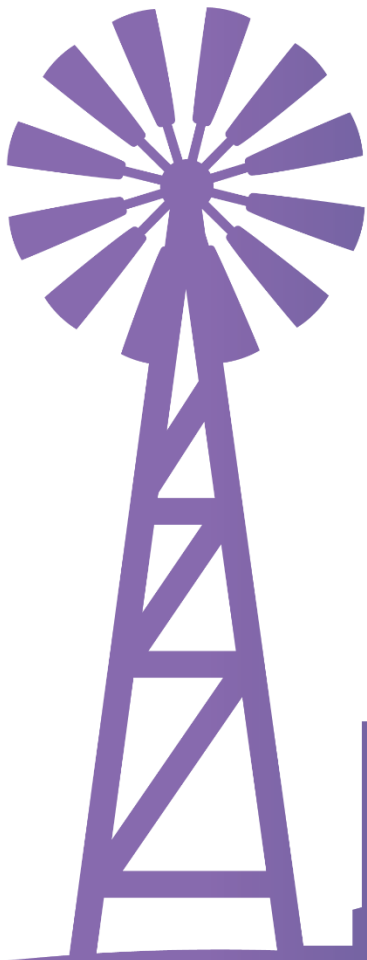


# CARRATHOOL LGA



**HNA**

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## Health Needs Assessment Process

The Murrumbidgee health needs assessment in line with its Board endorsed framework, with governance provided by Clinical Councils, the Community Advisory Committee and the Planning and Integration sub-committee uses a population approach to needs assessment using person centred planning with a strong commitment to community input.

MPHN analyses data from robust gold standard comparable sources such as the Australian Bureau of Statistics and Australian Institute of Health and Welfare in the first instance supplemented by other sources. A decision making tool is used at the PHN level and concentrates needs identification based on variables that score impact on the PHN at a National level where the MPHN is in the lowest third of the Nation. Further a data prioritisation tool within the PHN at a Local Government Area (LGA) level is utilised to identify areas of the PHN where issues/needs are higher in comparison to the state and PHN averages. This highlights the LGAs that are in the lower half of the overall PHN and is summarised separately in the region profiles on the MPHN website. The matrix scoring is described at the end of this document in more detail. Throughout this document variables that score three or greater using the matrix are denoted by their respective colour coding, these variables are likely to have higher impact within this LGA.

The use of an LGA approach ensures we are working in as close to possible alignment with the health clusters of the Local Health District, this allows a more considered co-ordinated approach to services and reduces on duplication of service delivery.

Inequity in healthcare remains a significant issue for many areas in the Murrumbidgee region. Comprehensive socio-economic profiling allows identification of areas where this may affect uptake of healthcare services and consequent poorer health outcomes for those living in these areas. MPHN emphasises in identification of priorities for the region the particular local government areas where efforts should be concentrated in order to address the inequity.

Monitoring of emerging health conditions remains a priority for the MPHN with ongoing consultations aimed at identification of emerging issues and subsequent interventions.

MPHN undertakes consultation with key partners, health professionals and community members. Multiple formats are used to undertake these consultations, including;

- A “Conversations on the Couch tour” of the regional outlying areas involving community consultation in a non-structured location with high thoroughfare of the community to capture the needs of people who would not normally engage through a formal process.

- Feedback from community and health care practitioners for real time issues they have, each month there is an additional focus spotlight on particular groups, for example Aboriginal and Torres Strait Islander people, Mothers, Babies and Children, etc.

- An audit annually of general practice and health care providers to inform workforce capacity.

- Surveys of consumers and health professionals at various times throughout the year to gather information about emerging needs.

- Provision of “postcards” to general practice and prominent health agencies for consumers to complete and mail back with information on what’s important to them about health. In addition information from emails and telephone calls are recorded in a log and staff are encouraged to report feedback they receive in the course of the roles.

Partnering with the Local Health District and other key stakeholders by way of consortium membership, ie Aboriginal Health Consortium, Aged Care consortium, Mental Health Consortium groups to remain up to date and informed of health needs and service needs of the region.

Engagement with Local Health Advisory Committees which are situated throughout the region (33 LHACs) provide information and valuable feedback relevant to primary care that can be used to inform the needs assessment.

Review of data collected by its commissioned services throughout the year and other internal data sources to confirm service provision and identify service gaps that may exist.

Once all information is gathered and analysed by the PHN, data is provided back to communities and health providers for validation of the developed priorities from the data.

#### Data disclaimer

This report is presented for the purpose of disseminating information for the benefit of Murrumbidgee PHN residents. The report includes data freely available on public websites such as the Australian Institute of Health and Welfare and the Australian Bureau of Statistics.

Data in this report remain confidential for use primarily internally for MPH N purposes. This report may be shared externally with express permission at the discretion of the MPH N CEO. If the latter is the case data may be used by an external organisation for planning purposes but should not be shared outside that organisation.

Data from Commonwealth secure confidential websites have not been included in this report. Data have not been interpreted.

The MPH N has taken all steps to ensure the information in this report is as accurate as possible and correct at time of report. Data may vary to other publically available sources due to differing sources accessed.

THE MPH N does not guarantee, and accepts no legal liability whatsoever arising from, or connected to, the use of any material contained in this report. The MPH N recommends that users exercise their own skill and care with respect to use of this report.

Contact for data queries: [hna@mphn.org.au](mailto:hna@mphn.org.au)

# Carrathool Shire



Postcode	Towns
2665	Binya (borders with Narrandera)
2652	Boorga, Goolgowi, Merriwagga, Tabbita
2711	Carrathool
2669	Erigolia, Melbergen, Rankin Springs
2675	Hillston, Lake Brewster, Monia Gap, Lake Brewster, Roto, Wallanthery, White Top

## Executive Summary

Carrathool LGA has a large footprint in area, largest in MPHN region with a small population, smallest in MPHN region and smallest population density. The largest town in the LGA is Hillston with 1,465 people approximately. Both Hillston and Goolgowi have larger amounts of families compared to Carrathool and Merriwagga. Carrathool LGA has a higher proportion of Aboriginal and Torres Strait Islander people (6<sup>th</sup> in MPHN) compared to NSW and the region. The population is expected to decrease by 2036 with significant losses in the less than 65 years of age whilst an increase in the over 65 year old age group is expected (18<sup>th</sup> in MPHN). The median age in Carrathool LGA is 39.2 years and the LGA has the 3<sup>rd</sup> highest proportion of males.

Carrathool LGA has median household incomes that are less than the state and has higher proportions of homes with no internet access compared to the MPHN and NSW.

A lower proportion of people born in predominantly non-English speaking countries is noted in the LGA, similarly those born in non-English speaking countries and have been resident in Australia for more than five years compared to NSW.

For older people in the LGA in the defunct Home and Community Care program there is a higher proportion of clients and people who required care coordination, higher proportions of people who required nursing care either at a centre or at home, nearly three times higher proportions of people accessing transport support and double the instances of care compared to the State and region corresponding rates.

Premature deaths are higher in Carrathool LGA in both males and females with deaths from cancer and external causes being more prevalent in rates compared to NSW and the region. Deaths from circulatory disease are similar to the MPHN region in Carrathool LGA but higher than NSW rates.

The incidence of lung cancer, prostate cancer and breast cancer is higher in the LGA compared to NSW and the region averages. Considering these higher rates of premature deaths and higher incidence of specific cancers, the only risk factor significantly higher in proportion compared to NSW is the risk factor related to males having at least one of four risk factors for chronic disease.

## Population and Geography

Estimated Resident Population	Population change between 2006 - 2016	LGA Area km <sup>2</sup>	Population Density persons/km <sup>2</sup>
2016			
ABS			
N=242,976 2,803	-60 (-2.1%)	18,932	0.1

Estimated Population change 2016 - 2036			
2016			
NSW Planning & Environment			
Under 19 years	20 – 64 years	65+ years	Total years
2016 N=650	2016 N=1,470	2016 N=450	2016 N=2,570
2036 N=500	2036 N=980	2036 N=660	2036 N=2,140
-150 (-30.0%)	-490 (-50.0%)	210 (31.8%)	-430(-20.1%)

## Town based populations and demography

	Population	Median Age	Number private dwellings	Average people per household	Number of families	Average children per family
2016						
ABS						
Carrathool	238	36	114	2.4	57	2.1
Goolgowi	402	39	199	2.4	109	1.9
Hillston	1,465	39	699	2.4	361	1.8
Merriwagga	107	43	63	2.4	26	2.4

	Median Weekly Household Income	Median Monthly Mortgage repayment	Median Weekly rent
2016			
ABS			
Carrathool	\$1,261	\$195	
Goolgowi	\$1,197	\$836	\$150
Hillston	\$1,234	\$975	\$150
Merriwagga	\$1,025	\$433	

Population other towns	
2016	
ABS	
Boorga	14
Erigolia	47
Lake Brewster	11
Melbergen	NR
Monia Gap	16
Roto	41
Wallanthery	33

## Demography

SEIFA			
2011			
ABS			
	Index score (based on Australian score of 1000)	Minimum score for SA1s in area	Maximum score for SA1s in area
NSW	996	323	1184
MPHN	969	478	1144
Carrathool LGA	969	895	1041
Carrathool	994		
Goolgowi	884		
Hillston	942		
Merriwagga	1003		

Age groups								
2015 ERP								
ABS								
	Persons, 0 – 14 years	Persons, 15-24 years	Persons, 25-44 years	Persons, 45-64 years	Persons, 65 years and over	Persons, 70 years and over	Persons, 75 years and over	Persons, 85 years and over
NSW	18.7%	13.0%	28.0%	24.6%	15.7%	10.7%	7.0%	2.2%
MPHN	19.8%	12.9%	22.6%	25.7%	18.9%	13.3%	8.7%	2.7%
Carrathool	509 (18.6%)	289 (10.6%)	666 (24.4%)	807 (29.5%)	462 (16.9%)	319 (11.7%)	185 (6.8%)	47 (1.7%)

Gender				
2016 ABS				
	Males		Females	
	N	%	N	%
NSW	3,779,325	49.6	3,838,359	50.4
MPHN	121,872	50.4	119,804	49.6
Carrathool	1,440	52.7	1,293	47.3

Education				
2011				
ABS				
	People who left school at Year 10 or below, or did not go to school (N=1,099)	Full-time participation in secondary school education at age 16 (N=37)	Participation in vocational education and training - non-Indigenous population (N=512)	School leaver participation in higher education (N=33)
NSW	37.6 per 100	80.1%	12.9 per 100	33.3%
MPHN	47.5 per 100	77.9%	19.1 per 100	14.4%
Carrathool	53.7 per 100	30 (81.1%)	22.3 per 100	NR (16.7%)



Employment		
	2011	2016
ABS		
	Learning or Earning at ages 15 to 19 (N=133)	Unemployment (N=1,503)
NSW	81.4%	5.4%
MPHN	80.3%	4.0%
Carrathool	106 (79.7%)	38 (2.5%)

Weekly Income			
	2016		
ABS			
	Total less than \$1,000	Total Between \$1,001 and \$2,000	Total more than \$2,001
NSW	54.3%	17.2%	28.5%
MPHN	70.8%	20.0%	4.6%
Carrathool	1,339 (69.6%)	473 (24.6%)	112 (5.8%)

Income Support			
	2016		
ABS			
	Age pensioners (N=462)	Disability support pensioners (N=1,741)	Female sole parent pensioners (N=632)
NSW	67.5%	5.1%	3.6%
MPHN	70.8%	6.6%	5.7%
Carrathool	260 (56.3%)	84 (4.8%)	31 (4.9%)

Income Support			
	2016		
ABS			
	People receiving an unemployment benefit (N=1,741)	People receiving an unemployment benefit long-term (N=1,741)	Young people aged 16 to 24 receiving an unemployment benefit (N=268)
NSW	4.8%	4.0%	3.0%
MPHN	5.7%	4.7%	4.1%
Carrathool	95 (5.5%)	79 (4.5%)	14 (5.2%)

Income Support				
	2016			
ABS				
	Low income, welfare-dependent families (with children) (N=680)	Health Care Card holders (N=2,271)	Pensioner Concession Card holders (N=2,224)	Seniors Health Card holders (N=462)
NSW	9.9%	6.4%	21.9%	8.3%
MPHN	10.6%	7.2%	26.9%	8.3%
Carrathool	65 (9.6%)	150 (6.6%)	436 (19.6%)	37 (8.0%)

Households		
	2016	2011
ABS		
	Households in dwellings receiving rent assistance from the Australian Government (N=984)	Dwellings rented from the government housing authority (N=984)
NSW	17.3%	4.4%
MPHN	17.5%	3.2%
Carrathool	111 (11.3%)	11 (1.1%)

Households		
	2011	
ABS		
	*Mortgage stress (N=219)	*Rental stress (N=325)
NSW	11.1%	26.3%
MPHN	10.9%	23.7%
Carrathool	16 (7.3%)	32 (9.8%)

\*Low income households (households in bottom 40% of income distribution)

Private Health Insurance	
2014-15	
ABS	
Estimated number of people aged 18 years and over with private health insurance hospital cover ASR per 100	
NSW	51.5
MPHN	41.2
Carrathool	42.7

Financial Distress			
2014			
ABS			
	Estimated number of people aged 18 years and over whose household could raise \$2,000 within a week (N=1,652)	Estimated number of people aged 18 years and over who had government support as their main source of income in the last 2 years (N=457)	Estimated number of people aged 18 years and over who had government support as their main source of income, for 13 months or more, within the past 24 month (N=359)
NSW	83.0 per 100	27.9 per 100	20.4 per 100
MPHN	82.0 per 100	30.8 per 100	23.2 per 100
Carrathool	82.9 per 100	23.5 per 100	18.2 per 100

Families			
2011			
ABS			
	Single parent families with children aged less than 15 years (N=265)	Jobless families with children aged less than 15 years (N=268)	*Children in families where the mother has low educational attainment (N=515)
NSW	21.2%	14.1%	27.6%
MPHN	23.2%	14.2%	33.5%
Carrathool	50 (18.9%)	37 (13.8%)	161 (31.3%)

\*Children aged less than 15 years living in families where the female parent's highest level of schooling was year 10 or below/female parent did not attend school

Ethnicity			
2011			
ABS			
	Australian-born population (N=2,586)	People born (overseas) in predominantly English speaking countries (N=2,586)	People born in predominantly non-English speaking countries (N=2,586)
NSW	68.5%	7.1%	18.7%
MPHN	86.8%	3.3%	4.4%
Carrathool	2,259 (87.4%)	105 (4.1%)	96 (3.7%)

Ethnicity			
2011			
ABS			
	People born in a predominantly non-English speaking (NES) country resident in Australia for five years or more (N=2,586)	People born in a predominantly non-English speaking (NES) country resident in Australia for less than five years (N=2,586)	People born overseas reporting poor proficiency in English (N=2,412)
NSW	14.7%	3.2%	3.4%
MPHN	3.1%	1.0%	0.7%
Carrathool	48 (1.9%)	39 (1.5%)	20 (0.8%)

Ethnicity			
2011			
ABS			
Country	Carrathool (N=2,568)	NSW	MPHN
China	NR (0.1%)	(2.3%)	(0.2%)
India	16 (0.6%)	(1.4%)	(0.6%)
Italy	11 (0.4%)	(0.8%)	(0.8%)
Vietnam	0	(1.0%)	(0.05%)
Philippines	20 (0.8%)	(1.0%)	(0.3%)
Malaysia	0	(0.4%)	(0.1%)
Germany	NR (0.2%)	(0.4%)	(0.2%)
Greece	0	(0.5%)	(0.04%)
Sri Lanka	0	(0.4%)	(0.1%)
Lebanon	NR (0.2%)	(0.4%)	(0.03%)

Dwellings with no motor vehicle	
2011	
ABS	
NSW	10.5%
MPHN	6.8%
Carrathool	50 (5.1%)

Internet Access – No internet connection	
2011	
ABS	
NSW	20.0%
MPHN	29.0%
Carrathool	330 (33.5%)

Access to Services		
	2014	2014
	ABS	
	Estimated number of people aged 18 years and over who often have a difficulty or cannot get to places needed with transport, including housebound (N=71)	Estimated number of people aged 18 years and over who experienced a barrier to accessing healthcare when needed it in the last 12 months, with main reason being cost of service (N=35)
<i>NSW</i>	<i>4.3 per 100</i>	<i>2.5 per 100</i>
<i>MPHN</i>	<i>3.7 per 100</i>	<i>2.7 per 100</i>
Carrathool	3.6 per 100	1.8 per 100

Community Strength		
	2011	2014
	ABS	
	Voluntary work for an organisation or group (ABS Census data) (N=2,032)	Estimated number of people aged 18 years and over who did unpaid voluntary work in the last 12 months through an organisation (N=813)
<i>NSW</i>	<i>16.9%</i>	<i>29.3 per 100</i>
<i>MPHN</i>	<i>24.2%</i>	<i>39.9 per 100</i>
Carrathool	551 (27.1%)	40.7 per 100

Community Strength		
	2014	
	ABS	
	Estimated number of people aged 18 years and over who are able to get support in times of crisis from persons outside the household (N=1,859)	Estimated number of people aged 18 years and over (or their partner) who provide support to other relatives living outside the household (N=603)
<i>NSW</i>	<i>93.4 per 100</i>	<i>32.5 per 100</i>
<i>MPHN</i>	<i>94.0 per 100</i>	<i>31.2 per 100</i>
Carrathool	93.9 per 100	29.7 per 100

Community Strength			
	2014		
	ABS		
	Estimated number of people aged 18 years and over who felt very safe/safe walking alone in local area after dark (N=1,344)	Estimated number of people aged 18 years and over who disagree/strongly disagree with acceptance of other cultures (N=126)	Estimated number of people aged 18 years and over who, in the past 12 months, felt that they had experienced discrimination or have been treated unfairly by others (N=403)
<i>NSW</i>	<i>53.4 per 100</i>	<i>4.1 per 100</i>	<i>19.4 per 100</i>
<i>MPHN</i>	<i>58.3 per 100</i>	<i>5.7 per 100</i>	<i>19.3 per 100</i>
Carrathool	67.6 per 100	6.1 per 100	20.4 per 100

## Aboriginal and Torres Strait Islanders

Indigenous status		
2016 ERP		
Aboriginal population as proportion of total population		
	Number	%
NSW	229,951	2.9
MPHN	12,433	6.1
Carrathool	238	6.7

Indigenous status								
2016 ERP (non-ABS)								
	0-4 years (N=219)		5-9 years (N=286)		10-14 years (N=262)		15-19 years (N=231)	
	Number	%	Number	%	Number	%	Number	%
NSW	27,371	5.7	25,656	5.3	24,503	5.4	24,495	5.4
MPHN	1,546	10.4	1,422	8.7	1,339	8.3	1,395	8.5
Carrathool	30	13.7	26	9.2	25	9.6	29	12.6

Indigenous status								
2016 ERP (non-ABS)								
	20-24 years (N=183)		25-29 years (N=226)		30-34 years (N=190)		35-39 years (N=196)	
	Number	%	Number	%	Number	%	Number	%
NSW	22,252	4.4	17,475	3.2	14,085	2.5	11,370	2.2
MPHN	1,124	7.6	992	7.1	761	5.6	560	4.4
Carrathool	18	9.9	19	8.3	14	7.5	10	4.9

Indigenous status								
2016 ERP (non-ABS)								
	40-44 years (N=247)		45-49 years (N=251)		50-54 years (N=262)		55-59 years (N=301)	
	Number	%	Number	%	Number	%	Number	%
NSW	12,108	2.3	12,012	2.4	10,534	2.1	9,070	1.9
MPHN	613	4.2	638	4.2	605	3.8	460	2.8
Carrathool	13	5.5	14	5.7	13	5.1	NR	2.9

Indigenous status				
2016 ERP (non-ABS)				
	60-64 years (N=210)		65+ years (N=501)	
	Number	%	Number	%
NSW	6,722	1.6	10,707	0.9
MPHN	370	2.4	599	1.3
Carrathool	NR	2.6	11	2.3

Vocational Education		
2015 ABS		
Participation in vocational education and training - Aboriginal population		
	Number	ASR per 1,000
NSW	54,306	19.9
MPHN	3,186	21.7
Carrathool	41	18.8

Cancer Screening		
2015-16 ABS		
Breast screening Aboriginal women 50 - 69 years		
	Number	%
NSW	15845	38.2
MPHN	852	32.5
Carrathool	14	36.5

Older Persons				
2012-13 ABS				
	Indigenous clients (per total clients) (N=177)		Indigenous clients (per Indigenous population) (N=175)	
	Number	%	Number	%
NSW	10,129	3.9	10,129	6.0
MPHN	547	4.2	547	5.8
Carrathool	NR	4.5	NR	4.6

## Mothers, Babies and Children

Total Fertility Rate		
2013 – 15 ABS		
	Births	Total Fertility Rate
NSW	286,656	1.94
MPHN	8,680	2.27
Carrathool	103	2.50

Mothers and Babies				
2012-14 ABS				
	Low birth weight babies		Smoking during pregnancy	
	Low birth weight babies (Births N=99)	% low birth weight babies	Smoking during pregnancy (Number Pregnancies N=102)	% smoking during pregnancy
NSW	14,579	5.2	28,059	9.8
MPHN	309	4.5	1,363	19.1
Carrathool	NR	4.7	16	15.6

Immunisation						
2015 ABS						
	Children fully immunised at 1 year of age (N=30)		Children fully immunised at 2 years of age (N=31)		Children fully immunised at 5 years of age (N=28)	
	Number	%	Number	%	Number	%
NSW	86,372	92.3	84,177	89.2	90,626	93.2
MPHN	2,769	94.5	2,691	92.2	3,010	95.7
Carrathool	28	95.1	30	96.0	27	97.9

Child Care				
2011 ABS				
	Unpaid child care to own child/ children		Unpaid child care to other child/ children	
	Number	%	Number	%
NSW	1,085,880	19.6	392,602	7.1
MPHN	35,308	19.4	13,761	7.6
Carrathool (N=2,031)	397	19.5	141	6.9

Risk Factors Children									
2014-15 ABS									
	Estimated number of males aged 2-17 years who were overweight (but not obese) (modelled estimates)*			Estimated number of males aged 2-17 years who were obese (modelled estimates)*		Estimated number of females aged 2-17 years who were overweight (but not obese) (modelled estimates)*		Estimated number of females aged 2-17 years who were obese (modelled estimates)*	
	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100	
NSW	150,436	19.4	53,480	6.9	95,335	12.9	69,007	9.4	
MPHN	5,341	19.5	1,899	7.1	3,511	13.1	2,517	9.6	
Carrathool	72	19.7	25	7.1	44	14.0	30	9.6	

Estimated number of people aged 4-17 years with adequate fruit intake (modelled estimates)		
2013 – 15 ABS		
	Number	ASR per 100
NSW	879,006	67.6
MPHN	31,834	67.8
Carrathool	416	70.1

Vulnerable Children				
2015 AEDC				
	Developmentally vulnerable on one or more domains (N=39)		Developmentally vulnerable on two or more domains (N=41)	
	Number	%	Number	%
NSW	18,253	20.2	8,670	9.6
MPHN	657	21.0	311	9.9
Carrathool	NR	20.5	NR	12.2

Vulnerable Children				
2015 AEDC				
	Physical health and wellbeing - developmentally at risk		Physical health and wellbeing - developmentally on track	
	Number	%	Number	%
NSW	12,410	13.7	70,492	77.8
MPHN	395	12.5	2,445	77.5
Carrathool (N=41)	NR	12.8	31	75.6

Vulnerable Children				
2015 AEDC				
	Social competence - developmentally at risk		Social competence - developmentally on track	
	Number	%	Number	%
NSW	12,955	14.3	69,356	76.5
MPHN	494	15.6	2,391	75.8
Carrathool	NR	12.2	33	80.5

Vulnerable Children				
2015 AEDC				
	Emotional maturity - developmentally at risk		Emotional maturity - developmentally on track	
	Number	%	Number	%
NSW	12,664	14.1	71,381	79.2
MPHN	477	15.3	2,409	77.1
Carrathool	NR	20.0	29	72.5

Vulnerable Children				
2015 AEDC				
	Language and cognitive skills (schools-based) - developmentally at risk		Language and cognitive skills (schools-based) - developmentally on track	
	Number	%	Number	%
NSW	6,646	7.3	79,594	87.9
MPHN	268	8.5	2,704	86.1
Carrathool	NR	12.5	33	82.5

Vulnerable Children				
2015 AEDC				
	Communication skills and general knowledge - developmentally at risk		Children developmentally on track in communication domain	
	Number	%	Number	%
NSW	14,562	16.1	68,739	75.8
MPHN	443	14.0	2,482	78.6
Carrathool	NR	17.1	32	78.0

HPV				
2015 AEDC				
	HPV vaccine coverage: females aged 12-13 years in mid-2013, who received Dose 3 by 2016 (N=36)		HPV vaccine coverage: males aged 12-13 years in mid-2013, who received Dose 3 by 2016 (N=45)	
	Number	%	Number	%
NSW	71,132	82.4	63,604	69.6
MPHN	2,651	84.1	2,499	73.3
Carrathool	33	85.4	31	73.7



## Older People

Residential aged care places			
June 2016 ABS			
	Residential aged care places	Population aged 70 years and over	Residential care places per 1,000 population aged 70 years and over
NSW	67,566	812,019	83.3
MPHN	2,649	32,091	82.6
Carrathool	27	319	84.6

Older Persons disability				
2011 ABS				
	People with a profound or severe disability (includes people in long-term accommodation), 65 years and over		People with a profound or severe disability and living in the community, 65 years and over	
	Number	%	Number	%
NSW	184,963	18.4	137,531	13.7
MPHN	6,268	16.0	4,470	11.4
Carrathool	56	14.5	37	9.6

Older Persons								
2012-13 ABS								
	Clients living alone		Clients with carer		Non-English speaking clients		Total clients	
	Number	%	Number	%	Number	%	Number	ASR per 1,000
NSW	105,454	38.9	56,048	20.7	30,345	12.2	270,805	36
MPHN	5,338	41.3	1,296	10.1	316	2.5	12,912	45
Carrathool	67	37.6	18	10.3			177	65

Older Persons		
2012-13 ABS		
	Case management instances	
	Number	ASR per 1,000
NSW	15,207	2.0
MPHN	742	2.6
Carrathool	NR	1.8

Older Persons								
2012-13 ABS								
	Centre based day care instances		Client care coordination instances		Domestic assistance instances		Home maintenance and modification instances	
	Number	ASR per 1,000	Number	ASR per 1,000	Number	ASR per 1,000	Number	ASR per 1,000
NSW	21,768	2.9	30,887	4.0	54,168	7.1	40,707	5.3
MPHN	619	2.1	1,227	4.2	3,341	11.3	1,456	4.9
Carrathool	23	8.5	64	23.6	40	14.9	19	7.0

Older Persons				
2012-13 ABS				
	Meals at centre plus meals at home instances		Nursing care at centre plus nursing care at home instances	
	Number	ASR per 1,000	Number	ASR per 1,000
NSW	36,468	4.7	52,791	6.9
MPHN	2,072	7.0	3,040	10.6
Carrathool	22	8.4	48	17.6

Older Persons						
2012-13 ABS						
	Social support instances		Transport instances		Total instances of assistance	
	Number	ASR per 1,000	Number	ASR per 1,000	Number	ASR per 1,000
NSW	36,081	4.7	71,634	9.4	445,337	58
MPHN	1,680	5.8	4,310	14.8	20,453	70
Carrathool	19	7.1	86	31.8	340	126

## Population Health

### Mortality

Median Age of Death				
2010 to 2014 ABS				
	Males		Females	
	Number of deaths	Median age (years)	Number of deaths	Median age (years)
NSW	126,031	78.0	121,875	84.0
MPHN	5,196	78.0	4,646	84.0
Carrathool	47	74.0	38	78.0

'Premature mortality' refers to deaths that occur at an age earlier than a selected cut-off. For this analysis, deaths among people aged under 75 are considered premature.

Premature Deaths				
2010 to 2014 ABS				
	Males		Females	
	Number of deaths	ASR per 100,000	Number of deaths	ASR per 100,000
NSW	50,771	292.3	31,142	180.9
MPHN	2,200	341.8	1,215	201.0
Carrathool	25	349.6	14	240.7

Premature Deaths by cause						
2010 to 2014 ABS						
	Deaths from cancer, 0 to 74 years		Deaths from circulatory system diseases, 0 to 74 years		Deaths from external causes, 0 to 74 years	
	Number of deaths	ASR per 100,000	Number of deaths	ASR per 100,000	Number of deaths	ASR per 100,000
NSW	35,196	101.4	15,819	45.6	8,893	26.2
MPHN	1,399	109.5	754	59.1	385	35.8
Carrathool	15	113.1	NR	61.5	NR	49.9

Potentially avoidable deaths, a subset of all premature mortality (deaths under 75 years), and include deaths considered to be potentially preventable (those amenable to screening and primary prevention) and potentially treatable (those amenable to therapeutic interventions).

Avoidable Deaths by cause		
2010 to 2014 ABS		
Deaths from circulatory system diseases, 0 to 74 years		
	Number of deaths	ASR per 100,000
NSW	13,012	37.5
MPHN	613	47.9
Carrathool	NR	42.2

## Health Conditions

Health Conditions								
2011-12 ABS								
	Estimated number of people with respiratory system diseases		Estimated number of people with asthma		Estimated number of people with chronic obstructive pulmonary disease		Estimated number of people with mental and behavioural problems	
	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100
NSW	1,944,627	27.3	683,426	9.6	190,575	2.6	933,878	13.1
MPHN	71,018	30.8	27,747	11.9	7,078	2.8	31,194	13.5
Carrathool	825	30.9	273	10.2	69	2.6	322	12.1

Health Conditions								
2011-12 ABS								
	Estimated number of people aged 2 years and over with circulatory system diseases		Estimated number of people aged 18 years and over with diabetes mellitus		Estimated number of people with musculoskeletal system diseases		Estimated number of people with arthritis	
	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100
NSW	1,254,498	17.8	322,894	5.8	2,022,993	28.1	1,107,563	15.3
MPHN	46,290	18.4	9,683	4.8	73,975	30.2	42,641	16.4
Carrathool	459	17.9	99	4.8	765	29.0	396	14.9

Cancer Incidence					
2012-13 NSW Cancer Registry					
	Prostate Cancer	Breast Cancer	Bowel Cancer	Lung Cancer	Melanoma
	DSEI per 100,000	DSEI per 100,000	DSEI per 100,000	DSEI per 100,000	DSEI per 100,000
NSW	76.8	66.4	57.6	42.9	51.6
MPHN	100.5	50.9	63.0	49.0	46.7
Carrathool	114.3	80.5	40.7	117.6	54.4

Mental Health Prevalence										
2016 NMHSPF										
	0-4 years (N=162)		5-11 years (N=236)		12-17 years (N=190)		18-64 years (N=1,554)		65+ years (N=450)	
	N	%	N	%	N	%	N	%	N	%
NSW		22.0		28.9		26.9		47.0		28.1
MPHN		22.0		29.0		26.9		47.0		28.0
Carrathool	36	22.2	68	28.8	51	26.8	730	47.0	126	28.0

Mental Health Early Intervention										
2016 NMHSPF										
	0-4 years (N=36)		5-11 years (N=68)		12-17 years (N=51)		18-64 years (N=730)		65+ years (N=126)	
	N	%	N	%	N	%	N	%	N	%
NSW		30.0		46.4		43.2		36.9		38.8
MPHN		29.9		46.4		43.2		36.9		38.8
Carrathool	11	30.6	32	47.1	22	43.1	270	37.0	49	38.9

Mental Health Mild										
2016 NMHSPF										
	0-4 years (N=36)		5-11 years (N=68)		12-17 years (N=51)		18-64 years (N=730)		65+ years (N=126)	
	N	%	N	%	N	%	N	%	N	%
NSW		30.0		46.4		43.2		36.9		38.8
MPHN		29.9		46.4		43.2		36.9		38.8
Carrathool	14	38.9	21	30.9	16	31.4	147	20.1	26	20.6

Mental Health Moderate										
2016 NMHSPF										
	0-4 years (N=36)		5-11 years (N=68)		12-17 years (N=51)		18-64 years (N=730)		65+ years (N=126)	
	N	%	N	%	N	%	N	%	N	%
NSW		30.0		46.4		43.2		36.9		38.8
MPHN		29.9		46.4		43.2		36.9		38.8
Carrathool	NR	19.4	10	14.7	NR	15.7	74	10.1	13	10.3

Mental Health Severe										
2016 NMHSPF										
	0-4 years (N=36)		5-11 years (N=68)		12-17 years (N=51)		18-64 years (N=730)		65+ years (N=126)	
	N	%	N	%	N	%	N	%	N	%
NSW		30.0		46.4		43.2		36.9		38.8
MPHN		29.9		46.4		43.2		36.9		38.8
Carrathool	NR	11.1	NR	7.4	NR	7.8	52	7.1	11	8.7

Disability						
2011 ABS						
	Unpaid assistance to persons with a disability (N=2,033)		People with a profound or severe disability (includes people in long-term accommodation), All ages (N=2,568)		People with a profound or severe disability and living in the community, All ages (N=2,568)	
	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100
NSW	633,197	11.4	335,187	4.9	281,821	4.1
MPHN	21,183	11.9	11,284	5.1	9,378	4.2
Carrathool	239	11.8	96	3.7	74	2.9

Self Assessed Health		
2014-15 ABS		
Estimated number of people aged 15 years and over with fair or poor self-assessed health		
	Number	ASR per 100
NSW	860,560	14.2
MPHN	32,519	16.3
Carrathool	328	15.7

Cancer Screening						
2015-16 NSW Cancer Council						
	Breast screening rate women 50 - 69 years		Cervical screening women 20 - 69 years		Bowel screening people 50 - 74 years	
	Number	%	Number	%	Number	%
NSW	898,422	53.0	2,163,401	56.3	573,924	37.8
MPHN	29,752	52.9	62,093	53.2	18,104	41.4
Carrathool	318	43.7	660	50.1	173	37.0

## Health Behaviours

Risk Factors						
	2011-12 ABS		2014-15 ABS			
	Estimated number of people aged 18 years and over with high blood cholesterol		Estimated number of people aged 18 years and over who had high blood pressure		Estimated number of people aged 18 years and over with high or very high psychological distress, based on the Kessler 10 Scale (K10)	
	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100
NSW	1,781,305	32.3	1,284,611	22.3	624,889	11.0
MPHN	60,716	33.9	41,074	21.2	19,258	11.1
Carrathool	635	31.0	459	22.6	165	8.6

Risk Factors								
2014-15 ABS								
	Estimated number of males aged 18 years and over who were overweight (but not obese)		Estimated number of males aged 18 years and over who were obese		Estimated number of females aged 18 years and over who were overweight (but not obese)		Estimated number of females aged 18 years and over who were obese	
	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100
NSW	1,194,195	42.1	812,863	28.8	817,171	28.2	784,996	27.2
MPHN	34,416	38.9	35,557	38.9	25,832	28.7	33,349	36.9
Carrathool	1,969	39.1	1,997	37.8	1,468	28.7	1,801	35.6

Risk Factors								
2014-15 ABS								
	Estimated number of males aged 18 years and over with a waist measurement indicating an increased/substantially increased risk of developing chronic diseases		Estimated number of females aged 18 years and over with a waist measurement indicating an increased/substantially increased risk of developing chronic diseases		Estimated number of people aged 18 years and over with adequate fruit intake		Estimated number of people aged 18 years and over who undertook no or low exercise in the previous week	
	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100
NSW	1,658,147	58.5	1,887,405	65.1	2,806,907	49.1	3,828,276	67.0
MPHN	63,041	68.2	63,355	69.8	85,095	47.6	131,172	73.6
Carrathool	3,648	66.9	3,497	68.0	4,796	47.1	7,526	74.7

Risk Factors							
2014-15 ABS							
	Estimated number of males aged 18 years and over who were current smokers		Estimated number of females aged 18 years and over who were current smokers		Estimated number of people aged 15 years and over who consumed more than two standard alcoholic drinks per day on average		
	Number	ASR per 100	Number	ASR per 100	Number	ASR per 100	
NSW	542,434	19.2	361,388	12.6	997,861	16.7	
MPHN	19,676	23.6	12,670	15.1	36,885	19.9	
Carrathool	1,096	24.9	665	15.6	2,176	21.1	

Risk Factors				
2014-15 ABS				
	Estimated number of males aged 18 years and over with at least one of four risk factors (current smokers, high risk alcohol, obese, no or low exercise in the previous week)		Estimated number of females aged 18 years and over with one of four risk factors (current smokers, high risk alcohol, obese, no or low exercise in the previous week)	
	Number	ASR per 100	Number	ASR per 100
NSW	2,147,167	76.1	2,309,951	80.0
MPHN	74,095	84.2	75,126	84.6
Carrathool	910	86.6	810	89.2

## Technical Notes

### MPHN LGA Data Prioritisation Tool

The MPHN Data Prioritisation tool applies a score based on the LGA result in relation to the state average and MPHN average results.

A score of zero to four is applied based on the difference between the LGA proportion or ASR result compared to the state average score.

Within the list of LGA scores, a score of one is given to the LGAs that have either a higher or lower score than the average for the MPHN.

The two scores are summed to give a total score.

To highlight the impacts, colour coding is applied to the range of 0 – 5 totals of both the state and MPHN averages combined.

The MPHN LGA data prioritisation tool is also applied to socio-demographic variables such as age, gender etc.

<i>Matrix Scoring System Compared to the NSW average</i>			
<i>Proportion</i>	<i>ASR (two digit response)</i>	<i>ASR (three digit response)</i>	<i>Score</i>
Less than 0 or negative score	Less than 0 or negative score	Less than 0 or negative score	0
0 and 10%	0 -10	0 - 100	1
10.1% - 29.9%	11 – 30	101-300	2
30% - 49.9%	31 - 50	301 - 500	3
>50%	51 +	501 +	4
<i>Higher or lower than Murrumbidgee average dependent on orientation of response (positive or negative)</i>			
all values above/below average			1
<i>Impact Score</i>			
0	LOW impact		
1			
2			
3			
4			
5	HIGH impact		

The following notes provide a definition for terms used in this report that may not be familiar to readers.

### Socio-Economic Indexes for Areas (SEIFA)

The SEIFA score in this report is an index score that allows geographical ranking in Australia. The score measures socio-economic advantage and disadvantage, information is obtained from the five-yearly Census.

SEIFA is a group of 4 indexes, which are used to rank areas broadly by their level of advantage or disadvantage. It consists of 4 measures:

- Index of Relative Socio-Economic Advantage-Disadvantage
- Index of Relative Socio-Economic Disadvantage
- Index of Education and Occupation
- Index of Economic Resources

Some examples of variables that are measured and form the indexes are (this is limited, there are more variables that are considered):

- Percentage of low-income households
- Unemployment rate
- Percentage of low-skilled occupations and people without qualifications
- Percentage of households without a car
- Percentage of people living overcrowded dwellings
- Percentage of people under 70 with a disability
- Percentage of children with jobless parents
- Percentage of people with poor English proficiency

SEIFA scores are expressed on a scale where lower numbers always mean more disadvantage and less advantage, while higher numbers mean less disadvantage and more advantage. They are standardised so that the average for Australia is always close to 1,000.



## Age Standardised Rate (ASR)

A method of adjusting the crude rate to eliminate the effect of differences in population age structures when comparing crude rates for different periods of time, different geographic areas and/or different population sub-groups (e.g. between one year and the next and/or States and Territories, Indigenous and non-Indigenous populations).

Adjustments are usually undertaken for each of the comparison populations against a standard population (rather than adjusting one comparison population to resemble another). Sometimes a comparison population is referred to as a study population.

ASR's are usually used for valid comparisons of rates in different populations, such as incidence rates, prevalence rates, mortality rates and health service utilisation rates.

An example of why they are used is because the numbers of deaths per 100,000 population are influenced by the age distribution of the population. Two populations with the same age-specific mortality rates for a cause of death will have different overall death rates if the age distributions of their populations are different. Age standardized mortality rates adjust for differences in population age distribution by applying the observed age-specific mortality rates for each population to a standard population. The age-standardized mortality rate is a weighted average of the age-specific mortality rates per 100,000 persons, where the weights are the proportions of persons in the corresponding age groups of the standard population.