

WEST PILBARA:
**Report on Alcohol-related Harm,
Ill-health and Disorder**

Report to the Director of Liquor Licensing

November 2011

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EXECUTIVE SUMMARY

The purpose of this report is to present alcohol-related harm and ill-health data and stakeholder information for the consideration of the Director of Liquor Licensing.

This report forms one of a number of initiatives being implemented as part of the *West Pilbara Alcohol Management Strategy* which seeks a comprehensive approach to reducing alcohol-related harm and ill-health in the West Pilbara.

In 2009, in response to local concerns about the impact of harmful alcohol use in the community, a multi-stakeholder West Pilbara Alcohol Management Group ("the Group") was established. The Group is currently developing a regional approach to alcohol management which includes a range of initiatives in the areas of: monitoring, evaluation and communication; prevention and education; community capacity building and action; policing and legislation; and treatment and support. A supply reduction (liquor restriction) strategy was just one of a number of initiatives the group prioritised to explore.

This report presents data and information pertaining to the West Pilbara District, located in the north of Western Australia, constituted by the Shire of Roebourne and the Shire of Ashburton. As key alcohol supply points in the District, specific communities of the West Pilbara included in this report are: Whim Creek, Point Samson, Roebourne, Wickham, Karratha, Dampier, Onslow, Pannawonica, Paraburdoo and Tom Price.

WEST PILBARA

Per capita consumption

- The West Pilbara is a subdistrict in the Pilbara region of Western Australia, incorporating the Shire of Roebourne and Shire of Ashburton. The Fortescue Statistical Division incorporates the West Pilbara.
- In 2007/08, per capita consumption in the Fortescue Statistical Division (25.84L) was more than twice the Western Australian average (12.45L).
- In the Fortescue Statistical Subdivision, per capita consumption figures increased between 2005/06 and 2007/08 (the available periods for this data).
- In 2007/08, per capita consumption in the Fortescue Statistical Division was more than twice the Western Australian average.
- In 2007/08, highlighting the Fortescue Statistical Subdivision as one of the four highest areas in the State for per capita consumption.

West Pilbara alcohol-related hospitalisations

- For the period 2005-2009, alcohol-related hospitalisations in the West Pilbara show that both short term (resulting in acute problems such as violence and

injury) and long-term (resulting in chronic disease) harmful drinking patterns are prevalent in the District.

- For non-Aboriginal persons, the total rate for hospitalisations relating to 'all alcohol-related conditions in the West Pilbara from 2005 to 2009 was significantly higher (1.15 times) than the corresponding State rate.
- For Aboriginal persons, the total rate for hospitalisations relating to 'all alcohol-related conditions' in the West Pilbara from 2005 to 2009 was similar to the corresponding State rate for Aboriginal residents.
- The individual alcohol-related conditions for 'all persons' that were significantly higher than the State rates were: alcoholic liver cirrhosis (1.67 times); stroke (2.61 times); other alcohol-related diseases (1.66 times); road injuries (1.49 times); falls (1.80 times); and assaults (2.86 times).
- Rates of alcohol-related falls, cancers and alcoholic-liver cirrhosis were slightly higher in the West Pilbara when compared to the Pilbara.

Treatment and support

- For those seeking or required to engage in counseling and treatment in the West Pilbara, alcohol was the primary drug of concern in a majority of cases.
- Between 1 July 2008 to 30 June 2011, of the 383 client episodes that occurred, alcohol was the primary drug of concern in 71% (n=272) of these episodes.

At-risk groups in the West Pilbara

- The higher than State average alcohol consumption and related harm in the West Pilbara are characteristic of the broader community in the region, not just those groups who are considered to be at-risk.
- There are population groups in the West Pilbara that are also considered to be at-risk of alcohol-related harm, such as mining and construction industry workers and Aboriginal persons.
- A majority of mine site wet messes already have limitations on packaged liquor and so would be unlikely to be affected on-site by any potential liquor restriction strategy.

SHIRE OF ROEBOURNE

- Shire of Roebourne communities included within this report due to being alcohol supply points are: Roebourne, Karratha, Point Samson, Dampier, Whim Creek, and Wickham.

Shire of Roebourne alcohol-related hospitalisations

- From 2005-2009, the total rate for hospitalisations relating to 'all persons' in the Shire of Roebourne regarding 'all alcohol-related conditions' was significantly higher (1.44 times) than the corresponding State rate.
- The alcohol-related conditions for 'all persons' in the Shire of Roebourne that were significantly higher than the State rates were: stroke (3.30 times); other

alcohol-related diseases (1.45 times); road injuries (1.57 times); falls (1.90 times); and, assaults (2.58 times).

Shire of Roebourne alcohol-related offences

- Alcohol features strongly in offences in the Shire of Roebourne.
- In 2010/2011 :
 - 53.4% of *Offences Against the Person* in the Shire of Roebourne were recorded as being alcohol-related.
 - 59.4% of *Assault Offences* in the Shire of Roebourne were recorded as being alcohol-related.
 - 69.1% of *Domestic Assault Offences* were recorded as being alcohol-related.
- Between 2008/09 and 2010/11, the percentage of alcohol-related *Assaults* in the Shire of Roebourne increased (57.7% to 59.4%).
- Between 2008/09 and 2010/11, the percentage and number of alcohol-related Domestic Assaults in the Shire of Roebourne increased (n=59 to n=123 respectively).
- In 2010/11, one in every 23 drivers tested was found to be over the legal drink driving limit.
- Between 2008/09 and 2010/11, there were 1466 drink driving offences in the Shire of Roebourne.

SHIRE OF ASHBURTON

- Shire of Ashburton communities included within this report due to being alcohol supply points include: Onslow, Pannawonica, Tom Price, and Paraburadoo.

Shire of Ashburton alcohol-related hospitalisations

- Overall, the total rate for 'all alcohol-related conditions' was significantly higher (1.83 times) than the corresponding State rate.
- The alcohol-related conditions for 'all persons; that were significantly higher than the State rates were: alcoholic liver cirrhosis (2.19 times); other alcohol-related diseases (2.22 times); falls (1.53 times); and, assaults (3.63 times).

Shire of Ashburton alcohol-related offences

- Alcohol is a key feature in offences occurring in the Shire of Ashburton.
- In 2010/2011 in the Shire of Ashburton:
 - 67.8% of *Assault Offences* were recorded as being alcohol related.
 - 84.3% of *Domestic Assault Offences* were recorded as being alcohol related.
 - 66.6% of *Offences Against the Person* were recorded as being alcohol related.
- Between 2009/10 and 2010/11:
 - Assaults increased by 4.3% (n=5).
 - *Domestic Assaults* increased by 11.4% (n=16).
 - *Offences Against the Person* increased by 7.8% (n=18).

- In 2010/11 one in every 37.3 drivers tested was found to be over the legal drink driving limit.
- Between 2008/09 and 2010/11 there were 296 drink driving charges recorded.

RECOMMENDATIONS TO MINIMISE HARM, ILL-HEALTH AND DISORDER

- The decision to consider or impose liquor restrictions is that of the Director of Liquor Licensing.
- In order to minimise harm and ill-health and improve community safety and wellbeing in the West Pilbara, the consideration of an inquiry regarding liquor restrictions appropriate to the West Pilbara is sought.
- Restrictions would complement the comprehensive West Pilbara Alcohol Management Plan which includes a broad range of strategies including education and treatment and support.
- For supply reduction strategies to be effective, coverage of general public alcohol supply points throughout the West Pilbara are suggested. The rationale for such an approach is that:
 - levels of alcohol consumption in the West Pilbara are higher than the state average; and
 - consistency across the West Pilbara region would limit the likelihood of transferring some problems to other locations, which has been seen in some Kimberley towns and is reported practice in the Pilbara.
- Based on the statistical, stakeholder and research information within this report, the following restrictions are proposed as a starting point for consideration and further consultation to complement other work being undertaken by agencies in the region as well as the Alcohol Management Plan:
 1. **Packaged liquor may only be sold Monday to Saturday from 12 noon to 8pm.**
 2. **The sale of packaged liquor on Sunday is prohibited.**
 3. **The sale and supply of liquor for consumption on premise is prohibited before 12 noon except where it is sold ancillary to a meal or lodger.**
 4. **The sale of wine in casks greater than 2 litres in volume is prohibited.**
 5. **Specified packaged liquor may only be sold in the following quantities:**
 - i. **Wine in casks is limited to one 2 litre cask per customer per day; or,**
 - ii. **Fortified wine is limited to one 2 litre cask per customer per day; or,**
 - iii. **Beer is limited to one carton per customer per day; or,**
 - iv. **Ready-to-drinks (RTD's) is limited to one carton per customer per day;**
or,
 - v. **Spirits are limited to one 750ml bottle per customer per day.**

With reference to 5(iii) and 5(iv), an equivalent to one carton in quantity may include a mix of beer and RTDs.

6. Where a packaged liquor product is available in a non-glass container, licensees are prohibited from selling the product in a glass container.
7. Licensees to submit returns of sales data to Department Racing, Gaming and Liquor every four months.
8. Restrictions to be reviewed in 2 years.

PURPOSE

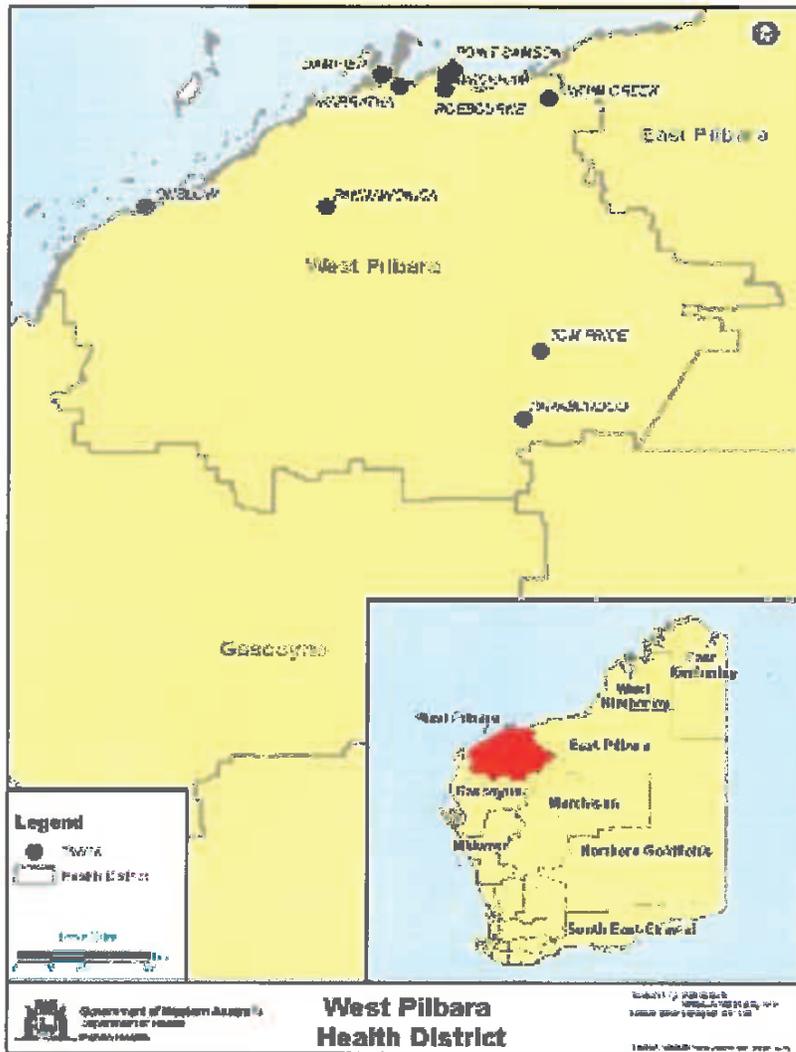
This report forms one of a number of initiatives being implemented as part of the *West Pilbara Alcohol Management Strategy* which seeks a comprehensive approach to reducing alcohol-related harm and ill-health in the West Pilbara. The purpose of this report is to present alcohol-related harm and ill-health data and stakeholder information for the consideration of the Director of Liquor Licensing.

GEOGRAPHICAL SCOPE

This report presents data and information pertaining to the West Pilbara District, located in the north of Western Australia.

As key alcohol supply points in the District, communities of the West Pilbara included in this report are noted in the below map.

Figure 1. Map of West Pilbara District



**Shire of
Roebourne**

- Whim Creek.
- Point Samson.
- Roebourne.
- Wickham.
- Karratha.
- Dampier.

Shire of Ashburton

- Onslow.
- Pannawonica.
- Paraburdoo.
- Tom Price.

Government of Western Australia
DEPARTMENT OF HEALTH
HEALTH SERVICES

**West Pilbara
Health District**

Health Districts
1999-2000
1999-2000
1999-2000

BACKGROUND

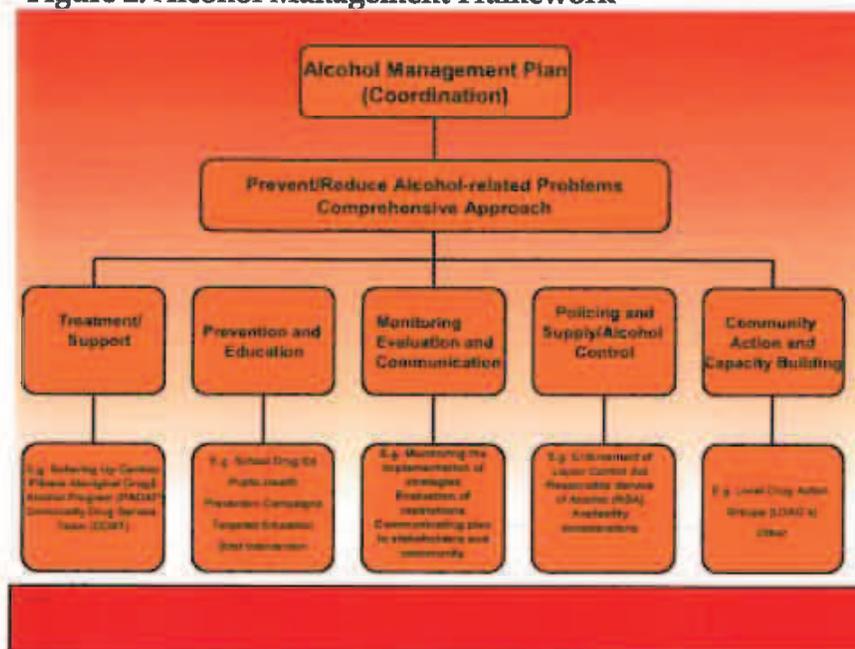
In 2009, in response to increasing issues associated with alcohol use, Pilbara Police District Office and Department of Indigenous Affairs identified the need for new and coordinated action, particularly in relation to harm occurring in the town of Roebourne.

A section 175 (*Liquor Control Act 1988*) liquor restriction banning alcohol in the Roebourne community was one of a number of initiatives contemplated and a stakeholder/community meeting was held to discuss the proposal. However, a section 175 restriction was not supported by the Roebourne community and through broad discussion, a key hindering issue to the effectiveness of any such proposal was identified – access to alcohol in close neighbouring towns.

As part of this process, human service agencies and other stakeholders informally identified that alcohol-related problems were not unique to Roebourne. Reports suggested that alcohol consumption was high across the West Pilbara and reflected by levels of chronic health conditions as well as particular towns that had larger numbers of acute problems occurring.

The multi-stakeholder West Pilbara Alcohol Management Group was then established in later 2009 to develop a regional approach to alcohol management which includes a range of actions in the areas of: communication, monitoring and evaluation; prevention and education; community capacity building and action; policing and legislation; and, treatment and support.

Figure 2. Alcohol Management Framework



Along with a local education campaign and considering alternative activities for young people, a supply reduction (liquor restriction) strategy was prioritised by the West Pilbara Alcohol Management Group in 2009. To facilitate this action, the development of this report to the Director of Liquor Licensing regarding alcohol-related harm and ill-health in the West Pilbara was commenced.

ABOUT THE WEST PILBARA ALCOHOL MANAGEMENT GROUP

The aim of the West Pilbara Alcohol Management Group (the Group) is to ensure activity responding to alcohol-related problems in the West Pilbara happens in a coordinated and collaborative manner.

The *West Pilbara Alcohol Management Strategy*, which guides the Group, aims to:

- Address immediate issues of alcohol-related harm in the Shire of Roebourne and the Shire of Ashburton.
- Enhance the capacity of individuals, families and the community to develop sustainable actions to reduce alcohol related harm in the long-term.
- Improve access to services and programs through a more collaborative and cooperative model of delivery.

The Group comprises human service government and non-government agencies, including Local Governments. Membership has been extended to other groups such as mining company representatives and Aboriginal Congress, with the existing frameworks and processes of some of these groups directing the manner in which they are able to participate. Where there have been limitations on the ability to sit as a member of the West Pilbara Alcohol Management Group, engagement has occurred on an individual basis with relevant stakeholders. Representatives on the group include:

- Department of Indigenous Affairs;
- WA Police;
- WA Country Health Service;
- Department of Housing;
- Department of Education;
- Department for Child Protection;
- Shire of Roebourne;
- Shire of Ashburton;
- Drug and Alcohol Office;
- Yaandina Family Centre;
- Mawarnkarra Health Services; and
- Rio Tinto.

Other local mining industry has been invited to participate but have yet to attend meetings. Individual consultation and liaison has occurred with the relevant mining organisations. Some mining groups have indicated that they will not be attending

and others have recently advised of their support. Details are included within the Stakeholder section of this report.

The West Pilbara Alcohol Management Group is not intended to take the place of existing agencies and community groups or to supersede the core business of these groups. It is not intended that the Group act as a lobbying group for individual agency or community sub-group gain to the detriment of others.

The collaborative alcohol management model applied in the West Pilbara is also being utilised in towns in the Kimberley, including Fitzroy Crossing and Halls Creek; and the Midwest, including Mullewa and Carnarvon.

DATA METHODOLOGY AND CONSIDERATIONS

There are a number of considerations associated with the data presented within this report.

PER CAPITA CONSUMPTION

Per capita consumption can be defined as litres of absolute (pure) alcohol consumed, divided by population aged 15 years and over.

The per capita consumption estimates used in this report are calculated using alcohol wholesale sales data figures and Estimated Resident Population figures for those aged 15 years and over. The information pertains to the Statistical Division of Fortescue which includes both the Shire of Roebourne and the Shire of Ashburton.

Wholesale sales data is information obtained from wholesalers regarding volumes of alcohol purchased from them by individual licensed retailers. A limitation of wholesale alcohol sales data in Western Australia is that it pertains only to wholesale sales made within the State. It does not account for purchases made from wholesalers located in other state and territory jurisdictions. Another limitation to the data is that it does not include transient population groups in the estimates, such as tourists or fly-in, fly-out workers who are not resident for more than 6 months of the year. However, given Estimated Residential Population figures include those not of legal drinking age, as well as those that abstain, researchers advise that at the regional level, per capita estimates are a good indicator of overall consumption in an area

Figures are estimates only and should be considered alongside other data such as hospitalisations and police data.

Despite the limitations of per capita consumption estimates, it is a long-accepted measure of the extent of drinking (Stimson, et al, 2007). It has formed the basis for epidemiological research in the alcohol field, dating back to work in the 1950's (Stimson, et al, 2007). Per capita consumption measures offer an overview of general trends across populations (Stimson, et al, 2007). Population-level measures provide a useful gross indicator of drinking (Stimson, et al, 2007). Many studies have reported a strong association between per capita consumption and alcohol related problems (Rehm et al., 2003; Norstrom, 2004).

HOSPITALISATION DATA

Hospitalisation data was taken from the WA Hospital Morbidity Data System (HMDS) (Department of Health and Drug and Alcohol Office, 2011).

The HMDS collects data from public acute hospitals and public psychiatric hospitals, private acute and psychiatric hospitals, and private freestanding day hospital facilities.

Aetiological fractions have been applied to the hospitalisation data to derive alcohol related proportions. Alcohol categories were identified using ICD-10-AM diagnostic codes (Department of Health and Drug and Alcohol Office, 2011).

Only Western Australian residents were included (ie. all public and private hospital records for WA residents with a postcode or locality recorded in the Hospital Morbidity Data System. For a specific geographic area such as West Pilbara health region, only residents living in that health region were included in the statistics for the region (Department of Health and Drug and Alcohol Office, 2011).

Data is presented for the West Pilbara Health District, a sub-district of the Pilbara Region.

Interpretation of results

- The standardised rate ratio (SRR) estimates whether the numbers of hospital admissions are more or less than what would be expected compared to the whole State after taking into account any differences in age distribution between the two populations. For example, a SRR of 1 demonstrates that there is no significant difference, a SRR of 2 indicates the number of events is twice as high, and a SRR of 0.5 indicates the number of events is half of what would be expected given the State rate (Department of Health and Drug and Alcohol Office, 2011).
- The 95% confidence intervals of the SRR indicate the possible range of the actual SRR with 95% confidence. If a value of 1 is included within the range of the 95% lower and upper confidence intervals, then the region and the State are considered to have similar alcohol-related rates. If a value of 1 is not included within the range, the area will be considered to have a significantly different rate to the State (Department of Health and Drug and Alcohol Office, 2011).
- The Age Standardised Ratio (ASR) can be used to directly compare the number of events (e.g. hospitalisations) in two or more areas as the rates are standardised using the 2001 Australian Standard Population, and is expressed per 1,000 person years. For example, an ASR of 12.0 for a specific area means that there were 12 hospitalisations per 1,000 person years. The 95% confidence intervals of the ASR indicate the possible range of the actual ASR with 95% confidence. If the 95% CIs for the two areas to be compared are overlapped, there will be no significant difference between the two rates. Otherwise, the two

rates are significantly different (Department of Health and Drug and Alcohol Office, 2011).

ALCOHOL-RELATED OFFENCE DATA

Police data has been extracted from the WA Police Incident Management System (IMS) and Data Warehouse. Data was extracted using the following offence code categories, including alcohol-flagged subsets:

- **Offences Against the Person** – includes Homicide, Sexual Assault, Assault, Threatening Behaviour, Deprivation of Liberty and Robbery.
- **Domestic Assault** - Assault incidents in IMS where the 'Domestic Flag' is recorded as 'Yes' (being Domestic Violence related).
- **Non-Domestic Assault** - Assault incidents in IMS where the 'Domestic Flag' is recorded as 'No' (being Non-Domestic Violence related).
- **Drink driving** - The figures are derived from two sources:
 - the Traffic Enforcement and Crash Executive Information System (TEACEIS) database which captures WA Police Traffic Enforcement data, including Drink Driving Offences. These statistics are entered by individual Police Stations; and
 - Breath Test Forms which are a subset of the above data where a form is filled out at the time of apprehension by the frontline officer. The Breath Test Form permits a series of questions to be asked and recorded, including place of last drink and drinking suburb.

The 'Domestic Flag' is a mandatory field which is filled out by the Officer writing the Incident Report. If the Domestic Flag is indicated positively (ticked), it records the attending officer's assessment that the incident involved a family relationship (either immediate or extended).

The 'Alcohol Flag' in the WA Police IMS is a mandatory field which is filled out by the officer writing the Incident Report. If the alcohol flag is indicated positively (ticked), it records the attending officer's assessment that alcohol was involved in the incident in some way.

The State and regional percentage of alcohol-related Offences was calculated by dividing the number of alcohol-related Offences, by the total number of verified Offences.

The term 'Verified' refers to all Offences reported to WA Police, excluding those Offences which were deemed "Falsely Reported" or "Mistakenly Reported".

The figures for Karratha cover the “Karratha Sub-District”. This includes the following localities which are suburbs of Karratha:

- Baynton
- Bulgarra
- Gap Ridge
- Karratha
- Karratha Industrial Estate
- Karratha Town Centre
- Milllars Well
- Mulataga
- Nickol
- Pegs Creek
- Stove Hill.

In relation to the other locations within the report (e.g. Roebourne, Tom Price), the information relates to the locality (town). There is no WAPOL-specific definition of a locality. A locality is a gazetted administrative boundary determined by the applicable Local Government, approved by the Geographic Names Committee and published via the Government Gazette.

TREATMENT AND COUNSELLING EPISODES

Data was taken from the SIMS system. Data extracted included:

- Number of presentations (by postcode for the relevant towns and financial years) to the Community Drug Service for alcohol episodes.
- Presentations to the Community Drug Service that were alcohol-related in comparison to presentations for other drugs (by postcode for the individual towns and financial years).

Treatment data was extracted in an aggregated form so as to protect individual identity. In addition, given some of the towns have very small populations, presentation by town is not included, with information aggregated to the sum total of all of the towns in the West Pilbara that are included within this report.

The term “client episode” relates to a client’s course of treatment with a Community Drug Service. For example, a client may attend the CDS multiple times for treatment, and this would be recorded as one episode. However, if one client is engaged in treatment, and there is a break in treatment for a large period of time (e.g. 90+ days), then a new episode would be created for the client. Overall, in terms of the number of clients attending the CDS, the number of episodes recorded for a particular period would roughly equate to the number of clients presenting for treatment within the period.

Data periods examined included:

- Period: 01 July 2008 - 30 June 2009
- Period: 01 July 2009 - 30 June 2010
- Period: 01 July 2010 – 30 June 2011.

The pivot table was filtered by categories of the following Client postcode and suburb:

- Dampier.
- Karratha.
- Onslow.
- Pannawonica.
- Paraburdoo.
- Roebourne.
- Tom Price.
- Wickham.

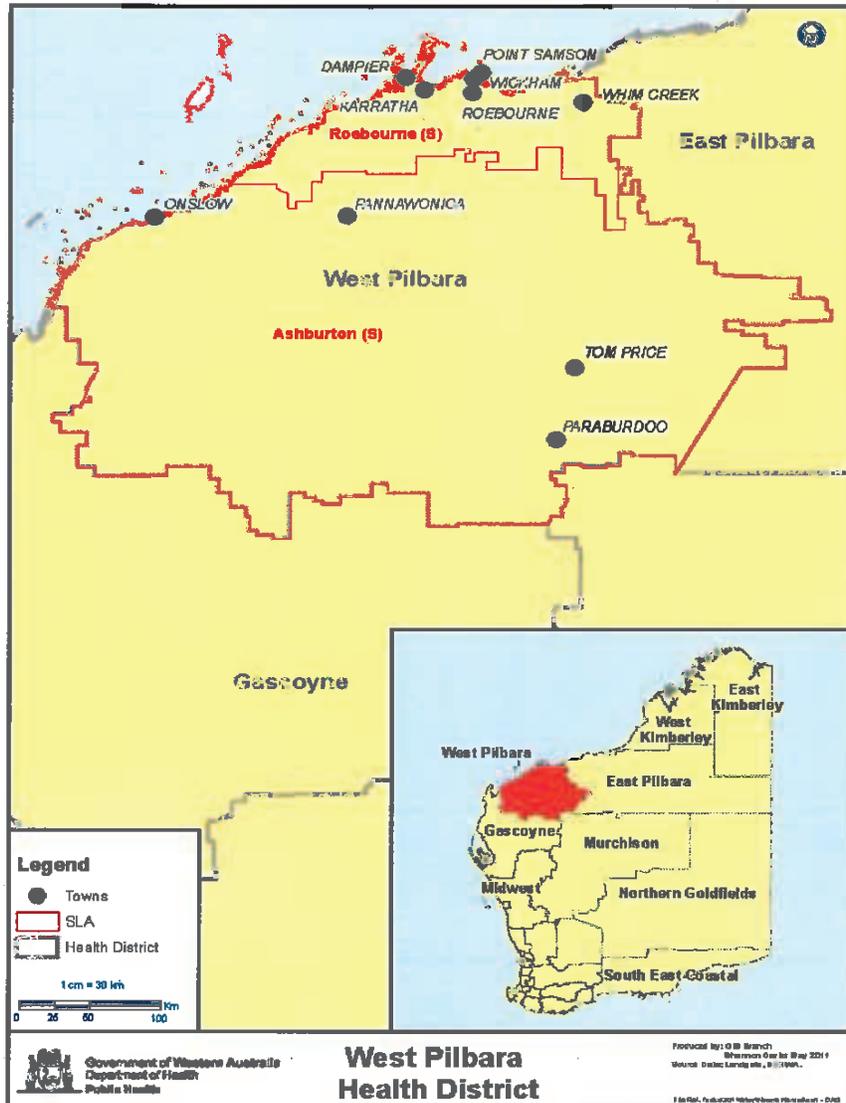
THE WEST PILBARA

This section summarises key alcohol-related information for the overall West Pilbara District. More detailed information regarding specific communities within the West Pilbara is presented in later sections.

The West Pilbara is a subdistrict in the Pilbara region of Western Australia, incorporating the Shire of Roebourne and Shire of Ashburton. There are 10 communities that are discussed within this report from the Shires. The communities are identified in **Figure 3**.

The characteristics of each town vary, including documented levels of alcohol-related harm and problems. However, each of the included communities has alcohol supply points from which packaged liquor can be purchased.

Figure 3: West Pilbara Health District



PER CAPITA CONSUMPTION OF ALCOHOL IN THE WEST PILBARA

Key points

- The Fortescue Statistical Division incorporates the Shire of Ashburton and the Shire of Roebourne.
- In 2007/08, per capita consumption in the Fortescue Statistical Division (25.84L) was more than twice the Western Australian average (12.45L).
- In the Fortescue Statistical Subdivision, per capita consumption figures increased between 2005/06 and 2007/08.
- In 2007/08, the Fortescue Statistical Subdivision was one of the four highest areas in the State for per capita consumption.

The term per capita consumption is used to describe the estimated amount of pure alcohol in litres consumed in an area, divided by the residential population aged 15 years and over.

While there are limitations to the data¹, per capita consumption estimates can provide a useful gross indicator of drinking (Stimson et al, 2007) and are most useful when considered alongside other information to create a more complete understanding of alcohol use and related harm in an area.

The most recent available per capita consumption estimates pertain to 2007/08. Per capita consumption data is currently only available by Statistical Subdivision and is not able to be presented for individual Statistical Local Areas (Shires). The Fortescue Statistical Subdivision contains the Statistical Local Areas (Shires) of Roebourne and Ashburton.

In the Fortescue Statistical Subdivision, per capita consumption figures increased between 2005/06 and 2007/08 (the available periods for this data) (Table 1). In 2007/08, per capita consumption in the Fortescue Statistical Division was more than twice the Western Australian average.

Table 1. Per capita consumption (litres of pure alcohol) by Statistical Subdivision, 2005/6-2007/08, Western Australia

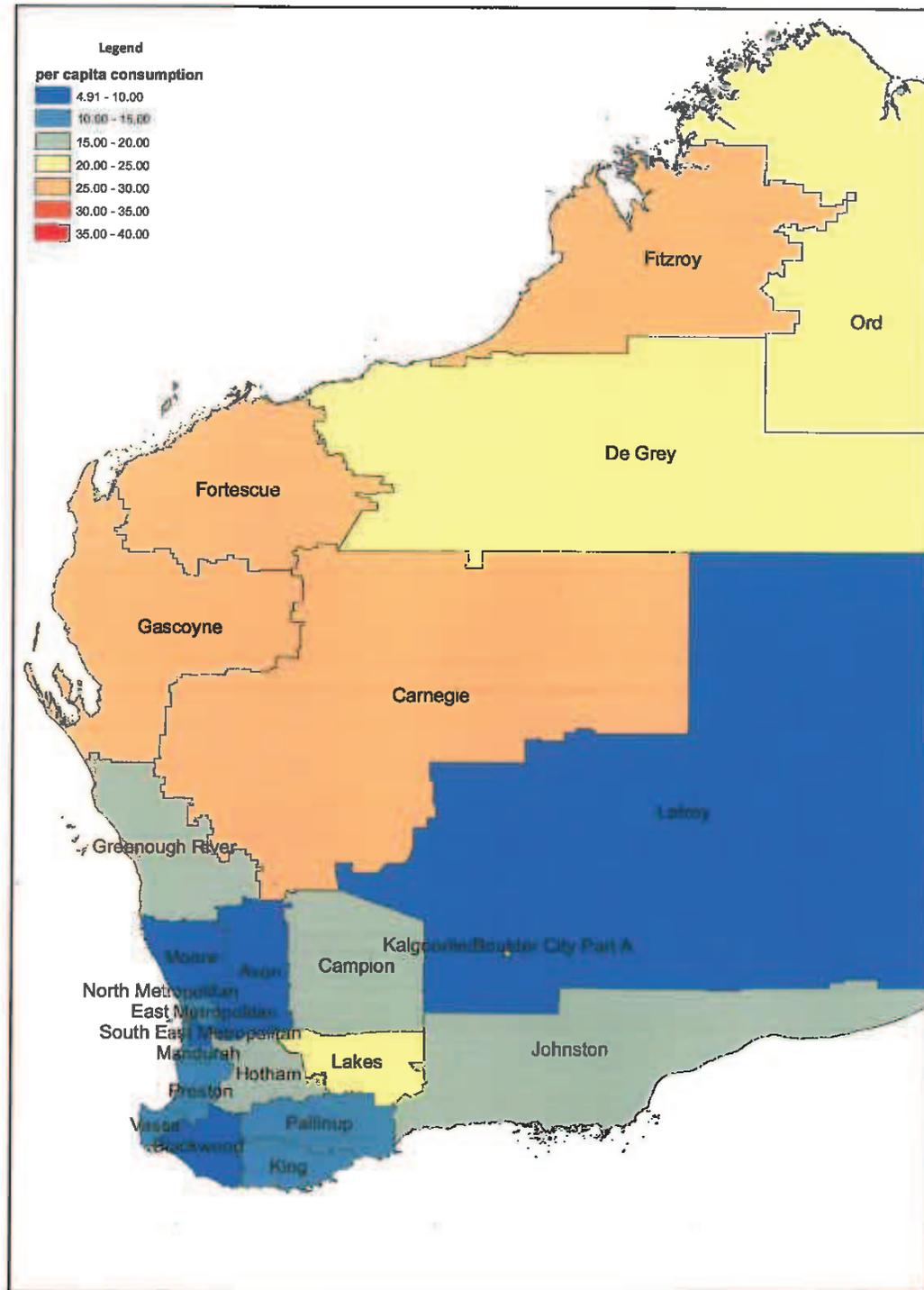
Year	Fortescue Statistical Subdivision PCC (pure alcohol L)	Western Australia PCC (pure alcohol L)
2005/06	13.83L	10.95L
2006/07	22.47L	10.76L
2007/08	25.84L	12.45L

¹ Refer to Methodology section for detailed information on how per capita consumption estimates are derived and data caveats.

(Loxley et al, 2011)

Figure 4 provides a comparative view of per capita consumption by Subdivision in 2007/08, highlighting the Fortescue Statistical Subdivision as one of the four highest areas in the State for per capita consumption.

Figure 4. Per capita consumption (litres of pure alcohol) by Statistical Subdivision, 2007/08, Western Australia.



WEST PILBARA ALCOHOL-RELATED HOSPITALISATIONS

Key points:

- For the period 2005-2009, alcohol-related hospitalisations in the West Pilbara show that both short term (resulting in acute problems such as violence and injury) and long-term (resulting in chronic disease) harmful drinking patterns are prevalent in the District.
- For non-Aboriginal persons, the total rate for hospitalisations relating to 'all alcohol-related conditions in the West Pilbara from 2005 to 2009 was significantly higher (1.15 times) than the corresponding State rate.
- For Aboriginal persons, the total rate for hospitalisations relating to 'all alcohol-related conditions' in the West Pilbara from 2005 to 2009 was similar to the corresponding State rate for Aboriginal residents.

West Pilbara: alcohol-related hospitalisations, all persons 2005-2009

As shown in Table 2, the total rate for 'all alcohol-related conditions' for 'all persons' resulting in hospitalisation between 2005-2009 in the West Pilbara was significantly higher (1.54 times) than the corresponding State rate. The individual alcohol-related conditions that were significantly higher than the State rates were:

- alcoholic liver cirrhosis (1.67 times);
- stroke (2.61 times);
- other alcohol-related diseases (1.66 times);
- road injuries (1.49 times);
- falls (1.80 times); and
- assaults (2.86 times).

Table 2. Alcohol-related hospitalisations for residents by condition, West Pilbara, 2005-2009

Condition	N	SRR (State =1)	95% CI for SRR	ASR	95% CI for ASR
Alcoholic liver cirrhosis	46	1.67*	1.22-2.23	0.4	0.3-0.5
Alcoholism	165	0.90	0.77-1.05	1.4	1.1-1.7
Cancers	35	1.36	0.96-1.91	0.8	0.4-1.2
Stroke	9	2.61*	1.14-4.71	n/a	-
Other alcohol-related diseases	172	1.66*	1.42-1.93	1.6	1.2-1.9
Road injuries	76	1.49*	1.18-1.87	0.6	0.5-0.7
Falls	130	1.80*	1.51-2.15	1.5	1.1-2.0
Suicide	53	0.77	0.58-1.02	0.4	0.3-0.5
Assaults	315	2.86*	2.56-3.20	2.4	2.1-2.7
Other alcohol-related injuries	18	1.19	0.71-1.89	n/a	-
All alcohol-related conditions	1,018	1.54*	1.45-1.64	9.4	8.5-10.2

Note: SRR=Standardised Rate Ratio; CI=Confidence Interval; * denotes significantly different to the rate in the corresponding State population; ASR=Age Standardised Rate; ASR are standardised with the Australian 2001 population and expressed per 1,000 persons years.

West Pilbara: alcohol-related hospitalisations, males 2005-2009

Between 2005 to 2009, the total rate for hospitalisations in the West Pilbara relating to 'all alcohol-related conditions' was significantly higher (1.44 times) than the corresponding State rate for male residents. The alcohol-related conditions that were significantly higher than the State rates for males were:

- stroke (2.59 times);
- other alcohol-related diseases (1.50 times);
- road injuries (1.45 times);
- falls (1.66 times); and
- assaults (2.47 times).

West Pilbara: alcohol-related hospitalisations, females 2005-2009

Between 2005-2009, the total rate for hospitalisations in the West Pilbara relating to 'all alcohol-related conditions' was significantly higher (1.74 times) than the corresponding State rate for female residents. The alcohol-related conditions that were significantly higher than the State rates for females were:

- alcoholic liver cirrhosis (3.46 times);
- other alcohol-related diseases (2.08 times);
- falls (2.04 times); and
- assaults (3.70 times).

West Pilbara: alcohol-related hospitalisations, Aboriginal 2005-2009

Between 2005-2009, the total rate for 'all alcohol-related conditions' in the West Pilbara was similar to the corresponding State rate for Aboriginal residents. The alcohol-related conditions that were significantly higher than the State rates for Aboriginal persons were:

- falls (1.52 times); and
- assaults (1.26 times).

West Pilbara: alcohol-related hospitalisations, non Aboriginal, 2005-2009

Between 2005-2009, the total rate for 'all alcohol-related conditions' in the West Pilbara was significantly higher (1.15 times) than the corresponding State rate for non-Aboriginal residents. The alcohol-related conditions that were significantly higher than the State rates for non-Aboriginal persons were:

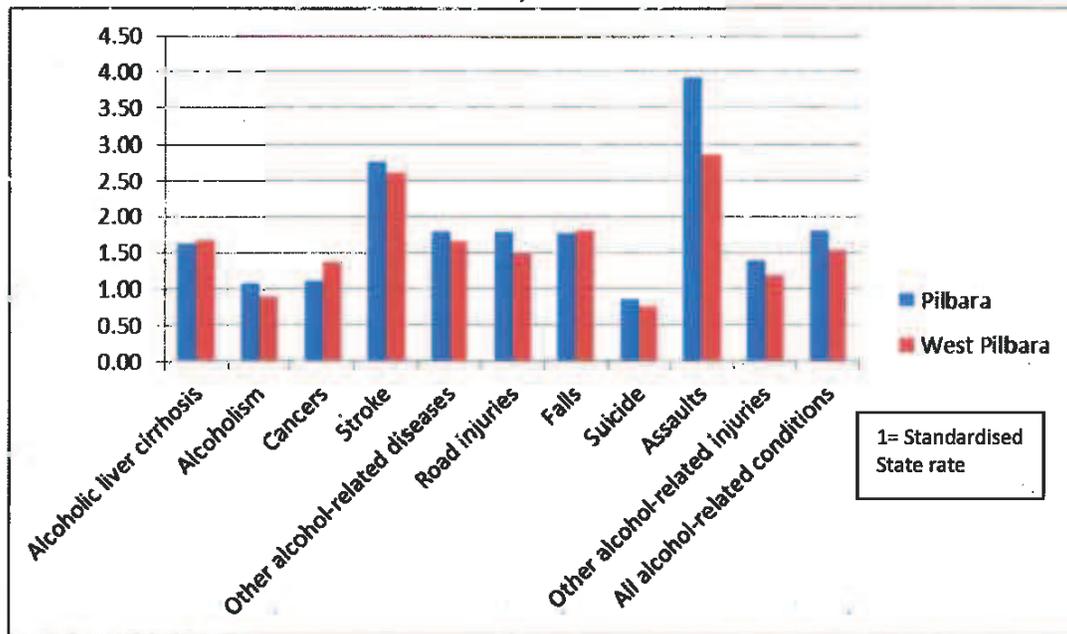
- alcoholic liver cirrhosis (1.58 times);
- road injuries (1.43 times);
- falls (1.46 times); and
- assaults (1.81 times).

Alcohol-related hospitalisations: West Pilbara comparative to the Pilbara Region

The West Pilbara is located within the Pilbara region. The Pilbara encompasses four Local Government Authorities: Shires of Roebourne (West Pilbara), Ashburton (West Pilbara), East Pilbara, and Port Hedland. Approximately 70 per cent of the total population resides in the major towns of Port Hedland, South Hedland, Karratha, Newman, Paraburdoo, and Tom Price. The residual population is located in remote pastoral and mining sites, Aboriginal communities, or other smaller towns (Australian Bureau of Statistics, 2009).

Figure 5 shows that overall, rates of alcohol-related hospitalisations in the West Pilbara were similar to the Pilbara. Rates of alcohol-related falls, cancers and alcoholic-liver cirrhosis were slightly higher in the West Pilbara when compared to the Pilbara.

Figure 5. Alcohol-related hospitalisations for residents by condition, West Pilbara versus Pilbara, 2005-2009



COMMUNITY DRUG SERVICE EPISODES – ALCOHOL

Key points

- For those seeking or required to engage in counseling and treatment in the West Pilbara, alcohol use was the primary drug of concern in a majority of cases.
- Between 1 July 2008 to 30 June 2011, of the 383 client episodes that occurred, alcohol was the primary drug of concern in 71% (n=272) of these episodes.

Located in South Hedland, the Pilbara Community Drug Service provides outreach services to Port Hedland, Karratha, Onslow, Tom Price and Newman. The Pilbara CDST provides both a prevention and treatment focus on alcohol use through counselling services, brief intervention education and training and support to manage alcohol and other drug programs amongst their clients, and support to the local community to prevent alcohol and other drug problems. The organisation provides individual counselling and group work regarding alcohol use in the West Pilbara.

For those seeking or required to engage in counseling and treatment in the West Pilbara, alcohol was the primary drug of concern in a majority of cases. From 1 July 2008 to 30 June 2011, the Pilbara Community Drug Service (CDS) recorded a total of 383 client episodes where the clients were from the following towns/suburbs:

- Onslow;
- Dampier;
- Bulgarra;
- Karratha;
- Karratha Industrial Estate;
- Nickol;
- Pegs Creek;
- Pannawonica;
- Roebourne;
- Point Samson;
- Wickham;
- Tom Price; and
- Paraburdoo.

Alcohol was the primary drug of concern in 71% (n=272) of these episodes (Drug and Alcohol Office, unpublished 2011).

The term “client episode” relates to a client’s course of treatment with the CDS. For example, a client may attend the CDS multiple times for treatment, and this would be recorded as one episode. However, if one client is engaged in treatment, and there is a break in treatment for a large period of time (e.g. 90+ days), then a new episode would be created for the client. Overall, in terms of the number of clients attending

the CDS, the number of episodes recorded for a particular period would roughly equate to the number of clients presenting for treatment within the period.

AT RISK GROUPS IN THE WEST PILBARA

The short and long-term impact of harmful alcohol consumption is a public interest issue for the entire community, rather than a concern relevant only to small sections of the population.

Higher than State average alcohol consumption and related harm are characteristic of the broader community in the West Pilbara, not just those groups who are considered to be at-risk. However, there are population groups within the region that are also at greater risk of alcohol-related harm which feature in the West Pilbara.

Isn't most of the alcohol-related harm caused by a small number of people?

As one example of why supply reduction strategies which include the broader population can be beneficial, it is of note that the alcohol-related harm that results from harmful drinking is not experienced by a minority of people (e.g. those that are alcohol-dependent) as is often incorrectly perceived in the general community.

'Both the national and international literature (Babor et al, 2010) demonstrates that most alcohol-related harm is caused by non-dependent persons drinking excessively on particular occasions – simply because there are so many more of them (National Drug Research Institute, 2007).

Alcohol-related hospitalisation data for the West Pilbara shows harm occurring across the population at levels significantly higher than the State rate.

Guidance regarding 'at-risk' groups in the liquor licensing context can be found in the Director of Liquor Licensing's *Public Interest Policy* (www.rgl.wa.gov.au). Whilst it is noted the policy is directly linked to the Public Interest Assessment process (Section 38(4)(a) of the *Liquor Control Act*) which only refers to new liquor licence applications, the document highlights a number of identified groups, including Aboriginal people and mining communities, that are relevant to consider when addressing harm or ill-health due to the use of liquor.

Mining and construction industry

A majority of mine site wet messes already have limitations on packaged liquor and so would be unlikely to be affected on-site by any potential liquor restriction strategy.

A key characteristic of the West Pilbara is the strong mining and construction industry, with a large number of local and fly-in-fly-out workers associated with these industries. It is predicted that by 2015, there will be 27,524 fly-in-fly-out (FIFO) workers in the Pilbara (Waller, 2010).

Whilst not the only high risk group in the region, the available research on the alcohol culture within the mining industry provides a relevant context for consideration of information within this report.

The mining and construction companies in the Pilbara have robust drug and alcohol policies relating to workers undertaking drug and alcohol testing, which are an important part of the effort to prevent alcohol-related harm and problems. However, high levels of alcohol consumption when not working, both on and off-site is reported by stakeholders.

'Alcohol availability is a workplace factor that can influence workers' consumption patterns' (Pidd et al, 2006).

The mining and construction industries have a reported culture of alcohol use (Pidd, 2005). A study of two mining-related worksites in Western Australia found over 40 percent of workers reported usually drinking above the recommended Australian drinking guidelines (Midford et al, 1997). An additional study showed the mining industry had the greatest percentage (34.6 percent) of workers engaging in periodic (at least monthly) high consumption, with construction workers (28.2 percent) also recording rates higher than the average (25.3 percent) (Pidd, 2005, Pidd et al, 2006). This may be reflective of extended off-site/on-site work patterns (Pidd et al, 2006).

There is also research to show that culture plays an important part in determining patterns of alcohol consumption. Pidd (2005) found that, *'for many young Australians, socialising with work colleagues is one way in which they 'learn to drink'. Drinking norms are often established in these settings and levels and patterns of risky drinking are often shaped by workplace cultural norms in relation to alcohol.'* Ames, Grube and Moore (2000) reported, *'...mechanisms for controlling alcohol behaviour at work are strengthened or weakened by the organisational culture and, thereafter, influence workplace drinking norms and employee drinking patterns'*.

Research has also found that workers who usually drink in their workplace may experience social pressures to consume more alcohol than intended, and may also find it difficult to reduce their alcohol intake (Pidd, 2005). Research has found that *'strategies that focus on individual 'problem' workers have little impact on the cultural aspects of the workplace that can influence the consumption patterns of a much larger number of workers'* (Pidd, 2005).

Mining companies in the West Pilbara are positively engaging with other stakeholders regarding social issues in the community.

Aboriginal people

The harmful use of alcohol and other drugs can be seen as a result of the disadvantage experienced by many Aboriginal people. Some Aboriginal people find themselves trapped within a cycle of poverty and poor health, disconnected from country and marginalised within society. These issues have impacted on the physical, mental, social, emotional and spiritual wellbeing of Aboriginal people (Drug and Alcohol Office, 2011).

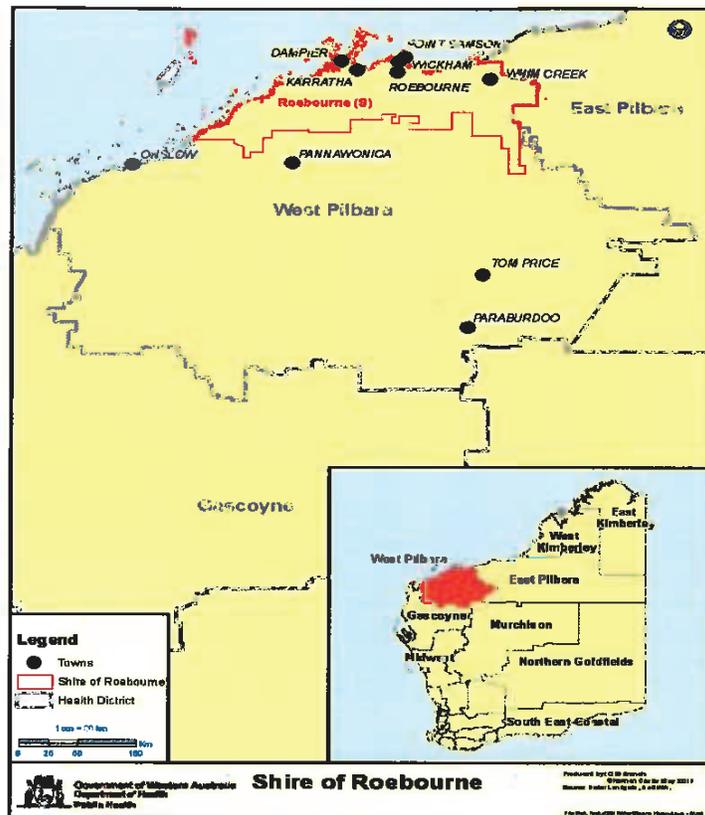
There are fewer current drinkers in the Aboriginal population compared to those that are non-Aboriginal

While in Australia there are fewer current drinkers in the Aboriginal population compared to the non-Aboriginal population, and while they also drink less frequently, a greater percentage of Aboriginal people who do drink, consume alcohol at levels that pose both short-term and long-term risks for their health (AIHW, 2008 as cited in Drug and Alcohol Office, 2011).

In some Aboriginal communities, the remoteness and isolation that limits access to infrastructure and services also increases the impact of alcohol use. Alcohol prevention and treatment programs must involve and be supported by local communities that are actively engaged in their development, implementation and management (Drug and Alcohol Office, 2011). Comprehensive regional approaches, working together with the focused involvement of isolated communities are needed (Drug and Alcohol Office, 2011).

SHIRE OF ROEBOURNE

The Shire of Roebourne is located within the West Pilbara District of the Pilbara Region in northern Western Australia.



Shire of Roebourne communities included within this report due to being alcohol supply points include: Karratha; Roebourne; Dampier; Wickham; Point Samson; and, Whim Creek.

Shire of Roebourne profile

According to the Australian Bureau of Statistics (2009):

- The Estimated Resident Population (ERP) for the Shire of Roebourne in 2006 was 16,423.
- The estimated annual population growth rate from 2006 to 2007 was 3.2 percent, which is higher than the WA State growth rate of 2.3 percent for the same period.
- In the 2006 Census, the median age of persons in Roebourne (Local Government Area) was 31 years. This is lower than the Australian median age of 37 years.
- Of the total Roebourne population, 54 percent were males and 46 percent were females.
- The Shire of Roebourne has a relatively young population with 25.9 percent of the population aged between 0-14 years, and only 8.3 percent aged 55 years and over.

SHIRE OF ROEBOURNE ALCOHOL-RELATED HOSPITALISATIONS

From 2005-2009, alcohol-related hospitalisations in the Shire of Roebourne indicate that both short term (resulting in injury and other acute harm) and long-term (resulting in chronic disease) harmful drinking patterns are prevalent in the Shire.

Key points

For the Shire of Roebourne, 2005-2009:

- Alcohol-related hospitalisations relating to **'all alcohol-related conditions'** were significantly higher than the State rates for all persons combined, females and males.
- Alcohol-related hospitalisations relating to **'all alcohol-related conditions'** were significantly lower than the corresponding State rate for Aboriginal persons, and not significantly higher than the State rate for non-Aboriginal persons.
- Alcohol-related hospitalisations resulting from **'falls'** were significantly higher than the corresponding State rates across all groups.
- Alcohol-related hospitalisations resulting from violence (**'assault'**) were significantly higher than the corresponding State rates across all groups except Aboriginal persons.
- Alcohol-related hospitalisations resulting from **'road injuries'** and **'stroke'** were significantly higher than the corresponding State rates across all reported groups except Aboriginal persons and females.
- Alcohol-related hospitalisations relating to **'other alcohol-related diseases'** were significantly higher than the corresponding State rates across all groups except Aboriginal persons and non-Aboriginal persons.

Shire of Roebourne: alcohol-related hospitalisations, all persons, 2005-2009

From 2005-2009, the total rate for hospitalisations relating to 'all persons' in the Shire of Roebourne regarding 'all alcohol-related conditions' was significantly higher (1.44 times) than the corresponding State rate. The alcohol-related conditions for 'all persons' in the Shire of Roebourne that were significantly higher than the State rates were:

- stroke (3.30 times);
- other alcohol-related diseases (1.45 times);
- road injuries (1.57 times);
- falls (1.90 times); and,
- assaults (2.58 times).

Shire of Roebourne residents: alcohol-related hospitalisations, males, 2005-2009

From 2005-2009, the total rate for male hospitalisations in the Shire of Roebourne relating to 'all alcohol-related conditions' was significantly higher (1.39 times) than the corresponding State rate. The alcohol-related conditions that were significantly higher than the corresponding State rates were:

- stroke (3.36 times);
- other alcohol-related diseases (1.39 times);
- road injuries (1.55 times);
- falls (1.75 times); and,
- assaults (2.40 times).

Shire of Roebourne residents: alcohol-related hospitalisations, females, 2005-2009

From 2005-2009, the total rate for female hospitalisations in the Shire of Roebourne relating to 'all alcohol-related conditions' was significantly higher (1.53 times) than the corresponding State rate for female residents. The alcohol-related conditions that were significantly higher than the State rates were:

- alcoholic liver cirrhosis (3.49 times);
- other alcohol-related diseases (1.61 times)
- falls (2.13 times); and,
- assaults (2.98 times).

Shire of Roebourne alcohol-related hospitalisations, Aboriginal, 2005-2009

Between 2005-2009, the total rate for Aboriginal hospitalisations relating to 'all alcohol-related conditions' was significantly lower (0.85 times) than the corresponding State rate. The specific alcohol-related condition that was significantly higher than the corresponding State rate was:

- falls (1.62 times).

Shire of Roebourne alcohol-related hospitalisations, non-Aboriginal, 2005-2009

Between 2005-2009, the total rate for non-Aboriginal hospitalisations relating to 'all alcohol-related conditions' was not significantly different compared to the corresponding State rate. The alcohol-related conditions that were significantly higher than the State rates were:

- stroke (3.09 times);
- road injuries (1.50 times);
- falls (1.52 times); and,
- assaults (1.85 times).

Table 3 below summarises alcohol-related hospitalisations in the Shire of Roebourne that were significantly higher than the comparative State rate between 2005 and 2009.

Table 3. Alcohol-related hospitalisations significantly higher than the comparative State rate, Shire of Roebourne 2005-2009

Condition	All persons SRR (State =1)	Males	Females	Non- Aboriginal	Aboriginal
Alcoholic liver cirrhosis			3.49*		
Alcoholism					
Cancers					
Stroke	3.30*	3.36*		3.09*	
Other alcohol-related diseases	1.45*	1.39*	1.61*		
Road injuries	1.57*	1.55*		1.50*	
Falls	1.90*	1.75*	2.13*	1.52*	1.62*
Suicide					
Assaults	1.44*	2.40*	2.98*	1.85*	
Other alcohol-related injuries					
All alcohol-related conditions	1.44*	1.39*	1.53*		0.85*

Highlighted figures indicate significantly higher than Standardised State Ratio

SHIRE OF ROEBOURNE ALCOHOL-RELATED OFFENCE DATA

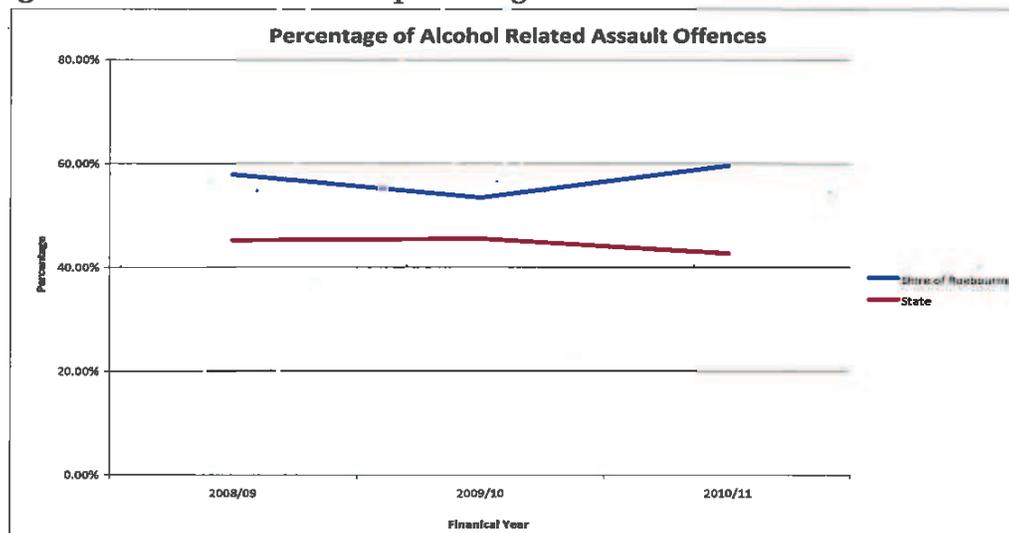
Key points

- Alcohol features strongly in offences in the Shire of Roebourne.
- In 2010/2011:
 - 53.4% of *Offences Against the Person* in the Shire of Roebourne were recorded as being alcohol-related.
 - 59.4% of *Assault Offences* in the Shire of Roebourne were recorded as being alcohol-related.
 - 69.1% of *Domestic Assault Offences* were recorded as being alcohol-related.
- Between 2008/09 and 2010/11, the percentage of alcohol-related *Assaults* in the Shire of Roebourne increased (57.7% to 59.4%).
- Between 2008/09 and 2010/11, the percentage and number of alcohol-related Domestic Assaults in the Shire of Roebourne increased (n=59 to n=123 respectively).
- In 2010/11, one in every 23 drivers tested was found to be over the legal drink driving limit.
- Between 2008/09 and 2010/11, there were 1466 drink driving offences in the Shire of Roebourne.

Assaults

In 2010/2011, 59.4% of *Assault Offences* in the Shire of Roebourne were recorded as being alcohol related. Between 2008/09 and 2010/11, the percentage of alcohol-related *Assaults* in the Shire of Roebourne increased (57.7% to 59.4%).

Figure 6. Shire of Roebourne percentage of alcohol-related Assault Offences



Between 2008/09 and 2009/10, the number of reported alcohol-related *Assaults* dropped by n=29 (n=186 to n=157 respectively). However, numbers of alcohol-related *Assaults* increased by n=50 in 2010/2011 to n=207.

Table 4. Shire of Roebourne: Assault Offences

Alcohol-related	2008-09	2009-10	2010- 11
Yes	186	157	207
No	136	137	141
Total	322	294	348
% Shire of Roebourne	57.7%	53.4%	59.4%
% State	45.2%	45.5%	42.7%

Domestic Assaults

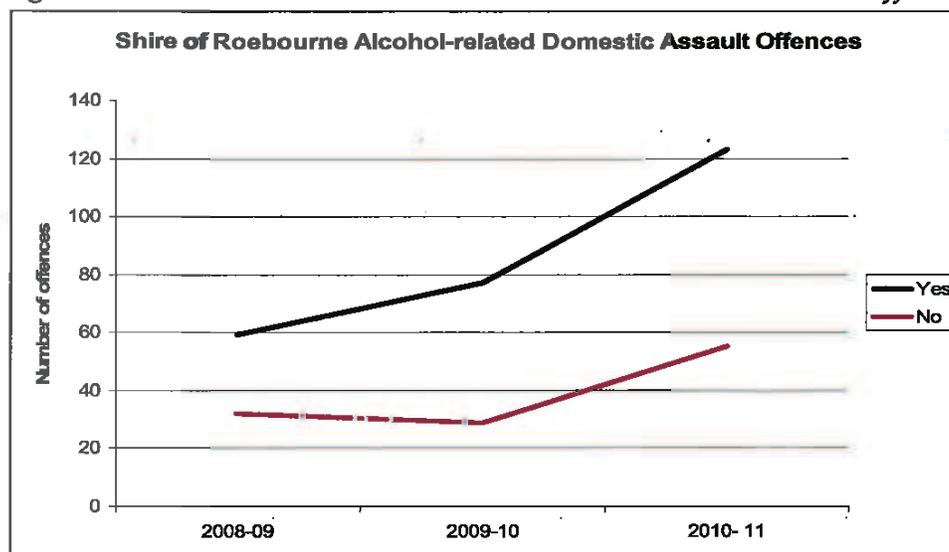
In 2010/2011, 69.1% of *Domestic Assault Offences* were recorded as being alcohol-related.

Table 5. Shire of Roebourne: Domestic Assaults

Alcohol-related	2008-09	2009-10	2010- 11
Yes	59	77	123
No	32	29	55
Total	91	106	178
% Shire of Roebourne	64.8%	72.6%	69.1%
% State	54.4%	52.9%	49.5%

Between 2008/09 and 2010/11, the number of alcohol-related *Domestic Assaults* increased by n=64 (n=59 to n=123 respectively).

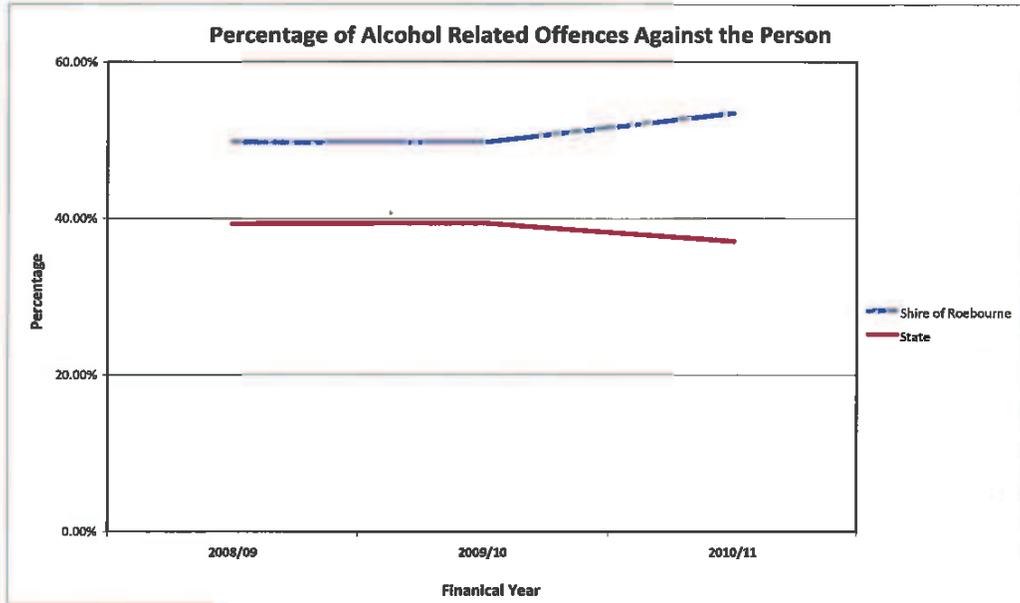
Figure 7. Shire of Roebourne alcohol-related Domestic Assault Offences



Offences Against the Person

In 2010/2011, 53.4% of *Offences Against the Person* in the Shire of Roebourne were recorded as being alcohol related.

Figure 8. Shire of Roebourne: Percentage of alcohol-related *Offences Against the Person*



Between 2008/09 and 2010/2011, the percentage of alcohol-related *Offences Against the Person* increased.

The 2010/11 period saw an increase in not only the number of reported alcohol-related *Offences Against the Person* (n=241 from n=227) but also the percentage that were alcohol-related (53.4% from 49.7%).

Table 6 Shire of Roebourne: *Offences Against the Person*

Alcohol-related	2008-09	2009-10	2010-11
Yes	273	227	241
No	276	230	210
Total	549	457	451
% Shire of Roebourne	49.7%	49.7%	53.4%
% State	39.2%	39.3%	37.0%

Shire of Roebourne: drink driving

Key points

- In 2010/11, one in every 23 drivers tested was found to be over the legal drink driving limit.
- Between 2008/09 and 2010/11, there were 1466 drink driving offences in the Shire of Roebourne.
- Between 2008/09 and 2010/11 YTD April where there was a Breath Test Form completed, 66.4% of drink driving offenders reported consuming their last drink in a private setting or public place compared to 24.5% reporting their place of last drink as a licensed premises.

In the Shire of Roebourne (towns inclusive only of Whim Creek, Point Samson, Roebourne, Wickham, Karratha and Dampier):

- For the year 2008/09, 1 in every 24.3 drivers tested was found to be over the legal drink driving limit.
- For the year 2009/10, 1 in every 20.4 drivers tested was found to be over the legal drink driving limit.
- For the year 2010/11, 1 in every 23 drivers tested was found to be over the legal drink driving limit.

Table 7. Shire of Roebourne drink driving charges

	2008/09	2009/10	2010/11
Tested	11793	10780	10424
Charged	486	528	452
Ratio	1:24.26	1:20.42	1:23.06

WA Police have available a Breath Test Form that can be filled out minutes prior to the Formal Breath Test. This form allows the collection of Place of Last Drink information which is useful as an indicator regarding whether people are consuming liquor on-premises or off-premises (packaged liquor). Statistics recorded using the Breath Test Form only form a proportion of the number of drink driving charges made in an area (which are recorded on the WA Police TEACIS data base).

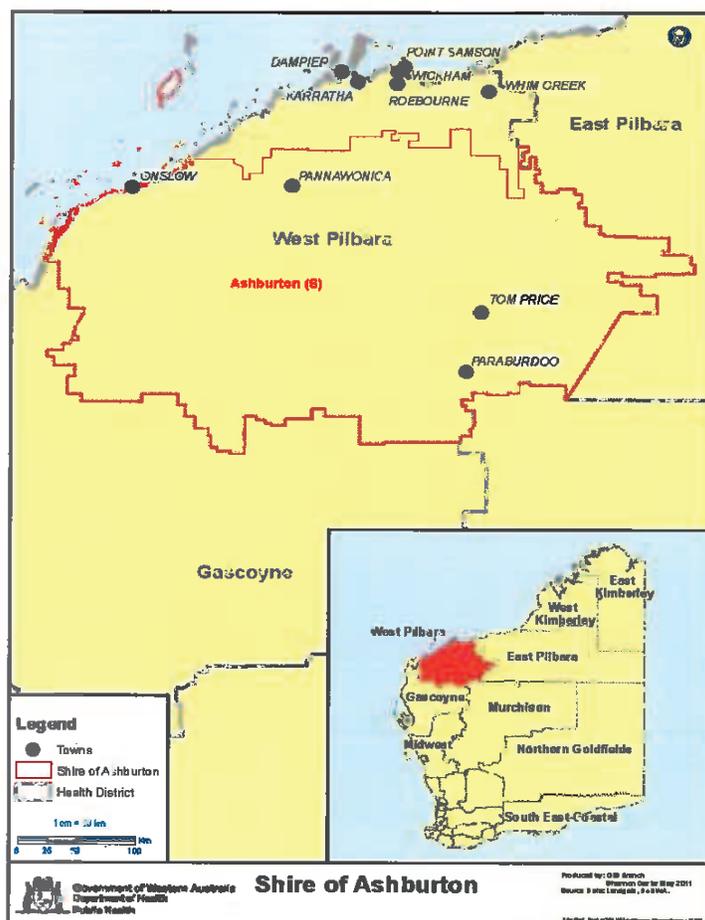
Between 2008/09 and 2010/11 YTD April, there were 444 drink driving charges recorded using the Breath Test Form in the Shire of Roebourne (see **Table 8**). Drink driving offenders most commonly reported consuming alcohol in a private setting or public place (66.4%), indicating that the consumption of packaged liquor in the Shire of Roebourne is a major contributor to drink driving offences. Private settings included: place of own residence; private residence, other; public place; boat; andwork.

Table 8. Shire of Roebourne: Drink driving charges by locality stopped (Breath Test Form)

Locality Stop	Last Drink	2008-09	2009-10	2010-11	Total
DAMPIER	LICENSED PREMISES	2	2	7	11
	PRIVATE RESIDENCE OTHER		2	2	4
	PRIVATE RESIDENCE OWN	1	1	2	4
	PUBLIC EVENT			1	1
	PUBLIC PLACE		1	1	2
	BOAT			1	1
Total		3	6	14	23
KARRATHA	LICENSED PREMISES	13	48	27	88
	NOT KNOWN	3	5	5	13
	PRIVATE RESIDENCE OTHER	10	40	25	75
	PRIVATE RESIDENCE OWN	6	28	13	47
	PUBLIC EVENT		1	1	2
	PUBLIC PLACE	2	4	1	7
	REFUSE TO ANSWER	1		2	3
	WORK	1		2	3
Total		36	126	76	238
ROEBOURNE	LICENSED PREMISES		1	2	3
	NOT KNOWN		1		1
	PRIVATE RESIDENCE OTHER	19	15	43	77
	PRIVATE RESIDENCE OWN	3	7	5	15
	PUBLIC EVENT	2			2
	PUBLIC PLACE	2	1	9	12
	REFUSE TO ANSWER	1		2	3
Total		27	25	61	113
WICKHAM	LICENSED PREMISES		1	6	7
	NOT KNOWN	1			1
	PRIVATE RESIDENCE OTHER	3	8	25	36
	PRIVATE RESIDENCE OWN	1	2	9	12
	PUBLIC PLACE	2	6	6	14
Total		7	17	46	70
Grand Total		73	174	197	444

Results reflect those where Breath Test Form process was instigated

SHIRE OF ASHBURTON



Shire of Ashburton communities included within this report due to being alcohol supply points include: Onslow; Pannawonica; Tom Price; and Paraburadoo.

Shire of Ashburton profile

- The Shire of Ashburton is located within the Pilbara Region in Western Australia. The Estimated Resident Population (ERP) for the Shire of Ashburton in 2006 was 6,078 (Australian Bureau of Statistics, 2009).
- In the 2006 Census, the median age of persons in Ashburton was 31 years. This is lower than the Australian median age of 37 years. Of the total Ashburton population 56.5 percent were males and 43.5 percent were females (Australian Bureau of Statistics, 2009).
- The Shire of Ashburton has a relatively young population with 28 percent of the population aged between 0-14 years, and only 7.7 percent aged 55 years and over (Australian Bureau of Statistics, 2009).

ALCOHOL-RELATED HOSPITALISATIONS IN THE SHIRE OF ASHBURTON

Between 2005-2009, alcohol-related hospitalisations in the Shire of Ashburton show that both short term (resulting in injury and other acute harms) and long-term (resulting in chronic disease) harmful drinking patterns are prevalent in the Shire.

Key points

For the Shire of Ashburton between 2005-2009:

- Alcohol-related hospitalisations relating to **'all alcohol-related conditions'** were significantly higher than the corresponding State rates across all groups.
- Alcohol-related hospitalisations resulting from **'falls', 'road injuries' and 'stroke'** were significantly higher than the corresponding State rates for the group 'all persons' only.
- Alcohol-related hospitalisations resulting from violence (**'assault'**) were significantly higher than the corresponding State rates across all groups.
- Alcohol-related hospitalisations relating to **'other alcohol-related diseases'** were significantly higher than the corresponding State rates across for the groups 'all persons', 'males', 'females' and 'Aboriginal persons'.
- Alcohol-related hospitalisations relating to **'alcoholic liver cirrhosis'** were significantly higher than the corresponding State rates for 'all persons', females and non-Aboriginal persons.

Shire of Ashburton: alcohol-related hospitalisations, all persons, 2005-2009

Overall, the total rate for 'all alcohol-related conditions' was significantly higher (1.83 times) than the corresponding State rate. The alcohol-related conditions that were significantly higher than the State rates were:

- alcoholic liver cirrhosis (2.19 times);
- other alcohol-related diseases (2.22 times);
- falls (1.53 times); and,
- assaults (3.63 times).

Shire of Ashburton: alcohol-related hospitalisations, Males, 2005-2009

Overall, the total rate for 'all alcohol-related conditions' was significantly higher (1.59 times) than the corresponding State rate for male residents. The alcohol-related conditions that were significantly higher than the State rates were:

- cancers (2.63 times);
- other alcohol-related diseases (1.80 times); and,
- assaults (2.68 times).

Shire of Ashburton: alcohol-related hospitalisations, Females, 2005-2009

Overall, the total rate for 'all alcohol-related conditions' was significantly higher (2.37 times) than the corresponding State rate for female residents. The alcohol-related conditions that were significantly higher than the State rates were:

- alcoholic liver cirrhosis (3.36 times);
- other alcohol-related diseases (3.51 times); and,
- assaults (5.79 times).

Shire of Ashburton: alcohol-related hospitalisations, Aboriginal, 2005-2009

Overall, the total rate for 'all alcohol-related conditions' was significantly higher (1.28 times) than the corresponding State rate for Aboriginal residents. The alcohol-related conditions that were significantly higher than the State rates were:

- other alcohol-related diseases (1.85 times); and,
- assaults (1.97 times).

Shire of Ashburton: alcohol-related hospitalisations, non-Aboriginal, 2005-2009

Overall, the total rate for 'all alcohol-related conditions' was significantly higher (1.32 times) than the corresponding State rate. The alcohol-related conditions that were significantly higher than the State rates were:

- alcoholic liver cirrhosis (2.66 times); and,
- assaults (1.69 times).

Table 9. Alcohol-related hospitalisations, by condition significantly higher than the State rate,

Shire of Ashburton 2005-2009

Condition	All persons	Males	Females	Non-Aboriginal	Aboriginal
Alcoholic liver cirrhosis	1.67*		3.36*	2.66*	
Alcoholism					
Cancers		2.63*			
Stroke	2.61*				
Other alcohol-related diseases	1.66*	1.80*	3.51*		1.85*
Road injuries	1.49*				
Falls	1.80*				
Suicide					
Assaults	2.86*	2.68*	5.79*	1.69*	1.97*
Other alcohol-related injuries					
All alcohol-related conditions	1.54*	1.59*	2.37*	1.32*	1.28*

Highlighted text indicates significantly higher than Standardised Rate Ratio (State =1).

SHIRE OF ASHBURTON: ALCOHOL-RELATED OFFENCE DATA

Key points

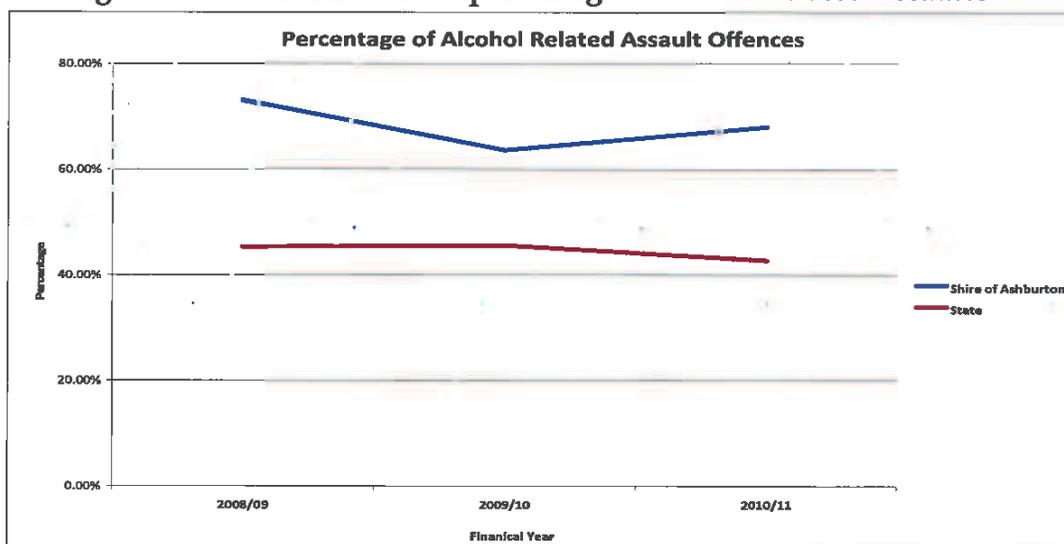
- Alcohol is a key feature in offences occurring in the Shire of Ashburton.
- In 2010/2011 in the Shire of Ashburton:
 - 67.8% of *Assault Offences* were recorded as being alcohol related.
 - 84.3% of *Domestic Assault Offences* were recorded as being alcohol related.
 - 66.6% of *Offences Against the Person* were recorded as being alcohol related.
- In 2010/11 one in every 37.3 drivers tested was found to be over the legal drink driving limit.
- Between 2008/09 and 2010/11:
 - 296 drink driving charges were recorded.
 - Where charges were recorded using a Breath Test Form (n=230), 69.1% of drink driving offenders in the Shire of Ashburton reported consuming alcohol in a private setting or public place as their place of last drink.

Assaults

In 2010/2011 YTD April, 69.2% of *Assault Offences* in the Shire of Ashburton were recorded as being alcohol related.

The percentage of alcohol-related *Assault Offences* was consistently higher than the State (by 18%-27%) during the examined period.

Figure 9. Shire of Ashburton percentage of alcohol-related *Assaults*



Between 2008/09 and 2009/10, the number and percentage of reported alcohol-related *Assaults* decreased. Between 2009/10 and 2010/2011, the number and percentage of those that were alcohol-related increased from 63.5% (n=54, 2009/10) to 67.8% (n=59, 2010/11).

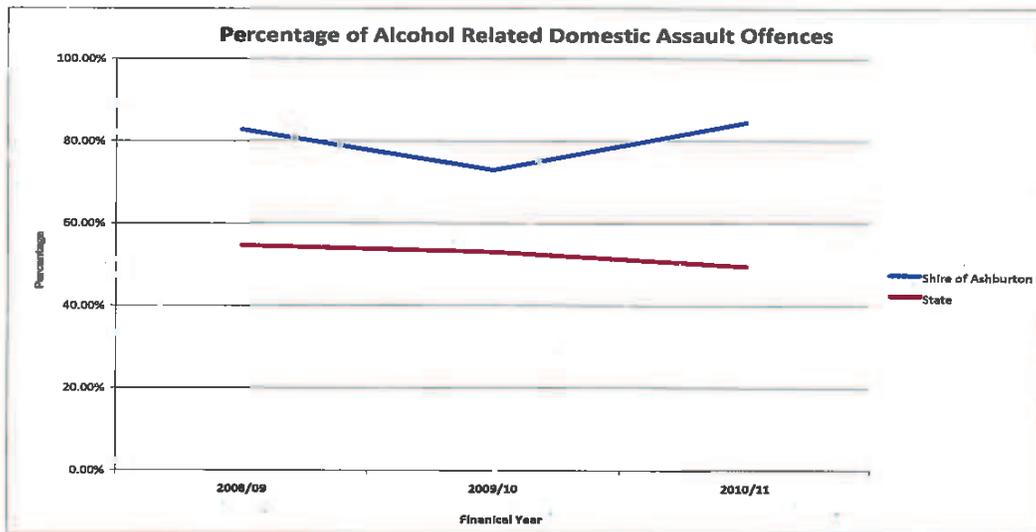
Table 10. Shire of Ashburton Assault Offences

Alcohol-related	2008-09	2009-10	2010-11
Yes	75	54	59
No	28	31	28
Total	103	85	87
% Ashburton	72.8%	63.5%	67.8%
% State	45.2%	45.5%	42.7%

Domestic Assaults

In 2010/2011, of the 51 recorded *Domestic Assault Offences*, 84.3% were alcohol-related.

Figure 10. Shire of Ashburton: Percentage of alcohol-related *Domestic Assaults*



From 2008/09 to 2010/2011, the number of alcohol-related *Domestic Assaults* increased from n=33 to n=43, as did the percentage of alcohol-related *Domestic Assaults*.

Table 11. Shire of Ashburton: *Domestic Assaults*

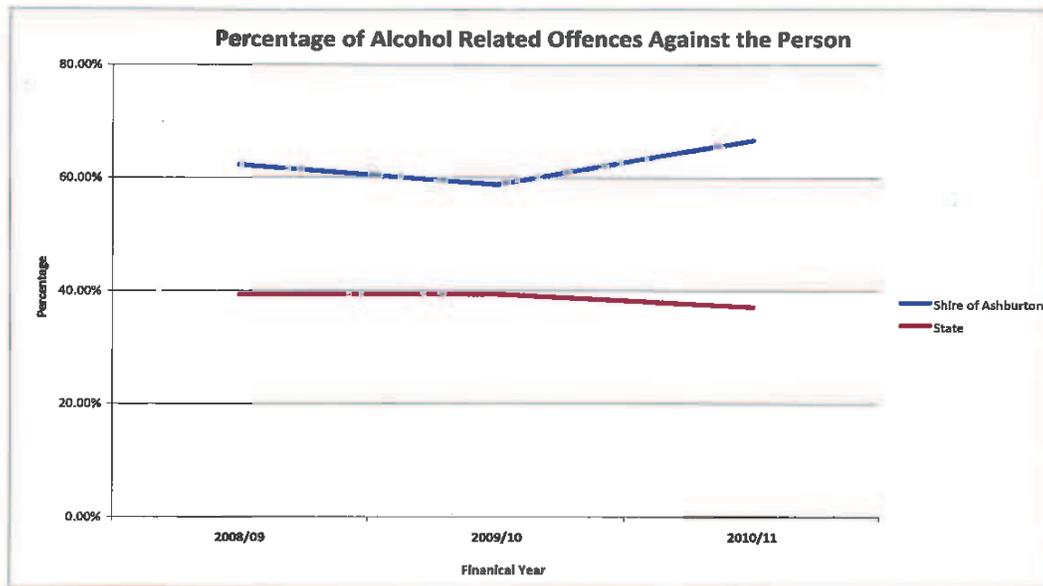
Alcohol-related	2008-09	2009-10	2010-April 11
Yes	33	27	43
No	7	10	8
Total	40	37	51
% Ashburton	82.5%	72.9%	84.3%

% State	54.4%	52.9%	49.5%
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Offences Against the Person

In 2010/2011, 71.6% of *Offences Against the Person* in the Shire of Ashburton were recorded as being alcohol-related, an increase from 58.8% in 2009/10 and 62.3% in 2008/09.

Figure 12. Shire of Ashburton percentage of alcohol-related *Offences Against the Person*



Between 2008/09 and 2009/10, the number of alcohol-related *Offences Against the Person* dropped by n=21 (n=81 to n=60 respectively). However, the number of alcohol-related *Assaults* increased by n=18 in 2010/2011 to n=78, while those that were non-alcohol-related decreased by n=3.

Table 12. Shire of Ashburton: *Offences Against the Person*

Alcohol-related	2008-09	2009-10	2010- 11
Yes	81	60	78
No	49	42	39
Total	130	102	117
% Ashburton	62.3%	58.8%	66.6%
% State	39.2%	39.3%	37.1%

SHIRE OF ASHBURTON: DRINK DRIVING

Key points

- In 2010/11, one in every 37.3 drivers tested was found to be over the legal drink driving limit.
- Between 2008/09 and 2010/11, 296 drink driving charges were recorded.
- Between 2008/09 and 2010/11 YTD April, there were 230 drink driving charges recorded using the Breath Test Form where the locality stopped was the Shire of Ashburton towns of Onslow, Pannawonica, Paraburdoo and Tom Price.
- Of the 230 charges recorded using the Breath Test Form:
 - 69.1% of drink driving offenders in the Shire of Ashburton reported consuming alcohol in a private setting or public place as their place of last drink.
 - 24.8% of drink driving offenders in the Shire of Ashburton reported a licensed premises as their place of last drink.

In the Shire of Ashburton (towns inclusive only of Onslow, Pannawonica, Paraburdoo, Tom Price):

- For the year 2008/09, 1 in every 27.9 drivers tested was found to be over the legal drink driving limit.
- For the year 2009/10, 1 in every 34.3 drivers tested was found to be over the legal drink driving limit.
- For the year 2010/11, 1 in every 37.3 drivers tested was found to be over the legal drink driving limit.

Table 13. Shire of Ashburton drink driving charges

	2008/09	2009/10	2010/11
Tested	2656	3391	3963
Charged	95	95	106
Ratio	1:27.96	1:34.35	1:37.39

WA Police have available a Breath Test Form that is filled out minutes prior to the Formal Breath Test. This form allows the collection of Place of Last Drink information which is useful as a guide regarding whether people are consuming liquor on-premises or off-premises (packaged liquor). Statistics using the Breath Test Form only form a proportion of the number of drink driving charges made in an area (which are recorded on the WA Police TEACIS data base).

Between 2008/09 and 2010/11, there were 230 drink driving charges recorded using the Breath Test Form where the locality stopped was the Shire of Ashburton towns of Onslow, Pannawonica, Paraburdoo and Tom Price. Drink driving offenders most commonly reported consuming alcohol in a private setting or public place (69.1%), indicating that the consumption of packaged liquor in the Shire of Ashburton

contributes to a majority of drink driving offences. Private settings included: place of own residence; private residence, other; public place; boat; vehicle.

Table 14 below summarises statistics recorded using the Breath Test Form in the Shire of Ashburton, by location.

Table 14. Shire of Ashburton: drink driving locality stopped, by place of last drink

Locality stopped	Last Drink	2008-09	2009-10	2010-11	Total
ONSLOW	LICENSED PREMISES	6	4	5	15
	NOT KNOWN	3			3
	PRIVATE RESIDENCE				
	OTHER	17	17	6	40
	PRIVATE RESIDENCE OWN	7	8	2	17
	PUBLIC EVENT	1			1
	PUBLIC PLACE	1	2	4	7
	REFUSE TO ANSWER	1			1
	BOAT		1		1
Total		36	32	17	85
PANNAWONICA	LICENSED PREMISES		1	1	2
	PRIVATE RESIDENCE				
	OTHER			1	1
	PUBLIC EVENT			1	1
Total		1	3	4	
PARABURDOO	LICENSED PREMISES	3		1	4
	NOT KNOWN		1		1
	PRIVATE RESIDENCE				
	OTHER	1	2		3
	PRIVATE RESIDENCE OWN	4			4
	PUBLIC EVENT		1		1
	PUBLIC PLACE	1			1
	REFUSE TO ANSWER			1	1
Total	9	4	2	15	
TOM PRICE	LICENSED PREMISES	3	7	26	36
	NOT KNOWN		1	1	2
	PRIVATE RESIDENCE				
	OTHER	7	21	15	43
	PRIVATE RESIDENCE OWN	2	17	12	31
	PUBLIC EVENT			3	3
	PUBLIC PLACE	1	6	2	9
	VEHICLE			2	2
Total	13	52	61	126	
Grand Total	58	89	83	230	

Results indicate Breath Test Form completion and are not indicative of all drink driving offences in the Shire.

STAKEHOLDER PERSPECTIVES

As part of the West Pilbara Alcohol Management Group, a number of government, non-government and community based organisations provided comment and information regarding their experience with alcohol-related matters in the West Pilbara.

In 2009, a discussion paper which included a questionnaire regarding liquor restrictions was distributed to the member organisations of the West Pilbara Alcohol Management Group as well as other groups, such as mining corporations, the Salvation Army and the Roebourne ARG (now known as Roebourne Aboriginal Congress).

Local consultation has for the most part been undertaken as part of discussions about the broader West Pilbara Alcohol Management Strategy.

DEPARTMENT OF CHILD PROTECTION

The role of the Department of Child Protection is to assess and intervene where there are concerns for a child's safety and to assess families' capacity to ensure safety. The office works with families on a weekly basis where children have been removed as a result of domestic violence, with a majority as a result of alcohol and substance misuse. The Department of Child Protection has two offices in the West Pilbara. The Roebourne Office services:

- Roebourne.
- Tom Price.
- Paraburdoo.
- Wakathuni.
- Youngaleena.
- Bellary Springs.
- Nguarawanna.
- Cheeditha.
- Cherratta.

The Karratha Office services:

- Karratha.
- Onslow.
- Pannawonica.
- Dampier.
- Peedamulla.
- Nanutarra (border to Murchison).

Staff of the Department of Child Protection West Pilbara Offices report that alcohol-related domestic violence and neglect are the two main themes of concerns reported to the Department in the West Pilbara. In addition, harmful alcohol use is an associated concern in more than 50% of the reports that are investigated by the Department, including reports of violence, neglect and sexual abuse. The Department has advised it supports the proposal for supply reduction strategies without reservation in order to minimise alcohol-related harm occurring to children and young people.

The Department of Child Protection, West Pilbara Offices report that as at March 2011:

- Of the 23 children in the care of the Department that are managed by the Roebourne Office, 22 were removed in relation to the following issues:
 - Parent’s inability to provide adequate supervision as a result of substance use.
 - Exposure to domestic violence where violence has resulted from substance use.
 - Physical harm where substance misuse is a contributing factor.
 - Alcohol was the primary drug of concern in a majority of these cases.
- The Department is aware of anecdotal community information that a significant number of alcohol parties are held within the Roebourne Village and there are reportedly a number of children who are exposed to this and not provided with adequate supervision.
- Of the 32 children in care in Karratha, 29 were brought into care for alcohol-related concerns, including alcohol-fuelled violence and neglect due to parental alcohol and drug use.

The Department of Child Protection advised that research shows that children’s exposure to domestic violence can have a significant impact upon their emotional wellbeing and neurological development. Children’s ongoing exposure to violence can also impact upon their own capacity to parent when they have children.

SALVATION ARMY

Salvation Army (Karratha) provides a family support service which is comprised of several areas including:

- A women’s shelter.
- Youth shelter.
- Youth drop in centre.
- Community meals program.
- Emergency food supply.
- Salvo store and church.

When asked what types of alcohol-related problems the agency sees, the Salvation Army (Karratha) advised that through its various programs, they often witness the following:

- Food shortages for families (weekly).
- Abuse (weekly).
- Youth homelessness (intermittently).
- Disturbance of the peace (every weekend).
- Littering, bottles and cans (every day).
- Loss of employment (intermittently).
- Violence (regularly).
- Underage drinking (weekly).
- Drink driving (daily).

MAWARNKARRA ABORIGINAL HEALTH SERVICE

Marwarnkarra Health Service was established in 1982 as a community identified response to growing community health and other social issues. The Health Service provides primary health care. At a meeting in Roebourne on 12 May 2009, a Mawarnkarra representative noted that,

'During the past year MAHS has had 441 alcohol-related episodes of care treated by doctors, 71 chronic disease patients with direct alcohol cause. MAHS operates a number of programs including Safe House, alcohol nutrition, health promotion, drug and alcohol diversion program with PADAP.'

When asked what types of alcohol-related problems the agency sees and assists with, Marwarnkarra staff advised the following:

- From a health perspective, we are seeing a lot more people going into chronic diseases.
- We see things like liver, kidney and heart failure, alcohol poisoning, brain damage and requirement for dialysis.
- We see the indirect results of alcohol use such as domestic violence, family health and hygiene problems, families as a whole suffering.
- All of the above issues are seen regularly, a lot of people from our community.

Marwarnkarra advised that they support the recommended liquor restrictions in the West Pilbara, but noted that while a reduction in the volume of cask wine would be beneficial, if no casks were available, people may turn to products that are in glass containers and this may lead to increased risk of glass-related injuries. The organisation recommended that this risk be considered in the decision making process.

YAANDINA

Yaandina Family Centre Inc. is governed by a Board of Management, whose membership comes from the local community and professionals. All Yaandina services focus on nurturing and assisting individuals families and the community to develop capacity and maintain resilience for now and future generations. Yaandina works to providing culturally appropriate services to individuals and families that promote a respect for culture, dignity, social justice and a healthy lifestyle.

Yaandina manages the Sobering up Shelter in Roebourne four nights per week, providing transport, accommodation and care for approximately 2000 intoxicated people each year in the 18 bed facility.

When asked what types of alcohol-related problems the agency sees and assists with, Yaandina advised the following:

- Domestic, community and family violence occurs daily.
- Neglected children are encountered daily.
- Children as young as eight are noticed to be consuming alcohol.
- Alcohol fuelled antisocial and criminal behaviours from children and young people are seen regularly.
- Children and adults affected by Foetal Alcohol Spectrum Disorders are supported daily by the agency.
- Approximately 3000 juveniles each year who are on the streets at night are transported to safe places. These children are often escaping the alcohol fuelled environment they live in.
- Youth and family support staff assist truant children and individuals who are homeless as a result of alcohol misuse as part of their daily activities.
- Alcohol-related illness such as Korsakov's and Dementia symptoms are seen daily in Yaandina's aged care services.

Yaandina also reported that:

- Past principals of Roebourne School estimate that approximately 40 percent of the students show the effects of Foetal Alcohol Spectrum Disorders.
- The Health and Aged Care sector have completed years of research into the health and community issues around ageing and aged illnesses relating to alcohol misuse such as dementia (the average age of an Aboriginal man developing dementia is now 45 years of age), various organ diseases and failure, including kidney disease and renal failure requiring dialysis, and Korsakov's disease which causes specific dementia symptoms that are often violent and include short term memory loss.
- In a submission to the *Gordon Inquiry into Family Violence and Child Abuse in Aboriginal Communities*, Yaandina reported that alcohol misuse had a large part to play in the neglect, abuse and molestation of children.

- The Yaandina Minnga Patrol bus that transports intoxicated people in the evenings between 4pm and midnight also collects approximately 2000 children each year.
- Unlicensed drivers are regularly seen driving unregistered vehicles that are overcrowded and unsafe to Wickham to purchase alcohol.
- There is evidence of sly grogging in Roebourne; where someone with a car purchases alcohol for people who cannot get to Wickham and on-sell the grog for much more than the over the counter price.

SHIRE OF ROEBOURNE

When asked what types of alcohol-related problems are common in the local community, the Shire of Roebourne responded that the Shire is often left to deal with the fall out from alcohol-related activities. Of particular concern is the volume of litter left along public footpaths and access ways, predominately broken glass.

The Shire has advised that in principle, the majority of Council supports a submission to the Director of Liquor Licensing on the basis that broader consultation with community and others on restrictions is undertaken by the Director.

The Shire Annual Community Survey clearly outlines that litter and broken glass are significant issues for the Shire.

SHIRE OF ASHBURTON

When asked what types of alcohol-related problems are commonly seen by the Shire of Ashburton, the problems noted were:

- Child neglect – constant.
- Littering, mainly glass is a problem – constant.
- Antisocial behaviour – regularly
- Domestic violence – regularly.

The Shire reported that most instances of vandalism and property crime are reported to WA Police and that broken glass is a huge social issue that costs the community and the Shire on a regular basis.

In response to the Discussion Paper distributed to the West Pilbara Alcohol Management Group, the Shire of Ashburton advised of the below resolution, passed following the March 2010 Ordinary Meeting of Council.

'That Council advise the West Pilbara Alcohol Management Group that the Shire of Ashburton supports the group's proposals for the area covered by the Shire of Ashburton and Roebourne, as they relate to its proposed submission to the Director of Liquor Licensing.'

DEPARTMENT OF HOUSING (PILBARA REGION)

The Department of Housing in the Pilbara manages the delivery of housing services across the region. In the West Pilbara, the Department has one office in Karratha. The Department provides tenancy management services which includes visits to houses in the area. Fifty per cent of tenancies are estimated to be government employee housing.

When asked what types of alcohol-related problems are seen by the agency, the Department of Housing advised that the following are visible on a daily basis, on a variable scale:

- Overcrowding.
- Antisocial behaviour.
- Property damage.
- Non payment of rent and other charges.
- Child neglect.
- Family/domestic violence.

The Department also advised that:

- All of the above listed issues contribute to other problems and generate resource issues for the agency in terms of investigating the issues to identify what the source of the issue is. There are then consequences and challenges for the tenant – for example: legal action, incurring debt and being held responsible for behaviour of people they can't control (e.g. family obligations).
- There is a lot of property damage that occurs and this can lead to injury and debt issues. Where money is spent on damage, this takes away from budget to do proactive improvement.
- Alcohol can contribute to conflict in the home which can generate community disturbances and pressure to relocate people.
- In relation to all of the issues there are a number of factors, and alcohol is one of the factors. The root cause of the problems are often complex and the solutions require a collaborative approach. The excessive consumption of alcohol and its contribution to the above listed problems exacerbates matters and makes it difficult to make change.

The Department of Housing stated its support for all of the initiatives proposed to reduce the impact that alcohol has on the wider community and families.

DEPARTMENT OF HEALTH (PILBARA REGION)

When asked what types of alcohol-related problems are seen by the Department of Health in the West Pilbara, the following issues were identified:

- Injuries relating to violence occasioned by alcohol.
- Health issues resulting from long term use of alcohol including chronic disease such as liver disease and diabetes.
- Motor vehicle accidents.
- Self harm.
- Domestic violence.
- Underage drinking.
- Maternal alcohol use increasing the risk of Foetal Alcohol Spectrum Disorder.
- Public acceptance of drunkenness/binge drinking.
- Alcohol consumption leading to crime/antisocial behaviour.
- Need for greater coordination and collaboration amongst services.

The Pilbara Region Department of Health has expressed its support for liquor restrictions in the West Pilbara.

MINING INDUSTRY

While regional liquor restrictions are unlikely to impact on the liquor licences of mining organisations on-site because a majority of site wet messes already have limits on packaged liquor and consumption on premises, seeking engagement with mining industry representatives has been a priority of the West Pilbara Alcohol Management Group. This has been seen as particularly important given the large mining population in the region.

Engagement with industry on the West Pilbara Alcohol Management Plan and the concept of liquor restrictions is an ongoing process which commenced in 2009. Discussion has for the most part been conducted on an individual basis, though presentations to groups such as the Pilbara Industry Road Safety Alliance have occurred. Industry is involved in community development programs in the West Pilbara and fund/participate in initiatives such as crime prevention and road safety strategies.

Rio Tinto

Rio Tinto is a global iron ore company involved in sourcing, mining and processing iron ore.

When asked in 2009 what type of alcohol-related problems are seen by the company, the Manager, Housing & Site Services (Coastal) and the then Superintendent Towns (Coastal) with specific reference to Wickham advised that the proposed restrictions

for the West Pilbara are supported. To date, no response from Rio Tinto (the organisation) regarding the proposed restrictions and the West Pilbara Alcohol Management Strategy has been received.

Woodside

Woodside/North West Shelf Venture is one of the main industry employers in Karratha. At the time of consultation, Woodside/North West Shelf Venture declined to take a formal position on the concept of liquor restrictions in the West Pilbara. However, the organisation's representative offered a commitment to take part in the West Pilbara Alcohol Management Group and as part of that process, identify ways in which Woodside/North West Shelf Venture may be able to assist with the range of issues associated with alcohol use. To date, due to unavoidable circumstances, Woodside have not been able to attend meetings

Citic Pacific

Citic Pacific Mining has three villages supporting the development of the Sino Iron Project at Cape Preston. As with most mining organisations, the liquor licences at the sites (Special Facility Wet Mess) by their nature already have liquor restrictions by way of controlled hours and limited takeaway amounts.

Citic Pacific advise that binge and over drinking causing drunkenness and poor behaviour occur, although this has reduced since consequence management has been strongly promoted and practiced.

In response to the proposed recommendation to seek some liquor restrictions in the West Pilbara, Citic Pacific indicated support for the strategy. Citic Pacific noted that the proposed recommendations would have no impact on the operation of their liquor licences on site given they already had existing licence conditions in place. It was stated that the proposed volume restrictions nominated as a starting point for discussion, may assist the organisation as liquor purchased in Karratha would be less accessible to site.

Pilbara Industry Road Safety Alliance

In September 2011, a presentation was given to the Pilbara Industry Road Safety Alliance (PIRSA) regarding the West Pilbara Alcohol Management Strategy and the proposal for liquor restrictions. Membership of this group includes Rio Tinto, Woodside, BHP Billiton, Apache, FMG, Citic Pacific Mining, Chevron, WA Police, Roadwise, Mainroads, Department of Transport, Road Safety Council and the WA Local Government Association. The presentation provided an overview of the intent and purpose of the Alcohol Management Group, links between alcohol control and

harm reduction for road traffic crashes and the supply reduction proposal, including the restrictions proposal.

At their meeting 13 October 2011, PIRSA agreed to support the West Pilbara Alcohol Management Plan. On 26 October 2011, PIRSA provided a letter of support to accompany this report (**Attachment 1**).

ROAD SAFETY COUNCIL

On its recent regional visitation to the Pilbara region, the Road Safety Council of Western Australia (the Council) was informed of the work being done by the West Pilbara Alcohol Management Group (the Group) to reduce the harms caused by excessive consumption of alcohol in the community.

In a letter dated 24 August 2011 (**Attachment 2**) to the Chair of the West Pilbara Alcohol Management Group, the Road Safety Council advised the following:

'There is a significant body of literature that links alcohol availability to road trauma. State, regional and local alcohol control strategies that relate to the physical and economic availability of alcohol can reduce alcohol-related road trauma and death.'

'The rising impact of alcohol consumption on road safety outcomes is concerning. In Western Australia the rate of alcohol involved fatal crashes has risen from 21% in 2003 (resulting in 35 deaths) to 26% of fatal crashes in 2006 (resulting in 47 deaths). Additionally, a total of 235 'serious' crashes involved a driver/rider BAC of over 0.05; 10% of road users killed or hospitalised were involved in alcohol-related crashes; and, almost two out of three pedestrian deaths (9 deaths) involved a person with a BAC of greater than 0.05 in WA in 2006.'

'It is evident from the available data that the availability of alcohol directly impacts road trauma. In the Pilbara region, hospitalisations for alcohol-related road injuries are significantly higher than the state rate. Similarly, this is the case in the West Pilbara. The Council as a part of its efforts to improved road safety in regional Western Australia is pleased to provide in principle support to the Group's efforts to introduce alcohol management strategies to the West Pilbara including alcohol restrictions specifically targeting availability and supply.'

DEPARTMENT OF INDIGENOUS AFFAIRS – PILBARA

When asked what types of alcohol-related problems are seen by the agency, the Pilbara Regional Office of the Department of Indigenous Affairs expressed strong support for alcohol restrictions under Section 64 of the *Liquor Control Act 1988* and

the education and treatment components proposed as part of the West Pilbara Alcohol Management Plan.

The following information was also provided by the Pilbara Office of DIA:

- Early in 2009, the DIA provided support to commence working towards a plan to reduce alcohol-related harm in the West Pilbara.
- In the lead into this collaborative approach, the DIA highlighted that a number of groups had identified alcohol abuse / misuse as a key factor in increasing anti-social behaviours and crime; along with alcohol being a significant factor in the general decline of family and community cohesion, and as a barrier to employment and other life opportunities.
- These groups and committees included the Aboriginal Justice Agreements - Hedland, Roebourne and Onslow local justice groups; and the Pilbara's Regional Partnership Agreement (RPA) on Indigenous Employment.
- Whilst Roebourne is only one location within the West Pilbara alcohol management plan, during the writing of the DIA *Roebourne Report* (July 2009), alcohol was identified as a key area of concern.
- During early 2010 the Department of Indigenous Affairs undertook house-to-house consultation at the town-based reserve in Onslow, where it was identified that some families, elderly and young children were significantly impacted by the high alcohol and drug use of a number of residents.
- Roebourne has also been identified in previous reports over the years such as the Hedland / Roebourne Alcohol Misuse Report conducted by the National Drug Research Institute (NDRI), Curtin University, and undertaken through Bloodwood Tree Association and the Mawarnkarra Aboriginal Health Service to evaluate and report on substance misuse in both towns.
- The Roebourne and Onslow Aboriginal Justice Agreements have identified the need for alternative sentencing programs for drug and alcohol-related issues to support lifestyle change (e.g. victim support, counselling, court orders prohibiting purchase etc).

The Pilbara DIA Office supports the restrictions as proposed, and seeks to continue to work closely with the community and other key agencies in these and further actions to reduce alcohol related harm within the West Pilbara communities, and particularly for Roebourne and Onslow Aboriginal people and their families.

The Department of Indigenous Affairs has noted that its support for liquor restrictions also extends to licensed road houses in both Shires (e.g. Fortescue Road House, Nanutarra Road House and Auski Road House).

In addition to the actions being undertaken to develop and implement a West Pilbara Alcohol Management Plan, the Department of Indigenous Affairs noted they would like to put forward for consideration, the eventual move towards development of a Pilbara-wide Alcohol Management Plan based on strong and

consistent restrictions across all areas. Not only would a strong region-wide stance on alcohol sale and consumption be beneficial for health and lifestyle, but would also ensure that due to the itinerant nature of mining industry workers and Aboriginal people – often travelling across and being in different Pilbara locations – people would have less confusion and a better understanding of the restrictions due to a consistent approach in the implementation of restrictions. The West Pilbara could lead the way.

DEPARTMENT OF EDUCATION – PILBARA EDUCATION DISTRICT

When asked what types of alcohol-related problems the Department sees, the following was reported by the Regional Office to occur regularly:

- Domestic violence.
- Child abuse – physical, sexual, nutrition, health, psychological.
- Social problems.
- Misbehaviour.
- Attendance concerns.

The above issues were noted to occur in all schools to varying degrees of frequency and intensity. The Regional Office of the Department also noted that:

- In some regional areas, a lot of the absenteeism, aggression and misbehaviour of students occurs around payday and family events.
- Schools are in tune with their school community and adjust to the social and emotional needs of students affected by alcohol-related issues. Some examples of school based strategies are using alternative strategies to engage students. For example, some schools have breakfast programs so that at-risk children are fed in the morning.
- For the schools that are using these strategies – responding to alcohol-related problems consumes time and resources that could be put into other activities.
- Educational outcomes are impacted on by attendance issues. Social and emotional outcomes are affected by alcohol. The impact on teachers needs to be considered with respect to social and emotional support of students, and vigilance in reporting and documenting incidences of anti social and at risk behaviour.
- Nutrition problems and syndromes such as Foetal Alcohol Syndrome Disorder (FASD) are becoming more prevalent and the breakdown of children's welfare regarding social and emotional development is declining in the Region's schools.
- The social issues in the West Pilbara are complex and exacerbated by the influence of alcohol.
- There are alcohol-related issues that are easily identifiable and then there are other alcohol-related problems that are less visible – that stem from a culture of acceptance of drinking in the West Pilbara.
- There is no one solution to the issues, the response needs to be comprehensive, and across the community.

The Department representative stated their strong support for liquor restrictions to be implemented in the West Pilbara.

WA POLICE PILBARA DISTRICT

Pilbara Police District advises the following regarding the impact that alcohol has on policing in the District:

- When attending incidents at licensed premises in the West Pilbara, the level of intoxication is more than average, based on experience with other areas.
- When Police attend incidents the victim and suspect is requested to recall their account of the occurrence. Their recollection is either non-existent or very hazy at best.
- Street drinking is prolific in the West Pilbara area. The 'fly in fly out' workers have a reputation of consuming liquor to and from all licensed venues.
- Whether they are in a vehicle or on foot, it appears to be an accepted practice in the West Pilbara to consume alcohol travelling to or from the Tavern, Hotel, boat fishing, the park/reserve, walking the dog around the oval, the beach, sporting events and the community and the environment suffers for it.
- When Police stop to speak to people consuming liquor on the street etc, Police are met with a barrage of abuse, which usually leads to further alcohol-related offences and the Police end up being tied up dealing with arrests for disorderly conduct or the like.
- Roebourne's nickname is "Glitter City" due to the amount of smashed glass on the streets and roads.

The following are examples from the frontline of the nature of alcohol-related issues in the West Pilbara that police respond to:

'In 2010, I removed a person from the middle of a road in Karratha after leaving the local Tavern. The person was nearly struck by a passing vehicle and could hardly stand due to the amount of alcohol he had consumed that night. I took the person into Police custody due to their intoxicated state and they could not recall their address or understand who I was or what I was requesting. I later learnt they were not released from Police custody until 9am the following day, due to not sobering up until that time. The person had no recollection of the incident and did not know how he ended up in Police custody. Another incident occurred in 2010, when a person drove through a Karratha residential area, where due to intoxication, rolled their vehicle and crashed. They provided a breath specimen of 0.196%.'

'I have recently worked on general Police duties at Roebourne and Wickham on a number of night shifts and I can confirm that everyone who I came in connection with had consumed alcohol earlier that day or were still consuming alcohol that night. I

dealt with a number of alcohol-related incidents including assault, vehicle stealing, burglaries and other stealing.'

'In some locations, the school is broken into on a regular basis by children, just so they can get a feed. The parents are so intoxicated they can not care for their child and the child will go a number of days without food. A lot of these children are below the age of criminal responsibility.'

'Although Pannawonica does not experience the same problems as other towns in the Pilbara, we do have a culture amongst residents, FIFO workers and visitors where excessive consumption of alcohol occurs and in some cases is encouraged. Evidence of this exists with weekly shift change at the mine and on days of an RDO where alcohol-based and fuelled problems occur.'

Please see **Attachment 3** for further detailed information from WA Police regarding the binge drinking culture in the West Pilbara.

ROEBOURNE ABORIGINAL CONGRESS

The Roebourne Aboriginal Congress was previously known as the Roebourne Aboriginal Reference Group (ARG) and was established as a key group for engagement with Government, industry and other matters that are not cultural or native title related. DIA Pilbara Office provides secretariat and assistance with governance training and incorporation.

In March 2010, WA Police presented to the ARG regarding the concept of a West Pilbara proposal for liquor restrictions. On 7 September 2010, a Drug and Alcohol Office representative met with Congress in Roebourne. The purpose of the meeting was to sit down with members to discuss the West Pilbara Alcohol Management Group and the restrictions proposal as one part of a broader strategy as well as to dispel the misconception that the West Pilbara Group was seeking a Section 175 dry community restriction. A number of community leaders, Local Roebourne agency representatives and the Aboriginal Affairs Coordinating Committee were in attendance at this meeting.

At this meeting, Congress representatives were asked to voice questions, opinions and concerns. The DAO representative was told by several members that they felt that their young people would often travel to Wickham or Karratha to bring back bulk amounts of alcohol into the town one particular member said that as much as \$200-\$300 would be spent. They felt that a restriction on bulk amounts of liquor being purchased would be good for their community. As a whole, Congress requested a return visit when a final draft of restrictions was available so that further discussion could occur.

At the time of writing, a number of local issues were impacting on members of Congress and a further meeting to discuss specific recommended restrictions had not occurred.

LICENSEES

In the course of day to day contact with licensees, WA Police have informally discussed the concept of a liquor restrictions proposal with some licensees in the West Pilbara, some of whom expressed concern that restrictions may reduce their bottom line. With the exception of the above informal discussion and a presentation to the Karratha Accord regarding the West Pilbara Management Plan, licensees have not been formally consulted as part of this report. Dialogue with licensees was considered to be best left to the Director of Liquor Licensing, should he decide to consider liquor restrictions and further consultation on the matter.

RECOMMENDATIONS

In order to minimise harm and ill-health and improve community safety and wellbeing in the West Pilbara, it is recommended that liquor restrictions appropriate to the West Pilbara are considered. Restrictions would complement the comprehensive West Pilbara Alcohol Management Plan which includes a broad range of strategies including education and treatment and support.

For supply reduction strategies to be effective, coverage of general public alcohol supply points throughout the West Pilbara are suggested. The rationale for such an approach is that:

- levels of alcohol consumption in the West Pilbara are higher than the state average; and
- consistency across the West Pilbara region would limit the likelihood of transferring some problems to other locations, which has been seen in some Kimberley towns and is reported practice in the Pilbara.

Doesn't there need to be more than just restrictions?

In the West Pilbara, the Alcohol Management Group which includes a range of Government, non-Government, business and community linked groups, has already developed a broad plan that is being implemented in the region. One example of their work is the well-received, local 'Alcohol and Boating' education initiative which now has State-wide interest.

As with any strategy, liquor restrictions have the greatest chance of success if implemented alongside other initiatives. In regions where levels of consumption and related harm are concerning, liquor restrictions can provide an environment that supports change to occur and the opportunity for other programs and strategies to be more effective.

In the West Pilbara, there is activity happening which would greatly benefit from the window of opportunity provided by appropriate liquor restrictions.

RECOMMENDATIONS TO MINIMISE HARM, ILL-HEALTH, DISORDER

By nature, voluntary restrictions cannot be enforced, which presents the potential for non-compliance and confusion for patrons. Mandated rather than voluntary restrictions also provide a more consistent competitive environment for licensees in the area.

Based on the statistical, stakeholder and research information within this submission, it is recommended that the following restrictions be contemplated as a starting point for consideration to complement other work being undertaken by agencies in the region as well as the Alcohol Management Plan. The proposed restrictions have been recommended based on the combination of local expertise regarding the alcohol-related harms, service needs and community characteristics in the West Pilbara.

1. Packaged liquor may only be sold Monday to Saturday from 12 noon to 8pm.

Police report that many alcohol-related incidents occur after 9pm and often continue to occur well into the early hours of the morning. A number of studies have linked high levels of overall alcohol consumption with high levels of violence (Babor et al, 2010), which have been demonstrated to be consistently high in the West Pilbara.

Prohibiting the sale of packaged liquor before 12 noon will assist in breaking the cycle of early morning alcohol consumption and afford social service providers greater time to work with at risk drinkers. This liquor restriction has been successful implemented in other towns in the Northwest.

Similar conditions are also in place elsewhere in the Pilbara. For example in Port Hedland, packaged liquor is only permitted to be sold from 11am to 9pm, Monday to Saturday.

9. The sale of packaged liquor on Sunday is prohibited

Reductions in alcohol availability (such as days of sale) have been shown to have an impact on levels of alcohol-related harm in communities. A full day where packaged liquor cannot be purchased is likely to provide a noticeable reduction in alcohol-related problems in the region on Sundays. Levels of alcohol-related violence and domestic violence are high in the West Pilbara and a reduced availability on a Sunday will bring about a probable change in the numbers and severity of these incidents.

For example, in Port Hedland, a Sunday ban on packaged liquor resulted in a reduction in police callouts and the severity of incidents occurring on Sundays. With regard to the Sunday ban, a 2007 report (unpublished) to the Director of Liquor Licensing regarding a review of the liquor restrictions on Port Hedland, the Executive Director, Public Health stated:

- There was a 10 percent decline in monthly trauma related ambulance callout rates in the Sunday service ratio in Hedland following the reduced availability of alcohol on Sundays.

- Police attended disturbances have consistently been sensitive to the main change in availability of no Sunday takeaway sales. The follow up evaluation found that the significantly lower trend in attendance rates continued for approximately another year, with a reduction of 29 percent in police attended disturbances up to October 2005. Rates increased in the later part of 2005 but this can be explained by the opening of a new police station and associated increase in policing levels.
- The social impact of the ban on Sunday takeaway sales is more directly indicated by the incident data from the new police station which shows that in recent years far fewer incidents involving alcohol occur on a Sunday.

10. The sale and supply of liquor for consumption on premise is prohibited before 12 noon except where it is sold ancillary to a meal or lodger.

Prohibiting the consumption of liquor before 12 noon, unless ancillary to a meal, will assist in breaking the cycle of morning alcohol purchases and consumption and support a reduction in consumption levels in the region, which are twice the state average.

11. The sale of wine in casks greater than 2 litres in volume is prohibited.

Restrictions on container size are common in Western Australia and other jurisdictions. A similar condition has recently been implemented across the Northern Territory. Limiting or restricting access to specific beverages, in particular large casks of wine and port appears to reduce consumption, in some cases substantially. Cask wine has been a particular focus of restrictions because of its low cost per standard drink (National Drug Research Institute 2007).

Monthly trauma related ambulance callout rates in Port Hedland declined by approximately 16 percent after the introduction of voluntary restrictions on container size in July 2002.

Employing cross-sectional data aggregated across 130 statistical local areas throughout Western Australia, the association between several different types of alcoholic beverages, acute alcohol-related morbidity and rates of night-time assaults was examined by Stockwell and colleagues (1998). Night-time assaults have generally been found to be a reliable indicator of alcohol-involvement. After controlling for total alcohol consumption within each region, they found that high alcohol content beer and cask wine were significantly related to acute alcohol-related morbidity rates.

12. Specified packaged liquor may only be sold in the following quantities:

- Wine in casks is limited to one 2 litre cask per customer per day; or,**
- Fortified wine is limited to one 2 litre cask per customer per day; or,**

- iii. **Beer is limited to one carton per customer per day; or,**
- iv. **Ready-to-drinks (RTD's) is limited to one carton per customer per day; or,**
- v. **Spirits are limited to one 750ml bottle per customer per day.**

With reference to 5(iii) and 5(iv), an equivalent to one carton in quantity may include a mix of beer and RTDs.

In 2007/08, per capita consumption in the Fortescue Statistical Division (incorporating the Shires of Roebourne and Ashburton) was 25.84L, more than twice the Western Australian average (12.45L).

These consumption levels are impacting on both health harms, levels of violence and antisocial behaviour in the region.

The limitations on quantity per person that are proposed also allow for more than reasonable consumption by an individual for a reasonable period of time. For example, with regard to the daily limit of one carton of full strength beer per person (24 cans), a carton of full strength beer contains approximately 36 standard drinks (approximately 1.5 standard drinks per can). In order to be within the new National Health and Research Council (NHMRC) limits to reduce the risk of harm from injury in the short term (a limit of 4 standard drinks on any day), a carton would enable a person on a six-day trip to drink up to 4 cans per day for the duration of the trip.

Under the proposed restrictions, travellers would still be able to obtain packaged liquor six days per week.

The recommended maximum volumes of alcohol sold per person per day listed above are based on a drinking level much greater than the 'low risk' levels recommended by the NHMRC (www.nhmrc.gov.au). The above suggested quantity restrictions are in some cases, six times greater than the recommended limits for avoiding harm in the short term associated with drinking on any one occasion. The proposed quantity restrictions are therefore not an unreasonable middle ground, which allow a degree of flexibility for consumers, including those having to travel longer distances, whilst also presenting an increased likelihood of reductions in consumption and related harm. The volume restrictions proposed would also help to offset the practical situation when one person buys alcohol for a group, or to drink over a time period of more than one day.

13. **Where a packaged liquor product is available in a non-glass container, licensees are prohibited from selling the product in a glass container.**

The Shire of Ashburton reports that littering, in particular glass, is a constant problem in the Shire noting, 'broken glass is a huge social issue that costs the

community and the Shire on a daily basis. Similar issues are reported for sections of the Shire of Roebourne.

14. Licensees to submit returns of sales data to Department Racing, Gaming and Liquor every four months from the instigation of restrictions.

Ongoing monitoring of aggregate alcohol consumption (e.g. alcohol sales/purchases by licensees) is essential for determining the impact of supply restrictions on actual consumption in a community (National Drug Research Institute 2007).

15. Restrictions introduced to be reviewed in two years.

The introduction of liquor restrictions to this group of communities will assist to prevent alcohol-related problems in the area from escalating, while also providing a framework within which other services and community groups can begin to support a longer term positive change. The review of restrictions is important to the effectiveness of this type of strategy as community characteristics and issues change over time.

RATIONALE FOR SUPPLY REDUCTION STRATEGIES

High alcohol consumption and harm – a community-wide issue

Whilst some of the problems in the West Pilbara relate to those that are alcohol dependent, a larger number of the problems are associated with general and opportunistic binge drinking throughout the West Pilbara community.

Though the visibility of problems may differ in various population groups, the high levels of per capita alcohol consumption in the West Pilbara and related problems are a feature of the region, not just of some groups.

In the report, *Restrictions on the Sale and Supply of Alcohol: Evidence and Outcomes*, the National Drug Research Institute (2007) found that,

'...both the national and international literature (Babor et al; Chikritzhs et al, 2003) demonstrates that most alcohol-related harm is caused by non-dependent persons drinking excessively on particular occasions – simply because there are so many more of them. Furthermore, where comparative data is available it shows that alcohol-related harm among non-Indigenous Australians is also considerable' (pg 177).

Evidence is presented throughout this report which shows that per capita consumption and alcohol-related harm and ill-health in the West Pilbara is at levels which impact on overall community well being and safety, as well as the health system, frontline policing and other human social services.

Alcohol is not an ordinary commodity. Harmful drinking patterns that result in rapidly increased blood alcohol levels or intoxication are often associated with short-term harms such as road injury, violence and falls. In addition, a lifetime of regular heavy drinking may result in chronic harms such as alcoholic liver cirrhosis and various cancers.

The costs generated by these harms are not only borne by drinkers, families and friends, but come at great expense to the entire community and can be measured in the form of premature loss of life, disability and reduced productivity, health, law and order system outgoings, social disintegration and other intangible costs. What is more, the experience of alcohol-related problems is not limited to the few who drink at the extreme end of the consumption continuum; substantial numbers of 'ordinary' drinkers will also suffer from alcohol attributable harms at some time in their lives' (National Drug Research Institute, 2007, pg 1).

Restrictions: an effective strategy for the entire community

Targeted interventions appropriate for individuals are an important feature of a comprehensive approach to reduce the levels of alcohol-related problems in the community. However, research shows that a population (whole of community) approach such as liquor restrictions is also an effective method to achieve long-term change.

This is because while there are a number of factors that influence how a person drinks, access to, and the convenience of, obtaining alcohol make it difficult for those that drink at risky levels to avoid drinking or reduce the amount consumed. The positive impacts of reducing the availability of alcohol can also be seen broadly across communities, not only within the more at-risk populations (National Drug Research Institute, 2007).

There is a significant body of research spanning more than 30 years demonstrating that there is a positive relationship between levels of per capita alcohol consumption in populations and the frequency and range of social and health problems. More recently, there have been several reviews of the literature published including:

- Loxley et al (2004). *The Prevention of Substance Use, Risk and Harm in Australia: a Review of the Evidence*. Commonwealth of Australia: Canberra.
- National Drug Research Institute (2007). *Restrictions on the Sale and Supply of Alcohol: Evidence and Outcomes*. National Drug Research Institute, Curtin University of Technology: Perth.
- Babor et al (2010). *Alcohol: No Ordinary Commodity*. Oxford University Press: New York.

Each of the reviews are consistent in that although the relationship is complex and may vary in magnitude over time and place, there is clearly a demonstrable, positive relationship between the availability of alcohol and levels of consumption/drinking patterns and associated harm.

National and international literature consistently identifies reductions in liquor availability as very effective means of significantly reducing problems such as violence, injury and crime, which has direct and indirect benefits for the entire community. Babor et al (2003) found,

'studies demonstrate that controlling alcohol availability can contribute to the reduction of alcohol problems. Reductions in the hours and days of sale, numbers of alcohol outlets, and restrictions on access to alcohol, are associated with reductions in both alcohol use and alcohol-related problems.'

IMPACT OF ALCOHOL AVAILABILITY IN NEIGHBOURING COMMUNITIES

Liquor restrictions are only one of a number of strategies being considered in the West Pilbara. While each town has unique characteristics, resources and issues, mandated liquor restrictions in the region were identified as one of a number of strategies needed to achieve a real reduction in alcohol-related harm.

Alcohol availability in neighbouring towns can have an impact on the likelihood of people travelling to buy alcohol and the practise of 'sly-grogging', compromising the effectiveness of a variety of strategies, including those that aim to achieve practical supply reduction.

There are a number of towns suggested for restrictions within this report that currently experience relatively low levels of alcohol-related harm. However, restrictions in these towns are crucial to the success of any restrictions in nearby communities. Reports in other parts of Western Australia of short and longer term population movement and driving between towns to get alcohol when restrictions are in place are common. While the numbers of residents relocating have often been overstated in the media and real numbers have been relatively small, movement is still a relevant factor for consideration. Restrictions in neighbouring towns also provide a more even competitive environment that reduces the likelihood of people going to other towns to purchase alcohol.

Consistency across the West Pilbara region has been highlighted by key stakeholders as an important factor in the success of any restrictions implemented. By putting in place restrictions through mandatory mechanisms, consistency and compliance is also more likely given enforcement would be possible.

TOURISM AND THE WEST PILBARA

The *Director's Guideline on Public Interest Assessment* (as amended 11 March 2010) defines 'at risk groups' as including '*communities that experience high tourist numbers*'. From 2007 to 2009, the estimated average number of visitors per year in the West Pilbara included:

- Shire of Ashburton: 51,700 domestic visitors and 17,600 international visitors (Tourism WA, 2009a).
- Shire of Roebourne: 98,700 domestic visitors and 13,700 international visitors (Tourism WA, 2009b).

In towns facing liquor restrictions, an often voiced, yet unproven, concern from some sectors has been the potential demise of tourism because of restrictions. To date, there is no known evidence demonstrating that towns with liquor restrictions experience a downturn in tourism. There is, however, growing evidence that restrictions can benefit tourism. For example, a 3-month interim report (Drug and Alcohol Office, 2010) regarding the impact of liquor restrictions in Halls Creek found that,

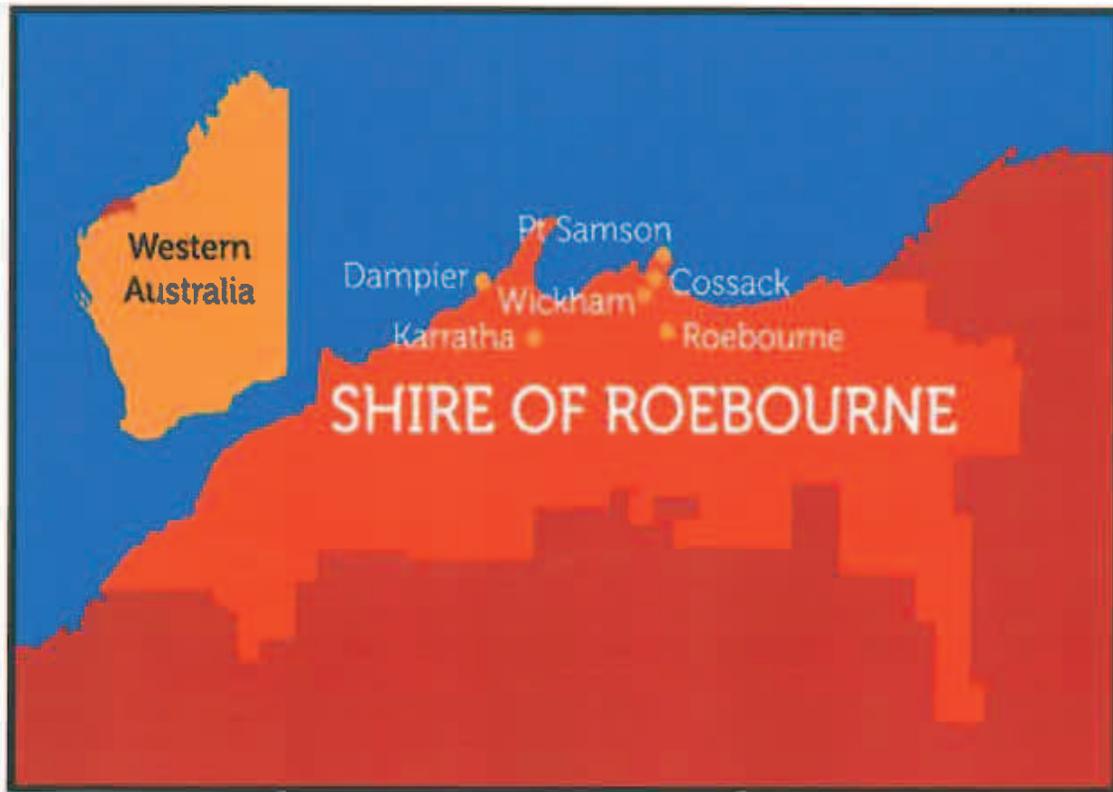
'When comparing the value and number of sales from the Halls Creek Visitors Centre for tourism services for the period of June to August 2008 (pre-restriction) with the period of June to August 2009 (post-restriction) there was a 55 per cent increase in the value of sales and an overall increase of 260 in the total number of sales.'

Halls Creek has stricter liquor restrictions than those proposed within this report. The Halls Creek Visitors Centre data provided the dollar value and the number of sales by tourism services for the period of June 2008 to August 2009. The type of services captured included bookings for accommodation, scenic flights and tours. It should be noted that not all visitors to Halls Creek book services through the Visitors Centre, with many going straight to the service provider. The information presented in the Halls Creek 3-month Interim Report considers only those using the Visitors Centre (Drug and Alcohol Office, 2010).

Section 64 liquor restrictions exist in other areas of the Pilbara, including Port Hedland and Newman and there have been no reports of a downturn in tourism linked with restrictions in these locations. Liquor restrictions are also not unique to regional and remote areas of Western Australia. Liquor restrictions are also common in the Northern Territory and Queensland in particular and are therefore a common experience for those travelling in the north of the country. Liquor restrictions, along with supporting strategies, can provide an opportunity for increasing tourism through increased community safety, improved public amenity and reduced property damage, to name but a few of the benefits that would reflect positively on the image and prospects of a community. In some communities with liquor restrictions, communication strategies targeting potential visitors to the area have been implemented and positively received. If liquor restrictions are introduced into the West Pilbara, such a communication strategy is recommended.

APPENDIX 1

SHIRE OF ROEBOURNE TOWN PROFILES



Map source: <http://www.roebourne.wa.gov.au/shiremap.aspx>

TOWN OF ROEBOURNE

Roebourne is located approximately 40km north of Karratha on the North West Coastal Highway. According to 2006 Census data (Australian Bureau of Statistics, 2009), the total number of persons usually resident in the town of Roebourne urban centre locality is approximately 857. With the exception of Police, most government workers live in Karratha or Wickham and travel to Roebourne each day.

The town of Roebourne has a largely Aboriginal population (estimated 75%) and is a community that has had considerable historical issues relating to the dispossession and oppression of Aboriginal people, welfare dependency and high unemployment (Department of Indigenous Affairs, 2009). The town also has a history of significant harm due to alcohol.

ACCESS TO ALCOHOL

There are no licensed premises in Roebourne that sell and supply liquor to the general public.

Residents of Roebourne generally purchase packaged liquor at neighbouring towns such as Wickham and Karratha. Based on community consultation, the Department of Indigenous Affairs reports (2009) that,

'Community feedback indicates most people drive to Wickham 12 kilometres away (including in unregistered vehicles via 'back tracks') to make their purchase of alcohol supplies which is often in high quantities, and then return to Roebourne where many consume in a continuous binge drinking session.'

While there are issues related to the purchase of liquor, as described above, the significant detrimental impact to the community when alcohol was more easily available from the Victoria Hotel (no longer trading) is a relevant public interest consideration.

Prior to 2005, packaged liquor was available to the general public via the Victoria Hotel in Roebourne. While trading, the Hotel was the subject of a number of liquor inquiries held by the Director of Liquor Licensing and the then Liquor Licensing Court. Following the suspension of the licence in June 2001, the Director of Liquor Licensing held a Section 64 Inquiry into the venue in July 2002. Submissions from community members, police, health and other local stakeholders demonstrated a decrease in alcohol-related harm in Roebourne following the closure of the Hotel. The stakeholders requested that should the Hotel be reopened, conditions should be imposed on the licence. The Inquiry resulted in a number of trading conditions being imposed on the licence. In December 2002 the licensee applied to the then Liquor

Licensing Court to review the conditions, namely the condition relating to the prohibition of the sale of packaged liquor. The Court granted the variation to the licence conditions that allowed the sale of packaged liquor.

The Victoria Hotel reopened in September 2004 under special trading conditions. In 2005, the Victoria Hotel licence was revoked. Comparison of alcohol-related hospitalisations for Roebourne between 1999/2000 (when the Hotel was trading without conditions) and 2002/2003 (when the Hotel was closed) show that there was a significant decrease in the rate of alcohol-related conditions requiring hospitalisation in the latter time period. For males, the rate of all alcohol-related hospitalisations, alcohol-related falls and other alcohol-related diseases decreased significantly when the Hotel was closed. For females, the rate of hospitalisation for alcohol-related falls and other alcohol-related injuries also decreased significantly when the Hotel was closed (Department of Health, unpublished 2006).

The lack of availability of alcohol in Roebourne remains a protective factor regarding reduced levels of alcohol-related problems. There are anecdotal reports of people purchasing large quantities of liquor in nearby towns. The closest general public liquor outlet is now at the Wickham Shopping Centre and the closest on-premises licensed consumption venue is the Point Samson Hotel.

ROEBOURNE ALCOHOL-RELATED OFFENCE DATA

Key points

- In 2010/2011:
 - 68.2% of *Offences Against the Person* in Roebourne were alcohol-related, an increase of 23.3% from the previous year.
 - 70.3% of *Assault Offences* in Roebourne were alcohol-related, an increase of 20.3%, from 50% in 2009/10.
 - 80.6% of *Domestic Assault Offences* were recorded as being alcohol-related, an increase of 6.9% from the previous year.
 - 48.2% of *Non-Domestic Assault Offences* in Roebourne were alcohol-related, an increase of 24.7% from the previous year.
- Between 1 July 2008 to 30 June 2011, the percentage of alcohol-related *Offences Against the Person, Assault and Domestic Assault* were consistently higher than the corresponding State percentage.
- The 2010/2011 period had a higher *percentage* of alcohol-related offences across all offence categories when compared to both the 2008/09 and 2009/10 financial years.

The Roebourne Police Station provides a Police service to numerous surrounding localities. Police report that there has been a natural transition of people entering and leaving Roebourne which can lead to peaks and troughs in alcohol-related crime.

Between 1 July 2008 and 30 June 2011, the percentage of alcohol-related offences in Roebourne for *Offences Against the Person, Assault and Domestic Assault* was consistently higher when compared to Western Australia:

In the most recent period (2010/2011), the percentage of alcohol-related offences in Roebourne for the following offence categories was higher when compared to the Pilbara Police District:

- *Offences Against the Person* (68.2% versus 60.5%);
- *Assault* (70.3% versus 64.5%);
 - *Domestic Assault* (80.6% versus 76.3%); and

The 2010/2011 period also had a higher *percentage* of alcohol-related offences across all offence categories when compared to both the 2008/09 and 2009/10 financial years. This was generally due to a decrease in the *number* of recorded non-alcohol-related offences in 2010/2011 compared with the two preceding financial years. The number of alcohol-related offences in this time period was not as high as the 2008/09 year but due to there being less total offences, the percentage of alcohol-related offences was higher.

For all offence categories, both the number and percentage of alcohol-related offences decreased between 2008/09 and 2009/10, but increased between 2009/10 and 2010/2011.

Roebourne: Offences Against the Person

In 2010/2011, 68.2% of *Offences Against the Person* for Roebourne were recorded as being alcohol-related. This was an increase from 2008/09 and 2009/2010 where the percentage of alcohol-related *Offences Against the Person* had remained relatively stable (n=45.3% and 44.9% respectively).

Table 15 shows a decrease in the number of non-alcohol related *Offences Against the Person* across the three financial years (n=94 in 2008/09, n=54 in 2009/10, n=33 in 2010/2011). The number of alcohol-related *Offences Against the Person* during this period do not follow the same pattern.

Table 15. Number of alcohol-related *Offences Against the Person* – Roebourne

Alcohol-related	2008-09	2009-10	2010- 11
Yes	78	44	75
No	94	54	33
Total	172	98	110
% Roebourne	45.3%	44.9%	68.2%
% State	39.2%	39.3%	37.1%

While the number of alcohol-related *Offences Against the Person* in Roebourne decreased between 2008/09 and 2009/10 (n=78 to n=44), 2010/2011 figures show that the actual number of alcohol-related *Offences Against the Person* has increased by n=31 compared to the previous 12 month period (n=44 to n=75).

Roebourne: Assaults

In 2010/2011, 70.3% of *Assault Offences* in Roebourne were recorded as being alcohol-related. This was an increase from 54.4% in 2008/09 and 50% in 2009/10 – see Table 16. The number of alcohol-related *Assault Offences* increased in 2010/2011 compared to the previous year.

The number of alcohol-related *Assault Offences* in Roebourne decreased by n=20 between 2008/09 and 2009/10 (n=56 to n=36), however rose by 28 to n=64 in 2010/2011.

Between 2008/09 and 2009/10 the number of non alcohol-related *Assault Offences* decreased by n=11 (n=47 to n=36). Between 2009/10 and 2010/2011 there was a decrease of n=9 (n=36 to n=27).

Table 16. Number of alcohol-related Assault Offences- Roebourne

Alcohol-related	2008-09	2009-10	2010- 11
Yes	56	36	64
No	47	36	27
Total	103	72	91
% Roebourne	54.4%	50.0%	70.3%
% State	45.2%	45.5%	42.7%

Roebourne: Non-Domestic Assaults

In 2010/2011, 48.2% of *Non-Domestic Assault Offences* in Roebourne were alcohol-related. The percentage of alcohol-related *Non-Domestic Assault Offences* was higher than the State but lower than the Pilbara Police District rate in 2010/2011.

Table 17 shows that in 2008/09, there were n=16 *Non-Domestic Assault Offences* in Roebourne, which halved to eight in 2009/10 and increased by n=6, to 14 for 2010/2011.

There was a decrease in non-alcohol-related *Non-Domestic Assault Offences* in Roebourne during the three financial years presented, resulting in an overall higher percentage of alcohol-related *Non-Domestic Assault Offences* in 2010/2011 (48.2% versus 32% and 23.5% respectively).

Table 17. Number of alcohol-related Offences Non-Domestic Assaults – Roebourne

Alcohol-related	2008-09	2009-10	2010- 11
Yes	16	8	14
No	34	26	15
Total	50	34	29
% Roebourne	32.0%	23.5%	48.2%
% State	39.8%	40.9%	37.7%

The introduction of *Police Orders* and *Move on Notices* now allows for early intervention, giving police the powers to separate persons before violence related issues occur.

Roebourne: Alcohol-related Domestic Assaults

During the defined period, alcohol featured strongly in *Domestic Assault Offences* in Roebourne. In 2010/2011, 80.6% of *Domestic Assault Offences* were recorded as being alcohol-related. This was an increase from 75.5% in 2008/09 and 73.7% in 2009/10.

Between 2008/09 and 2009/10, the number of alcohol-related *Domestic Assault Offences* dropped by n=12 (n=40 to n=28 respectively). However, 2010/2011 showed that the number of alcohol-related *Domestic Assault Offences* in Roebourne (n=50) was higher than those that occurred in the previous financial years.

Table 18: Alcohol-related *Domestic Assault*, Roebourne

Alcohol-related	2008-09	2009-10	2010- 11
Yes	40	28	50
No	13	10	12
Total	53	38	62
% Roebourne	75.5%	73.7%	80.6%
% State	54.4%	52.9%	49.5%

KARRATHA

Located in the Shire of Roebourne, Karratha is the largest town in the West Pilbara. According to 2006 Census data (Australian Bureau of Statistics, 2009), the total number of persons usually resident in the Karratha urban centre- locality is 11,728.

Karratha has a strong fly-in-fly-out population, estimated at approximately 7000 people in 2009 (Department of Planning, 2009). Recent projections in April 2010 by the Pilbara Industry's Community Council suggest that the fly-in-fly-out (FIFO) population for the Karratha/Dampier region will be approximately 11,500 in 2011, dropping back to 7,900 by 2012 as construction components of projects begin to be completed (Waller, 2010).

ACCESS TO ALCOHOL

There are 22 active licensed premises in Karratha (Department of Racing, Gaming and Liquor website, May 2010), including:

- 4 Hotels/Taverns.
- 2 Liquor Stores.
- 1 Nightclub.
- 4 Club/Club Restricted.
- 4 Licensed Restaurants.
- 7 Special Facility Licences.

ALCOHOL-RELATED OFFENCE DATA

Karratha Police Station is staffed by approximately 35 officers and provides a Police service to numerous surrounding localities. Police data for Karratha indicates levels of violent behaviour linked with alcohol consumption higher than the State percentage.

Key points

- Between 1 July 2008 to 30 June 2011, the percentage of alcohol-related *Offences Against the Person, Assault, and Domestic and Non-Domestic Assault* were consistently higher than the corresponding State percentage.
- In 2010/2011, Karratha had a higher *percentage* of alcohol-related offences across all offence categories when compared to both the 2008/09 and 2009/10 financial years.
- In 2010/2011 in Karratha:
 - 47.3% of *Offences Against the Person* were alcohol-related.
 - 54.0% of *Assault Offences* were alcohol-related.
 - 58.2% of *Domestic Assault Offences* were recorded as being alcohol-related.
 - 50.4% of *Non-Domestic Assault Offences* were alcohol-related.

For each of the financial year periods between 1 July 2008 and 30 June 2011, the percentage of alcohol-related offences in Karratha for the following offence categories were consistently higher when compared to Western Australia (the State):

- *Offences Against the Person;*
- *Assault:*
 - *Non-domestic Assault; and*
 - *Domestic Assault.*

The following provides specific data relating to each of the above listed offence categories.

Karratha: Offences Against the Person

In 2010/2011, 47.3% of *Offences Against the Person* in Karratha were recorded as being alcohol-related.

The percentage of alcohol-related *Offences Against the Person* in Karratha was relatively consistent between 1 July 2008 to 30 June 2011. Just over half of the total number of *Offences Against the Person* in the financial years 2008/09 and 2009/10 for Karratha were recorded as being alcohol-related (n=52.0% and n=53.0% respectively).

Table 19: Number of alcohol related *Offences Against the Person*: Karratha

Alcohol-related	2008-09	2009-10	2010- 11
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Yes	126	127	127
No	116	111	141
Total	242	238	268
%Karratha	52.0%	53.0%	47.3%
%State	39.2%	39.3%	37.1%

Karratha: Assault Offences

In 2010/2011, 54.0% of *Assault Offences* (n=108) in Karratha were alcohol-related.

For each of the financial year periods from 1 July 2008 to 30 June 2011, over half of *Assault Offences* in Karratha were recorded as being alcohol-related: 58.4% in 2008/09; 54.5% in 2009/10; and 54.0% 2010/11.

For each of the financial year periods between 1 July 2008 and 30 June 2011, there were consistently higher numbers of alcohol-related *Assaults* in Karratha when compared to those that are not alcohol-related.

Between 2008/09 to 2009/10, the number of reported alcohol-related *Assault* offences dropped by n=13 (n=104 to n=91 respectively).

Table 20: Number of alcohol related *Assault Offences*: Karratha

Alcohol-related	2008-09	2009-10	2010-11
Yes	104	91	108
No	74	76	92
Total	178	167	200
%Karratha	58.4%	54.5%	54.0%
% State	45.2%	45.5%	42.7%

Karratha: Non-Domestic Assault

In 2010/2011, 50.4% of *Non-Domestic Assault Offences* were alcohol-related.

Between 2008/09 and 2009/10, the number of reported alcohol-related *Non-Domestic Assault Offences* dropped by n=19 (n=63 to n=44 respectively). However, for 2010/2011, the number of alcohol-related *Non-Domestic Assaults* in Karratha (n=55) was higher than those that occurred in the previous financial year.

Table 21: Number of alcohol related *Non-Domestic Assault Offences*: Karratha

Alcohol related	2008-09	2009-10	2010- 11
Yes	63	44	55
No	50	55	54
Total	113	99	109
% Karratha	55.8%	44.4%	50.4%
% State	39.8%	40.9%	37.7%

WA Police report that the introduction of two a dedicated police Alcohol and Drug Officer and the resulting management of licensed premises had some influence on the reduction in alcohol-related *Non-Domestic Assault* figures in 2009/10.

Karratha: *Domestic Assault*

During the defined period, of those that occurred, alcohol featured strongly in *Domestic Assault Offences* in Karratha. In 2010/11, 58.2% of *Domestic Assaults* were alcohol-related.

Table x shows that the total number of alcohol-related *Domestic Assault Offences* slightly increased each financial year between July 2008 and 30 June 2011. There was also an increase in the number of non-alcohol-related *Domestic Assaults* between 2009/10 and 2010/11.

Table 22: Alcohol-related *Domestic Assault*, Karratha

Alcohol related	2008-09	2009-10	2010- 11
Yes	41	47	53
No	24	21	38
Total	65	68	91
% Karratha	63.1%	69.1%	58.2%
% State	54.4	52.9	49.5%

WICKHAM

According to 2006 Census data (Australian Bureau of Statistics, 2009), the total number of persons usually resident in the Wickham urban centre-locality is 1,825.

Wickham is located 8 kilometres from Roebourne (<http://www.roebourne.wa.gov.au>) accessed 18 September 2011).

ACCESS TO ALCOHOL

There are currently 4 active licensed premises in Wickham (Department of Racing, Gaming and Liquor website, 2011), including:

- 1 Liquor Store.
- 3 Club Restricted licences.

Due to its proximity to Roebourne, Wickham is a key source of packaged liquor for Roebourne community members. Driving on unsealed roads (the 'bush highway') to the liquor store in Wickham from Roebourne is a key issue reported anecdotally by stakeholders. WA Police Pilbara District have recently committed to policing these roads, in part to reduce sly-grogging and other movement of alcohol, as well as drink driving between Wickham and Roebourne.

WICKHAM ALCOHOL-RELATED OFFENCE DATA

Wickham Police Station is staffed by approximately four officers and provides a Police service to numerous surrounding localities. Local officers indicate that alcohol continues to be the major source of problems in Wickham. Many of the problems are reported to be disorderly behaviour type incidents.

Key points

- From 1 July 2008 to 30 June 2011, there was an increase in the number of alcohol-related offences across all offence categories presented for Wickham, with the exception of *Domestic Assault* which remained the same.
- In 2010/2011 in Wickham:
 - 51.4% of *Offences Against the Person* were alcohol-related.
 - 60.5% of *Assault Offences* were alcohol-related.
 - 80.0% of *Domestic Assault Offences* were recorded as being alcohol-related.
 - 42.8% of *Non-Domestic Assault Offences* were alcohol-related.

During the specified data period (1 July 2008 to 30 April 2011) there was an increase in the number of alcohol-related offences across all offence categories presented with the exception of *Domestic Assault*.

Wickham: Offences Against the Person

In 2010/11, more than half (51.4%) of *Offences Against the Person* in Wickham were recorded as being alcohol-related. This represented an increase from 36.1% in 2008/09 and 33.8% in 2009/10.

While the number of non-alcohol related *Offences Against the Person* decreased by n=20 between 2009/10 and 2010/11, the number of alcohol-related *Offences Against the Person* increased by eight (n=35 compared to the preceding financial year n=27).

Table 23. Offences Against the Person - Wickham

Alcohol-related	2008-09	2009-10	2010-11
Yes	22	27	35
No	39	53	33
Total	61	80	68
% Wickham	36.1%	33.8%	51.4%
% State	39.2	39.3	37.1

Wickham: Assault

In 2010/11, over half (60.3%) of *Assault Offences* in Wickham were recorded as being alcohol-related. The percentage of alcohol-related *Assault Offences* in Wickham fluctuated slightly between 1 July 2008 to 30 June 2011 (53.3% in 2008/09; 53.1% in 2009/10; 60.3% in 2010/2011). The percentage of alcohol-related *Assault Offences* in Wickham was consistently higher than the State across the three financial years presented.

The number of alcohol-related *Assault Offences* increased by nine between 2008/09 and 2009/10 (n=16 to n=25) and increased by a further seven between 2009/10 and 2010/2011 (n=25 to n=32).

Wickham: Non-Domestic Assault

In 2010/11, 42.8% of *Non-Domestic Assault Offences* in Wickham were recorded as being alcohol-related.

The percentage of alcohol-related *Non-Domestic Assault Offences* decreased from 47.1% in 2008/09 to 32% in 2009/10 and then increased to 42.8% for the 2010/2011 period.

Table 24. Non-Domestic Assault Offences – Wickham

Alcohol-related	2008-09	2009-10	2010- 2011
Yes	8	8	12

No	9	17	16
Total	17	25	28
% Wickham	47.1%	32.0%	42.8%
% State	39.8%	40.9%	37.7%

The number of alcohol related *Non-Domestic Assault Offences* in Wickham remained the same in 2008/09 and 2009/10 (n=8) but increased by four in the twelve month period from 1 July 2010 (n=12).

Wickham: Alcohol-related Domestic Assault

Statistics show that a majority of *Domestic Assault Offences* in Wickham are alcohol-related and the numbers of offences are increasing. In 2010/11, 80.0% (n=20) of reported *Domestic Assault Offences* in Wickham were recorded as being alcohol-related.

The percentage of alcohol-related *Domestic Assault Offences* in Wickham has fluctuated slightly over the specified data period (72.7% in 2008/09; 80.0% in 2009/10, and; 80.0% in 2010/2011).

As shown in Table 25, the number of alcohol-related *Domestic Assault Offences* in Wickham doubled from n=8 to n=16 between 2008/09 and 2009/10. Alcohol-related *Domestic Assault Offences* in Wickham increased to n=20 in 2010/11.

Table 25. Domestic Assault Offences in Wickham

Alcohol-related	2008-09	2009-10	2010- 11
Yes	8	16	20
No	3	4	5
Total	11	20	25
% Wickham	72.7%	80.0%	80.0%
% State	54.4%	52.9%	49.5%

After WA Police review of the content of reported *Domestic Assault Offences*, it appears that many have involved at least one party being intoxicated and on most occasions, injury inflicted. Numerous narratives state that there has been 'drinking all day' and there are repeat locations where the offences occur (not necessarily repeat victims and/or offenders).

DAMPIER

According to 2006 Census data (Australian Bureau of Statistics, 2009), the total number of persons usually resident in the Dampier urban centre-locality is 1370.

The town is occupied by a variety of groups, but has a strong mining population associated with Rio Tinto. While the town was previously serviced by Hamersley Iron, the Shire of Roebourne now administers the town, and private home ownership is increasing primarily through Hamersley Iron's home purchasing scheme (<http://www.roebourne.wa.gov.au/Townsites%20-%20Dampier.aspx>, accessed 19 September 2011).

ACCESS TO ALCOHOL

There are currently 7 active licensed premises in Dampier (Department of Racing, Gaming and Liquor website, 2009), including:

- 1 Hotel.
- 1 Liquor Store.
- 2 Club Licences
- 1 Club Restricted Licence.
- 2 Special Facility Licences.

DAMPIER: ALCOHOL-RELATED OFFENCE DATA

Dampier has a four person Police station. Overall, numbers of alcohol-related offences in Dampier are low.

Key points

- From 1 July 2008 to 30 June 2011, the numbers of reported alcohol-related offences across all offence categories presented in Dampier were low. However, alcohol was a common feature in those offences that did occur.
- In 2010/2011 in Dampier:
 - 80% of *Offences Against the Person* were alcohol-related (n=5).
 - 100% of *Assault Offences* were alcohol-related (n=3).
 - 80% of *Domestic Assault Offences* were alcohol related (n=20).
 - 46.8% of *Non-Domestic Assault Offences* were alcohol-related (n=15).

Dampier: *Offences Against the Person*

While the *Offences Against the Person* figures for Dampier are low, alcohol is a feature in a majority of those that do occur.

In 2010/11, 80% (n=4) of *Offences Against the Person* in Dampier were recorded as being alcohol-related. The number of reported *Offences* decreased between 2008/09 and 2010/11, however, the percentage of those that were alcohol-related remained higher than the State during this time.

Table 26. *Offences Against the Person, Dampier*

Alcohol-related	2008-09	2009-10	2010- 11
Yes	14	5	4
No	6	4	1
Total	20	9	5
% Dampier	70.0%	55.6%	80.0%
% State	39.2%	39.3%	37.1%

Dampier: Assault

Overall, recorded *Assault Offences* are low in Dampier. In 2010/11, 100% (n=3) of *Assault Offences* in Dampier were recorded as being alcohol-related.

Table 27. *Assault Offences, Dampier*

Alcohol-related	2008-09	2009-10	2010- 11
Yes	9	5	3
No	1	3	0
Total	10	8	3
% Dampier	90.0%	62.5%	100.0%
% State	45.2	45.5	42.7%

Dampier: Non-Domestic and Domestic Assault

Non-domestic Assault accounts for the greatest number of *Assaults* in Dampier. Alcohol is a key feature of the *Non-Domestic Assaults* occurring. In 2010/11, 46.8% (n=15) of *Non-Domestic Assaults* were alcohol-related

Table 28. *Non Domestic Assault Offences, Dampier*

Alcohol-related	2008-09	2009-10	2010- 11
Yes	8	4	15
No	1	3	17
Total	9	7	32
%Dampier	88.9%	57.1%	46.8%
% State	39.8	40.9	37.7%

Alcohol-related *Domestic Assaults* in Dampier occurred at very low levels, with single incidents occurring in 2008/09 and 2009/10. Of note is the large increase in the number of alcohol-related *Domestic Assaults* in 2010/11 (n=20)

Table 29. Domestic Assault, Dampier

Alcohol-related	2008-09	2009-10	2010- 11
Yes	1	1	20
No	0	0	5
Total	1	1	25
% Dampier	100.0%	100.0%	80%
% State	54.4%	52.9%	49.5%

WHIM CREEK

Whim Creek is located on the North West Coastal Highway between Karratha and Port Hedland, approximately 121 kilometres from Karratha (<http://www.pilbaracoast.com/whim-creek-self-drive-day-trip>, accessed 19 September 2011).

The Whim Creek community has a residential population of approximately 140 people. Whim Creek has traditionally included accommodation for miners. Mines at this location are currently not operational, although this is expected to change in the medium to long-term.

ACCESS TO LIQUOR

Whim Creek has two liquor licences:

- 1 Hotel Licence.
- 1 Special Facility Licence.

ALCOHOL-RELATED OFFENCE DATA

Key points

- From 1 July 2008 to 30 June 2011, the only alcohol-related offences reported occurred in 2008/09, with numbers being very low.
- In 2010/2011 YTD April in Whim Creek:
 - No *Offences Against the Person* were alcohol-related.
 - No *Assault Offences* were reported.
 - No *Domestic Assault Offences* were reported.
 - No *Non-Domestic Assault Offences* were reported.

Whim Creek: Offences Against the Person

In 2008/09, of the two *Offences Against the Person* in Whim Creek, one was recorded as being alcohol-related. In 2009/10 and 2010/11, there were no reported *Offences Against the Person* in Whim Creek.

Table 30. Offences Against the Person, Whim Creek

Alcohol-related	2008-09	2009-10	2010- 11
Yes	1	0	0
No	1	0	0
Total	2	0	0
% Whim Creek	50%	0%	0%
% State	39.2%	39.3%	37.1%

Whim Creek: Assaults, including Domestic and non-Domestic

In 2008/09 there was only one *Assault Offence* in Whim Creek and it was recorded as being alcohol-related. The assault was a *Non-Domestic Assault*.

In 2009/10 and 2010/11 YTD April, there were no reported *Assault Offences* in Whim Creek.

Table 31. Assault Offences, Whim Creek

Alcohol-related	2008-09	2009-10	2010- 11
Yes	1	0	0
No	0	0	0
Total	1	0	0
% Whim Creek	100%	0%	0%
% State	45.2%	45.5%	42.7%

POINT SAMSON

Point Samson is a small coastal town, 38 kilometres from Karratha and 18 kilometres north of Roebourne. The town is a popular holiday location for the nearby mining towns, including Wickham, Karratha and Dampier. Fishing is the main industry (<http://www.roebourne.wa.gov.au>, accessed 19 September 2011). Point Samson has an estimated residential population of 274 persons (Australian Bureau of Statistics, 2008).

ACCESS TO LIQUOR

There are three liquor licences in Point Samson (Department of Racing, Gaming and Liquor, 2010):

- 1 Tavern Licence.
- 1 Restaurant Licence.
- 1 Special Facility Licence.

ALCOHOL-RELATED OFFENCE DATA

Key points

- From 1 July 2008 to 30 June 2011, the numbers of reported alcohol-related offences reported in Point Samson across all offence categories were very low.
- In 2010/2011 in Point Samson:
 - Of three recorded *Offences Against the Person*, one was alcohol-related.
 - Of three recorded *Assault Offences*, one was alcohol-related.
 - No *Domestic Assault Offences* were reported.
 - No *Non-Domestic Assault Offences* were reported.

Point Samson: *Offences Against the Person*

In 2008/09, of the three *Offences Against the Person* in Point Samson, none were recorded as being alcohol-related.

Table 32. *Offences Against the Person*, Point Samson

Alcohol-related	2008-09	2009-10	2010-11
Yes	0	2	1
No	3	1	2
Total	3	3	3
% Point Samson	0%	66.7%	33.3%
% State	39.2%	39.3%	37.1%

In 2009/10, of the three *Offences Against the Person* that occurred, two were alcohol-related. However, in 2010/11, of the three *Offences* that had occurred, one was alcohol-related.

Point Samson: Assaults, including Domestic and non-Domestic

In 2008/09 there were two *Assault Offences* in Point Samson, with neither reported as being alcohol-related.

Table 33. Assault Offences, Point Samson

Alcohol-related	2008-09	2009-10	2010- 11
Yes	0	1	1
No	2	1	2
Total	2	2	3
% Point Samson	0%	50%	33.3%
% State	45.2%	45.5%	42.7%

In 2009/10, two *Assault Offences* occurred; one was a *Non-Domestic Assault* and the other a *Domestic Assault*. The *Non-Domestic Assault* was reported as being alcohol-related.

In 2010/11, there were three reported *Assault Offences* in Point Samson, one of which was alcohol-related.

APPENDIX 2

SHIRE OF ASHBURTON TOWN PROFILES



Source: <http://www.wacountry.health.wa.gov.au/default.asp?documentid=455>

ONSLow

According to 2006 Census data (Australian Bureau of Statistics, 2009), the total number of persons usually resident in the Onslow urban centre-locality is 573. The Aboriginal community of Bindi Bindi is located in the Onslow town site.

Alcohol-related antisocial behaviour and violence are key issues reported by stakeholders.

There has been an increase in population for Onslow and there will be a continued projected increase due to the Gorgan project and subsequent infrastructure required.

ACCESS TO ALCOHOL

There are currently 5 active licensed premises in Onslow (Department of Racing, Gaming and Liquor website, 2010), including:

- 1 Hotel Licence.
- 1 Liquor Store Licence.
- 1 Club Licence.
- 1 Restaurant Licence.
- 1 Special Facility Licence.

In response to local alcohol issues, which included tourists as well as locals, the town of Onslow has previously had a voluntary liquor accord which included restrictions such as:

- No packaged alcohol is sold before 10am on any day.
- After 9pm (21.00) on any day, the following limits per customer are:
 - 1 six-pack of beer.
 - 1 six-pack of premixed drinks.
 - 1 bottle of wine.
 - 1 bottle of spirits.
- Full-strength beer in glass containers will only be sold to persons who agree to be responsible for the proper and safe disposal of the containers.
- The sale of port in 2 litre casks is prohibited.

It is understood the voluntary restrictions are no longer in place.

ONSLOW: ALCOHOL-RELATED OFFENCE DATA

The Onslow Police Station is staffed by 6 officers and provides a police service to numerous surrounding localities.

Key points

- From 1 July 2008 to 30 June 2011 YTD, the percentages of alcohol-related offences in Onslow were consistently higher than the corresponding percentages of the State and Pilbara Police District.
- In 2010/2011 in Onslow:
 - 75.8% of *Offences Against the Person* were alcohol-related.
 - 75% of *Assault Offences* were alcohol-related.
 - 88.0% of *Domestic Assault Offences* were recorded as being alcohol-related.
 - 52.9% of *Non-Domestic Assault Offences* were alcohol-related.

During the specified data period (1 July 2008 to 30 June 2011), the percentage of alcohol related offences in Onslow were higher than both the State and the Pilbara Police District across all offence categories presented.

Onslow: *Offences Against the Person*

In 2010/2011, 75.8% of *Offences Against the Person* in Onslow were recorded as alcohol-related.

For the specified period there was an increase in the percentage of alcohol-related *Offences Against the Person* in Onslow. In 2008/09, 64.2% of *Offences Against the Person* were recorded as alcohol-related, this increased to 80% before dropping slightly to 75.8% in 2010/2011.

Table 34. *Offences Against the Person, Onslow*

Alcohol-related	2008-09	2009-10	2010-11
Yes	34	20	44
No	19	5	14
Total	53	25	58
% Onslow	64.2%	80.0%	75.8%
% State	39.2%	39.3%	37.1%

As shown in Table 34, the number of alcohol-related *Offences Against the Person* decreased by 14 between 2008/09 and 2009/10 (n=34 to n=20 respectively) but increased by 24 in the 12 month period for 2010/11.

Onslow: *Assault*

Alcohol is a common feature in violence in Onslow. In 2010/2011, 75.0% of *Assault Offences* in Onslow were recorded as being alcohol-related.

Table 35. Alcohol-related Assault Offences, Onslow

Alcohol-related	2008-09	2009-10	2010-11
Yes	32	19	33
No	8	4	11
Total	40	23	44
% Onslow	80.0%	82.6%	75.0%
% State	45.2%	45.5%	42.7%

As shown in **Table 35**, the number of alcohol-related and non-alcohol-related *Assault Offences* in Onslow decreased between 2008/09 and 2009/10 then increased between 2009/10 and 2010/11 by n=14.

In 2010/11, the number of alcohol-related *Assault Offences* increased by 14 when compared to the previous year.

Onslow: Non-Domestic Assault

Overall, the total number of *Non-Domestic Assault Offences* in Onslow is relatively low – see **Table 36**. In 2010/2011, 52.9% of *Non-Domestic Assault Offences* in Onslow were recorded as being alcohol-related.

Table 36. Non-Domestic Assault Offences, Onslow

Alcohol-related	2008-09	2009-10	2010- 11
Yes	11	6	9
No	5	3	8
Total	16	9	17
% Onslow	68.8%	66.7%	52.9%
% State	39.8%	40.9%	37.9%

Onslow: Alcohol-related Domestic Assault

Of the *Domestic Assault* offences that are reported in Onslow, a majority are alcohol-related. In 2010/11, 88% of *Domestic Assaults* in Onslow were recorded as being alcohol-related.

Table x shows that there was a reduction in the number of alcohol and non-alcohol-related *Domestic Assault* offences in 2009/10, followed by an increase in 2010/11.

Table 37. Domestic Assault Offences, Onslow

Alcohol-related	2008-09	2009-10	2010-30 April 11
-----------------	---------	---------	------------------

Yes	21	13	22
No	3	1	3
Total	24	14	25
% Onslow	87.5%	92.9%	88.0%
% State	54.4%	52.9%	50.1%

TOM PRICE

Supporting a population of approximately 3500 people, Tom Price neighbours the Aboriginal communities of Wakathuni, Bellary and Youngaleena (<http://www.riotintoironore.com>, accessed 30 December 2009).

Tom Price is located approximately 620 kilometres south east from Karratha.

ACCESS TO ALCOHOL

There are 11 licensed premises in or nearby Tom Price (Department of Racing, Gaming and Liquor, 2010):

- 1 Hotel Licence.
- 1 Liquor Store Licence.
- 2 Club Licences.
- 1 Club Restricted Licence.
- 2 Restaurant Licences.
- 4 Special Facility Works Canteen Licences.

TOM PRICE: OFFENCE DATA

Key points

- From 1 July 2008 to 30 June 2011, the percentages of alcohol-related offences in Tom Price across all offence categories were higher than the State.
- In 2010/2011:
 - 53.3% of *Offences Against the Person* in Tom Price were alcohol-related.
 - 55.5% of *Assault Offences* in Tom Price were alcohol-related.
 - 77.8% of *Domestic Assault Offences* were recorded as being alcohol-related.
 - 33.3% of *Non-Domestic Assault Offences* in Tom Price were alcohol-related.

During the specified data period (1 July 2008 to 30 June 2011), the percentage of alcohol-related offences in Tom Price across all offence categories were higher than the State.

Tom Price: *Offences Against the Person*

In 2009/10, though numbers of offences were not high, almost 53% of *Offences Against the Person* were alcohol-related. The percentage of alcohol-related *Offences Against the Person* in Tom Price have been relatively consistent, remaining approximately 20% higher than the State since 2008/09.

The number of reported alcohol-related *Offences Against the Person* and non-alcohol-related *Offences Against the Person* were similar within each financial year period.

Table 38. Offences Against the Person, Tom Price

Alcohol-related	2008-09	2009-10	2010- 11
Yes	22	36	24
No	19	32	21
Total	41	68	45
% Tom Price	53.7%	52.9%	53.3%
% State	39.2%	39.3%	37.7%

Tom Price: Assault

While the number of alcohol-related *Assault Offences* in Tom Price decreased by 12 in 2010/11 from the previous year, alcohol featured in almost 56% of *Assaults* that were reported.

Between 2008/09 and 2010/11, alcohol-related *Assault Offences* for Tom Price (57%) were lower than the Pilbara District percentage (65.2%) but higher than the State (42.7%).

Table 39. Alcohol-related Assault, Tom Price

Alcohol-related	2008-09	2009-10	2010- 11
Yes	22	32	20
No	15	25	16
Total	37	57	36
% Tom Price	59.5%	56.1%	55.5%
% State	45.2%	45.5%	42.7%

Tom Price: Non-Domestic Assault

In 2010/11, 33.3% of *Non-Domestic Assaults* were alcohol-related. Alcohol related *Non-Domestic Assaults* reduced by n=15 between 2009/10 and 2010/11.

Table 40. Non-Domestic Assault, Tom Price

Alcohol-related	2008-09	2009-10	2010-11
Yes	15	21	6
No	12	17	12
Total	27	38	18
% Tom Price	55.6%	55.3%	33.3%
% State	39.8%	40.9%	37.9%

Tom Price: Alcohol-related Domestic Assault

In 2010/11, while the numbers of *Domestic Assaults* in Tom Price were not high, of those that were reported, 77.8% were alcohol-related.

Between 2008/09 to 2010/11, the numbers of alcohol-related *Domestic Assaults* increased, while the numbers of non-alcohol related offences fluctuated.

Table 41. Alcohol-related *Domestic Assault*, Tom Price

Alcohol-related	2008-09	2009-10	2010- 11
Yes	7	11	14
No	3	8	4
Total	10	19	18
% Tom Price	70.0%	57.9%	77.8%
% State	54.4%	52.9%	50.1%

PANNAWONICA

Pannawonica is located approximately 198km south west of Karratha and is 47 kilometres off the North West Coastal Highway, between the Onslow turnoff and Fortescue Roadhouse. According to 2006 Census data (Australian Bureau of Statistics, 2009), the total number of persons usually resident in the Pannawonica urban centre-locality is 686.

Pannawonica is one of the many iron ore mining towns in the Pilbara built specifically to accommodate employees. Built and owned by Robe River Iron Associates, Pannawonica provides services for employees and their families working at nearby mining operations. (<http://www.riotintoironore.com>, accessed 30 December 2009).

ACCESS TO ALCOHOL

There are 3 licensed premises in Pannawonica (Department of Racing, Gaming and Liquor, 2011):

- 1 Club Licence.
- 1 Liquor Store.
- 1 Tavern.

PANNAWONICA OFFENCE DATA

Pannawonica does not experience crime and violence to the same extent as some other towns in the West Pilbara. Overall, Police statistics show that the number of offences in Pannawonica is very low. However, of those that do occur, alcohol involvement features strongly.

Key points

- Between 1 July 2008 and 30 June 2011, numbers of offences in Pannawonica were very low.
- In 2010/2011 of those offences that occurred:
 - 50.0% of *Offences Against the Person* in Pannawonica were alcohol-related.
 - One *Assault Offence* in Pannawonica was recorded and it was domestic related.

Pannawonica: Offences Against the Person

In 2008/09, of the five *Offences Against the Person* in Pannawonica, three (60.0%) were recorded as being alcohol-related. In 2009/10, of the two *Offences Against the Person* that occurred, none were alcohol-related. In 2010/11, of the six *Offences* that occurred, three (50.0%) were alcohol-related.

Table 42. Offences Against the Person, Pannawonica

Alcohol-related	2008-09	2009-10	2010- 11
Yes	3	0	3
No	2	2	3
Total	5	2	6
% Pannawonica	60%	0%	50%
% State	39.2%	39.3%	37.7%

Pannawonica: Assaults, including Domestic and non-Domestic

In 2008/09 there were three *Assault Offences* in Pannawonica, with two (66.7%) of the offences reported as being alcohol-related. The recorded alcohol-related offences were *Non-Domestic Assaults*.

In 2009/10, one *Assault Offence* occurred. The *Assault* was not alcohol-related and was *Domestic* in nature.

In 2010/11, there was one reported *Assault Offence* in Pannawonica and it was recorded as alcohol-related.

Table 43. Assault Offences, Pannawonica

Alcohol-related	2008-09	2009-10	2010- 11
Yes	2	0	1
No	1	1	0
Total	3	1	1
% Pannawonica	66.7%	0%	100%
% State	45.2%	45.5%	43.1%

PARABURDOO

Paraburdoo is a small mining town accessed via a sealed road linking Nanutarra Roadhouse and Tom Price.

The town has a population of approximately 2000 people (<http://www.riotintoironore.com>, accessed 30 December 2009).

ACCESS TO ALCOHOL

There are eight licensed premises in Paraburdoo (Department of Racing, Gaming and Liquor, 2011):

- 1 Liquor Store Licence.
- 1 Hotel Licence.
- 3 Club Restricted Licences.
- 3 Special Facility (wet mess).

ALCOHOL-RELATED OFFENCE DATA

Paraburdoo does not experience crime and violence to the same extent as some towns in the West Pilbara. Overall, Police statistics show that the number of offences in the town is low.

Local Police report that Rio Tinto are very supportive of responding to any misdemeanours by mining personnel, and have a strict 'two strikes and you're out' policy.

Key points

- While numbers of offences are low in Paraburdoo, the percentage of offences that are alcohol-related is high.
- In 2010/2011:
 - 87.5% (n=7) of *Offences Against the Person* in Paraburdoo were alcohol-related.
 - 87.5% (n=7) of *Assault Offences* in Paraburdoo were alcohol-related.
 - 85.7% (n=6) of *Domestic Assault Offences* were alcohol-related in Paraburdoo.
 - 100% (n=1) of *Non-Domestic Assault Offences* in Paraburdoo were alcohol-related.

Paraburdoo: *Offences Against the Person*

In 2008/09, of the 31 (71.0%) *Offences Against the Person* in Paraburdoo, 22 were recorded as being alcohol-related.

In 2009/10, of the seven *Offences Against the Person* that occurred, four (57.1%) were alcohol-related.

In 2010/11, of the eight offences that occurred, seven were alcohol-related (87.5%).

Table 44. Offences Against the Person, Paraburdoo

Alcohol-related	2008-09	2009-10	2010- 11
Yes	22	4	7
No	9	3	1
Total	31	7	8
% Paraburdoo	71.0%	57.1%	87.5%
% State	39.2%	39.3%	37.9%

Paraburdoo: Assaults, including Domestic and non-Domestic

In 2008/09, there were 23 *Assault Offences* in Paraburdoo, with 19 (82.6%) reported as being alcohol-related. Of the 19 *Assaults* that were alcohol-related, five were *Domestic Assault Offences*.

In 2009/10, four *Assault Offences* occurred, three of which were alcohol-related (75.0%). All of the three alcohol-related offences were *Domestic Assaults*.

In 2010/11, there were eight reported *Assault Offences* in Paraburdoo, seven (87.5%) of which were alcohol-related. Of the seven offences that were alcohol-related, six were *Domestic Assaults* and one was a *Non-Domestic Assault*.

Table 45. Assault Offences, Paraburdoo

Alcohol-related	2008-09	2009-10	2010- 11
Yes	19	3	7
No	4	1	1
Total	23	4	8
% Paraburdoo	82.6%	75.0%	87.5%
% State	45.2%	45.5%	43.1%

REFERENCES

Ames, G.M. Grube, J.W. Moore, R.S 2000. Social control and workplace drinking norms: A comparison of two organisational cultures. *Journal of Studies on Alcohol*, 61 (2), pp203-219

Australian Institute of Health and welfare(2008) 2007 National Drug Strategy Household Survey: detailed findings. Drug statistics series no.22 Cat no. PHE 107 AIHW. Canberra (cited in Drug and Alcohol Office, 2011b).

Australian Bureau of Statistics (2009) 2006 Census data. www.abs.gov.au

Australian Bureau of Statistics (2008) 2006 Census Community Profile Series: Point Samson (State Suburb) (<http://www.censusdata.abs.gov.au>) accessed 25 September 2011.

Babor, T., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Graham K., Grube, J., Gruenewald, P., Hill, L., Holder, H., Homel, R., Osterberg, E., Rehm, J., Room, R., Rossow, I (2003), *Alcohol, no ordinary commodity, research and public policy*. Oxford University Press, New York.

Babor, T., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Graham K., Grube, J., Hill, L., Holder, H., Homel, R., Livingston, M., Osterberg, E., Rehm, J., Room, R., Rossow, I 2010, *Alcohol, no ordinary commodity, research and public policy*. Oxford University Press, New York.

Department of Indigenous Affairs (2009) Roebourne report: issues, current responses and strategies for consideration July 2009, www.dia.wa.gov.au.

Drug and Alcohol Office (2010) 3-month interim report on Halls Creek liquor restrictions. Perth: Western Australia (www.dao.wa.gov.au).

Drug and Alcohol Office (2011) Strong Spirit, Strong Mind Aboriginal and Alcohol Framework for Western Australia 2011-2015.

Department of Health and Drug and Alcohol Office (2011) *The Impact of Alcohol on the Population of Western Australia: Pilbara Regional Profile*. Perth, Western Australia.

Loxley, W. Toumbourou, J. Stockwell, T. Haines, B. Scott, K. Godfrey, C. Waters, E. Patton, G. Fordham, R. Gray, D. Marshall, J. Ryder, D. Saggars, S. Sanci, L and Williams, J 2004, *The Prevention of Substance Use, Risk and Harm in Australia: a review of the evidence*. Canberra: The National Drug Research Centre and the Centre for Adolescent Health.

Loxley, W., Chikritzhs, T. & Pascal, R. 2011. *National Alcohol Sales Data Project Final Report 2009*. Drug and Alcohol Office.

Midford, R. Marsden, A. Phillips, M. Lake, J 1997. Workforce alcohol consumption pattern at two Pilbara mining-related worksites. *Journal of Occupational Health and Safety: Australia and New Zealand*, 13 (3), pp. 267-74.

National Drug Research Institute 2007, *Restrictions on the sale and supply of alcohol: Evidence and outcomes*, National Drug Research Institute, Curtin University of Technology, Perth.

Pidd, K., Berry, J.G., Harrison, J.E., Roche, A.M., Driscoll, T.R., Newson, R.S 2006. *Alcohol and Work: Pattern of Use, Workplace Culture and Safety*, Injury Research and Statistics Series Number 28.

Pidd, K. 2005. Workplace Culture and Alcohol Use, *Of Substance*, The National Magazine on Alcohol, Tobacco and other Drugs, 3(1), pp. 18-21.

Stimson, G. Grant, M. Choquet, M. Garrison, P. (2007) *Drinking in context. Patterns, interventions and partnerships*. New York: Routledge, Taylor and Francis Group.

Stockwell, T., Masters, L., Philips, M., Daly, A., Gahegan, M., Midford, R. and Philp, A. (1998), Consumption of different alcoholic beverages as predictors of local rates of night-time assault and acute alcohol-related morbidity. *Australian and New Zealand*

Tourism Western Australia 2009a. Shire of Ashburton, overnight visitor fact sheet years ending December 2007/08/09.

Tourism Western Australia 2009b. Shire of Roebourne, overnight visitor fact sheet years ending December 2007/08/09.

Tourism Western Australia (2010) *Australia's North West*, overnight visitor fact sheet years ending December 2007/08/09. Perth: Government of Western Australia.

Waller, M. (2010) *Planning for resources growth in the Pilbara: revised employment and population projections to 2020*. Report prepared for Pilbara Industry's Community Council.