes and from chronic diseases was higher than state average throughout the catchment in 2010/14. Inequality exists in these measures throughout Victoria with premature mortality rates increasing with increasing levels of socioeconomic disadvantage.

Life expectancy estimates from 2007 predict that people living in Mitchell and Murrindindi will die on average 1 year earlier than the Victorian average, although median age of death in 2010/14 highlights a larger gap of 2-4 years. A 10 year life expectancy gap exists between Indigenous and non-Indigenous Australians, and a 24 year difference in median age at death.[9, 61]

Table 2: Summary premature death indicators

	Premature death rate# (2010/14)	Premature death rate due to chronic disease# (2010/14)	Life Expectancy Males (2007)	Life Expectancy Females (2007)	Median age at death (2010/14)
Mitchell	260	180	79	83	78
Murrindindi	238	173	79	83	80
Goulburn region	**	**	79	84	**
Aboriginal and Torres Strait Islander Australians	**	**	69	74	57^
Non-Indigenous Australians	**	**	80	83	81
Victoria	220	156	80	84	82

Source: Public Health Information Development Unit, 2017. Aboriginal and Torres Strait Islander Health Performance Framework Report, 2017. #ASR per 100,000 population ** Not available. ^Australian average.

Indicator 1.1.3: Reduce Preventable Chronic Diseases

Target:
Halt the rise in diabetes prevalence by 2025 from 2011 baseline.

The prevalence of type 2 diabetes increased to 6% throughout the state in 2015, moving further away from the target of halting the rise by 2025 from 2010 baseline (5%). Mitchell and Murrindindi shires continue to show slightly higher diabetes prevalence when compared to the rest of the state, as do the Aboriginal community.[25, 62]

Arthritis prevalence was above state average in Mitchell shire whilst hypertension and cancer were slightly higher in Murrindindi. The proportion of the adult Victorian population with two or more chronic diseases was significantly higher among men and women with high blood pressure in 2015.[25, 31]

A strong association with type 2 diabetes prevalence, having two or more chronic diseases and low total household income highlights inequality in the burden of disease. Moreover, close to 40% of Aboriginal and Torres Strait Islander people living in Victoria had three or more long-term health conditions in 2012/13.[31, 62]

The standardised admission rate for chronic Ambulatory Care Sensitive Conditions (ACSCs) was higher than state average for Mitchell shire in 2015/16 (15.2) and the same as state average in Murrindindi shire (13.8). Preventable hospital admissions were higher than state average across Lower Hume in 2015/16 for Chronic Obstructive Pulmonary Disease (COPD), dental conditions, congestive cardiac failure, diabetes complications and hypertension. Moreover, average bed days were higher than state average for diabetes complications, asthma, angina and hypertension placing unnecessary pressure on health services.[10]

Table 3: Summary of chronic disease indicators, 2014

	Type 2 diabetes	Hypertension	Heart disease^	Stroke	Cancer	Osteoporosis	Arthritis
Mitchell	7%	27%	7%	3%	7%	5%	**28%**
Murrindindi	6%	30%	6%	3.7%*	9%	4%	23%
Goulburn & Ovens Murray region	5%	26%	7%	2%	8%	6%	**23%**
Indigenous Victorians	7%	31%^^	10%	**	**	2%*	13%
Victoria	5%	26%	7%	2%	7%	5%	20%

Source: Victorian Population Health Survey, 2011 & 2014. Aboriginal and Torres Strait Islander Health Performance Framework Report, 2017. ABS Australian Aboriginal and Torres Strait Islander Health Survey, 2014.^2011 VPHS. *RSE between 25-50% and should be interpreted with caution. ^^Australian average. **Not available.

Indicator 1.1.4: Increase Self-Rated Health

The proportion of adults reporting very good or excellent self-rated health decreased across Victoria from 2011 to 2014. In 2014 adults living in Mitchell and Murrindindi were less likely to rate their health as very good or excellent compared to the Victorian average. However the 2015 VPHS found that a higher proportion of adults living in the Goulburn and Ovens Murray region rated their health as very good or excellent compared to state average.[25, 31]

Aboriginal and Torres Strait Islander people living in Victoria were slightly less likely than the Victorian average to rate their health as excellent or very good in 2014/15. Females throughout Victoria were more likely to report very good or excellent self-rated health than males. In 2015 self-rated health increased with increasing total annual household income and decreased with increasing number of chronic diseases.[25, 31, 61]

Subjective wellbeing measures highlighted high satisfaction with life, feeling that life is worthwhile and happiness across the Goulburn and Ovens Murray region, and lower prevalence of feeling anxious. The majority of children (aged 0-13 years old) living in the Goulburn region rated their health as good, very good or excellent; this indicator was 10% lower for young people (aged 10-17 years old).[9, 13]

Table 4: Summary of self-rated health indicators

	Mitchell	Murrindindi	Goulburn Region	Indigenous Victorians	Victoria
Adults reporting very good or excellent self-rated health (2014)	32%	37%	44%^	40%	42%^
Young people 10-17 years old who reported good, very good or excellent self-rated health (2013)	**	**	88%	**	88%
Children 0-13 years old who reported good, very good or excellent self-rated health (2013)	**	**	98%	**	98%

Source: Victorian Population Health Survey, 2014 and 2015. Victorian Child and Adolescent Monitoring System, 2017. Aboriginal and Torres Strait Islander Health Performance Framework Report, 2017. ^2015 VPHS different sampling method used.

Indicator 1.1.5: Decrease Unintentional Injury

Target:
20% decrease in deaths due to road traffic crashes by 2020 from 2015 baseline.

Road accidents continue to be a large contributor to injury and mortality across Victoria, particularly within regional areas. In 2015 VicRoads found that country Victoria remains over-represented in road fatalities and that two thirds of deaths on country roads involve country people. Serious injury and fatalities from road traffic accidents increased within Murrindindi shire despite an overall decrease across Victoria from 2011 to 2016. Mitchell shire residents were significantly more likely to experience premature and avoidable mortality from transport accidents in 2010-14.[33]

Admissions to hospitals due to falls in older adults have increased by 34% across Lower Hume. The majority of separations are multi day to allow time for recovery and/or arrange additional care supports at home to reduce the risk of future injury.[42]

Child mortality prevalence was higher in the Goulburn region when compared to Victoria in 2008-12. Moreover, a higher proportion of young people in Mitchell shire died in 2010-14 when compared to the rest of the state.[9, 14]

Table 5: Summary of unintentional injury indicators

	Mitchell	Murrindindi	Goulburn region	Victoria
Number of fatal crashes by location (2016)	4	6	**	264
Avoidable mortality from transport accidents# (2010-14)	**16**	**	**13^**	5
Premature mortality from transport accidents# (2010-14)	**13**	**	**12^**	4
Child mortality# (1 to 4 years) (2008-12)	**	**	25	17
Youth mortality# (15 to 24 years) (2010-14)	**65**	**	**	33
Hospitalisation rate due to falls by adults aged 65+ (2015/16)	158	97	**	**

Source: VicRoads, 2017. Public Health Information Development Unit, 2017. Victorian Admitted Episodes Dataset, 2017.
#per 100,000 population. ^2009-12. **Not available.

Indicator 1.1.6: Increase Oral Health

Avoidable hospital admissions due to dental conditions in children increased throughout Lower Hume from 2011/12 to 2015/16, despite the Victorian average remaining stable. As a result the rate of preventable hospital admissions due to dental conditions in children was higher than state average across Lower Hume in 2015/16. Aboriginal and Torres Strait Islander children throughout Australia were almost two times more likely than their non-Indigenous counterparts to be admitted to hospital for dental problems.[10, 61]

69% of children aged 0-5 years in Mitchell shire had decayed, missing or filled teeth in 2014/15, compared to 67% across Victoria.[9]

Table 6: Standardised hospital admission rate for preventable dental conditions, 2015/16

Mitchell	Murrindindi	Goulburn and Ovens Murray region	Victoria
7.5	**10.4**	6.4	6.5

Source: Department of Health and Human Services, Victorian Health Information Surveillance System, 2017.

Indicator 1.1.7: Increase Sexual and Reproductive Health

Target:
Virtual elimination of HIV transmission by 2020.

From 2014/15 to 2016/17 the HIV notification rate decreased across Victoria and increased within Mitchell shire (with 1 new case notified). From 2013-2015 the notification rate for HIV remained higher in the Aboriginal and Torres Strait Islander population throughout Australia when compared to non-Indigenous Australians.[17, 61]

The incidence of chlamydia decreased in Mitchell and Murrindindi shires despite an increase across Victoria and the Goulburn and Ovens Murray region. Cases of gonorrhoea have increased significantly across Victoria as well as within Mitchell and Murrindindi shires. The notification rate for newly acquired hepatitis C decreased to 2 cases per 100,000 population across Victoria in 2016/17.[17]

Compared to the Victorian average a higher proportion of young people within the Goulburn region reported having had sexual intercourse, despite a similar average age of initiation. In 2014 young people in the Goulburn region were more likely to report always using a condom compared to state average, although Mitchell and Murrindindi shires had higher rates of sexually transmissible infections in young people in 2011. In 2012 Mitchell and Murrindindi shires had higher birth rates for women aged 15-19 years old compared to state average.[13]

Table 7: Summary of sexual health indicators per 100,000 population, 2016/17

	Mitchell	Murrindindi	Goulburn and Ovens Murray region	Victoria
HIV notification rate	2.8	**	0.7	0.4
Chlamydia notification rate	262.3	**96.3**	266.8	330.7
Gonorrhoea notification rate	45.6	22.8	26.2	124.9
Hepatitis C notification rate	0	**	0.7	2
Birth rate of mothers aged 15-19 years old (2012)#	**18.2**	13.3	**	10.4

Source: Department of Health and Human Services, Infectious Diseases Surveillance, 2017. Victorian Child and Adolescent Monitoring System, 2017. **Not available. #Per 1,000 population.

Outcome 1.2: Victorians have good mental health

Indicator 1.2.1: Increase mental wellbeing

Target:
20% increase in resilience of adolescents by 2025 from 2014 baseline.

Adults living in Mitchell and Murrindindi shires were slightly more likely to experience high or very high psychological distress in 2014 when compared to state average, whilst Aboriginal and Torres Strait Islander people were almost two times more likely. 17% of young people in the Goulburn region showed high levels of psychological distress in 2014, which was similar to the Victorian average. 22% of young Aboriginal and Torres Strait Islander people reported a mental health condition in 2014/15.[6, 13, 61]

Lifetime prevalence of depression and anxiety increased in adults throughout Victoria from 2011 to 2014. Adults in Murrindindi and Mitchell shire were slightly more likely than the state average to have experienced depression or anxiety in 2014. The 2015 VPHS found that adults living in rural regions were more likely to be diagnosed with depression or anxiety in addition to a higher proportion of females than males across the state. Inequity in the burden of mental illness exists with Aboriginal and Torres Strait Islander people as well as people with low incomes more likely to have depression and/or anxiety. Between 2010 and 2014 the rate of avoidable deaths from suicide was higher across Murrindindi and similar to state average within Mitchell shire.[6, 31, 61]

Table 8: Summary of mental health indicators, 2014

	Mitchell	Murrindindi	Goulburn region	Indigenous Victorians	Victoria
Proportion of adults with high/very high psychological distress	15%	16%	13%	32%	13%
Proportion of young people with high levels of psychological distress	**	**	17%	22%*	16%
Lifetime prevalence of depression or anxiety (adults)	27%	25%	28%^	29%	24%^
Proportion of adults who sought professional help for a mental health related problem	16%	15%	15%	27%^^	16%
Avoidable deaths from self-inflicted injuries#	11	17	**	**	10

Source: Victorian Population Health Survey, 2014. Source: ABS, Australian Aboriginal and Torres Strait Islander Health Survey, 2014. Victorian Child and Adolescent Monitoring System, 2017. **Not available. ^2015 VPHS different sampling method used.*Young people that reported having a mental health condition. ^^Australian average. #Age Standardised Rate (ASR) per 100,000 population.

Outcome 1.3: Victorians act to protect and promote health

Indicator 1.3.1: Increase healthy eating and active living

Target:
10% increase in sufficient physical activity prevalence of adults and 20% increase in sufficient physical activity prevalence of adolescents by 2025.

Healthy eating

Only 4% of adults throughout Victoria and Murrindindi shire self-reported meeting fruit and vegetable guidelines in 2014 and 6% across Mitchell shire. However, the 2015 VPHS found that the Goulburn region had the highest prevalence of adults meeting both fruit and vegetable guidelines at 6%. Across both time points, all adults were significantly more likely to meet fruit guidelines when compared to vegetable guidelines. Moreover females across Victoria were significantly more likely to meet both guidelines compared to men, whilst both genders were more likely to report very good or excellent health if they ate sufficient fruit and vegetables. An association with socio-economic status (SES) and meeting fruit and vegetable guidelines was found in females but not males. Indigenous Australians were 1.4 times as likely as non-Indigenous Australians to report less than one serve of fruit daily and 1.9 times as likely to report less than one serve of vegetables. [6, 31, 61]

In 2013 only 1% of children in the Goulburn region met fruit and vegetable guidelines (compared to 3% throughout Victoria) whilst 14% of young people reported eating sufficient servings of fruit and vegetables. A higher proportion of children across Lower Hume reported eating at least one serve of fruit and vegetables in the previous day in 2017 than in 2013/14, as measured by the Day in the Life Questionnaire within primary schools. However, parent nutrition surveys concluded a slight decrease in mean serves of fruit and vegetables from the initial data collection period in 2013/14.[29]

Parent nutrition surveys consistently revealed fussy eating, cost and time/energy as the top three barriers to children consuming a variety of nutritious foods. 63% of infants across Victoria were fully breastfed to three months of age in 2014/15, which was similar across Mitchell and Murrindindi shires. Indigenous children were less likely to have ever been breastfed when compared to non-Indigenous children throughout Victoria.[9, 13, 29, 61]

In 2014 adults in Lower Hume were more likely than the Victorian average to consume sugar sweetened beverages daily. Around one third of primary school children within Lower Hume consumed sugar sweetened beverages on the previous day in 2017. Indigenous adults and children were significantly more likely to consume soft drinks than non-Indigenous.[6, 29, 61]

A significantly higher proportion of adults in Murrindindi shire had run out of food in the previous twelve months and couldn't afford to buy more in 2014; whilst Mitchell shire was below state average. Across Victoria in 2015 women living in rural Victoria were more likely to have experienced food insecurity when compared with their metropolitan counterparts. In 2012/13 Indigenous Australians were 7 times as likely as non-Indigenous Australians to go without food due to financial constraints.[5, 31, 61]

The cost of a Healthy Food Basket (HFB) in Lower Hume increased over six years for all family types. On average one third of a typical family's (2 adults and 2 children) welfare payment was spent on a HFB in 2016. The variance of the cost of healthy food across Lower Hume was significant with consumers paying up to 30% more for the same basket of food depending on where they shopped. Comparison with other regional areas throughout Victoria identified that overall the cost of a HFB in Mitchell shire in 2016 was below average, whilst Murrindindi was similar to other regional areas.[41]

Adults living in Mitchell shire were less likely than all Victorian adults to eat take away meals and/or snacks at least three times per week in 2015. However a high proportion of children reported consuming discretionary foods on two or more occasions on the previous day in 2017. Food outlet mapping across Mitchell shire in 2017 identified significantly higher access to non-essential food outlets (fast food, take-away, bakeries, restaurants, cafes, convenience stores, petrol stations) compared with essential food outlets (supermarkets, butchers, green grocers etc.).[4, 40]

Table 9: Summary of healthy eating indicators, 2014

	Mitchell	Murrindindi	Goulburn & Ovens Murray region	Victoria
Proportion of adults that met both fruit and vegetable guidelines	6%*	4%	6%^	4%^
Proportion of children (4-12 years old) that met both fruit and vegetable guidelines	**	**	1%*	3%
Proportion of young people (in years 5, 8 & 11) that met both fruit and vegetable guidelines	**	**	14%	11%
Proportion of adults who consume sugar sweetened beverages daily	17%	**21%**	**15%**	11%
Proportion of people who ran out of food and couldn't afford to buy more	3%*	**12.8%***	6%	4%
Proportion of infants exclusively breastfed to 3 months of age	61%	62%	**	63%

Source: Victorian Population Health Survey, 2014 and 2015. Victorian Child and Adolescent Monitoring System, 2017.
*RSE between 25-50% and should be interpreted with caution. ^2015 VPHS different sampling method used.

Physical activity

A significant decrease in the proportion of adults completing the recommended minimum amount of physical activity occurred across Victoria from 2011 to 2014. A slight increase was reported in the 2015 VPHS with 47% of Victorian adults and 53% of adults in the Goulburn and Ovens Murray region meeting physical activity guidelines. Women who lived in the Goulburn and Ovens Murray region were significantly more likely to achieve the recommended minimum amount of physical activity in 2015 compared to all Victorian women. The proportion of men and women who undertook adequate physical activity significantly increased with increasing total annual household income. Indigenous adults throughout Australia were less likely to be sufficiently active than non-Indigenous Australians. [6, 31, 61]

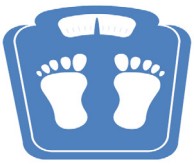
Adults living in Lower Hume were less likely to use active transport for travel and less likely to participate in organised sport when compared to state average. However they were more likely to have a physically demanding job when compared to Victorian average. As a result the proportion of adults sitting for more than eight hours on a typical weekday was significantly less likely across Mitchell shire and similar to state average of 24% in Murrindindi shire. Additionally women living in the Goulburn and Ovens Murray region were significantly less likely than all Victorian women to sit for more than eight hours on a weekend day. Across Victoria younger adults were significantly more likely to sit for more than eight hours on a weekend day.[4, 6, 31]

Adolescents were significantly less likely than children to be sufficiently active in 2014 across all populations. Adolescents across Victoria were significantly more likely to spend more than two hours per day using electronic media for recreation compared to children. A slightly higher proportion of children in the Goulburn region (20%) and a similar proportion of adolescents (61%) reported spending more than two hours per day using electronic media for recreation compared to state average (18% and 61%).[13]

Table 10: Summary of physical activity indicators, 2014

	Adults sufficiently active	Children sufficiently active	Adolescents sufficiently active	Adults participating in organised sport (2015)	Adults siting for 8 hours+ on average work day
Mitchell	38%	**	**	20%	**15%**
Murrindindi	42%	**	**	20%	21%
Goulburn region	53%^	75%	28%	**	**16%^**
Indigenous Australians	38%	64%	26%	**	**
Victoria	47^	62%	26%	29%	23%^

Source: Victorian Population Health Survey, 2011, 2014 & 2015. Victorian Child and Adolescent Monitoring System, 2017. Vichealth Indicators Survey, 2015. Aboriginal and Torres Strait Islander Health Performance Framework Report, 2017.^2015 VPHS different sampling method used. **Not available.



Indicator 1.3.2: Reduce overweight and obesity

Target:
5% decrease in prevalence of overweight and obesity in adults and children by 2025 from 2011 baseline.

Both Mitchell and Murrindindi shires had significantly higher proportions of adults who were overweight or obese in 2014 when compared to state average. Self-reported measures appeared to underestimate the prevalence of overweight and obesity with Body Mass Index (BMI) measures identifying a higher proportion of people above the recommended body weight range. Adults across Lower Hume were also more likely to have a waist measurement above the recommended healthy range, putting them at increased risk of developing chronic illnesses. The proportion of children and adolescents who were overweight or obese was similar to state average across Lower Hume at close to one third of the population.[6, 8]

Men were more likely than women to be overweight in 2015; however women were more likely to have a waist measurement that puts them at increased risk of developing chronic conditions. Adults living throughout rural Victoria were more likely to be obese than their metropolitan counterparts. Income did not determine body weight status in males, but did for females, as females who had a total household income of $100,000 or more were significantly less likely to be obese. Victorian adults who were sedentary (sat for more than 8 hours per day) were significantly more likely to be obese. Overweight and obesity is also a significant health issue for Aboriginal and Torres Strait Islander people as the second leading risk factor contributing to the health gap between Indigenous and non-Indigenous Australians.[31, 61]

Table 11: Summary of overweight and obesity indicators, 2014/15

	Proportion of adults overweight or obese		Proportion of children & young people overweight or obese (Measured)	Waist measurement at increased risk of chronic disease#
	Self-reported	Measured		
Mitchell	**58%**	70%	28%	66
Murrindindi	**60%**	70%	28%	65
Goulburn & Ovens Murray region	54%^	**	**	**
Indigenous Victorians	**	64%	30%^^	**
Victoria	49%^	64%	29%	61

Source: Victorian Population Health Survey, 2014 & 2015. Australian Health Policy Collaboration Australia's Health Tracker, 2017. Public Health Information Development Unit, 2017. ABS Australian Aboriginal and Torres Strait Islander Health Survey, 2014. ^^Australian average. ^2015 VPHS different sampling method. **Not available. #per 10,000 population.

Indicator 1.3.3: Reduce smoking

Target:
30% decrease in smoking by adults by 2025 from 2011 baseline.

The proportion of adults who were current smokers decreased across Victoria (from 16% to 13%) and Mitchell shire (from 19% to 12%) from 2011 to 2014. At the same time the proportion of current smokers increased in Murrindindi shire to an alarming 24%.[6]

The proportion of adult daily smokers reduced slightly across the state, with the exception of Murrindindi shire where adults were twice as likely to smoke daily. Increased smoking prevalence was found in 2015 (19%) which could have been influenced by the different sampling method in the 2015 Victorian Population Health Survey (VPHS).[31]

Smoking prevalence remained significantly higher among males when compared to females in 2015. Adults living in rural regions were more likely to be daily smokers than those in metropolitan areas. One quarter of young adults aged 18-24 years old reported being current smokers in 2015, while adults between 18-34 years old were most likely to be occasional smokers. Young people in the Goulburn region were more likely to have ever smoked a cigarette when compared to state average, and children in the region were more likely to be exposed to second-hand smoke.[13, 31]

The smoking rate for Aboriginal and Torres Strait Islander people living in Victoria is more than double the state average and is the leading cause of the gap in health outcomes between Indigenous and non-Indigenous Australians. A statistically significant correlation with smoking and household income was found across men and women, with the likelihood of being a current smoker reducing with increasing total annual household income. Moreover, adults with low education, who are unemployed and/or have a total annual household income of less than $40,000 were significantly more likely to be a current smoker. Men and women who were current smokers were more likely to report poorer health outcomes including psychological distress and poor/fair self-rated health.[31, 61]

Table 12: Summary of smoking indicators, 2014/15

	Mitchell	Murrindindi	Goulburn & Ovens Murray region	Indigenous Victorians	Victoria
Proportion of adults who are current smokers	12%	**24%**	19%^	**	19%^
Proportion of adults who are daily smokers	10%*	**20%**	15%^	**41%**	13%^
Proportion of young people who have ever smoked cigarettes	**	**	15%	**	8%
Proportion of children who live with a smoker who smokes inside the home	**	**	24%	**	19%

Source: Victorian Population Health Survey, 2014 & 2015. Australian Health Policy Collaboration Australia's Health Tracker, 2017. Public Health Information Development Unit, 2017. Victorian Child and Adolescent Monitoring System, 2017. ABS Australian Aboriginal and Torres Strait Islander Health Survey, 2014. ^2015 VPHS different sampling method. **Not available.

Indicator 1.3.4: Reduce harmful alcohol and drug use

Target:
10% decrease in excess alcohol consumption by adults and adolescents by 2025 from 2014 baseline.

Both lifetime risk and short term risk of harm from alcohol was significantly higher than state average across Murrindindi shire and slightly higher across Mitchell shire in 2014. Males were significantly more likely to drink alcohol at increased risk of long term and short term harm compared to females, with the exception of those in the 18-24 year old age group were there was no significant difference observed between genders. Adults living within rural regions across Victoria were also more likely to drink alcohol at harmful levels. Adults who reported very good or excellent health were most likely to be at risk of injury from a single occasion of drinking.[6, 31]

The association between drinking alcohol at risk of harm and total annual household income was opposite to what has been identified across other risk factors. That is, the prevalence of drinking alcohol at levels considered to be dangerous to health increases significantly with increasing total annual household income. Moreover, adults drinking at either long term or short term risk to health were more likely to be born in Australia and speak English at home. Indigenous Australians were found to be significantly more likely to drink at short-term risk of harm and significantly less likely to drink at lifetime risk of harm. Moreover, Indigenous Australians were 1.6 times as likely to abstain from alcohol as non- Indigenous Australians.[31, 61]

80% of adolescents living within the Goulburn region reported ever drinking more than a few sips of alcohol which was significantly higher than state average. Moreover, adolescents across all regional areas of Victoria were found to have an increased risk of alcohol use when compared to their metropolitan counterparts. This trend did not appear to carry over to illicit drug use with 13% of young people reporting ever using marijuana or other illegal drugs across Victoria and the Goulburn region in 2014.[13]

Alcohol related ambulance attendances were the most common out of all drug related incidents, followed by prescription pharmaceutical and then illegal drugs. Alcohol and drug related ambulance attendances increased from 2011/12 to 2014/15. Alcohol and illicit drug related ambulance attendances were most likely to be males, whilst prescription medication incidents were more likely to be females.[12]

Table 13: Summary of alcohol indicators, 2014/15

	Drink alcohol at lifetime risk of harm	Drink alcohol at short-term risk of harm	Proportion of young people who have ever drank alcohol	Rate of alcohol- related ambulance attendances#
Mitchell	61%	46%	**	30
Murrindindi	**73%**	**59%**	**	31
Goulburn & Ovens Murray region	**60%^**	38%^	80%^^	30
Indigenous Australians	19%	59%	**	**
Victoria	59%^	36%^	60%	37

Source: Victorian Population Health Survey, 2014 & 2015. ABS Australian Aboriginal and Torres Strait Islander Health Survey, 2012-13.
^2015 VPHS different sampling method. ^^ Goulburn region. #per 10,000 population. **Not available.

Indicator 1.3.5: Increase Immunisation

Target:
95% coverage of school entry immunisation by 2025 from 2014 baseline.

Notifications for vaccine preventable diseases increased from May to August 2017. Despite this notification rates across Mitchell and Murrindindi remained lower than state average. The rate of influenza and shingles notifications increased across all areas over the 4 month period. Murrindindi shire had a significantly higher rate of meningococcal infection.[17]

Immunisation coverage at school entry reached the 95% target in Mitchell shire in 2015, with Murrindindi closely behind at 94% and a state average of 93%. Aboriginal and Torres Strait Islander children living in Victoria had higher vaccine coverage rates than the general population at age 5 (96%), despite coverage rates for younger children being lower than non-Indigenous children.[61]

Human Papillomavirus (HPV) vaccine coverage for males and females was highest across Mitchell shire, whilst Murrindindi had significantly lower male HPV coverage.[9]

Table 14: Summary of immunisation indicators

	Mitchell	Murrindindi	Goulburn & Ovens Murray region	Victoria
Notification rate for vaccine preventable diseases# (2017)	387.6	440.3	414.5	539.3
Immunisation coverage rate at school entry (2015)	95%✓	94%	**	93%
HPV vaccine coverage – males (2014)	81%	**59%**	**	74%
HPV vaccine coverage - females (2014)	82%	83%	**	81%

Source: Victorian Infectious Diseases Surveillance, 2017. Public Health Information Development Unit , 2017
per 100,000 population. ✓ Met target. **Not available.

DOMAIN TWO: VICTORIANS ARE SAFE AND SECURE

Outcome 2.1: Victorians live free from abuse and violence

Indicator 2.1.1: Reduce prevalence and impact of abuse and neglect of children

Rates of substantiated child abuse, police reported family violence and total crime have increased across Victoria and the Lower Hume catchment over the past few years. Despite limitations with the data available it is clear that people continue to be subject to abuse and violence and that the health and safety of communities would be improved with a reduction in unsocial behaviour and crime.

The rate of substantiated child abuse in Murrindindi shire was below state average in 2009/10 and unfortunately doubled by 2010/11 bringing it closer to the Victorian average. The rate of substantiated child abuse in Mitchell shire increased and remained higher than state average in 2010/11. Aboriginal and Torres Strait Islander children throughout Victoria were 7.5 times more likely than non-Indigenous children to have had a substantiated child protection notification and 12 times more likely to be receiving out of home care.[13, 61]

Indicator 2.1.2: Reduce prevalence and impact of family violence

A 19% increase in police reporting of family violence occurred across Victoria from 2012 to 2017, with a 20% and 35% rise experienced across Murrindindi and Mitchell shires respectively. In 2016/17 rates of family violence recorded by police were almost two times more prevalent in Mitchell shire than state average. Moreover, family violence incidents in Mitchell and Murrindindi shires more commonly involved children and young people, which is known to be damaging to social, emotional, cognitive, behavioural and physical development.[13, 19]

Poor police recording of Aboriginality inhibits understanding of the prevalence of family violence in Aboriginal communities; however we do know that in Victoria family violence and parent alcohol/drug use are the leading reasons why Aboriginal children are receiving out of home care (88% and 87% respectively). Moreover, Indigenous females were 32 times more likely to be admitted to hospital as a result of family violence than non-Indigenous females, and Indigenous males 23 times more likely than non-Indigenous males. [61]

Indicator 2.1.3: Increase community safety

An increase in the rate of sexual offences recorded by police was observed across Victoria and Lower Hume from 2012 to 2016, with a significantly higher increase experienced within Murrindindi shire. As a result police recorded incidents of sexual assault were higher per population across both Mitchell and Murrindindi shires in 2016 when compared to Victorian average.[19]

The total number of criminal offences per population was 23% higher than state average across Mitchell shire in 2017. The top offences recorded in Mitchell shire in 2017 were theft, breaches of orders and assault. The crime rate in Murrindindi shire remained below the state average despite an increase from 2013 to 2017. Theft, burglary/break and enter and assault were the most commonly reported offences in Murrindindi during 2017. The victimisation rate also increased over the past four years. Indigenous Australians were 2.8 times more likely to be a victim of physical or threatened violence than non-Indigenous Australians in 2014/15.[19, 61]

In 2012/13 hospital admissions due to injury, poisoning and other external causes remained higher than state average across Lower Hume. Males were more likely than females to be admitted to hospital as a result of injury, poisoning or other external factors. Indigenous Australians were hospitalised for assault at 14 times the rate of non-Indigenous Australians with Indigenous females 30 times more likely than non-Indigenous females, and Indigenous males 9 times as likely as non-Indigenous males.[9, 61]

Murrindindi residents were slightly more likely than people living in Mitchell shire to feel safe walking alone during the day. Both Mitchell and Murrindindi populations were more likely to feel safe walking alone after dark when compared to the average across Victoria. Indigenous females were less likely to feel safe walking alone in their local area after dark (51%). [7, 61]

Table 15: Summary of safe & secure indicators

	Mitchell	Murrindindi	Goulburn & Ovens Murray region	Victoria
Child abuse rate# (2010/11)	10	6	**	7
Family violence rate## (2016/17)	2,270	1,004	1,197	1,262
Proportion of family violence incidents where children and young people were involved as other parties (2014/15)	41%	36%	**	29%^^
Sexual offence rate## (2016)	341	540	240^	214
Hospital admissions due to injury & other external factors## (2012/13)	2,598	2,781	**	2,279
% feel safe walking alone after dark (2015)	64%	73%	**	55%
% feel safe walking alone during the day (2015)	90%	94%	**	93%
Offence rate## (2017)	11,398	5,119	**	8,825
Victimisation rate## (2017)	5,487	3,040	**	5,423

Source: Crime Statistics Agency Victoria, 2017. Victorian Child and Adolescent Monitoring System, 2017. Public Health Information Development Social Health Atlas, 2017. Vichealth Indicators Survey, 2015. Victorian Population Health Survey, 2014. #per 1,000 population. ## per 100,000 population. ^Eastern region. ^^2016/17. **Not available.

Outcome 2.2: Victorians have suitable and stable housing

Indicator 2.2.1: Decrease homelessness

Homeless estimates identify 142 people within Lower Hume who are thought to be homeless. Seymour and the Seymour Region made up a high proportion of the estimated homelessness population for the catchment. These figures are over 5 years old and based on estimations and assumptions; in reality the homeless population and/or people living in insecure housing is most likely underestimated. In 2011, Indigenous Australians accounted for 28% of the homeless population. Moreover, Indigenous Australians were more than twice as likely as non-Indigenous Australians to have experienced homelessness in 2014/15 (29% compared with 13%). The rate of people accessing specialist homelessness services was 8.7 times higher for Indigenous Australians, the majority of which were women who had been a victim of family violence.[1, 61]

A total of 219 people across the Goulburn (Seymour) region were on the waiting list for social housing as at June 2017, of which 53 were classified as priority access. The proportion of people living in insecure housing (e.g. caravan, houseboat, tent etc.) was significantly higher in Murrindindi shire when compared to state average in 2016.[2, 53]

Table 16: Summary of housing indicators

	Estimated number of people who are homeless (2016)	Social housing waiting list (2017)	Living in caravan, cabin, houseboat etc. (2016)	Living in improvised home, tent, sleepers out etc. (2016)
Mitchell	106	**	0.30%	0.02%
Murrindindi	36	**	**1.30%**	0.40%
Goulburn region	592	221	**	**
Victoria	24,828	**	0.10%	0.01%

Source: DHHS, Social Housing, 2017. ABS Census of Population and Housing, 2016. **Not available

DOMAIN THREE: VICTORIANS HAVE THE CAPABILITIES TO PARTICIPATE

Outcome 3.1 Victorians participate in learning and education

Indicator 3.1.1: Decrease developmental vulnerability

Children at school entry within Lower Hume remained less likely to be developmentally on track across all Australian Early Development Census (AEDC) domains compared to state average in 2015. Children in Lower Hume were most likely to be on track with language and cognitive skill development and least likely to have developed the ideal level of social competence. Variance in AEDC results were observed between towns with Seymour having the lowest average score and Wandong/Heathcote Junction having the highest proportion of children developmentally on track at school entry.[22]

Indigenous children were twice as likely as non-Indigenous children to be developmentally vulnerable on at least one domain (42% compared with 21%). A reduction in the gap is beginning to occur across some domains such as language and cognitive skills.[61]

Table 17: Proportion of children developmentally on track at school entry, 2015

	Developmentally on track across all five domains
Victoria	80%
Mitchell	76%
Murrindindi	76%
Broadford/Clonbinane	75%
Kilmore/ Willowmavin	79%
Puckapunyal	69%
Pyalong/ Sugarloaf Creek/Tooborac	68%
Seymour	61%
Wallan/ Upper Plenty	82%
Wandong/ Heathcote Junction	84%
Alexandra and surrounds	76%
Kinglake/Pheasant Creek	76%
Yea and surrounds	67%

Source: Australian Early Development Census, 2017.

Indicator 3.1.2 Increase educational attainment

Target:
25% increase in year 9 students reaching the highest levels of achievement in reading and maths by 2025 from 2015 baseline.

Literacy and numeracy skills of year 9 students assessed through National Assessment Program- Literacy and Numeracy (NAPLAN) tests revealed that private secondary schools (which include a higher proportion of students with educational advantage) are more likely to have the highest NAPLAN results. Across Lower Hume the proportion of students achieving the highest level of achievement in reading was similar to state average, whilst numeracy results were generally poorer than average.[45]

Average NAPLAN results for Aboriginal and Torres Strait Islander students remain below that of the non-Indigenous student population, influenced by poorer school attendance rates.[61]

Table 18: Summary of NAPLAN results 2016

	Proportion of year 9 students in top two bands of NAPLAN-Numeracy	Proportion of year 9 students in top two bands of NAPLAN-Reading	Index of Community Socio-Educational Advantage (ICSEA)
Victoria	23%	21%	-
Inner regional Victoria	14%	16%	-
Kilmore International School	**75%**	**61%**	1,109
Kilmore Assumption College	14%	17%	1,042
Seymour St Marys	6%	18%	1,004
Seymour College	26%	20%	929
Wallan Secondary College	4%	10%	968
Broadford Secondary College	14%	15%	966
Yea High School	6%	19%	991
Alexandra Secondary College	9%	20%	960

Source: Australian Curriculum, Assessment and Reporting Authority, 2017.

Outcome 3.2 Victorians participate in and contribute to the economy

Indicator 3.2.1: Increase labour market participation

The unemployment rate was less than state average across Lower Hume in 2016. Aboriginal and Torres Strait Islander people across Victoria were more than two times more likely to be unemployed when compared to the non-Indigenous population. The Aboriginal unemployment rate was 14% across Victoria and in Murrindindi shire and 15% in Mitchell shire in 2016.[2]

Young people aged 17-24 years old living in Lower Hume were less likely to be studying full-time and more likely to be employed full-time when compared to the state average. Indigenous Australians aged 15-24 years old were less likely to be currently studying (45%) than non-Indigenous Australians (63%) and significantly less likely to attend a University (6% compared to 23%).[1, 61]

School leavers that had completed year 12 or equivalent across Lower Hume in 2015 were slightly more likely to commence employment in the six months after leaving school when compared to state average. Those exiting school in Mitchell shire were slightly less likely to undertake further education or training, whilst those in Murrindindi had a similar participation rate to the state average. The proportion of people from Lower Hume going on to study a bachelor degree increased from 2012 to 2016, although remaining below state average. In comparison to the rest of the state, school leavers from Lower Hume were more likely to undertake an apprenticeship or traineeship. [54]

The main reason for not continuing study after high school was young people wanting to start work. An increase in the proportion of young people reporting that they never planned or intended to undertake further education occurred across Lower Hume from 2012 to 2014. 53% of Indigenous Australians aged 15 years and over reported that they intended to study in the future in 2014/15 of which 25% cited personal and financial barriers to studying in the past. Support from family, friends and school as well as career guidance, individual tutoring, access to apprenticeships, culturally appropriate schools and subsidies/grants were identified by Indigenous students as enablers to completing year 12.[54, 61]

Table 19: Summary labour market participation indicators, 2016

	Mitchell	Murrindindi	Victoria
Unemployment rate	5.7%	5.1%	6.6%
Young people studying fulltime	33%	29%	48%
Young people employed fulltime (2011)	42%	38%	32%
Destination of year 12 equivalent completers six months after leaving school (2016)			
Bachelor degree	46%	46%	54%
Certificate/diploma	14%	12%	15%
Apprenticeship/ traineeship	12%	17%	8%
Employed	21%	22%	18%
Looking for work	7%	**	5%

Source: ABS Census of Population and Housing, 2011 & 2016. Department of Education & Training On Track Survey, 2016.
** Not available.

Outcome 3.3 Victorians have financial security

Indicator 3.3.1 Decrease financial stress

Median weekly total household income increased at a similar rate as the state average across Lower Hume from 2011 to 2016. As such households across Lower Hume continued to earn less than the state average. Median weekly total household income was lower than average for Aboriginal people living in Mitchell shire and higher for Aboriginal households in Murrindindi shire.[1, 2]

Adults living in Murrindindi shire were most likely to own their house outright, whilst those in Mitchell and throughout Victoria most commonly owned their house with a mortgage. Aboriginal households were less likely to own their house outright when compared to the LGA average. The proportion of households renting from the state housing authority reduced across Lower Hume and Victoria from 2011 to 2016.[1, 2]

The proportion of total household income spent on rent was approximately 20% across Lower Hume in 2016 whilst mortgage repayments consumed roughly 30% of total household income. This was similar across the state and for Aboriginal households, identifying that lower median incomes across Lower Hume are balanced by lower housing costs. However, other living costs are often more expensive in regional areas such as transport and food. Approximately 11% of household income in Mitchell shire and 14% in Murrindindi shire was needed to purchase a healthy food basket in 2016.[2, 41]

Households in Murrindindi shire were more likely than those across Victoria and throughout regional Victoria to have a low income (less than $650 per week). Throughout Lower Hume the towns of Alexandra, Seymour and Yea had a significantly higher proportion of low income households when compared to the state average.[2]

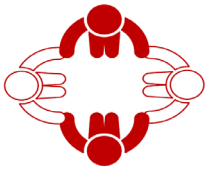
Table 20: Summary of financial stress indicators, 2016

	Mitchell		Murrindindi		Victoria	
	Non-Indigenous	Aboriginal & Torres Strait Islander	Non-Indigenous	Aboriginal & Torres Strait Islander	Non-Indigenous	Aboriginal & Torres Strait Islander
Median total household income (weekly)	$1,391	$1,223	$1,071	$1,463	$1,419	$1,200
% of median total household income spent on rent (weekly)	19%	21%	21%	16%	23%	22%
% of median total household income spent on mortgage (weekly)	28%	31%	33%	24%	30%	32%
Rent from state housing authority	2%	**	1%	**	2%	**
Low income households (less than $650/week)	17%	**	25%	**	18%	29%^

Source: ABS Census of Population and Housing, 2016. Aboriginal and Torres Strait Islander Health Performance Framework Report, 2017.
^less than $435/week. **Not available.

DOMAIN FOUR: VICTORIANS ARE CONNECTED TO CULTURE AND COMMUNITY

Outcome 4.1: Victorians are socially engaged and live in inclusive communities



Indicator 4.1.1: Increase connection to culture and communities

In 2014 adults living in Lower Hume were less likely to be involved in a religious group and more likely to be involved in other types of groups when compared to the Victorian average. Participation in citizen engagement was higher than state average across Lower Hume in 2011.[3, 7]

Participation in arts activities and events was lower in Mitchell shire and similar to state average across Murrindindi shire in 2011. Similarly the proportion of people who partook in arts or crafts activities was slightly higher than state average in Murrindindi and similar to state average within Mitchell shire during the same time period. In 2014 adults living in Murrindindi shire were more likely to have attended a local community event, whilst participation in Mitchell shire was similar to the Victorian average.[3, 7]

Connection to culture and country is crucial to the health and wellbeing of Indigenous Australians. 63% of Aboriginal and Torres Strait Islander people across Australia had attended a cultural event in 2014/15 and 62% identified to a clan or language group.[61] Although no distinct measures have been determined for connection to Aboriginal culture at a state level, opportunities for participation have been identified at a local level. Opportunities for connection to culture in Lower Hume include the Seymour Local Aboriginal Network (LAN), NAIDOC week events and Goranwarrabul House in Seymour which is one of the states Gathering Place models.

Table 21: Summary of community connection indicators

	Mitchell	Murrindindi	Goulburn & Ovens Murray region	Victoria
Proportion of adults who belong to an organised group (2014)				
Sports	19%	24%	**31%**	26%
Religious	**9%**	**9%**	**15%**	19%
School	**8%**	14%	17%	14%
Professional	**13%**	17%	**19%**	24%
Other	23%	24%	**24%**	19%
Participation in citizen engagement (2011)	60%	62%	**	51%
Attended arts activities or events (2011)	49%	64%	**	64%
Made or created arts or crafts (2011)	33%	40%	**	35%
Attended a local community event (2014)	58%	66%	**72%**	59%

Source: Victorian Population Health Survey, 2014. Vichealth Indicators Survey, 2011. **Not available.

Indicator 4.1.2: Increase access to social support

Adults living in Murrindindi shire were less likely to receive social support from family and significantly more likely to get help from neighbours when compared to state average. Further indicators for social support were similar to state average for adults across Mitchell shire and for Aboriginal and Torres Strait Islander people in 2014.[7]

92% of Victorian adults were either very satisfied or satisfied with their life in 2014, which was the same across the region and within Mitchell shire. In comparison adults living in Murrindindi shire were less likely to report feeling very satisfied or satisfied with their life overall. Despite this difference, the average measure of life satisfaction on a range from 0 (very dissatisfied) to 10 (very satisfied) was the same as the state average across Lower Hume in 2015. Indigenous Australians living in remote areas were more likely to rate their overall life satisfaction as the highest (27%) than those in non-remote areas (14%).[4, 7, 61]

76% of adolescents in the Goulburn region were satisfied with their life in 2014, compared to 77% across Victoria and 78% throughout regional Victoria. Adults across all rural regions of Victoria, including the Goulburn and Ovens Murray region, were more likely to describe their life as worthwhile when compared to the state average in 2015. Females were more likely than males to rate their life as worthwhile, with females in the Goulburn and Ovens Murray region significantly more likely.[13, 31]

Compared to the state average in 2014, adults in Mitchell shire were less likely to think that people could be trusted (30%) while those in Murrindindi shire were more likely to agree that people can be trusted (43%). One third of Aboriginal and Torres Strait Islander people agreed that most people could be trusted. Adolescents in the Goulburn region were less likely than the Victorian average to have a trusted adult in their life. A slightly lower proportion of adults throughout Lower Hume reported feeling valued by society in 2014 when compared to state average.[7, 13, 61]

Table 22: Summary of social support indicators

	Mitchell	Murrindindi	Goulburn and Ovens Murray region	Victoria
Proportion of adults who are able to get help when they need it (2014)				
From family- yes, definitely	80%	76%	79%	82%
From friends- yes, definitely	77%	77%	80%	80%
From neighbours- yes, definitely	55%	**64%**	55%	51%
Average overall life satisfaction				
Very satisfied or satisfied (2014)	92%	86%	92%	92%
Satisfaction with life as a whole (from 0-10) (2015)	8	8	**	8
Proportion of adults that think people can be trusted (2014)				
No or not often	17%	19%	18%	16%
Sometimes	51%	37%	44%	44%
Yes, definitely	30%	43%	37%	38%
Proportion of adults who feel valued by society (2014)				
No or not often	15%	15%	14%	11%
Sometimes	36%	28%	32%	33%
Yes, definitely	45%	48%	50%	51%

Source: Victorian Population Health Survey, 2014. Vichealth Indicators Survey, 2015. **Not available.

Outcome 4.2: Victorians can safely identify with their culture and identity

Indicator 4.2.1: Increase tolerance of diversity

Adults throughout Lower Hume were significantly less likely to agree that multiculturalism made life in their area better compared to the Victorian average in 2014. Moreover, those living in Mitchell shire were significantly more likely to disagree that diversity made their community better, as did adults throughout the Goulburn and Ovens Murray region. Lower Hume residents were also significantly more likely to respond 'not applicable' to this question, signifying that they thought that their communities did not include people from diverse backgrounds.[7]

35% of Indigenous Australians had reported feeling unfairly treated because they were Aboriginal and/or Torres Strait Islander in 2014/15. Of this group 44% experienced higher psychological distress.[61]

Table 23: Proportion of adults who thought multiculturalism definitely made life in their area better, 2014

	Mitchell	Murrindindi	Goulburn and Ovens Murray region	Victoria
No or not often	**15%**	11%*	**14%**	9%
Sometimes	28%	19%	**31%**	25%
Yes, definitely	**40%**	**40%**	**40%**	55%
Not applicable	**10%**	**21%**	**11%**	6%
Did not know or refused to say	7%*	9%*	4%	5%

Source: Victorian Population Health Survey, 2014. *RSE between 25-50% and should be interpreted with caution.

DOMAIN FIVE: VICTORIA IS LIVEABLE

Outcome 5.1: Victorians belong to resilient and liveable communities

Indicator 5.1.1: Increase neighbourhood liveability

Indicators that contribute to liveability such as housing, education, transport and access to services vary throughout the Lower Hume catchment (Table 24). Affordable housing was identified within the Seymour Region and the Alexandra District, meaning that a lower proportion of household income is spent on rent or mortgage repayments. Household structures too varied across the catchment, although couples with children were the predominant family structure across Mitchell and Murrindindi households. A higher proportion of 4 and 5 bedroom dwellings in Wallan and Kinglake enable families to reside in these towns.[2, 9]

Participation in tertiary education across Mitchell and Murrindindi shires reflected regional averages, with the exception of Wallan/Whittlesea and Kinglake which had higher participation rates. Participation in higher education was least likely for people in living in Seymour and the Seymour Region. Mitchell shire generally had a higher proportion of people accessing the internet at home when compared to people living in Murrindindi shire. Access to the internet is viewed as an enabler to engagement in education.[2, 9]

All areas within Lower Hume, with the exception of Seymour, had a lower proportion of households with no motor vehicle when compared to state average; highlighting high reliance on motor vehicles and road transport. Furthermore, adults living across Victoria are most likely to drive to work in a car as the driver, which was similar in Murrindindi shire and even more likely in Mitchell shire.[2]

Approximately half of all Victorian adults reported visiting a green space at least once per week in 2011. This was similar in Murrindindi and less likely in Mitchell shire, suggesting a need to enable and promote increased access to green spaces.[3] A large number of gaming machines in Mitchell shire, particularly in the south produces significant financial loss for those who frequent them.

In 2017 there were slightly less General Practitioners (GPs) per population in Murrindindi shire when compared to state average. All clinics across Lower Hume provided access to bulk billing for special groups, however there were no clinics in Mitchell North or the Yea District that were bulk billing only clinics.[55] Transport appeared to be a more significant barrier to healthcare then cost across Victoria and Lower Hume. The proportion of adults with private health insurance was similar to the average throughout regional Victoria, with the exception of Seymour which had lower coverage rates.[9]

Slightly higher levels of socio-economic disadvantage existed throughout Mitchell and Murrindindi shires, with Seymour the most disadvantaged area in the catchment. The Seymour Region, Wallan and the Kinglake District had the lowest levels of socio-economic disadvantage when compared to the state average in 2011.[56]

Liveability is an emerging area of consideration for population, especially in regional and rural areas. As such further indicators will be developed and analysed over time. Consideration must be given to population sub-groups (such as older people and Aboriginal communities) within the measurement of liveability to support diversity and enable equitable health outcomes.

Table 24: Summary of liveability indicators

	Mitchell	Murrindindi	Seymour	Seymour Region	Kilmore-Broadford	Wallan	Yea District	Alexandra District	Kinglake District	Victoria
Proportion of low income households spending 30% of income on housing costs (2016)	29%	22%	25%	18%	27%	35%	**	20%	28%	31%
Participation in higher education (2016)	20%	25%	12%	9%	18%	25%	18%	21%	27%	39%
Internet access at home (2016)	82%	77%	72%	85%	81%	88%	75%	74%	87%	84%
Proportion of households with no motor vehicle (2016)	3%	3%	10%	1%	3%	2%	**	4%	1%	8%
Visit green space (≥ once per week) (2011)	37%	53%	**	**	**	**	**	**	**	51%
GPs per 1,000 population (2017)	1.2	0.9	1.4	1.4	1.6	1.6	0.8	1.4	0.8	1.2
Private health insurance (2014/15)	39%	45%	24%	49%	38%	44%	38%	43%	54%	52%
SEIFA Index of Relative Disadvantage (IRSD) (2011)	979	982	899	1,045	998	1,028	989	984	1,028	1009.6

Source: Public Health Information Development Unit, Social Health Atlas, 2017. ABS, Census of Population and Housing, 2011 & 2016. VicHealth Indicators Survey, 2011. DHHS Local Government Profiles, 2017. National Health Services Directory, 2017. ABS Socio-Economic Indexes for Areas (SEIFA), 2011. **Not available.

Indicator 5.1.2: Increase adaptation to the impacts of climate change

The North Central weather forecast district was included in all 10 heat health alert days in 2015/16. As such increasing preparedness of at risk groups to survive hot days and heat waves is likely to become increasingly important into the future.[60]

Outcome 5.2: Victorians have access to sustainable built and natural environments

Indicator 5.2.1: Increase environmental sustainability and quality

Target:
25% of the state's electricity is from Victorian-built renewable generation by 2020, and 40% by 2025 from 2014 baseline.

Victoria has a long way to go to reach renewable energy targets and become as progressive as states such as South Australia. In 2015 Victoria was the third highest contributor to national greenhouse gas emissions of all of the states and territories.[57] Reducing greenhouse gas emissions throughout Victoria is required to reduce climate change and its likely impact on health. Water quality appeared high within the Lower Hume catchment during 2015/16, with no reports of E.coli contamination.[59] However, food safety concerns exist throughout Lower Hume with the rate of salmonellosis higher than state average in 2016/17.[17]

Table 25: Summary of environmental indicators

	Mitchell	Murrindindi	Goulburn & Ovens Murray region	Victoria
Salmonellosis notification rate#	91.2	75.9	76.4	60.5
Salmonellosis cases (2016/17)	32	10	204	3,348

Source: DHHS Infectious Disease Surveillance, 2017. #Per 100,000 population.

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