



Government of **Western Australia**  
South Metropolitan Health Service

# City of Mandurah Alcohol Profile 2018

Alcohol-related harm, hospitalisations,  
conditions and deaths.



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# Introduction

The City of Mandurah plays a significant role in managing alcohol-related issues and is ideally placed to facilitate a coordinated response to prevent and manage alcohol-related harm.

The collated information will help inform the City of Mandurah and its residents, partners and other stakeholders about alcohol-related harms at a local level. This snapshot can also be used for effective evidence-based planning to reduce alcohol-related harm.

In addition, the publication *Pathway to reducing harm from alcohol consumption: A guide for local government* (South Metropolitan Population Health Unit, 2014) supports local government to manage the major contributors to harm from alcohol consumption.



**Figure 1:** Major contributors to harm from alcohol consumption (Dibley G, 2007).

# Drinking patterns and harms in Australia

Alcohol plays a complex role in Australian society. Most people drink alcohol for enjoyment, relaxation and sociability at levels that cause few adverse effects. However, a substantial proportion of people drink at levels that increase their risk of alcohol-related harm. Alcohol is responsible for a considerable number of deaths, diseases and injuries. In addition to health risks, harmful consumption of alcohol inflicts significant social and economic burden on individuals, families, bystanders and the community.

In 2016, 77 per cent of people aged 14 years of age or older reported that they had consumed alcohol in the past year, while 26 per cent of people who consume alcohol exceed the single-occasion risk guidelines at least monthly. Since 2013, there have been improvements with more people aged between 12-17 abstaining or delaying the initiation of drinking alcohol for the first time (Australian Institute of Health and Welfare, 2014).

The harms from alcohol are related to the volume of alcohol consumed and patterns of drinking. Harms emerge from drinking patterns that result in either intoxication and/or high consumption levels over long periods of time. It is the effects of intoxication that lead to the most visible impact on the community. The greatest amount of alcohol-related harm occurs in people who often drink moderately and on occasion drink to harmful levels (Chikritzhs, Jonas, Stockwell, Heale, & Dietze, 2001).

'The Australian Guidelines to Reduce Risks from Drinking Alcohol' aims to provide health professionals, policy makers and the community with evidence-based advice about the health effects of drinking alcohol. It is also used as a tool to help individuals make informed decisions about their drinking habits (National Health and Medical Research Council, 2009).

## Australian guidelines to reduce health risks from drinking alcohol

### The National Health and Medical Research Council recommend that for:

- healthy men and women, drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury
- healthy men and women, drinking no more than four standard drinks on a single occasion reduces the risk of alcohol-related injury arising from that occasion
- parents and carers should be advised that children under 15 years of age are at the greatest risk of harm from drinking and not drinking alcohol is especially important for this age group
- young people aged 15–17 years, the safest option is to delay the initiation of drinking for as long as possible
- women who are pregnant or planning a pregnancy, not drinking is the safest option
- women who are breastfeeding, not drinking is the safest option.

Australian and international health authorities **do not recommend drinking alcohol** as a way of preventing or treating heart disease (National Health and Medical Research Council, 2009).

## How much is too much?



**Figure 2:** Measure your standard drinks. (Australian Drug Foundation, 2018).

# Health impact of alcohol

Harmful levels of alcohol consumption increase the risk of chronic diseases, injuries and premature deaths. In the short term, single-occasion risky drinking can impair judgement and coordination which may lead to anti-social behaviour, crime, violence, accidents and injury (Australian Institute of Health and Welfare, 2014).

Alcohol is a leading risk factor for injury in WA, contributing to 32 per cent of emergency department injury presentations. Leading injury areas associated with alcohol include violence, suicide, land transport and falls. In 2016, there were 62 fatalities in WA related to alcohol (Know Injury, 2017).

In WA, alcohol is responsible for nearly one in five injury deaths and one in eight injury hospitalisations. In 2012, the total lifetime cost of alcohol-related injury was about \$1.9 billion due to health care costs, long-term care needs, loss in both paid productivity and quality of life (Hendrie, 2016).

Over the long-term, lifetime risky drinking patterns can result in alcohol dependence, high blood pressure, some cancers, cardiovascular disease, cirrhosis of the liver, types of dementia and mental health problems. Every year in Australia, it is estimated that five per cent of all cancers are attributable to alcohol use (Australian Institute of Health and Welfare, 2014).

Adolescents and pregnant women, in particular, are at high-risk. The brain continues to develop into the early twenties and risky drinking during adolescence can cause irreversible damage leading to problems with memory, decision-making, impulse control and mood regulation. People reporting risky alcohol consumption during adolescence tend to consume alcohol in risky quantities in adulthood and have a much higher likelihood of developing alcohol-related problems. Therefore it is important that efforts are directed towards delaying the onset of alcohol use (Dewit, Adlaf, Offord, & Ogborne, 2000).

Drinking alcohol during pregnancy has the potential to cause significant harm to the developing fetus and can lead to problems later in life. Alcohol consumption during pregnancy is the leading cause of preventable birth defects, including Fetal Alcohol Spectrum Disorders.

Not all children who are exposed to alcohol during pregnancy will be affected or affected to the same degree. The level of harm caused to the fetus is resultant of the amount of alcohol consumed, the frequency of consumption and the timing of exposure (Popova et al., 2016).

A 'safe' amount of alcohol that women can drink during pregnancy has not been determined, which is why no alcohol during pregnancy is the safest choice.



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## Alcohol-related harm in the **City of Mandurah**

# 14%

**City of Mandurah residents** reported drinking at risky levels for short term harm in 2015.

Short term harms can include motor vehicle fatalities, injuries, falls, drownings, burns, suicides, and occupational injuries.

### Hospitalisations attributed to harms from single-occasion risky drinking, 2011–2015.

- 847** falls
- 415** motor vehicle accident injuries
- 165** self-inflicted injuries
- 140** assaults/abuses



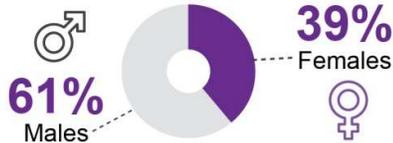
### St John Ambulance

**383** alcohol-related call outs, 2015–2017.

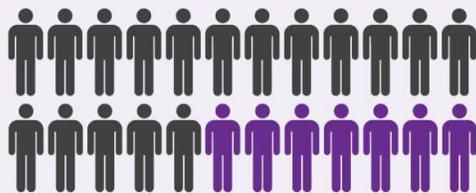


**46%** were adults aged 45–64 years.

**3,276** Alcohol-related hospitalisations, 2011–2015.



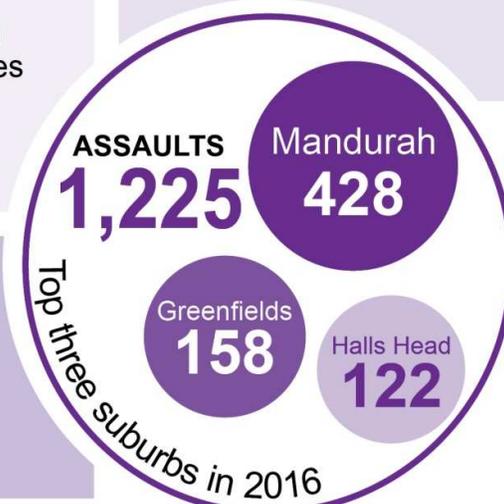
**4,417** bed days associated with alcohol-related hospitalisations in 2015.  
 Estimated cost (CPI) **\$2.92m.**



**148** deaths attributed to alcohol for adults 18 years of age or over, 2011–2015.

### The **top 3 causes** of alcohol-related deaths 2011–2015.

- Cancer
- Self-inflicted injuries
- Alcoholic liver disease



References available.

# Social, economic and environmental impact of alcohol

The effects of alcohol consumption go beyond diseases, accidents and injuries. There are adverse social consequences for the drinker and others - their families, friends, colleagues, bystanders and people in the community. There are also consequences for the community through noise, litter, offensive behaviour, aggression, crime, assault and road safety issues. The cost of alcohol-related harm to others includes lost productivity, consequences of alcohol-related assaults or child abuse and time lost caring for heavy drinkers (Laslett, 2010). Approximately \$14 billion dollars per annum is attributed as the tangible cost of alcohol's harms to others and more than \$6 billion dollars in intangible costs.

Alcohol-related harm places a major burden on our health and law enforcement resources. In 2016, an average of fourteen ambulances per day, were called to attend incidents involving alcohol intoxication. In 2012, the WA Police Service directed \$232.5 million towards providing support for alcohol-related issues in the community. Between 2011-2012, three quarters of WA Police Service responses were alcohol-related with 66.9 per cent of those responses physical assaults. Alcohol intoxication is a factor in up to 80% of all police attended incidents (Doherty, 2003)

In 2010, the estimated cost of alcohol-related harm to the Australian society was \$14.3 billion. Of this, 20 per cent (\$2.95 billion) represented costs to the criminal justice system, 11 per cent (\$1.68 billion) to the health system, 42 per cent per cent (\$6.04 billion) to Australian productivity and 25 per cent (\$3.66 billion) were costs associated with traffic accidents (Laslett et al 2010).

The associated environmental harm that occurred as a result of broken glass, incorrect disposal of packaging and containers also resulted in significant costs to people and animals.



# Harm from alcohol consumption in Mandurah

## Single-occasion risky drinking

The more alcohol a person drinks on a single occasion the greater their risk of an immediate alcohol-related injury. To reduce health risks from drinking alcohol, The National Health and Medical Research Council (NHMRC) Guidelines recommends that healthy adult men and women drink no more than four standard drinks on a single occasion. With every drink, the risk of accidents and/or injury increases for the person drinking and others around them. Alcohol increases the likelihood of a person being involved in anti-social behaviour and conflict, which can lead to assaults and violence, injury due to falls, burns, car crashes, unprotected or unwanted sexual encounters and problems that occur with friends and family members. There is also a clear link with risky drinking and domestic violence (MCAAY and Curtin University, 2017).

Between 2014-2015, 14 per cent of adults in the City of Mandurah (9,363 people) aged 16 years of age and over reported drinking more than four standard drinks on any one day (Epidemiology Branch., 2017). Any alcohol consumption by a person aged 16-17 years of age is considered high-risk. It is important to measure the proportion of the population drinking at risky levels in accordance with the NHMRC guidelines and to examine the drinking patterns of those who are drinking in excess of the guidelines. The National Drug Strategy Household Survey (2016) states that people in their late teens and early twenties are more likely to drink more than 11 drinks in the last month than any other age group. This report also explains that the rate for people aged in their 50's has increased significantly between 2013–2016.

**Table 1. Number and percentage of acute alcohol-related hospitalisations by alcohol-related conditions, City of Mandurah, 2011-2015.**

| Single-occasion risky drinking – hospitalisations |                            |             |
|---|----------------------------|-------------|
| Condition   | Number of hospitalisations | Percentage  |
| Motor-vehicle accident injuries                   | 415                        | 19.8        |
| Falls   | 847                        | 40.5        |
| Self-inflicted injuries                           | 165                        | 7.8         |
| Assaults/abuse                                    | 140                        | 6.7         |
| Poisoning   | 66                         | 3.2         |
| Other alcohol-related injuries                    | 463                        | 22          |
| <b>Total</b>                                      | <b>2095</b>                | <b>100%</b> |

**Source:** Epidemiology Branch (2017) Alcohol-related hospitalisations and deaths, WA Department of Health.

## Lifetime risky drinking

The more alcohol a person drinks, the greater their risk of developing an alcohol-related injury or disease during their lifetime. For healthy men and women, drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease.

Nearly 1 in 14 West Australians drink every day, and nearly 1 in 5 drink at levels that place them at risk of alcohol-related harm and ill-health over their lifetime. In the City of Mandurah, between 2014-2015, 29.0 per cent of adults aged 16 years and older drank at lifetime risky levels (Epidemiology Branch, 2017). Any alcohol consumption by a person aged 16-17 years of age is considered high risk.

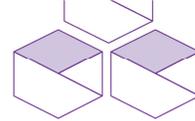
In the City of Mandurah between 2011-2015, the leading causes of alcohol-related hospitalisations due to risky drinking were falls (25.9), followed by 'other alcohol-related injuries' (14.1%) and alcoholic mental and neurological disorders (13.4%). Compared with WA State, there were 1.3 times more hospitalisations due to alcoholic liver disease. There was a higher proportion of acute alcohol-related hospitalisations (63.9%) compared with chronic alcohol-related hospitalisations (36.1%) in City of Mandurah during that time period. (Epidemiology Branch., 2017).

**Table 2. Number and percent of chronic alcohol-related hospitalisations by alcohol-related conditions, City of Mandurah, 2011–2015.**

| Lifetime risky drinking – hospitalisations  |                            |             |
|---|----------------------------|-------------|
| Condition                                   | Number of hospitalisations | Percentage  |
| Alcoholic liver disease                     | 107                        | 9.1         |
| Other digestive system diseases             | 193                        | 16.3        |
| Alcoholic mental and neurological disorders | 438                        | 37.1        |
| Cancers                                     | 215                        | 18.3        |
| Stroke                                      | 10                         | 0.8         |
| Other alcohol-related diseases              | 218                        | 18.6        |
| <b>Total</b>                                | <b>1181</b>                | <b>100%</b> |

**Note:** Counts of less than 5 have been suppressed in this report to protect privacy and data confidentiality. Other numbers have been suppressed to prevent back-calculations of smaller numbers.

**Source:** Epidemiology Branch (2017) Alcohol-related hospitalisations and deaths, WA Department of Health.



## Alcohol-related hospitalisations

In 2015, there were 705 alcohol-related hospitalisations in the City of Mandurah. The age-standardised rate for the City of Mandurah was significantly higher than the WA metropolitan area (742.1 and 668.1 per 100,000 respectively). (Epidemiology Branch., 2017).

**Table 3. Number of alcohol-related hospitalisations by year, age group and gender, 2011–2015.**

| Alcohol-related hospitalisations by year, age and gender |                    |                    |             |             |             |
|--|--------------------|--------------------|-------------|-------------|-------------|
| Year   | Age group          |                    | Gender      |             | Total       |
|  | Less than 18 years | 18 years and above | Male        | Female      |             |
| 2011   | 28                 | 573                | 360         | 242         | 602         |
| 2012   | 27                 | 581                | 381         | 227         | 607         |
| 2013   | 31                 | 637                | 401         | 267         | 668         |
| 2014   | 20                 | 674                | 416         | 279         | 695         |
| 2015   | 31                 | 674                | 432         | 273         | 705         |
| <b>Total</b>   | <b>137</b>         | <b>3139</b>        | <b>1988</b> | <b>1288</b> | <b>3276</b> |

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**Source:** Epidemiology Branch (2017) Alcohol-related hospitalisations and deaths, WA Department of Health.

## Alcohol-related deaths

Between 2011–2015, there was a higher proportion of chronic alcohol-related deaths (60.8 per cent) compared with acute alcohol-related deaths (38.5 per cent) in the City of Mandurah. In terms of broad categories of alcohol-related conditions, the top causes of alcohol-related deaths were cancers (30.4%), followed by self-inflicted injuries (13.5%) and alcoholic liver disease (10.1%). There were 148 alcohol-related deaths between, 2011–2015 with the larger proportion of these being male residents.

**Table 4: Number of alcohol-related deaths by broad categories of alcohol-related conditions, City of Mandurah, 2011–2015.**

| <b>Alcohol related deaths by condition</b>  |               |                   |
|---|---------------|-------------------|
| <b>Broad Category</b>                       | <b>Number</b> | <b>Percentage</b> |
| <b>Chronic</b>                              |               |                   |
| Alcoholic liver disease                     | 15            | 10.1              |
| Other digestive system diseases             | 13            | 8.8               |
| Alcoholic mental and neurological disorders | <5            | Not applicable    |
| Cancers                                     | 45            | 30.4              |
| Stroke                                      | <5            | Not applicable    |
| Other alcohol-related diseases              | 10            | 6.8               |
| <b>Acute</b>                                |               |                   |
| Motor-vehicle accidents injuries            | 14            | 9.5               |
| Falls                                       | 10            | 6.8               |
| Self-inflicted injuries                     | 20            | 13.5              |
| Assaults / abuses                           | <5            | Not applicable    |
| Poisoning                                   | 7             | 4.7               |
| Other alcohol-related injuries              | <5            | Not applicable    |
| <b>Sub-total chronic</b>                    | <b>90</b>     | <b>60.8</b>       |
| <b>Sub-total acute</b>                      | <b>57</b>     | <b>38.5</b>       |
| <b>Total</b>                                | <b>148</b>    | <b>100.0</b>      |

**Source:** Epidemiology Branch (2017) Alcohol-related hospitalisations and deaths WA Department of Health.

**Table 5: Number of alcohol-related deaths by year and gender, aged 18 years and above City of Mandurah, 2011–2015.**

| Alcohol-related deaths by year and gender |        |        |       |
|---|--------|--------|-------|
| Year                                      | Gender |        | Total |
|   | Male   | Female |       |
| 2011                                      | 21     | 10     | 31    |
| 2012                                      | 18     | 8      | 26    |
| 2013                                      | <25    | <5     | 23    |
| 2014                                      | 29     | 13     | 42    |
| 2015                                      | 18     | 9      | 26    |
| <b>TOTAL</b>                              | <110   | <45    | 148   |

**Note:** Counts less than 5 have been suppressed in this report to protect privacy and data confidentiality. Other numbers have been suppressed to prevent back-calculations of small numbers.

**Source:** Epidemiology Branch (2017) Alcohol-related hospitalisations and deaths, WA Department of Health.



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## WA Health and Wellbeing Surveillance System

The HWSS is managed by the Health Survey Unit in the Epidemiology Branch at the Department of Health Western Australia. Householders are selected at random to participate in a computer-assisted telephone interview. Questions are asked on a range of indicators related to health and wellbeing. Topics include lifestyle and physiological risk factors.

### Limitations of the data

It is important to be cautious when comparing the HWSS data in this profile to that in the previous profile because:

- Changes could be due to a change in the demographic mix of the population, particularly as there have been some minor revisions to LGA boundaries over time and the data is weighted using a different Estimated Resident Population.
- For some LGAs, the number of people surveyed is small, which makes it difficult to show statistically significant changes over time.
- There are only two time points to compare, so it is difficult to determine whether any increase or decrease is due to a trend, or to random variability.

For these reasons, it is important not to overstate any perceived differences between this, and other profiles.

Results are also not comparable between LGAs because, for each LGA, the minimum number of years necessary to make up a sufficient sample has been used. This means that the time period for other LGAs may differ.

Data can be considered representative of the general population, but will not be representative of small or specific groups such as Aboriginal people or people from non-English speaking backgrounds

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