

## Prevalence of health conditions

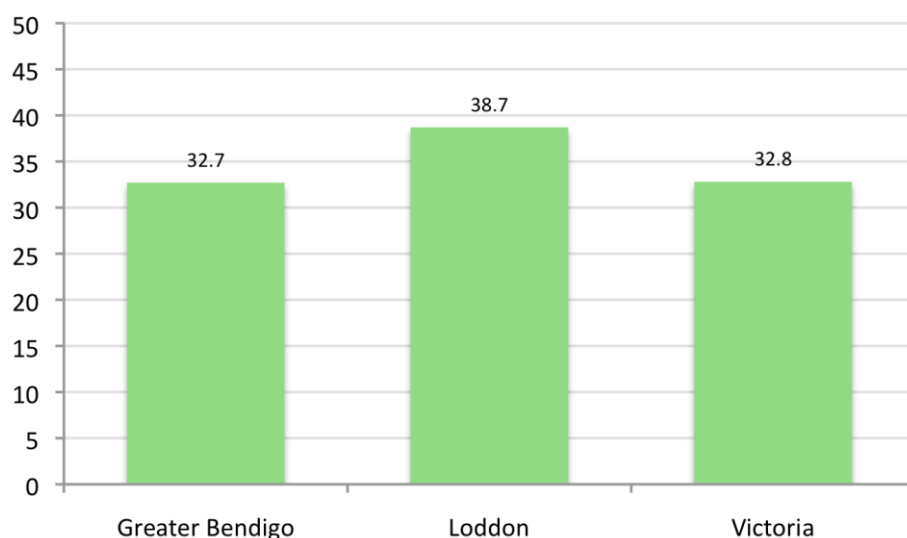
### All conditions

#### **Ambulatory Care Sensitive Conditions (ACSC)**

Ambulatory care is any medical care delivered where the patient does not need to stay in hospital overnight. If a patient visits a doctor's office, hospital or health centre without an overnight stay, it is considered ambulatory care. Hospitalisation rates for ambulatory care sensitive conditions can be used as an indicator of access to, and quality of, primary health care. A range of factors, including disease prevalence in a community, personal choices, socio-economic factors and hospital admission and coding practices can also influence these rates.

The total standardised admission rate for total ACSCs in Greater Bendigo (32.7) in 2009/10 was slightly lower than the Victorian rate (32.8), while the Loddon Shire rate (38.7) was higher than both Greater Bendigo and Victoria. The total ACSC admission rate per 1,000 persons for Greater Bendigo and for Victoria decreased a small amount between 2008/9 and 2009/10. Further information about ACSCs can be found at [www.health.vic.gov.au/healthstatus/acsc/index.htm](http://www.health.vic.gov.au/healthstatus/acsc/index.htm)

#### **Total ACSCs admission rates\* for Greater Bendigo and Loddon Shire (2009/10)**



[www.health.vic.gov.au](http://www.health.vic.gov.au)

\* rate per 1,000 persons

Note: Standardised to Victorian population 2006

#### **Most common ACSCs**

The three most common ACSCs in Greater Bendigo in 2009/10 were the same as those for all of Victoria: diabetes complications, dental conditions and chronic obstructive pulmonary disease (COPD). In Loddon Shire, the three most common ACSCs in 2009/10 were diabetes complications, chronic obstructive pulmonary disease (COPD), and Pyelonephritis (kidney infection).

For most ACSCs, Loddon Shire had a higher admission rate per 1000 persons than the Victorian average and this may be related to the higher proportion of older population in this Local Government Area.

Greater Bendigo had similar or lower admission rates, compared to the Victorian average, for the main ACSCs. Higher rates were recorded for dental conditions, angina and convulsions and epilepsy.

#### Top ten ACSCs by LGA for 2009/10 (ranked for each location)

Greater Bendigo admissions		Loddon Shire admissions		Victorian average	
Condition	Rate*	Condition	Rate*	Condition	Rate*
Diabetes complications	11.3	Diabetes complications	9.9	Diabetes complications	11.4
Dental conditions	<b>3.8</b>	COPD	<b>4.2</b>	Dental conditions	3.0
COPD	2.5	Pyelonephritis	<b>3.5</b>	COPD	2.6
Pyelonephritis	2.1	Dental conditions	<b>3.4</b>	Pyelonephritis	2.6
Cong. cardiac failure	2.0	Cong. cardiac failure	<b>3.1</b>	Cong. cardiac failure	2.3
Angina	<b>1.9</b>	Asthma	<b>3.0</b>	Asthma	1.8
Convulsions & epilepsy	<b>1.6</b>	Cellulitis	<b>2.7</b>	Cellulitis	1.7
Cellulitis	1.6	Convulsions & epilepsy	<b>2.2</b>	Iron deficiency anaemia	1.7
Asthma	1.6	Ear, nose and throat	2.2	Angina	1.5
Iron deficiency anaemia	1.5	Angina	<b>1.6</b>	Convulsions & epilepsy	1.4

[www.health.vic.gov.au](http://www.health.vic.gov.au) \*Rate per 1,000 persons

#### ACSC rates over time

ACSC admission rates for Greater Bendigo residents decreased between 2008/09 and 2009/10 for many conditions. Increased rates were seen in dental conditions, angina, asthma, cellulitis, convulsions and epilepsy and hypertension. ACSC admission rates for Loddon Shire residents also decreased for many conditions, including a significant reduction in the admission rate for diabetes complications and dental conditions. Increased rates, however, were seen for pyelonephritis, angina, asthma, cellulitis, ear nose and throat infections, congestive cardiac failure, convulsions and epilepsy. NOTE: changes to how hospitals code admissions (between hospitals and over time) means that time comparisons should be undertaken with caution.

#### ACSC rates comparison 2008/09 and 2009/10

ACSC	Greater Bendigo Rate p/1000 persons		Loddon Shire Rate p/1000 persons	
	2008/09	2009/10	2008/09	2009/10
Diabetes complications	11.5	11.3	12.1	9.9
Dental conditions	3.4	<b>3.8</b>	4.8	3.4
COPD	3.7	2.5	4.9	4.2
Congestive cardiac failure	2.1	2.0	1.9	<b>3.1</b>
Dehydration & gastro.	1.2	0.7	1.4	1.1
Pyelonephritis	2.1	2.1	2.3	<b>3.5</b>
Angina	1.6	<b>1.9</b>	1.2	<b>1.6</b>
Asthma	1.5	<b>1.6</b>	2.3	<b>3.0</b>
Iron deficiency anemia	1.5	1.5	1.5	0.9
Cellulitis	1.5	<b>1.6</b>	2.2	<b>2.7</b>
Ear, nose & throat infections	1.4	1.4	2	<b>2.2</b>
Convulsions & epilepsy	1.4	<b>1.6</b>	1.8	<b>2.2</b>
Hypertension	0.3	<b>0.4</b>	0.7	0.5

[www.health.vic.gov.au](http://www.health.vic.gov.au)

## Deaths

### **Avoidable mortality**

The Public Health Information Development Unit, in its *Australian and New Zealand Atlas of Avoidable Mortality* (2006) report, defines Avoidable Mortality as comprising “those causes of death that are potentially avoidable at the present time, given available knowledge about social and economic policy impacts, health behaviours, and health care ...”

The report, which analyses mortality across Australia, found that:

*“Rates of avoidable mortality were approximately 80% higher in the most disadvantaged areas compared to the least disadvantaged areas. There was also a clear socioeconomic gradient in rates for all causes of avoidable mortality and for most conditions examined...”*

Amongst others, the key causes of death contributing to avoidable mortality statistics include neoplasms (cancers); cardiovascular diseases; infections; nutritional, endocrine and metabolic conditions (such as diabetes); respiratory diseases; drug use disorders; and unintentional and intentional injuries. For further information about avoidable mortality, refer to the PHIDU website: [www.publichealth.gov.au](http://www.publichealth.gov.au)

### **All Causes**

Gr. Bendigo – Central, Gr. Bendigo - Eaglehawk and Loddon - South Statistical Local Areas (SLAs) had a significantly higher average annual rate of avoidable mortality (all causes) for population aged 0 to 74 years, than Victoria and Non-metropolitan Victoria. Gr. Bendigo – Part B also had a higher rate but this was not statistically significant. Loddon - South had the highest rate of any SLA in the PCP region.

### **Avoidable deaths at ages 0 to 74 years: all causes (2003 to 2007)**

SLA	No.	Rate*
Gr. Bendigo (C) - Central	189	210.2
Gr. Bendigo (C) - Eaglehawk	107	234.5
Gr. Bendigo (C) - Inner East	164	144.5
Gr. Bendigo (C) - Inner North	64	149.4
Gr. Bendigo (C) - Inner West	138	179.0
Gr. Bendigo (C) - Pt B	123	189.6
Gr. Bendigo (C) - S'saye	32	124.9
Loddon (S) - North	31	167.5
Loddon (S) - South	76	237.3
<b>Non-metropolitan Vic</b>	<b>12,790</b>	<b>182.1</b>
<b>Victoria</b>	<b>37,738</b>	<b>158.2</b>

Public Health Information Development Unit- 2011

\* average annual rate per 100,000 population.

## Leading causes of death by LGA (2006 to 2009)

### Greater Bendigo

Over the four years covering 2006 to 2009, there were 2,911 deaths in Greater Bendigo. Diseases of the circulatory system accounted for just under 35% of these and neoplasms accounted for just over 29%. The leading cause of death for males was neoplasms, then diseases of the circulatory system; while the leading cause of death for females was diseases of the circulatory system followed by neoplasms. Males were more likely than females to have died from diseases of the respiratory system or from external causes.

### Loddon Shire

There were 332 deaths in Loddon Shire over the same period. As with Greater Bendigo, diseases of the circulatory system accounted for the most deaths at just under 37%, and neoplasms accounted for just over 31.6%. Loddon Shire residents were more likely than Greater Bendigo residents to have died from either of these causes as well as from diseases of the respiratory system. The leading cause of death for males was neoplasms, then diseases of the circulatory system; while the leading cause of death for females was diseases of the circulatory system followed by neoplasms. Males were more likely than females to have died from diseases of the respiratory system or from external causes.

## Leading causes of death by sex and LGA (2006 to 2009)

	Sex	Greater Bendigo		Loddon Shire	
		No.	%	No.	%
<b>Neoplasms</b>	Male	490	33.2%	72	39.6%
	Female	357	24.9%	33	22.0%
	<b>Persons</b>	<b>847</b>	<b>29.1%</b>	<b>105</b>	<b>31.6%</b>
<b>Diseases of the circulatory system</b>	Male	437	29.6%	58	31.9%
	Female	574	40.0%	64	42.7%
	<b>Persons</b>	<b>1011</b>	<b>34.7%</b>	<b>122</b>	<b>36.7%</b>
<b>Diseases of the respiratory system</b>	Male	135	9.2%	19	10.4%
	Female	116	8.1%	12	8.0%
	<b>Persons</b>	<b>251</b>	<b>8.6%</b>	<b>31</b>	<b>9.3%</b>
<b>External causes of morbidity &amp; mortality</b>	Male	98	6.6%	11	6.0%
	Female	54	3.8%	6	4.0%
	<b>Persons</b>	<b>152</b>	<b>5.2%</b>	<b>15</b>	<b>4.5%</b>
<b>All Causes</b>	Male	1475	100.0%	182	100.0%
	Female	1436	100.0%	150	100.0%
	<b>Persons</b>	<b>2911</b>	<b>100.0%</b>	<b>332</b>	<b>100.0%</b>

Based on data commissioned from Australian Bureau of Statistics (2011)

### Leading causes of death by Statistical Local Area (SLA) – Greater Bendigo

The highest proportion of male deaths attributed to neoplasms was seen in Gr. Bendigo – S’saye (Strathfieldsaye), followed by Gr. Bendigo – Eaglehawk. The highest proportion of female deaths attributed to neoplasms was seen in Gr. Bendigo – Inner West, followed by Gr. Bendigo – S’saye.

The highest proportion of male deaths attributed to diseases of the circulatory system was seen in Gr. Bendigo – Inner East, followed by Gr. Bendigo – Eaglehawk. The highest proportion of female deaths for this cause was seen in Gr. Bendigo – Central, followed by Gr. Bendigo – Inner East.

The highest proportion of male deaths attributed to diseases of the respiratory system was seen in Gr. Bendigo – Inner North, followed by Gr. Bendigo – Part B, while the highest proportion of female deaths for this cause was seen in Gr. Bendigo – Eaglehawk and in Gr. Bendigo – Part B.

The highest proportion of male deaths attributed to external causes was seen in Gr. Bendigo – Inner North, followed by Gr. Bendigo Inner West and Gr. Bendigo Part B. Numbers for female deaths were generally too low to be reliable in this category.

### Cause of death (top 4) by sex and Statistical Local Areas in Greater Bendigo (2006 to 2009)

	Sex	Gr. Bendigo (C) - Central		Gr. Bendigo (C) - Eaglehawk		Gr. Bendigo (C) - Inner East		Gr. Bendigo (C) - Inner North		Gr. Bendigo (C) - Inner West		Gr. Bendigo (C) - S'saye		Gr. Bendigo (C) - Pt B	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Neoplasms	Male	110	29%	66	40%	108	30%	49	37%	67	33%	22	41%	68	37%
	Female	80	18%	40	30%	99	24%	36	26%	60	37%	6	35%	36	29%
	Persons	190	23%	106	36%	207	27%	85	31%	127	35%	28	39%	104	34%
Diseases of the circulatory system	Male	108	29%	51	31%	132	36%	33	25%	58	29%	9	17%	46	25%
	Female	210	46%	46	35%	169	42%	47	34%	55	34%	7	41%	40	33%
	Persons	318	38%	97	33%	301	39%	80	29%	113	31%	16	23%	86	28%
Diseases of the respiratory system	Male	34	9%	6	4%	34	9%	16	12%	19	9%	5	9%	21	11%
	Female	30	7%	14	11%	32	8%	14	10%	12	7%	0	0%	14	11%
	Persons	64	8%	20	7%	66	9%	30	11%	31	9%	5	7%	35	11%
External causes of morbidity & mortality*	Male	11	3%	13	8%	16	4%	14	11%	20	10%	5	9%	19	10%
	Female	19	4%	3	2%	18	4%	6	4%	3	2%	0	0%	5	4%
	Persons	30	4%	17	6%	34	4%	20	7%	22	6%	5	7%	24	8%
All Causes	Male	375	100%	165	100%	362	100%	133	100%	201	100%	54	100%	185	100%
	Female	457	100%	132	100%	406	100%	139	100%	162	100%	17	100%	123	100%
	Persons	832	100%	297	100%	768	100%	272	100%	363	100%	71	100%	308	100%

Based on data commissioned from Australian Bureau of Statistics (2011) \* small cell sizes for these categories should be interpreted with caution as low level of reliability. (a) Causes of death data for 2007 have undergone two years of revisions. See Technical Note: Causes of Death Revisions, and Explanatory Notes 28-32. (b) Causes of death data for 2008 have been revised and are subject to further revisions. See Technical Note: Causes of Death Revisions. (c) Causes of death data for 2009 are preliminary and subject to a revisions process. See Technical Note: Causes of Death Revisions. (d) Data cells with small values have been randomly assigned to protect the confidentiality of individuals. As a result, some totals will not equal the sum of their components. Cells with a zero value have not been affected by confidentialisation. (e) See Explanatory Notes 73-84 for further information on specific issues relating to 2009 data. (f) Data is for 2006 to 2009 Reference Year aggregated

### Leading causes of death by Statistical Local Area (SLA) – Loddon Shire

The highest proportion of male deaths attributed to neoplasms was seen in Loddon – South, while highest proportion of female deaths attributed to neoplasms was seen in Loddon - North.

The highest proportion of male deaths attributed to diseases of the circulatory system was seen in Loddon – North, while highest proportion of female deaths attributed to neoplasms was seen in Loddon - South.

The highest proportion of male deaths attributed to diseases of the respiratory system was seen in Loddon – South, while highest proportion of female deaths attributed to neoplasms was seen in Loddon - North.

The highest proportion of male deaths attributed to external causes was seen in Loddon – South. Numbers for female deaths were too low to be reliable in this category.

### Cause of death (top 4) by sex and Statistical Local Areas in Loddon Shire (2006 to 2009)

	Sex	Loddon (S) - North		Loddon (S) - South	
		No.	%	No.	%
Neoplasms	Male	22	39%	50	40%
	Female	21	29%	12	15%
	Persons	43	33%	62	31%
Diseases of the circulatory system	Male	25	44%	33	26%
	Female	29	40%	35	45%
	Persons	54	42%	68	33%
Diseases of the respiratory system*	Male	5	9%	14	11%
	Female	7	10%	5	6%
	Persons	12	9%	19	9%
External causes of morbidity & mortality*	Male	0	0%	11	9%
	Female	3	4%	3	4%
	Persons	1	1%	14	7%
All Causes	Male	57	100%	125	100%
	Female	72	100%	78	100%
	Persons	129	100%	203	100%

Based on data commissioned from Australian Bureau of Statistics (2011) \* small cell sizes for these categories should be interpreted with caution as low level of reliability. (a) Causes of death data for 2007 have undergone two years of revisions. See Technical Note: Causes of Death Revisions, and Explanatory Notes 28-32. (b) Causes of death data for 2008 have been revised and are subject to further revisions. See Technical Note: Causes of Death Revisions. (c) Causes of death data for 2009 are preliminary and subject to a revisions process. See Technical Note: Causes of Death Revisions. (d) Data cells with small values have been randomly assigned to protect the confidentiality of individuals. As a result, some totals will not equal the sum of their components. Cells with a zero value have not been affected by confidentialisation. (e) See Explanatory Notes 73-84 for further information on specific issues relating to 2009 data. (f) Data is for 2006 to 2009 Reference Year aggregated

### Life expectancy at birth

The life expectancy at birth for a male born in Loddon Shire in 2007 is 75.3, the lowest ranking (age) for any Local Government Area in Victoria. The life expectancy for a male born in Greater Bendigo in 2006 is 78.6, which is closer to the Loddon Mallee region and state figures (78.3 & 80.0). Of the 79 Local Government areas, Loddon Shire ranked 79 and Greater Bendigo ranked 45.

The life expectancy at birth for a female born in Loddon Shire in 2007 is 83.0 and the life expectancy for a female born in Greater Bendigo in 2006 is slightly higher at 83.3. Of the 79 Local Government areas, Greater Bendigo ranked 51 and Loddon Shire ranked 64.

### Life Expectancy at Birth (2007)

	Male	Female
City of Greater Bendigo	78.7	83.6
Loddon Shire	75.3	83.0
Loddon Mallee DHS region	78.6	83.4
Regional Victoria	78.9	83.8
Victoria	80.3	84.4

Department of Human Services: [www.health.vic.gov.au](http://www.health.vic.gov.au)

**Note:** At the national level for 2005–2007, life expectancy at birth for Indigenous males is estimated to be 67.2 years, 11.5 years less than life expectancy at birth for non-Indigenous males (78.7 years). Life expectancy at birth for Indigenous females is estimated to be 72.9 years, 9.7 years less than life expectancy at birth for non-Indigenous females (82.6 years). *Experimental Life Tables for Aboriginal and Torres Straight Islanders ABS May 2009 - catalogue no. 3302.0.55.003*

### Hospital admissions 2008/09

Across Victoria, there were 45,389 hospital admissions of Bendigo Loddon PCP area residents in 2008/09. The most common causes (by major diagnostic category) for admission of Greater Bendigo residents in 2008/09 were: diseases & disorders of the Kidney & Urinary Tract; the digestive system; the musculoskeletal system & connective tissue; and of the circulatory system.

The most common causes by major diagnostic category (MDC) for admission of Loddon Shire residents in 2008/09 were: diseases & disorders of the kidney & urinary tract; the digestive system; the musculoskeletal system & connective tissue; and of the circulatory system.

Compared to Victoria, Greater Bendigo had a higher proportion of admissions in many of the MDCs, including: diseases & disorders of the circulatory system; the kidney & urinary tract; the ear, nose, mouth & throat; the musculoskeletal system & connective tissue; and neoplastic disorders.

Compared to Victoria, Loddon had a higher proportion of admissions in many of the MDCs, including: diseases & disorders of the circulatory system; the eye; the male reproductive system; the musculoskeletal system & connective tissue; the nervous system, the respiratory system; and neoplastic disorders.

### All hospital admissions by major diagnostic category (MDC) - 2008/09

	Greater Bendigo			Loddon			Victoria		
	No.	% of all admissions	% of est. 2008 pop.	No.	% of all admissions	% of est. 2008 pop.	No.	% of all admissions	% of est. 2008 pop.
Unassignable to MDC	0	0.0%	2.0%	0	0.0%	2.4%	45	0.0%	2.4%
Diseases & Disorders of the Nervous System	1608	3.9%	<b>0.7%</b>	169	<b>4.3%</b>	1.0%	88844	4.0%	0.6%
Diseases & Disorders of the Eye	1262	3.0%	4.9%	175	<b>4.5%</b>	5.9%	68236	3.1%	5.4%
Diseases & Disorders of the Ear, Nose, Mouth & Throat	2294	<b>5.5%</b>	3.2%	194	<b>5.0%</b>	4.5%	102339	4.6%	2.8%
Diseases & Disorders of the Respiratory System	1786	4.3%	1.3%	196	<b>5.0%</b>	1.4%	96293	4.3%	1.4%
Diseases & Disorders of the Circulatory System	3181	<b>7.7%</b>	2.3%	361	<b>9.2%</b>	2.4%	147203	6.6%	1.9%
Diseases & Disorders of the Digestive System	4877	11.8%	1.8%	477	12.2%	2.4%	284392	12.7%	1.8%
Diseases & Disorders of the Hepatobiliary System & Pancreas	640	1.5%	3.4%	61	<b>1.6%</b>	4.5%	33514	1.5%	3.3%
Diseases & Disorders of the Musculosk. System & Conn. Tissue	3421	<b>8.2%</b>	7.2%	363	<b>9.3%</b>	7.0%	176618	7.9%	6.7%
Diseases & Disorders of the Skin, Subcutaneous Tissue & Breast	1632	3.9%	2.3%	161	<b>4.1%</b>	1.7%	88056	3.9%	2.4%
Endocrine, Nutritional & Metabolic Diseases & Disorders	514	1.2%	1.1%	40	1.0%	1.0%	30443	1.4%	1.2%
Diseases & Disorders of the Kidney & Urinary Tract	7234	<b>17.4%</b>	1.6%	568	14.5%	2.0%	354574	15.9%	1.7%
Diseases & Disorders of the Male Reproductive System	659	<b>1.6%</b>	0.5%	81	<b>2.1%</b>	0.5%	30576	1.4%	0.6%
Diseases & Disorders of the Female Reproductive System	1339	3.2%	0.6%	112	2.9%	0.8%	72648	3.3%	0.6%
Pregnancy, Childbirth & the Puerperium	2285	5.5%	0.0%	141	3.6%	0.0%	129059	5.8%	0.0%
Newborns & Other Neonates	1133	2.7%	0.7%	78	2.0%	0.6%	61346	2.7%	0.8%
Dis. & Disorders of Blood, Blood Forming Organs, Immun. Disorders	530	1.3%	1.3%	45	1.1%	2.2%	35943	1.6%	1.3%
Neoplastic Disorders (Haematological & Solid Neoplasms)	3008	<b>7.3%</b>	0.1%	341	<b>8.7%</b>	0.2%	148918	6.7%	0.3%
Infectious & Parasitic Diseases, Systemic or Unspec. Sites	291	0.7%	3.0%	29	0.7%	4.2%	18260	0.8%	2.8%
Mental Diseases & Disorders	916	2.2%	0.9%	60	1.5%	0.7%	71412	3.2%	1.3%
Alcohol/Drug Use & Alcohol/Drug Induced Org. Mental Disorders	71	0.2%	0.0%	13	0.3%	0.0%	13422	0.6%	0.0%
Injuries, Poisonings & Toxic Effects of Drugs	655	1.6%	0.3%	50	1.3%	0.4%	44187	2.0%	0.3%
Burns	31	0.1%	1.6%	0	0.0%	2.1%	1776	0.1%	1.7%
Factors Infl. Health Status & Other Contacts with Health Svcs	1980	4.8%	0.5%	192	4.9%	0.6%	130081	5.8%	0.7%
(blank)	127	<b>0.3%</b>	0.1%	8	0.2%	0.1%	3551	0.2%	0.1%
<b>Total</b>	<b>41474</b>	<b>100.0%</b>	<b>41.5%</b>	<b>3915</b>	<b>100.0%</b>		<b>2231736</b>	<b>100.0%</b>	

Source: Victorian Admitted Episode Dataset (VAED) 2008/09 (Public and Private Hospital files)

Between 2006/07 and 2008/09 Greater Bendigo had an increase in the *proportion* of resident's admissions in a number of MDCs. The most notable increases were: diseases & disorders of the digestive system, diseases & disorders of the kidney & urinary tract and neoplastic disorders. Loddon Shire had a notable increase in the proportion of admissions that were for: diseases & disorders of the kidney & urinary tract, diseases & disorders of the nervous system and neoplastic disorders.

#### All hospital admissions by major diagnostic category (MDC) – 2006/07 versus 2008/09

	Greater Bendigo		Loddon	
	% of all admissions		% of all admissions	
	2006/07	2008/09	2006/07	2008/09
Alcohol/Drug Use & Alcohol/Drug Induced Organic Mental Disorders	0.1%	0.2%	0.3%	0.3%
Burns	0.1%	0.1%	0.1%	0.0%
Diseases & Disorders of Blood, Blood Forming Organs, Immun. Disorders	1.4%	1.3%	1.5%	1.1%
Diseases & Disorders of the Circulatory System	8.5%	7.7%	10.2%	9.2%
Diseases & Disorders of the Digestive System	11.2%	11.8%	13.0%	12.2%
Diseases & Disorders of the Ear, Nose, Mouth & Throat	5.5%	5.5%	5.4%	5.0%
Diseases & Disorders of the Eye	3.1%	3.0%	4.3%	4.5%
Diseases & Disorders of the Female Reproductive System	3.7%	3.2%	3.1%	2.9%
Diseases & Disorders of the Hepatobiliary System & Pancreas	1.6%	1.5%	1.6%	1.6%
Diseases & Disorders of the Kidney & Urinary Tract	17.2%	17.4%	9.3%	14.5%
Diseases & Disorders of the Male Reproductive System	1.6%	1.6%	1.7%	2.1%
Diseases & Disorders of the Musculoskeletal System & Connective Tissue	8.8%	8.2%	9.5%	9.3%
Diseases & Disorders of the Nervous System	4.1%	3.9%	3.4%	4.3%
Diseases & Disorders of the Respiratory System	4.5%	4.3%	6.6%	5.0%
Diseases & Disorders of the Skin, Subcutaneous Tissue & Breast	3.8%	3.9%	4.3%	4.1%
Endocrine, Nutritional & Metabolic Diseases & Disorders	1.1%	1.2%	1.5%	1.0%
Factors Influencing Health Status & Other Contacts with Health Services	5.2%	4.8%	6.1%	4.9%
Infectious & Parasitic Diseases, Systemic or Unspecified Sites	0.7%	0.7%	1.1%	0.7%
Injuries, Poisonings & Toxic Effects of Drugs	1.6%	1.6%	2.1%	1.3%
Mental Diseases & Disorders	2.2%	2.2%	1.7%	1.5%
Neoplastic Disorders (Haematological & Solid Neoplasms)	4.4%	7.3%	4.1%	8.7%
Newborns & Other Neonates	3.3%	2.7%	2.8%	2.0%
Pregnancy, Childbirth & the Puerperium	6.2%	5.5%	5.5%	3.6%
Unassignable to MDC	0.0%	0.0%	0.0%	0.0%
Blank	0.3%	0.3%	0.7%	0.2%
Total %	100.0%	100.0%	100.0%	100.0%

Source: Victorian Admitted Episode Dataset (VAED) 2008/09 (Public and Private Hospital files)

## Selected health conditions

### Diabetes

The number of Greater Bendigo residents with diabetes\* approximately doubled between 2001 and 2008. As a proportion of population, the prevalence of diabetes in Greater Bendigo residents increased from 2.0% in 2001 to 3.6% in 2008. In 2008, Greater Bendigo was ranked 51 out of 79 Victorian Local Governments for proportion of population with diabetes.

In Loddon Shire, the number of residents with diabetes more than doubled between 2001 and 2008. As a proportion of population, the prevalence of diabetes in Loddon Shire residents increased from 4.6% in 2001 to 10.3% in 2008. In 2008, Loddon Shire had the highest proportion of population with diabetes of any of the 79 Victorian Local Governments.

#### Diabetes prevalence 2001 - 2008

		2001	2006	2008
<b>Loddon</b>	Number of people with diabetes	400	708	833
	Proportion of population with diabetes	4.6%	8.53%	10.3%
	Victorian ranking (out of 79)	2	1	1
<b>Greater Bendigo</b>	Number of people with diabetes	1,822	3,137	3,620
	Proportion of population with diabetes	2.0%	3.2%	3.6%
	Victorian ranking (out of 79)	43	49	51

*Diabetes Australia - Victoria*

*\*includes diabetes type 1, type 2, gestational diabetes, and other forms of diabetes*

### Type 2 Diabetes

The Victorian Population Health Survey 2008 gathered information at the LGA level on prevalence of doctor-diagnosed type 2 Diabetes. The Survey found that, compared to Victoria, Greater Bendigo had a higher proportion of population aged 18 years and over that reported having doctor-diagnosed type 2 diabetes and Loddon Shire population had a lower proportion.

	Greater Bendigo	Loddon	Victoria
Type 2 Diabetes prevalence	<b>5.7</b>	4.6	4.8

*Victorian Population Health Survey 2008*

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

- The prevalence of type 1 diabetes remained relatively steady over the period 2005–2008 for males and females
- Prevalence of type 2 diabetes did not change for females between 2005 and 2008
- Prevalence of type 2 diabetes in males increased from 3.9% in 2005 to 5.8% in 2008, and
- The prevalence of type 2 diabetes increased with age.

## Cancer

Gr. Bendigo – Eaglehawk, Inner East, Inner North, Inner West, and Part B; and Loddon - South SLAs had a higher average annual rate of avoidable mortality from cancer for population aged 0 to 74 years, than Victoria and Non-metropolitan Victoria. Gr. Bendigo – Eaglehawk had the highest rate of any SLA in the PCP region.

### Colorectal Cancer

Gr. Bendigo – Inner East and Inner West, and Loddon - South SLAs had a higher average annual rate of avoidable mortality from colorectal cancer for population aged 0 to 74 years, than Victoria. Gr. Bendigo – Inner West had the highest rate of any SLA in the PCP region. Due to small cell sizes, data should be interpreted with caution.

### Lung Cancer

Gr. Bendigo – Central, Eaglehawk and Part B; and Loddon - South SLAs had a higher average annual rate of avoidable mortality from lung cancer for population aged 0 to 74 years, than Victoria and non metropolitan Victoria. Gr. Bendigo – Part B had the highest rate of any SLA in the PCP region. Due to small cell sizes, data should be interpreted with caution.

#### **Avoidable deaths at ages 0 to 74 years: cancers (2003 to 2007)**

SLA	All cancers		Colorectal cancer		Lung cancer	
	No.	Rate*	No.	Rate*	No.	Rate*
Gr. Bendigo (C) - Central	51	56.9	9	9.9	23	25.2
Gr. Bendigo (C) - Eaglehawk	38	82.0	5	10.7	12	25.2
Gr. Bendigo (C) - Inner East	71	62.6	20	17.5	20	17.4
Gr. Bendigo (C) - Inner North	28	65.6	#	..	7	16.6
Gr. Bendigo (C) - Inner West	59	76.0	14	18.0	16	20.6
Gr. Bendigo (C) - Pt B	49	71.7	#	..	23	33.2
Gr. Bendigo (C) - S'saye	16	63.3	#	..	#	..
Loddon (S) - North	11	57.4	#	..	#	..
Loddon (S) - South	24	70.1	6	17.2	8	22.5
<b>Non-metropolitan Vic</b>	<b>4,732</b>	<b>65.9</b>	<b>903</b>	<b>12.5</b>	<b>1,646</b>	<b>22.6</b>
<b>Victoria</b>	<b>14,617</b>	<b>61.4</b>	<b>2,693</b>	<b>11.3</b>	<b>4,916</b>	<b>20.6</b>

Public Health Information Development Unit- 2011 \* average annual rate per 100,000 population. # number too small to be published.

## High cholesterol

Gr. Bendigo – Central, Eaglehawk, Inner east, Inner North, Inner West; and Loddon – North and South SLAs had a higher estimated rate of cholesterol per 100 population than Victoria overall. Gr. Bendigo – Central had the highest estimated rate.

### High cholesterol (synthetic prediction) 2007 - 08

SLA	No.	Rate*
Gr. Bendigo (C) - Central	1,097	5.8
Gr. Bendigo (C) - Eaglehawk	569	5.7
Gr. Bendigo (C) - Inner East	1,436	5.6
Gr. Bendigo (C) - Inner North	551	5.5
Gr. Bendigo (C) - Inner West	959	5.6
Gr. Bendigo (C) - Pt B	778	5.3
Gr. Bendigo (C) - S'saye	323	5.2
Loddon (S) - North	225	5.7
Loddon (S) - South	380	5.6
<b>Non-metropolitan Vic</b>	<b>86,578</b>	<b>5.5</b>
<b>Victoria</b>	<b>284,371</b>	<b>5.4</b>

Public Health Information Development Unit- 2011 \* average annual rate per 100 population. # number too small to be published.

## Cardiovascular disease

All Greater Bendigo SLAs, except Gr. Bendigo – S'saye (Strathfieldsaye); together with Loddon – South and North SLAs had a higher estimated rate of circulatory system diseases per 100 population than Victoria overall. Gr. Bendigo – Central had the highest estimated rate.

### Hypertensive disease

All Greater Bendigo SLAs, except Gr. Bendigo – S'saye (Strathfieldsaye); together with Loddon – South and North SLAs had a higher estimated rate of hypertensive disease per 100 population than Victoria overall. Gr. Bendigo – Central had the highest estimated rate.

### Circulatory system diseases (synthetic prediction) 2007 - 08

SLA	Circulatory system diseases		Hypertensive disease	
	No.	Rate*	No.	Rate*
Gr. Bendigo (C) - Central	3,740	19.3	2,331	12.0
Gr. Bendigo (C) - Eaglehawk	1,875	18.8	1,168	11.4
Gr. Bendigo (C) - Inner East	4,963	18.6	3,082	11.5
Gr. Bendigo (C) - Inner North	1,876	18.7	1,145	11.6
Gr. Bendigo (C) - Inner West	3,146	18.5	1,951	11.4
Gr. Bendigo (C) - Pt B	2,445	17.7	1,529	10.6
Gr. Bendigo (C) - S'saye	967	16.4	511	8.9
Loddon (S) - North	729	18.0	467	11.1
Loddon (S) - South	1,190	18.0	755	10.7
<b>Non-metropolitan Vic</b>	<b>280,266</b>	<b>18.0</b>	<b>173,284</b>	<b>10.9</b>
<b>Victoria</b>	<b>915,371</b>	<b>17.3</b>	<b>544,640</b>	<b>10.3</b>

Public Health Information Development Unit- 2011 \* average annual rate per 100 population. # number too small to be published.

### Avoidable deaths due to Cardiovascular disease

Gr. Bendigo – Central, Eaglehawk, Inner west, and Part B; and Loddon – South SLAs had a higher average annual rate of avoidable mortality from cardiovascular disease for population aged 0 to 74 years, than Victoria. Gr. Bendigo – Eaglehawk had the highest rate of any SLA in the PCP region.

### Avoidable deaths due to Ischaemic heart disease

Gr. Bendigo – Central, Eaglehawk, and Part B; and Loddon – South SLAs had a higher average annual rate of avoidable mortality from cardiovascular disease for population aged 0 to 74 years, than Victoria. Gr. Bendigo – Eaglehawk had the highest rate in the PCP region.

### **Avoidable deaths at ages 0 to 74 years: cardiovascular disease (2003 to 2007)**

SLA	Cardiovascular disease		Ischaemic heart disease	
	No.	Rate*	No.	Rate*
Gr. Bendigo (C) - Central	57	62.1	40	43.8
Gr. Bendigo (C) - Eaglehawk	31	65.0	28	59.1
Gr. Bendigo (C) - Inner East	44	38.0	28	24.3
Gr. Bendigo (C) - Inner North	9	21.2	6	14.1
Gr. Bendigo (C) - Inner West	36	46.2	21	27.0
Gr. Bendigo (C) - Pt B	31	45.8	26	38.2
Gr. Bendigo (C) - S'saye	7	29.0	5	20.5
Loddon (S) - North	5	25.4	#	..
Loddon (S) - South	16	45.8	14	40.2
<b>Non-metropolitan Vic</b>	<b>3,395</b>	<b>46.8</b>	<b>2,453</b>	<b>33.9</b>
<b>Victoria</b>	<b>9,515</b>	<b>39.8</b>	<b>6,648</b>	<b>27.8</b>

Public Health Information Development Unit- 2011

\* average annual rate per 100,000 population.

### **Cerebrovascular diseases**

Gr. Bendigo – Central and Gr. Bendigo – Inner West Statistical Local Areas (SLAs) had a higher average annual rate of avoidable mortality from cardiovascular disease for population aged 0 to 74 years, than Victoria. Gr. Bendigo – Eaglehawk had the highest rate in the PCP region

### **Avoidable deaths at ages 0 to 74 years: cerebrovascular diseases (2003 to 2007)**

SLA	No.	Rate*
Gr. Bendigo (C) - Central	16	17.2
Gr. Bendigo (C) - Eaglehawk	#	..
Gr. Bendigo (C) - Inner East	11	9.4
Gr. Bendigo (C) - Inner North	#	..
Gr. Bendigo (C) - Inner West	10	12.8
Gr. Bendigo (C) - Pt B	#	..
Gr. Bendigo (C) - S'saye	0	0.0
Loddon (S) - North	#	..
Loddon (S) - South	#	..
<b>Non-metropolitan Vic</b>	<b>745</b>	<b>10.2</b>
<b>Victoria</b>	<b>2,246</b>	<b>9.4</b>

Public Health Information Development Unit- 2011

\* average annual rate per 100,000 population.

## Respiratory system diseases

All Greater Bendigo and Loddon SLAs had a higher estimated rate of Respiratory system diseases per 100 population than Victoria overall. The highest rate was seen in Gr. Bendigo – Central, Eaglehawk and Inner East.

### Asthma

All Greater Bendigo and Loddon SLAs had a higher estimated rate of Asthma per 100 population than Victoria overall. The highest rate was seen in Gr. Bendigo – Eaglehawk.

### COPD

All Greater Bendigo and Loddon SLAs had a higher estimated rate of COPD per 100 population than Victoria overall. The highest rate was seen in Gr. Bendigo – Eaglehawk.

### Respiratory system diseases (synthetic prediction) 2007 - 08

SLA	Respiratory system diseases		Asthma		COPD	
	No.	Rate*	No.	Rate*	No.	Rate*
Gr. Bendigo (C) - Central	5,939	32.1	1,963	10.5	549	2.8
Gr. Bendigo (C) - Eaglehawk	2,878	32.1	983	10.9	286	3.0
Gr. Bendigo (C) - Inner East	7,918	32.1	2,592	10.5	678	2.6
Gr. Bendigo (C) - Inner North	3,375	31.6	1,112	10.3	266	2.6
Gr. Bendigo (C) - Inner West	5,315	31.7	1,762	10.4	449	2.7
Gr. Bendigo (C) - Pt B	3,696	30.9	1,206	10.1	327	2.6
Gr. Bendigo (C) - S'saye	2,174	30.9	717	9.9	143	2.3
Loddon (S) - North	982	30.4	328	10.1	93	2.5
Loddon (S) - South	1,484	30.9	504	10.7	164	2.8
<b>Non-metropolitan Vic</b>	<b>430,710</b>	<b>30.7</b>	<b>142,558</b>	<b>10.1</b>	<b>37,997</b>	<b>2.5</b>
<b>Victoria</b>	<b>1,442,803</b>	<b>27.3</b>	<b>479,498</b>	<b>9.1</b>	<b>118,482</b>	<b>2.2</b>

Public Health Information Development Unit- 2011 \* average annual rate per 100 population. # number too small to be published.

### Avoidable deaths due to Respiratory system diseases

Gr. Bendigo – Central, Eaglehawk, Inner East, Inner North, Inner West and Part B; and Loddon – South SLAs had a higher average annual rate of avoidable mortality from respiratory system diseases for population aged 0 to 74 years, than Victoria. Gr. Bendigo – Central had the highest rate.

### Avoidable deaths due to Chronic obstructive pulmonary disease (COPD)

Gr. Bendigo – Central, Inner West and Part B; and Loddon – South SLAs had a higher average annual rate of avoidable mortality from COPD for population aged 0 to 74 years, than Victoria. Loddon - South had the highest rate in the PCP region.

### Avoidable deaths at ages 0 to 74 years: respiratory system diseases (2003 to 2007)

SLA	respiratory system diseases		COPD	
	No.	Rate*	No.	Rate*
Gr. Bendigo (C) - Central	22	23.3	18	56.5
Gr. Bendigo (C) - Eaglehawk	7	14.2	#	..
Gr. Bendigo (C) - Inner East	11	9.3	8	20.2
Gr. Bendigo (C) - Inner North	5	12.0	#	..
Gr. Bendigo (C) - Inner West	8	10.2	7	26.8
Gr. Bendigo (C) - Pt B	6	8.8	5	21.8
Gr. Bendigo (C) - S'saye	#	..	#	..
Loddon (S) - North	#	..	#	..
Loddon (S) - South	8	22.1	8	64.4
<b>Non-metropolitan Vic</b>	<b>837</b>	<b>11.4</b>	<b>735</b>	<b>29.7</b>
<b>Victoria</b>	<b>2,014</b>	<b>8.4</b>	<b>1,726</b>	<b>21.6</b>

Public Health Information Development Unit- 2011 \* average annual rate per 100,000 population.

## Musculoskeletal system diseases

All Greater Bendigo and Loddon SLAs had a higher estimated rate of Musculoskeletal system diseases than Victoria overall. The highest rate was seen in Gr. Bendigo – Central.

### Arthritis

All Greater Bendigo SLAs, except Gr. Bendigo – S'saye, and both Loddon SLAs had a higher estimated rate of Arthritis than Victoria overall. The highest rate was seen in Gr. Bendigo – Central.

### Rheumatoid arthritis

All Greater Bendigo SLAs, except Gr. Bendigo – Part B, and Loddon - North SLA had a higher estimated rate of Rheumatoid arthritis than Victoria overall. The highest rate was seen in Gr. Bendigo – Central.

### Osteoarthritis

All Greater Bendigo SLAs plus Loddon – South SLA had a higher estimated rate of Osteoarthritis than Victoria overall. The highest rate was seen in Gr. Bendigo – Central.

### Females with Osteoporosis

Gr. Bendigo – Inner East and Part B SLAs had a higher estimated rate of females with Osteoporosis than Victoria overall. The highest rate was seen in Gr. Bendigo – Inner East.

## Musculoskeletal system diseases (synthetic prediction) 2007 - 08

SLA	Musculoskeletal system diseases		Arthritis		Rheumatoid arthritis		Osteoarthritis	
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*
Gr. Bendigo (C) - Central	6,247	33.3	3,464	18.1	502	2.7	2,114	10.9
Gr. Bendigo (C) - Eaglehawk	3,116	33.1	1,779	17.9	255	2.6	1,073	10.6
Gr. Bendigo (C) - Inner East	8,173	32.2	4,080	15.5	614	2.4	2,831	10.6
Gr. Bendigo (C) - Inner	3,359	32.8	1,585	15.8	241	2.4	1,056	10.7
Gr. Bendigo (C) - Inner West	5,423	32.3	2,674	15.7	414	2.4	1,778	10.4
Gr. Bendigo (C) - Pt B	4,138	31.3	2,099	14.8	247	1.7	1,375	9.6
Gr. Bendigo (C) - S'saye	1,986	31.2	861	14.5	129	2.1	595	10.4
Loddon (S) - North	1,158	31.8	614	15.3	87	2.2	338	8.1
Loddon (S) - South	1,881	32.0	1,110	16.5	127	1.9	618	8.9
<b>Non-metropolitan Vic</b>	<b>470,782</b>	<b>31.7</b>	<b>243,621</b>	<b>15.6</b>	<b>30,837</b>	<b>2.0</b>	<b>149,538</b>	<b>9.5</b>
<b>Victoria</b>	<b>1,574,6</b>	<b>29.8</b>	<b>769,689</b>	<b>14.6</b>	<b>98,282</b>	<b>1.9</b>	<b>457,773</b>	<b>8.7</b>

Public Health Information Development Unit- 2011 \* average annual rate per 100 population. # number too small to be published.

## Females with Osteoporosis (synthetic prediction) 2007 - 08

SLA	No.	Rate*
Gr. Bendigo (C) - Central	442	4.2
Gr. Bendigo (C) - Eaglehawk	221	3.9
Gr. Bendigo (C) - Inner East	785	5.2
Gr. Bendigo (C) - Inner North	231	4.9
Gr. Bendigo (C) - Inner West	409	4.8
Gr. Bendigo (C) - Pt B	314	5.0
Gr. Bendigo (C) - S'saye	97	4.3
Loddon (S) - North	89	4.2
Loddon (S) - South	113	3.6
<b>Non-metropolitan Vic</b>	<b>37,353</b>	<b>4.6</b>
<b>Victoria</b>	<b>130,757</b>	<b>4.9</b>

Public Health Information Development Unit- 2011 \* average annual rate per 100 population. # number too small to be published.

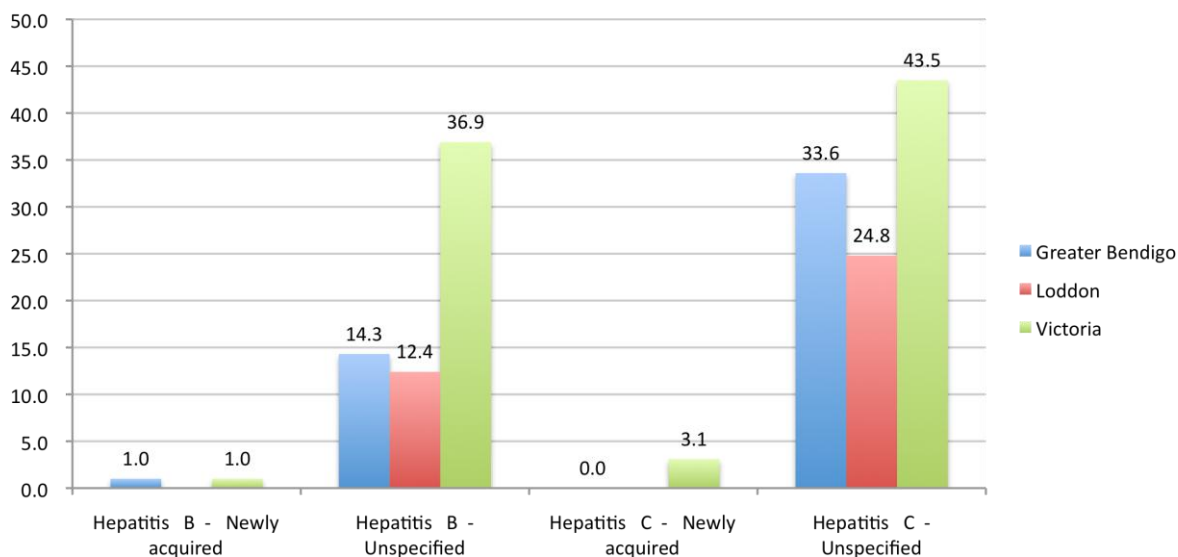
## Infectious diseases

*Note – numbers for Loddon and Greater Bendigo are often very low and should be interpreted with caution.*

### **Blood Borne Diseases - updated**

Between October 2010 and 2011, Greater Bendigo and Loddon had a lower rate of all blood borne diseases compared to the Victorian average.

#### **Blood borne disease rates – October 2010 - 2011**

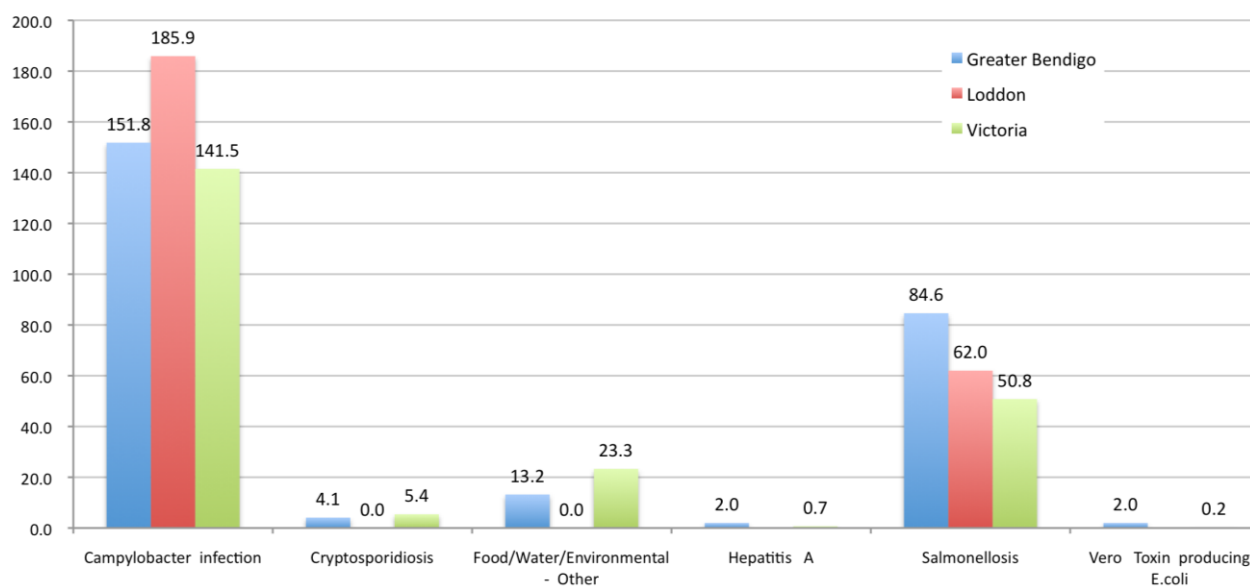


*Department of Health October 2011*

### **Enteric diseases**

Between October 2010 and 2011, Greater Bendigo and Loddon Shire had a higher rate of Campylobacter infection and Salmonellosis, compared to Victoria. Greater Bendigo also had a higher rate of Vero Toxin producing E.coli and Hepatitis A.

#### **Enteric diseases rates – October 2010 to 2011**

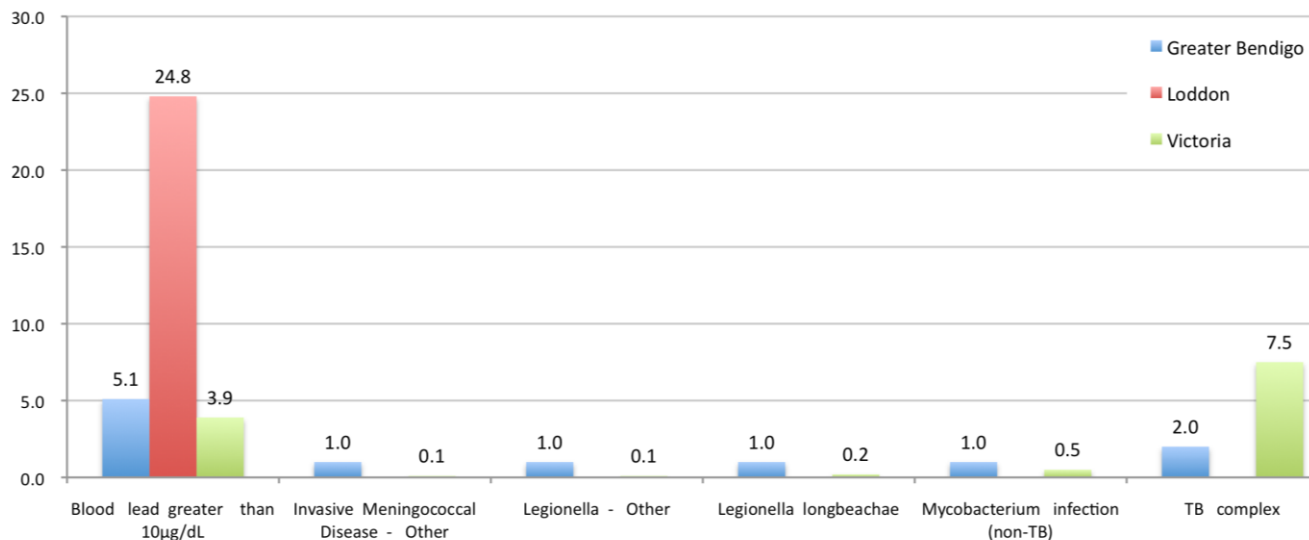


*Department of Health October 2011*

### Other notifiable conditions

Between October 2010 and 2011, Loddon Shire had a significantly higher rate of Blood lead greater than 10µg/dL, compared to Victoria, but had no reports of other notifiable conditions. Compared to Victoria, Greater Bendigo had higher rates of a number of other notifiable conditions, however the actual numbers were extremely low and should be interpreted with caution.

#### Other notifiable conditions rates – October 2010 - 2011

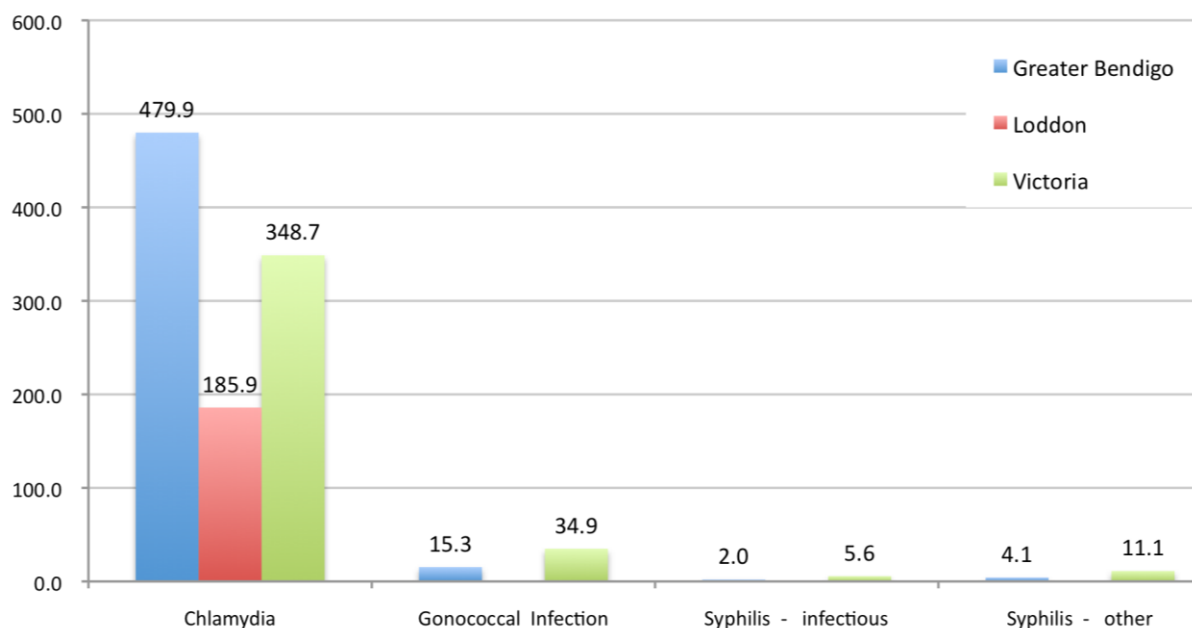


Department of Health 2011

### Sexually transmitted infections

Between October 2010 and 2011, compared to the Victorian average, Loddon Shire had lower rates or nil rates of sexually transmitted infections. Greater Bendigo had a very high rate of Chlamydia, and this rate was significantly higher than the Victorian average.

#### Sexually transmitted infections – October 2010 - 2011

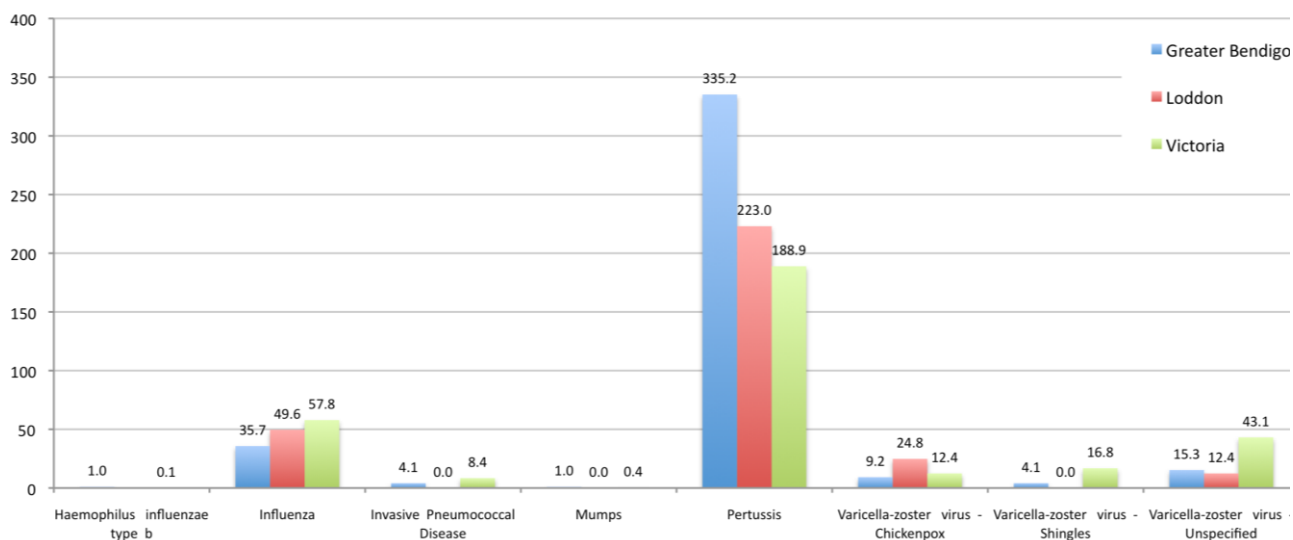


Department of Health 2011

### Vaccine preventable diseases

Between October 2010 and 2011, compared to the Victorian average, Loddon Shire had a higher rate of Chickenpox but a lower or nil rate for other vaccine preventable diseases. Greater Bendigo had a higher rate of Pertussis compared to the Victorian average.

#### Vaccine preventable disease rates – October 2010 - 2011

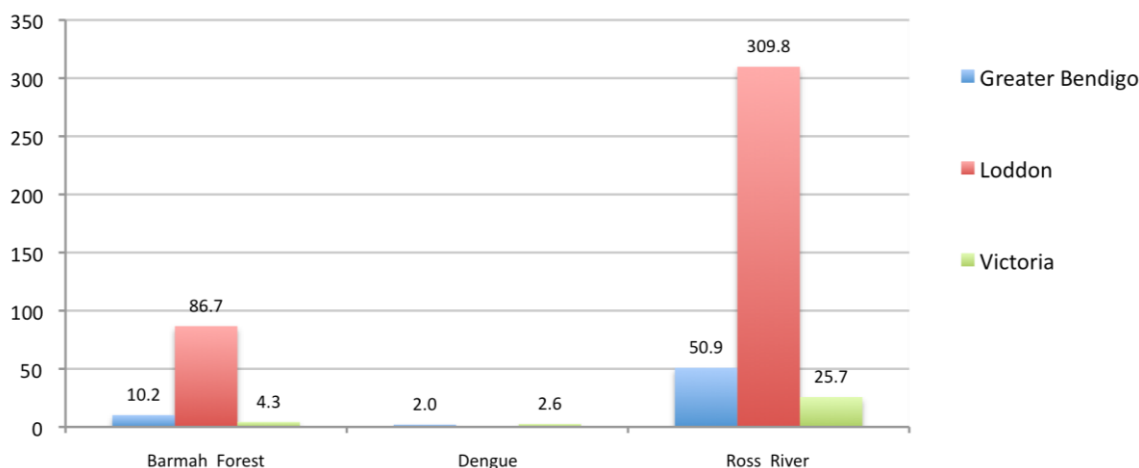


Department of Health 2011

### Vector borne diseases

Between October 2010 and 2011, compared to the Victorian average, Loddon Shire had a significantly higher rate of Barmah Forest virus and Ross River virus. Greater Bendigo also had a higher rate of Ross River virus and Barmah Forest virus compared to Victoria. Significant flooding across the region early in 2011 has contributed to a substantial increase in mosquito born diseases.

#### Vector borne disease rates – October 2010 – 2011



Department of Health 2011

## HIV

Between 2008 and 2010, there were 7 new HIV infections in the Bendigo Loddon PCP region. Most cases were recorded in City of Greater Bendigo.

### Number of new HIV infections 2007-2008\*

LGA	2008	2009	2010	Total
Greater Bendigo	3	0	4	7
Loddon	0	0	0	0
<b>Total</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>7</b>

Commissioned data from the Burnet Institute ([www.burnet.edu.au](http://www.burnet.edu.au)) \* The source of data for this report is the Victorian HIV/AIDS Register which is managed by the Burnet Institute on behalf of DHS. Numbers may differ from previous reports due to the annual audit of retrospective records.

## Self reported health status

As part of the Victorian Population Health Survey 2008, respondents were asked to describe their overall health status. The results indicate that Loddon Shire males and females and Greater Bendigo females aged 18 years and over were more likely to describe their health status as fair/poor, compared to the Victorian average.

### Self reported health status (2008)

	Greater Bendigo	Loddon	Victoria
<b>Males</b>			
Excellent/very good	36.2	33.5	41.4
Good	45.6	41.4	39.2
Fair/poor	18.2	25.1	19.2
<b>Females</b>			
Excellent/very good	43.6	47.3	45.9
Good	37.2	34.6	36.4
Fair/poor	19.2	18.1	17.5

Victorian Population Health Survey 2008

## Dental health

Dental caries, the disease process which leads to tooth decay, has significant impacts upon the overall health and wellbeing of the population. In 2009/10, the admission rate for dental conditions for Loddon Shire residents decreased significantly, while the rate for Greater Bendigo residents increased to a five-year high. Both Greater Bendigo and Loddon had a higher rate of admissions for dental conditions than the Victorian average.

### ACSC Standardised Admission rates (per 1000 persons) for dental conditions - updated

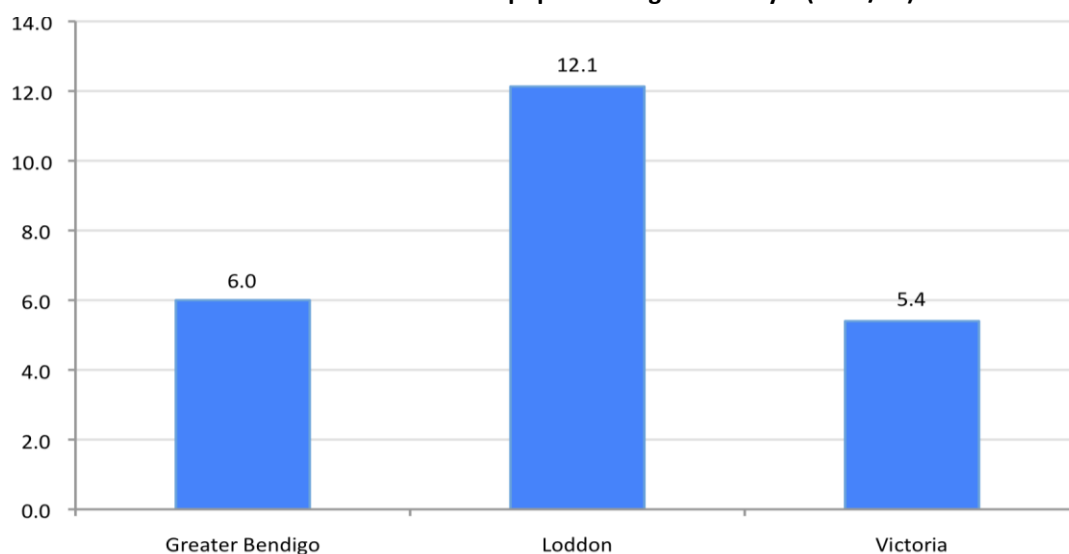
Year	Victoria	Greater Bendigo	Loddon
2003-04	2.66	3.86	4.94
2004-05	2.86	3.96	6.09
2005-06	2.89	3.92	5.09
2006-07	2.72	3.52	4.81
2007-08	3.02	3.65	4.61
2008-09	3.05	3.41	4.83
2009-10	3.03	3.84	3.44

<http://www.health.vic.gov.au/healthstatus/acsc/index.htm>

### Dental conditions in young people

In 2008/09, the admission rate for dental conditions for Greater Bendigo residents aged 0 – 14 years was 6.0. The admission rate for Loddon residents aged 0 – 14 years was 12.1. Both were higher than the Victorian average.

#### ASCS admission rates for dental conditions – population aged 0 – 14 yrs (2008/09)



<http://www.health.vic.gov.au/healthstatus/acsc/index.htm>

### Falls among population aged 60 years and over

#### Hospital admissions

In 2009/10 there were 507 fall injury hospital admissions for Greater Bendigo residents aged 60 years and over, while in Loddon Shire there were 87.

The number of fall injury hospital admissions has increased between 2005/06 and 2009/10 for residents of both LGAs and this very likely reflects the growing proportion of ageing population in these locations.

#### Fall injury hospital admissions among persons aged 60 years and older - July 2005 to June 2010

	Greater Bendigo	Loddon
2005/06	401	45
2006/07	436	51
2007/08	485	61
2008/09	490	77
2009/10	507	87
Total	2319	321

Table based on data commissioned from MISU July 2011

Analysis of the total falls injury admissions among persons aged 60 years and over, indicates that the largest proportion of admissions was for the 80 years and over age group, followed by the 75 – 79 years age group. Greater Bendigo and Loddon Shire, compared to the Victorian figures, had a higher proportion of admissions for population in the ‘younger’ age brackets of 60 – 74 years. Loddon and, to a lesser extent, Greater Bendigo had a higher proportion of falls injury admissions that were males, compared to the Victorian average figures.

#### Age breakdown for falls injury hospital admissions (2005 – 2010)

	Greater Bendigo		Loddon		Victoria
	No.	%	No.	%	%
60-64yrs	169	7.3	14	4.4	6.6
65-69yrs	182	7.8	25	7.8	7.3
70-74yrs	248	10.7	44	13.7	9.8
75-79yrs	319	13.8	52	16.2	15.6
80+yrs	1,401	60.4	186	57.9	60.7
ALL	2,319	100.0	321	100.0	100.0

Table based on data commissioned from MISU July 2011

#### Sex breakdown for falls injury hospital admissions (2005 – 2010)

	Greater Bendigo		Loddon		Victoria
	No.	%	No.	%	%
Male	768	33.1	113	35.2	32.3
Female	1551	66.9	208	64.8	67.7
ALL	2319	100.0	321	100.0	100.0

Table based on data commissioned from MISU July 2011

The most common activity causing the fall injury was vital activities (e.g. eating, resting or sleeping). Compared to all Victorian falls injury hospital admissions, Greater Bendigo and Loddon had a higher proportion of falls injuries that were from working for income, other types of work – unpaid, and for vital activities. Note that a very high proportion of activities were unspecified.

#### Activity causing falls injury hospital admission (2005 – 2010)

	Greater Bendigo		Loddon		Victoria
	No.	%	No.	%	%
Sports	11	0.5	*	*	0.9
Leisure	13	0.6	5	1.6	0.8
Working for income	21	0.9	*	*	0.5
Other types of work-unpaid	133	5.7	28	8.7	4.9
Vital activities, resting, eating, sleeping	420	18.1	71	22.1	13.0
Other specified	304	13.1	28	8.7	11.5
Unspecified	1,417	61.1	184	57.3	68.4
ALL	2,319	100.0	321	100.0	100.0

Table based on data commissioned from MISU July 2011

The most common location for falls injuries was the home, followed by residential institutions. Compared to all Victorian falls injury admissions, Greater Bendigo and Loddon had a higher proportion of falls injuries that happened in the patient's home or in a public building.

#### Location of falls injury hospital admission (2005 – 2010)

	Greater Bendigo		Loddon		Victoria
	No.	%	No.	%	%
Home	1112	48.0	150	46.7	43.3
Residential Institution	387	16.7	30	9.3	18.6
School, public buildings	263	11.3	48	15.0	9.1
Sports & athletic areas	13	0.6	*	*	0.5
Road, street & highway	86	3.7	9	2.8	4.1
Trade & service area	62	2.7	*	*	2.9
Industrial & construction area	*	*	0	0.0	0.1
Farm	6	0.3	5	1.6	0.2
Other specified places	30	1.3	7	2.2	1.4
Unspecified places	357	15.4	67	20.9	19.9
ALL	2319	100.0	321	100.0	100.0

Table based on data commissioned from MISU July 2011

#### Emergency department presentations

Many people experiencing falls injuries are treated in the hospital's emergency department (ED) and are not admitted to the hospital. The figures below are for those ED presentations for falls injuries.

#### Number of presentations

In 2009/10 there were 220 ED presentations for falls injuries for Greater Bendigo residents aged 60 years and over and there were 17 presentations for Loddon Shire residents. As with hospital admission figures, the numbers have increased since 2005/06.

#### Falls Injury ED Presentations – 2005 - 2010

Year	Greater Bendigo		Loddon	
	n	%	n	%
2005/06	170	17.3	12	17.4
2006/07	189	19.2	15	21.7
2007/08	206	20.9	10	14.5
2008/09	200	20.3	15	21.7
2009/10	220	22.3	17	24.6
ALL	985	100.0	69	100.0

Table based on data commissioned from MISU July 2011

The most common age of patients presenting to EDs with falls injuries was 80 years and over for Greater Bendigo residents and 70 – 74 years for Loddon residents. Compared to all Victorian falls injury ED presentations, Greater Bendigo and Loddon had a higher proportion of presentations of residents in the 60-64 years age group and 70-74 years age group. Loddon also had a significantly higher proportion of presentations for residents aged 65-69 years.

Both Greater Bendigo and Loddon had a higher proportion of females than males who presented to the ED with falls injuries. However, compared to the Victorian average, Loddon had a higher proportion of presentations that were males.

### Age breakdown of falls Injury ED Presentations – 2005 - 2010

Age	Greater Bendigo		Loddon		Victoria
	No.	%	No.	%	%
60-64	198	20.1	15	21.7	17.8
65-69	133	13.5	15	21.7	14.7
70-74	151	15.3	17	24.6	14.1
75-79	129	13.1	7	10.1	15.9
80+	374	38.0	15	21.7	37.4
ALL	985	100.0	69	100.0	100.0

Table based on data commissioned from MISU July 2011

### Sex breakdown of falls Injury ED Presentations – 2005 - 2010

Sex	Greater Bendigo		Loddon		Victoria
	No.	%	No.	%	%
Male	340	34.5	29	42.0	34.4
Female	645	65.5	40	58.0	65.6
ALL	985	100.0	69	100.0	100.0

Table based on data commissioned from MISU July 2011

The most common activity causing fall injury ED presentations in Greater Bendigo and Loddon was leisure, followed by vital activities. Compared to all Victorian falls injury ED presentations, Greater Bendigo and Loddon had a higher proportion of falls injuries that were from leisure activities, and other work, while Greater Bendigo had a higher proportion of presentations of falls injuries from sports, vital activities, and working for income, compared to Victoria. However, the relatively high proportion of Victorian admissions that were for “unspecified activity” makes comparison to Victorian figures inconclusive.

### Activity causing falls injury hospital admission (2005 – 2010)

	Greater Bendigo		Loddon		Victoria
	No.	%	No.	%	%
Other work	48	4.9	6	8.7	2.0
Education	*	*	0	0.0	0.0
Leisure	560	56.9	36	52.2	46.5
Being nursed, cared for	10	1.0	0	0.0	2.8
Sports	13	1.3	*	*	0.6
Vital activity, resting, sleeping or eating	107	10.9	5	7.2	9.5
Working for income	24	2.4	*	*	1.5
Other specified activity	110	11.2	11	15.9	12.0
Unspecified activity	112	11.4	8	11.6	25.1
ALL	985	100.0	69	100.0	100.0

Table based on data commissioned from MISU July 2011

The most common place where a falls injury occurred, resulting in an ED presentation, was the home, followed by a road, street or highway. The relatively high proportion of Victorian presentations that had 'unspecified' place listed makes comparison to Victorian figures inconclusive.

**Type of place where injury occurred (2005 – 2010)**

	Greater Bendigo		Loddon		Victoria
	No.	%	No.	No.	%
Athletics or sports area	10	1.0	0	0.0	0.5
Industrial or construction area	0	0.0	0	0.0	0.2
Farm	12	1.2	*	*	0.5
Home	626	63.6	43	62.3	52.9
Residential institution	90	9.1	5	7.2	9.7
Medical hospital	14	1.4	*	*	1.0
Place for recreation	33	3.4	*	*	3.8
Mine or quarry	0	0.0	0	0.0	0.0
Road, street or highway	107	10.9	5	7.2	9.0
School, day care centre or public administration area	5	0.5	*	*	0.3
Trade or service area	22	2.2	*	*	2.6
Other specified place	29	2.9	*	*	4.9
Unspecified place	37	3.8	*	*	14.6
ALL	985	100.0	69	100.0	100.0

*Table based on data commissioned from MISU July 2011*

## Families, children and young people

### Low birth weight babies

Low birth weight is an important indicator of a newborn's overall health. Between 2006 and 2008 (24 months), 6.7% of the babies born in Greater Bendigo and in Loddon Shire were low birth weight (<2,500 gms). This figure was slightly higher than the Victorian average.

#### Low birth weight babies 2006 - 2008

LGA name	Low birth weight babies	All births	% low birth weight babies
Greater Bendigo	261	3,872	6.7
Loddon	18	270	6.7
Country Vic	3,547	51,812	6.8
<b>Victoria</b>	<b>13,765</b>	<b>209,641</b>	<b>6.6</b>

Public Health Information Development Unit 2011

### Maternal and child health centre visits

In 2009/10, Greater Bendigo's participation rate for key stage visits at maternal and child health centres was mostly lower than the Victorian average and Loddon Shire's participation rate was lower for all key stage visits.

#### Maternal and Child Health Centres - Participation rates (%) for key ages and stage visits (2009/10)

	Home consult.	2 weeks	4 weeks	8 weeks	4 months	8 months	12 months	18 months	2 years	3.5 years
Greater Bendigo	98	92	94	91	92	82	76	63	63	71
Loddon	90	93	90	87	87	78	74	53	52	60
Loddon Mallee Region	96	92	91	91	91	80	78	65	63	69
<b>Victoria</b>	<b>100</b>	<b>97</b>	<b>95</b>	<b>95</b>	<b>92</b>	<b>83</b>	<b>80</b>	<b>72</b>	<b>69</b>	<b>63</b>

Maternal & Child Health Services Annual Report, 2009/10 Loddon Mallee Region and Victoria, DEECD 2011

### Immunisation participation

In the June 2011 quarter, compared to the Victorian average, Loddon and Greater Bendigo had a higher percentage of children in the 12-<15 month and the 24-<27 month age group who were fully immunised. Compared to Victoria, Greater Bendigo had a higher percentage of children in the 60<63 month age group who were fully vaccinated while Loddon had a lower percentage.

#### Percentage of children fully immunised - June 2011

	12 - <15 months	24-<27 months	60 < 63 months
Greater Bendigo	92.5	96.6	93.2
Loddon	100	94.4	84.0
<b>Victoria</b>	<b>91.6</b>	<b>93.5</b>	<b>91.1</b>

Australian Childhood Immunisation Register - Coverage Report June quarter 2011

## The Australian Early Development Index (AEDI)

The Australian Early Development Index (AEDI) helps to create a snapshot of early childhood development across Australia. Completed by a teacher as a child enters their first year of school, the AEDI measures five areas of early childhood development.

### **AEDI results COGB and Loddon (2010)**

AEDI Domain	% of children on track above 25th percentile			% of children developmentally at risk between 10th & 25th percentile			% of children developmentally vulnerable below the 10th percentile		
	COGB	Loddon	Vic	COGB	Loddon	Vic	COGB	Loddon	Vic
<b>Physical health &amp; wellbeing</b> - (physical readiness for the school day, physical independence, gross and fine motor skills)	79.6	77.5	80.7	12.9	11.2	11.7	7.5	11.2	7.7
<b>Social competence</b> - (overall social competence, responsibility & respect, approaches to learning, readiness to explore new things)	74.8	73.0	77.6	13.9	12.4	14.0	11.2	14.6	8.4
<b>Emotional maturity</b> - (pro-social and helping behaviour, anxious, fearful and aggressive behaviour, hyperactivity and inattention)	73.1	73.9	77.3	14.9	13.6	14.5	12.0	12.5	8.3
<b>Language &amp; cognitive skills</b> (school-based) (basic literacy, interest in literacy/numeracy & memory, advanced literacy, basic numeracy)	81.8	84.3	84.0	10.7	12.4	9.9	7.5	3.4	6.1
<b>Communication skills &amp; general knowledge</b> (storytelling ability, communication with adults & children)	74.9	71.9	76.7	16.2	16.9	15.0	8.9	11.2	8.3

AEDI Community Profile for City of Greater Bendigo and Loddon Shire 2010

Compared to Victorian averages, Greater Bendigo and Loddon Shire generally had a lower proportion of children classified as 'on track' across each of the domains. Compared to the Victorian averages, Greater Bendigo and Loddon Shire also had a higher proportion of children classified as 'developmentally vulnerable' across four of the five domains

## Teenage births

In 2008, there were 74 live births to Greater Bendigo females aged 15 to 19 years. This figure represented a rate of 19.4 per 1000 females in that age group, compared to the Victorian state average rate of 10.6 per 1000. There were no figures available for Loddon Shire at the time of writing. Between 2005 and 2008, the rate of Greater Bendigo females aged 15-19 years who had live births has not changed significantly but has remained significantly higher than the Victorian rate.

### **Teenage births 2005 - 2008**

	2005		2006		2007		2008	
	No.	Rate <sup>#</sup>	No.	Rate <sup>#</sup>	No.	Rate <sup>#</sup>	No.	Rate <sup>#</sup>
Greater Bendigo	73	19.7	75	20.3	66	17.6	74	19.4
Victoria	1,740	10.3	1,893	11.2	1,790	10.4	1,857	10.6

City of Greater Bendigo Adolescent Community Profile 2010 – DEECD 2011 # per 1000 females aged 15 – 19 years

## **Youth engagement**

Community Indicators Victoria measured the engagement of young people aged 15-19 years old, who were not attending school. Engagement was defined in three ways:

- 1) Fully engaged school leavers are defined as those who are involved in work and/or non-school study (including university, TAFE and vocational training) on a full-time basis;
- 2) Disengaged school leavers are defined as those who are not involved in any work or study activities at all; and
- 3) the remaining school leavers, who are defined as partly engaged.

Greater Bendigo and Loddon Shire had a lower proportion of population aged 15-19 years that was defined as fully engaged and a higher proportion of this population that was defined as disengaged, compared to the Victoria.

### **Post year 12 destinations (2006)**

	<b>Engaged</b>	<b>Disengaged</b>
Greater Bendigo	65.3%	19.4%
Loddon	61.2%	22.4%
Loddon Mallee region	61.8%	21.5%
<b>Victoria</b>	<b>71.9%</b>	<b>15.4%</b>

[www.communityindicators.net.au](http://www.communityindicators.net.au)