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12

Towards national measures of alcohol-related crime

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Acronyms

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AERF	Alcohol Education and Rehabilitation Foundation
AIC	Australian Institute of Criminology
AIHW	Australian Institute of Health and Welfare
ALP	Alcohol Linking Program
ANZPAA	Australian New Zealand Policing Advisory Agency
ARCIE	Alcohol Related Crime Information Exchange
BAC	Blood Alcohol Concentration
BOCSAR	Bureau of Crime Statistics and Research
CBD	Central Business District
COAG	Council of Australian Governments
COPS	Computerised Operational Policing System
CVS	Crime Victimisation Survey
DiRCS	Differences in Recorded Crime Statistics
DUMA	Drug Use Monitoring in Australia
FARE	Foundation for Alcohol Research and Education
FVMS	Family Violence Management System
GNP	Gross National Product
HLM	Hierarchical Linear Modelling
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification

IGCD	Intergovernmental Committee on Drugs
IMS	Frontline Incident Management System
LEAP	Law Enforcement Assistance Program
MPHS	Multipurpose Household Survey
NAIP	National Alcohol Indicators Project
NCRS	National Crime Recording Standard
NDRI	National Drug Research Institute
NDSHS	National Drug Strategy Household Survey
NEACA	National Expert Advisory Committee on Alcohol
NHMP	National Homicide Monitoring Program
NHS	National Health Survey
NMDS	National Minimum Dataset
NPCS	National Police Custody Survey
NSCSP	National Survey of Community Satisfaction with Policing
NSW	New South Wales
NSWPF	New South Wales Police Force
NT	Northern Territory
ORS	Offence Recording System
PAAF	Population Alcohol Aetiologic Fraction
PIMS	Police Incident Management System
PROMIS	Police Realtime Online Management Information System
PSS	Personal Safety Survey
QPRIME	Queensland Police Records and Information Management Exchange
QPS	Queensland Police Service
RPOS	Road and Public Order Service
SA	South Australia
SIRC	Social Issues Research Centre
SNOMED CT-AU (EDRS)	Systematized Nomenclature of Medicine—Clinical Terms—Australian version, Emergency Department Reference Set

UK	United Kingdom
VCCA	Victorian Community Council Against Violence
VYADS	Victorian Youth Alcohol and Drug Survey
WA	Western Australia
WHO	World Health Organization
WSS	Women's Safety Survey

Executive summary

Attempts to measure the range of harms and costs associated with alcohol misuse in Australia are not new. Research has previously demonstrated that alcohol misuse has a significant impact on police time and resources, the health sector and the Australian community more broadly (Miller et al. 2012; Doherty & Roche 2003; Donnelly et al. 2007; Killian et al. 2012). Despite growing interest in the topic and the number of research studies that have been completed in this area, there remain significant limitations to the national measurement of alcohol-related crime. While recent studies have canvassed the challenges of measuring alcohol-related crime and proposed possible solutions (Laslett et al. 2010, Roche et al. 2011; Office of National Drugs Control Policy 2013), the current study set out to bridge a gap in the knowledge and understanding of the steps that need to be taken to establish practical, high-quality indicators of alcohol-related crime at a national level.

The Intergovernmental Committee on Drugs (IGCD) commissioned the Australian Institute of Criminology (AIC) to undertake a review of policing and non-policing data on the involvement of alcohol in crime and to identify the short-, medium- and longer-term options available for better understanding and measuring the magnitude of alcohol-related crime in Australia. Based on an extensive review of the literature, interviews with representatives from all state and territory police agencies and a range of non-policing agencies, and a review of existing data sources, this report describes the data that are currently available to measure the involvement of alcohol in crime, the strengths and limitations of these data and the issues that will likely impact on future efforts to measure alcohol-related crime at the national level. The report ends by describing a proposed suite of national indicators of alcohol-related crime—specifically violence, options to meet both the immediate and longer term information needs of the IGCD and possible next steps for future data collection and reporting.

The measurement of alcohol-related crime: An overview of research, policy and practice

A review of recent literature highlights scholarly attempts to determine the causal relationship between alcohol and crime as a means of better understanding the problem of alcohol-related crime and informing policymaking. Research in the United States, the European Union, Australia and Canada has attempted to attribute some share of the total crime observed in society to the use of alcohol. While recent studies have advanced the field, they remain unable

to generate a credible range of estimates of the overall amount of crime that is causally attributable to alcohol consumption and supply (Office of National Drug Control Policy 2013). Moreover, at present, there is no single repository of alcohol-related crime information and data in Australia (Roche et al. 2011). Despite the various barriers to the collection of alcohol-related crime data that exist, there are a number of possible techniques and approaches available to researchers and policymakers to estimate the level of alcohol-related crime, both recorded and unrecorded. These include using routinely collected data such as the data currently collected by police and hospitals, collecting data through surveys, using attributable or aetiologic fractions, or surrogate/proxy measures.

Police information systems and the recording of alcohol involvement in crime

This study involved a detailed review of the data collected by all state and territory police agencies relating to the involvement of alcohol in recorded crime, based on an extensive consultation process and assessment of published and unpublished data. Based on this review, the following conclusions regarding current recording practices and the availability of data on alcohol-related crime using police administrative data can be drawn.

- Each state and territory policing agency collects data relevant to the measurement of alcohol-related crime in Australia, and there have been significant gains made in recent years in terms of capturing alcohol-related crime data in police information systems.
- Relatively few jurisdictions routinely report estimates of alcohol-related crime, with only New South Wales Police Force (NSWPF) and Northern Territory (NT) Police currently reporting data on alcohol-related assault on a regular (quarterly or annual) basis.
- As shown in Table 1, police collect information relating to incidents, offenders and victims, although this varies by jurisdiction.
- The most common definition of alcohol-related crime used by jurisdictions centres around the offender being affected by alcohol at the time of offending, with all jurisdictions collecting some variant of this information (albeit in different ways and to different extents).
- There are important limitations with these data systems in terms of how alcohol involvement is defined and how that information is collected, analysed and reported.
- Strategies to improve data collection systems across jurisdictions have included the introduction of a single definition of alcohol-related crime, a consistent mechanism for recording alcohol-relatedness for all recorded incidents, and the development of a communication and training strategy to support the consistent application of these definitions and counting rules.

Overall, there is sufficient evidence from this review to suggest that the development of a national indicator (or indicators) using police administrative data is feasible in the longer term, although a number of issues will need to be addressed.

Table 1: Alcohol-related crime definitions, by jurisdiction

	Incident	Offender	Victim
ACT	Consumption	Influenced	—
NSW	—	Consumption and affected	Consumption and affected
NT	Involvement	—	—
Qld	Affected	Affected	Affected
SA	Consumption	Consumption and affected	—
Tas	Contribution	Affected	Affected
Vic	—	Affected	Affected
WA	Involvement	Affected	—

Other indicators of alcohol involvement in crime

A review of non-policing data collections revealed many potential sources of alcohol-related crime information that may be used to complement or triangulate data obtained from police information systems. These include:

- the National Drug Strategy Household Survey (NDSHS), which surveys people aged 14 years and older about their experience of alcohol-related abuse, both as victim and perpetrator, along with their involvement in other alcohol-related crime, every three years (Australian Institute of Health and Welfare);
- the Drug Use Monitoring in Australia (DUMA) program;
- the Crime Victimization Survey;
- the Personal Safety Survey;
- the National Survey of Community Satisfaction with Policing; and
- the National Homicide Monitoring Program (NHMP);

In addition to these sources, relevant data are also available from other sectors, notably hospital admissions data collected by health agencies.

Some of these non-policing collections are directly relevant to measuring the prevalence of alcohol-related crime at a national level, while other data sources may be more relevant for attributable fractions. Features of the non-policing data systems reviewed in this report are summarised in Table 2. While many of these sources collect data that are relevant to national indicators, some of these data are not reported on a regular basis. Further, there are both strengths and limitations associated with the use of these different sources of data, which mean that they would be best used as part of a suite of indicators to monitor alcohol-related crime at a national level.

Table 2: Features of non-policing data collection systems

System	National Drug Household Survey	Drug Use Monitoring in Australia	Crime Victimization Survey	Personal Safety Survey	National Survey of Community Satisfaction with Policing	Operation Unite	National Homicide Monitoring Program
Data source	Persons aged 14 years and older	Detainees	Persons aged 18 years and over	Persons aged 15 years and over	Persons aged 15 years and over	Police	Police, coroner
Data type	Self-report	Self-report, urinalysis	Self-report	Self-report	Self-report	Administrative	Administrative
Information level	Victimisation and offending	Offending	Victimisation	Victimisation	Offending and perceived crime problems	Offending	Victimisation and offending
Collection method	Survey	Survey	Survey	Survey	Survey	Recorded crime	Recorded crime
Crime type/s^a	Verbal abuse (both), physical abuse (both), put in fear (victimisation), disturbance (offending), property damage (offending), theft (offending), drink driving (offending)	All charges (includes violence)	Physical assault, face-to-face threatened assault	Physical assault, sexual assault, threatened assault	Drink driving Drunk and disorderly behaviour	Assault, licensing breaches, breathalyser offences	Homicide

Table 2: Features of non-policing data collection systems cont.

System	National Drug Household Survey	Drug Use Monitoring in Australia	Crime Victimization Survey	Personal Safety Survey	National Survey of Community Satisfaction with Policing	Operation Unite	National Homicide Monitoring Program
Alcohol involvement	Perpetrator under the influence or affected by alcohol (victimisation and offending)	Alcohol consumption prior to most recent or prior charges	Whether alcohol or other substance contributed to the incident	Victim under the influence of alcohol	Driving when over the legal limit	No specific reference to alcohol involvement	Alcohol-fuelled argument as motivating factor
		Alcohol contribution to the offence	Whether the offender was under the influence of alcohol at the time of the incident	Perpetrator under the influence of alcohol/drugs	Perceived problems involving drunken behaviour		Alcohol consumption by the offender or victim prior to homicide
Reporting Frequency	Every three years	Annual	Annual	Ad hoc	Annual	Annual	Biennial
Coverage	National	Qld, NSW, SA, WA	National	National	National	Australia, New Zealand	National

a. Limited to those crime types for which alcohol involvement is reported (overtly or implied)

Measuring alcohol-related crime: Conceptual, definitional and practical considerations

There is a clear need and strong support for high quality national indicators of alcohol-related crime using police data as part of a suite of complementary indicators drawing on multiple sources of data. This information would be invaluable in monitoring the prevalence of alcohol-related crime, particularly violence, and the effectiveness of national responses. Information collected and recorded within police administrative databases could be used to populate a national minimum dataset (NMDS) on alcohol-related crime, preferably as part of an established national collection.

The current study has drawn the following conclusions with respect to the use of police data as part of a suite of national indicators.

- A nationally consistent definition of alcohol-related crime will need to be adopted by all state and territory police agencies before a national measure that relies on police data can be fully implemented.
- There are a number of crime types of interest to national measures of alcohol-related crime, but given some of the practical constraints and the overwhelming evidence of the relationship between alcohol, aggression and violence there was support for focusing on assault offences as the priority in the short term.
- Despite significant progress by police in capturing alcohol-related crime data in recent years there are still differences between jurisdictions in the way alcohol involvement is recorded; however, at least five jurisdictions currently have the capability to contribute to national indicators using the definitions proposed by this report.
- Modifications to police administrative databases will be a requirement of any future national collection of alcohol-related crime, but there are likely to be a number of practical barriers to future amendments, including resource constraints and potential resistance from within police agencies.
- The subjective nature of police assessments of whether an offender was affected by alcohol impacts on the validity and reliability of estimates of alcohol-related crime and it will be necessary to establish and promote a set of nationally agreed protocols and minimum data standards.
- There are some limitations associated with national collections of assault data that may impede, but not prevent, the development of national indicators.

Towards national measures of alcohol-related crime

The final section of the report describes the steps that could be taken to better meet the information needs of the IGCD and to refine current data collections to move closer to national indicators of alcohol-related crime. Recognising that alcohol-related crime, particularly violence, remains a national priority and that there is an immediate need for national indicators, but also that there are a number of practical issues that may take some time to resolve, options for both short- and longer-term solutions are provided for the IGCD's consideration.

- A suite of national indicators of alcohol-related crime (specifically violence) is outlined that draws upon police recorded crime data, self-reported victim data, self-reported offending data and hospital injury data. Some of these indicators are currently available at a national level and can be collated on an annual basis. Developing this suite of indicators would require collaboration between police agencies, health departments and relevant data custodians.
- Several improvements to non-policing data collections are suggested to improve the overall suite of indicators available to the IGCD.
- Three indicators are proposed as immediate solutions to the problem of measuring the level of alcohol-related crime, including the number of people who report being a victim of physical assault by an offender affected by alcohol at the time of the incident (using Australian Bureau of Statistics [ABS] data), the number and rate of hospitalisations for alcohol-related injury (using Australian Institute of Health and Welfare [AIHW] data and the relevant population alcohol aetiological fraction), and the number of offenders proceeded against for acts intended to cause injury attributable to alcohol consumption (using ABS data and attributable fractions from the DUMA program).
- Two new indicators of alcohol-related assault based on police recorded crime data compiled by the ABS are proposed as requiring further development, including the number of recorded victims of alcohol-related assault and the number and proportion of offenders proceeded against for acts intended to cause injury who were affected by alcohol at the time of the offence. The ABS National Crime Recording Standard could also be modified (in consultation with police) to address the collection, recording and reporting of alcohol-related crime.
- There may be benefit in undertaking a pilot study, to be led by the ABS in partnership with NSWPF, South Australia (SA) Police and Western Australia (WA) Police—and in consultation with other jurisdictions—to assess the feasibility of including data on alcohol involvement as part of the ABS *Recorded Crime Victims* and *Recorded Crime Offenders* collections prior to any national expansion.
- Subject to the outcomes of this pilot study, possible next steps could include establishing a nationally consistent definition of alcohol-related crime, modifying data collection processes according to agreed business rules and requirements and, in some jurisdictions, modifying police information systems to enable the recording of information on whether offenders were affected by alcohol at the time of the offence. Careful consideration needs to be given to the time, resource and cost implications of these changes.

These proposed next steps are offered as short-, medium- and longer-term solutions for the IGCD's consideration. They offer a potential roadmap for the IGCD that, if followed, would provide robust evidence to inform the development, monitoring and evaluation of national responses to alcohol-related crime.

Introduction

Alcohol is an important feature of Australian social, cultural and interpersonal interactions (Doherty & Roche 2003). It is the most popular drug and is consumed by approximately 12 million Australians aged 14 years and over (AIHW 2014). While the majority of people consume alcohol responsibly, some drink heavily, leading to immediate or eventual adverse physical and psychological consequences (Room et al. 2003). Harms associated with excessive drinking include high rates of illness, premature death, interpersonal violence, accidents and suicide (Doherty & Roche 2003; AIHW 2014). Recent research has repeatedly shown that the consumption of alcohol, particularly in large volumes, is also a significant risk factor for violence (Morgan & McAtamney 2009; World Health Organization [WHO] 2011), and is increasingly linked to crime, accidents and other social problems (ABS 2012). The alcohol-related problems that occur in Australia, causing illness and social disorder (Miller et al. 2012), can have a significant adverse impact upon the perceptions of safety in the broader community (Morgan & McAtamney 2009). Alcohol-related problems, in particular in the night-time economies of Australia's urban and regional centres, also represent an immense drain on police, community and health resources (Miller et al. 2012).

In recognition of the harms caused by alcohol, there have been a number of recent attempts to improve the quality of information on alcohol-related crime—most notably, the Alcohol Education and Rehabilitation Foundation (AERF) report, *The Range and Magnitude of Alcohol's Harm to Others* (Laslett et al. 2010). Drawing on a comprehensive set of data sources, the report was the first of its kind to estimate both the tangible and intangible costs of alcohol-related harm to the Australian community, of which alcohol-related assault was an important component. Yet, despite growing interest in measuring alcohol-related crime, there remain a number of significant limitations to its estimation.

- Only a fraction of all crime committed in Australia is reported to the police and reporting rates for offences most frequently assumed to be alcohol-related are notoriously low (eg assault, public disorder, property damage, and domestic and family violence).
- Not all Australian policing agencies systematically record alcohol-relatedness as part of their standard incident reporting requirements. Where systems exist, the measures are considered largely subjective and are not consistently applied across policing regions or different offence types. The disparity between police data and self-reported victimisation data, for example, suggests that police have a higher threshold than the general public for determining what should be considered alcohol-related and in what circumstances (see Laslett et al. 2010).

- Without clear or consistent recording protocols, trend data for alcohol-related crime largely reflect changes in policing practice rather than changes in underlying prevalence.
- The absence of regular, reliable recording of alcohol involvement in crime will likely prohibit regular collection and ongoing analysis of alcohol-related crime data. In addition, implementing processes to accurately record the involvement of alcohol in crime has proven to be both expensive and time consuming, representing an additional impost on frontline officers. It is for this reason that implementation of alcohol-related crime data collection systems in some jurisdictions has been limited mostly to small-scale initiatives.
- Where alternative measures exist in survey-based collections, such as the NDSHS, most are focused on specific crime types and limited consideration has been given to their utility as national indicators of alcohol-related crime.

To some extent, these issues were canvassed as part of the IGCD-funded feasibility study, *Hidden Harms of Alcohol and Other Drugs in Australia* (Killian et al. 2012). Following a review of existing data sources relating to alcohol and other drug-related harms, and a series of expert stakeholder consultations, the authors recommended that a national study (or a series of national studies) be conducted to examine existing minimum datasets or, where such datasets do not exist, to implement strategies that improve data collection systems across jurisdictions (Killian et al. 2012). With respect to crime, the report makes several additional recommendations, including the need for enhanced data sharing between police agencies with the view to enabling better statistical and research analysis, and the need to investigate international models for alcohol and drug-related crime data collection and analysis that may be replicated in an Australian context (Killian et al. 2012).

Given that addressing alcohol-related crime remains a priority for Australian governments, and measuring alcohol-related harm is a key pillar of alcohol policy development, methodologically sound and conceptually rigorous measures of alcohol-related crime will be paramount. Assessing the quality and utility of current data sources, with a view to developing national indicators for measuring alcohol-related crime, is an important step toward enhancing the quality of alcohol-related crime data in Australia. In light of this, the IGCD commissioned the AIC to conduct the current study on developing a roadmap for a national minimum dataset on alcohol-related crime. The report is significant in that it addresses an issue that is of international concern—the ability to collate alcohol-related data at the national level and to measure the extent of the problem. The establishment of a national minimum dataset on alcohol-related crime would represent a significant step in the right direction for measuring, understanding, and responding to alcohol-related crime in Australia.

Research questions

The study sought to answer the following key research questions.

- What are the information requirements of the health and law enforcement sectors, as represented by the IGCD, regarding the measurement of the involvement of alcohol in crime in Australia?

- What are the key findings and issues regarding the measurement of alcohol-related crime that have been identified in research, policy and practice documents?
- What data are currently collated by jurisdictional law enforcement and other relevant agencies?
- Can reliable, timely and useable data be obtained from existing law enforcement and other agency data systems, processes and collections?
- How might current data systems, processes and collections be enhanced to match identified information needs?

Methodology

This project involved four research components.

IGCD stakeholder workshop

A brief facilitated workshop was held with the IGCD in July 2014 to identify the information requirements of the health and law enforcement sectors regarding the measurement of the involvement of alcohol in crime in Australia. A discussion paper was circulated among participants prior to the workshop. The AIC then facilitated a discussion that explored:

- the preferred measure/s of alcohol-related crime;
- the intended use of those measures;
- the preferred frequency of measurement, analysis and reporting; and
- any alternative research questions, information and data needs.

A brief summary of the discussion, including considerations for the development of national indicators, was prepared following the workshop and is presented in *Appendix B*. This information was used to guide the remainder of the project and is reflected in the findings presented in this report. Further, members of the IGCD—primarily law enforcement representatives—facilitated access to information on available data and timely communication between the AIC and data providers.

Literature review

An extensive review of relevant Australian and international literature was conducted to help inform other aspects of the study. The thematic, narrative review incorporated literature from academic journal articles and government reports describing research on the relationship between alcohol and crime and research, policy and practice regarding the measurement of alcohol-related crime. A particular focus of the review was to identify options for measuring the contribution of alcohol to crime and the strengths and limitations of these options.

Interviews with representatives from policing and non-policing agencies

The AIC conducted a series of semi-structured interviews with key statistical, drug and alcohol policy and/or licensing enforcement personnel within policing and non-policing agencies, both at the state and territory and Commonwealth level. The interviews examined:

- the alcohol-related information currently collated in jurisdictional databases;
- criteria for including or excluding alcohol information in jurisdictional databases;
- the nature of any instructions issued to officers/personnel collecting the data and entering the data into databases;
- the manner in which alcohol-related information is currently used by the agency; and
- stakeholder views regarding the willingness or ability of each agency to contribute to national measures of alcohol-related crime.

The interview schedule is presented at *Appendix A*. Interview participants were identified through IGCD members, agency research officers and/or other agency contacts. In total, 44 persons were interviewed as part of the study. Of this total, seven persons were consulted in the Australian Capital Territory (ACT); six in New South Wales; four in the Northern Territory; five in Queensland; one in South Australia; two in Tasmania; four in Victoria; eight in Western Australia; and seven in various Commonwealth agencies.

Review of existing data collections

In addition to the interviews, de-identified data extracts, summaries and/or reports were requested from participating agencies and examined to assess whether they matched IGCD information requirements. If data were unavailable data entry forms (or screens) were requested. This review sought to better understand the implications of recording protocols and practice for relevant data systems and the actual data available from participating agencies. It also explored the extent to which reliable, timely and useable data on alcohol-related crime can be obtained from existing policing and other non-policing agency data systems, processes and collections. Further, the review process aimed to identify opportunities for enhancing existing data systems, processes and collections to match identified information needs.

The main focus of this study has been on police information management systems—specifically, police recorded crime data. Other relevant data collections and systems included those collected by the ABS (the National Crime Victimization Survey and Personal Safety Survey), the AIHW (NDSHS), the Australia New Zealand Policing Advisory Agency (ANZPAA; the National Survey of Community Satisfaction with Policing and Operation Unite), and the AIC (DUMA and the NHMP).

Limitations

There are two important limitations that should be taken into account when considering the findings presented in this report and the proposed options around the measurement of alcohol-related crime in Australia.

First, each of the participating jurisdictions provided differing levels of information about their respective data systems and processes and varying levels of detail in response to questions regarding the establishment of a national minimum dataset. While most stakeholders contributed to the research through a face-to-face or telephone consultation, some stakeholders elected to provide a written response to the interview questions.

Second, while the stakeholders who were invited to participate in a consultation were identified and recommended by the relevant jurisdictional policing agency, not all participants were able to comment on agency-wide preferences for the measurement of alcohol-related crime.

Structure of the report

The information presented in this report has been organised into six sections. This first section of the report (the *Introduction*) provides the background and context for undertaking this study. It also outlines the purpose and scope of the research, the research questions, and the methodology that was employed.

The second section of the report (*Measuring alcohol-related crime: An overview of research, policy and practice*) provides an overview of the Australian and international literature on the measurement of alcohol-related harm and compiles the available information on the subject of alcohol-related Australian crime and relevant alcohol-related crime data collection systems and processes.

The third (*Police information systems and the recording of alcohol involvement in crime*) and fourth (*Other indicators of alcohol involvement in crime*) sections of the report provide a review of current policing and other information systems to identify the degree to which reliable, timely and useable alcohol-related crime data can be obtained and potentially used.

The fifth section of the report (*Measuring alcohol-related crime: Conceptual, definitional and practical considerations*) explores the various issues associated with the measurement of alcohol-related crime. It examines the preferences, issues and recommendations articulated by key policing and non-policing stakeholders and explores the options for achieving these data preferences and overcoming potential issues or limitations.

The sixth section of the report (*Towards national measures of alcohol-related crime*) describes a national suite of indicators on alcohol-related crime. Recognising that not all of these indicators can be measured using existing data, immediate solutions to the measurement of alcohol-related crime are proposed. Strategies for improving both policing and non-policing data on the involvement of alcohol in crime are also proposed.

The final section of the report summarises the key findings of the study and the proposed next steps for the development of national indicators on alcohol-related crime.

Measuring alcohol-related crime: An overview of research, policy and practice

In recent years there have been attempts to specify the causal links between alcohol and crime as a means of better informing policymaking and the understanding of the problem of alcohol-related crime. Efforts in the United States, the European Union, Australia and Canada have attempted to attribute some share of the total crime observed in society to the use of alcohol. Australia has produced a large number of alcohol-related datasets in the areas of health, welfare and law enforcement; however, these datasets can be difficult to locate, access and use (Roche et al. 2011) and inaccurate due to the subjective nature of information collection (Brinkman et al. 2001). Further, while these attribution studies have advanced the field, they remain unable to generate a credible range of estimates of the overall amount of crime that is causally attributable to alcohol consumption and supply (Office of National Drug Control Policy 2013). Moreover, at present, there is no single repository of alcohol-related crime information and data in Australia (Roche et al. 2011). As argued by Brinkman et al. (2001), alcohol-related violence is a major public health and safety issue and thus demands the collection of accurate alcohol-related crime figures to inform the development of effective prevention policies.

This literature review sets out to provide an overview of Australian and international literature on the subject of alcohol-related crime. Literature was sourced through academic journals and databases for the period 1980 to 2015, and restricted to English-language publications. The search for literature resulted in a large number of high-quality, peer-reviewed publications that have examined the definition of alcohol-related crime, explored the extent of alcohol-related crime in Australia and other countries, examined methods for measuring alcohol-related crime and discussed the barriers to establishing a national dataset for measuring alcohol-related crime in Australia. A shortlist of approximately 100 publications was created for the purpose of this literature review. While this literature review deals with the international context to some extent, the focus of the review is on Australian literature because of the purpose of this particular study, which examines the subject of establishing a national dataset for measuring alcohol-related crime in Australia.

The importance of national measures of alcohol-related crime

This section of the literature review sets out to briefly examine the relationship between alcohol, harm and crime and to present figures on the extent of alcohol-related crime in Australia. The costs associated with alcohol-related harm and crime, in terms of health problems and death, are also discussed, as are the costs to states such as the significant police costs for responding to alcohol-related incidents.

The relationship between alcohol, crime and other harms

According to Horvath and Leboutillier (2014), alcohol can contribute to crime in two ways. The first is by loosening inhibitions and reasoning, which leads to decreased impulse control and potentially offending. The second, and possibly less explored, is by providing an economic incentive to steal in order to feed an alcohol abuse problem (Horvath & Leboutillier 2014). There is a wealth of international information and evidence that points to a direct causal link between alcohol and crime (Graham & Homel 2008; Hadfield 2009). Research clearly shows that excessive consumption of alcohol and intoxication is directly related to physical aggression (Plant, Plant & Thornton 2002; Wells & Graham 2003) and associated with a range of health harms (Nicholas 2008). Some scholars have pointed to the fact that alcohol consumption promotes risk taking and thus stimulates criminal activity and violence (Collins & Lapsley 2008). Public discussion regarding alcohol misuse has often focused on the health impacts of excessive drinking; however, the harms associated with alcohol consumption that occur in the social domain are considered equally significant (Nicholas 2008). These harms have been described by Klingemann (2001) as the forgotten dimension of alcohol-related harms. This category of harm comprises violence, vandalism, public disorder, family and financial problems and educational issues (Babor et al. 2003). More recently greater attention has been directed towards the problem of alcohol-related crime, particularly violence, both in entertainment precincts and in residential settings. This has been illustrated by the recent debate surrounding the most effective response to one-punch assaults and homicides in a number of states and territories and the contribution of alcohol to family and domestic violence.

The literature suggests that there are certain characteristics of alcohol-related crime, particularly violence, that are noteworthy. These include the fact that being young, single and male are the most significant predictors of self-reported alcohol-related victimisation (AIHW 2008). Males have been found to be more likely than females to report being physically abused by someone under the influence of alcohol (AIHW 2014). Finney (2004) found that alcohol-related violence in which both the victim and offender have consumed alcohol is more likely to be spontaneous and frequently more likely to involve strangers.

Alcohol-related victimisation is not confined to urban centres, with one study suggesting that self-reported victimisation rates are particularly high among young people living in rural areas (Williams 1999). The study found that one-third of young people between the ages of 14–19 years and two-thirds of young people aged 20–24 living in rural areas reported being victims of alcohol-related physical abuse (Williams 1999). There are also peak times for alcohol-related

assaults, with studies demonstrating that most alcohol-related assaults occur between 9 pm and 3 am on Friday and Saturday nights (Briscoe & Donnelly 2001b). Indeed, one of the most robust findings of alcohol and crime research is that alcohol-related incidents generally occur late at night or in the early hours of the morning, especially on weekends (Briscoe & Donnelly 2001a; Ireland & Thommeny 1993; Chikritzhs, Stockwell & Masters 1997). There is also a body of evidence demonstrating a relationship between patron intoxication with demographic factors including, as discussed above, being male and young, in addition to environmental characteristics such as crowding and inexpensive alcohol, linked to alcohol-related violence (Homel, Tomsen & Thommeny 1992; Lang et al. 1993).

However, despite the strong body of evidence pointing to a causal relationship between alcohol consumption and crime, the relationship is still complex and not necessarily straightforward (Morgan & McAtamney 2009). Plant, Plant & Thornton (2002), while arguing that there is a relationship between intoxication and aggression, also point out that the majority of people who consume alcohol do not become offenders or victims of violent crime and, further, that consuming alcohol does not necessarily lead to violent behaviour. The relationship between alcohol and violence is influenced by the interaction of alcohol with personal, environmental and cultural factors (Morgan & McAtamney 2009). Graham et al. (2006; 1998) suggest that alcohol and aggression are actually the result of a complex interaction of a number of variables, including the pharmacological effects of alcohol on the cognitive, affective or behavioural functioning of the drinker, which can lead to increased risk-taking; individual characteristics including age, gender, and personality traits; effects of the drinking environment such as crowding and the behaviour of venue security staff; and societal attitudes towards drinking that provide an excuse for irresponsible behaviour.

The extent of alcohol-related harm and associated costs

Worldwide, alcohol accounts for 3.7 percent of all deaths and 4.4 percent of the burden of disease (WHO 2007). In the United Kingdom (UK) police statistics show that between 60 and 80 percent of all violent crime is alcohol-related (Social Issues Research Centre [SIRC] 2002). A survey found that 70 percent of British police view alcohol as a greater problem for them than drug misuse (SIRC 2002). Findings from the 2008 British Crime Survey showed that victims of crime believed offenders to be under the influence of alcohol in 45 percent of violent offences and 48 percent of offences resulting in wounding (Kershaw et al. 2008). The 2003 Offending, Crime and Justice Survey of 18 to 24 year olds found that 14 percent of binge drinkers had committed a violent crime within the previous year (Matthews & Richardson 2005).

In the UK a number of studies have also focused on the place and time of alcohol-related crime and analysed the relationship between alcohol in urban centres in and around licensed premises, during late night and early morning periods. For example, Jowell et al. (2005) found that one in five violent incidents could be expected to occur around pubs or clubs in the UK. Similarly, Lister et al. (2000) found 29 percent of violent offences occurred inside licensed premises and 70 percent of city centre violence took place between the hours of 9 pm and 3 am. A study conducted by Hutchison et al. (1998) compiled evidence from 163 accident and

emergency departments in England and Wales and found that 90 percent of facial injuries occurring in pubs and bars, and 45 percent of facial injuries occurring in the street, were associated with alcohol consumption. Further, screening of assault patients in accident and emergency departments in the UK found that between 65 and 80 percent of patients were intoxicated at the time of injury (Yates et al. 1987). Another study by Backhouse (1986) found that one in six injury cases that presented at emergency services in the UK had injuries that were considered by hospital staff to be alcohol-related.

In Australia alcohol has been identified as a factor in approximately 23 to 73 percent of all assaults (Briscoe & Donnelly 2001b; Doherty & Roche 2003; Poynton et al. 2005). Findings from the AIC's DUMA program indicated that in 2007, half of all offenders detained by police across Australia for disorder and violent offences had consumed alcohol in the 48 hours prior to their arrest (Adams et al. 2008). Further analysis of DUMA data undertaken by Morgan and McAtamney (2009) determined that 52 percent of offenders charged by police for an assault had consumed alcohol in the previous 24 hours, and 26 percent reported that the consumption of alcohol contributed to their offending. More recently, following analysis of DUMA data, Payne and Gaffney (2012) determined that nearly half of all police detainees attributed their offending to alcohol or drugs, with alcohol being more frequently attributed to by detainees than all other drugs combined.

Alcohol is also involved in a significant number of homicides in Australia (Morgan & McAtamney 2009). Research conducted by Dearden and Payne (2009) using the AIC's NHMP database found that nearly half (47%) of all homicides in Australia between 2000 and 2006 involved alcohol. The same study also found that alcohol-related homicides frequently involved a male offender and victim who knew each other, and that alcohol was most frequently associated with deaths that involve physical altercations, blunt force injuries and stab wounds (Dearden & Payne 2009).

Chikritzhs et al. (2003) reported that at least 40 potentially fatal conditions are caused in whole or at least in part by alcohol consumption in Australia. The authors reported that, between 1993 and 1994 and 2000 and 2001, there were 76,115 hospitalisations in Australia because of alcohol-attributable assaults (Chikritzhs et al. 2003). In a study in NSW, two-thirds of patients presenting at an emergency department with injuries from interpersonal violence reported consuming alcohol prior to the incident, and three-quarters of the cohort of patients claimed that they had been drinking at licensed premises (Poynton et al. 2005). The study conducted by Chikritzhs et al. (2003) concluded that young people are far more likely to be hospitalised for alcohol-related assaults than older people, suggesting that the binge drinking phenomenon among younger Australians plays an important role in alcohol-related assaults.

National surveys of alcohol use and victimisation provide further evidence of the impact of alcohol-related crime, particularly violence. For example, according to the NDSHS, in 2013 approximately 1.7 million Australians aged 14 years or older had been physically abused by someone affected by or under the influence of alcohol in the past 12 months (AIHW 2014). Sixty-two percent of respondents to the ABS Crime Victimisation Survey who experienced physical assault in 2013–14 believed that alcohol or any other substance contributed to their most recent incident (ABS 2015a).

While it is more often associated with assault and public nuisance (Breen et al. 2011), alcohol is also linked to a number of other offences (Miller et al. 2012). Drink-driving remains a significant issue for police despite the success of random breath testing, and has a significant impact on the community (Terer & Brown 2014). Alcohol consumption is a contributing factor in more than 400 road deaths and 7,700 serious road injuries in Australia each year, costing the country more than \$1.34b (National Drug Research Institute (NDRI) 2000). Researchers in Australia have also explored the costs associated specifically with alcohol-related road crashes. For example, Collins and Lapsley (2008) estimated that the total cost of alcohol-related road crashes was \$3.12b. It is also estimated that alcohol contributes to 33.2 percent of child maltreatment cases in Australia (Laslett et al. 2010).

Research in Australia on alcohol-related problems has also focused on regional areas and researchers have compared rates of alcohol-related crime in metropolitan and non-metropolitan regions. For example, Matthews et al. (2002), in their examination of alcohol-related violence in Australia, between 1995 and 1996 and 1998 to 1999, found that the estimated rates of alcohol-caused assaults were much higher in non-metropolitan regions compared with metropolitan regions. This was also the case for alcohol assault hospitalisation rates and police-reported assaults (Nicholas 2008). This finding is also supported by Briscoe and Donnelly (2001b) whose research found that alcohol-related problems are higher in regional areas than other areas of Australia.

Studies of alcohol-related crime have attempted to estimate out-of-pocket expenses associated with property damage, the costs of the loss of life and health-related costs and the cost to the criminal justice system (ACIL Allen Consulting 2014a). In Australia, the estimated costs associated with alcohol such as crime, violence, dependency treatment costs, loss of productivity and premature deaths in 2004 to 2005 was \$15.3b (Collins & Lapsley 2008). With regards specifically to the costs of crime, Collins and Lapsley (2008) conservatively estimated that the cost of alcohol-attributable crime in 2004 and 2005 in Australia was \$1.735b. This figure includes policing costs of \$747.1m; criminal court costs of \$85.8m; prison costs of \$141.8m; loss of life (violence related) of \$124.4m and other costs (Collins & Lapsley 2008). More recent figures provided by Manning, Smith and Mazzerolle (2013) show that the total costs to society of alcohol-related problems in 2010 was approximately \$14.352b. Of this, \$2.958b (or 20.6%) represented costs to the criminal justice system, \$1.686b (or 11.7%) comprised costs to the health system, \$6.046b (or 42.1%) involved costs to Australian productivity and \$3.662b (or 25.5%) were costs associated with traffic accidents (Manning et al. 2013).

The cost to police of dealing with alcohol-related crime is an area of significant concern. Research conducted by Donnelly et al. (2007) estimated that 10 percent of police time was dedicated to dealing with alcohol-related incidents, the most common of which was assault. The same study estimated that police spent on average more than two hours dealing with each assault, which represents a significant burden on police resources (Donnelly et al. 2007). The salary costs of NSW police to respond to alcohol-related crime in 2005 were approximately \$50 million, a figure that (at that time) was equivalent to the salaries of 1,000 full-time constables in NSW (Donnelly 2007).

This section of the literature review has briefly examined the relationship between alcohol and health problems, harm and crime, demonstrating the significant contribution of alcohol to a range of offence types and the associated costs. Given the importance of this issue, Australian researchers, government departments and an array of public and private health and welfare organisations have invested in the development of alcohol-related crime data collection systems to improve our understanding of the role of alcohol in harm and crime (Roche et al. 2011). International bodies such as the WHO (2000) recommend the ongoing collection of alcohol consumption and alcohol-related harm data at the national level as a means of developing effective policies. These data are useful for quantifying the extent of alcohol consumption and harm, identifying alcohol-related harm trends over time, identifying types of harm and groups most at risk and providing baseline data for the evaluation of interventions (WHO 2000). However, there are a number of issues associated with the timely collection of alcohol-related crime data. These issues will be discussed in more detail in the following sections of the literature review.

Towards national measures of alcohol-related crime

Despite the available studies and information on alcohol-related harms, precise ways of estimating the real impact that alcohol has on crime remain limited (SIRC 2002). Though focusing on the collection of alcohol-related crime data in the UK, comments by Deehan (2000: 1) are relevant to the Australian context:

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There are no official statistics collected systematically, making it impossible to gain a true picture of the role of alcohol in crime at a national level. Statistics prepared... lack consistency in both measurement and definition and are not collated on a national basis.

The Social Issues Research Centre (2002) argued that researchers were unable to identify ‘any extant procedures that can provide anything more than rough indications of the level and pattern of alcohol-related violence and disorder in even the most localised contexts’ (2002: 13). The authors commented that all existing processes for collecting data have significant conceptual and methodological weaknesses that mean that they are unable to provide truly reliable data on alcohol-related crime (SIRC 2002). More recent literature suggests that estimates of the extent of alcohol involvement in criminal incidents such as assaults vary across studies because of persistent differences in the definition of ‘alcohol-related crime’ and different data collection processes (Killian et al. 2012).

Defining alcohol-related crime

A clear and consistent definition of alcohol-related crime is vital to any attempt to accurately measure the phenomenon. The literature highlights the problems associated with defining and

measuring alcohol-related crime. SIRC (2002) suggests that there are not only serious gaps in alcohol-related crime data collection and collation methods but also more fundamental problems of definition.

In the alcohol-related crime literature, the term 'related' is usually used to indicate a partial causal factor, with alcohol interacting with other individual, social and environmental factors to predispose certain behaviours (SIRC 2002). At the other end of the scale 'alcohol-related' may refer to the fact that a violent disturbance simply involved one or more participants who had been drinking (SIRC 2002). 'Alcohol-related' generally refers to either offences where alcohol is the main factor in the offence—for example, drunkenness or drink driving—or it applies when someone has committed an offence while under the influence of alcohol, such as in assault, criminal damage or public order offences (Institute of Alcohol Studies 2013; SIRC 2002). The definition of causation concerning alcohol involvement in a study by Laslett et al. (2010) was an epidemiological one (Room and Rossow 2001): would the adverse event have happened in the absence of the drinking? Laslett et al. (2010) suggest that while the drinking is neither necessary nor sufficient for the event to have occurred, and other factors may often have also played a causal role, viewed from a policy perspective the definition answers the crucial question of whether removing the drinking would have prevented the adverse event.

Generally when the literature uses the term alcohol-related, especially in relation to violence, the discussion typically focuses on the acute effects of alcohol when it is consumed in risky volumes (WHO 2000). A SIRC report (2002) posits that the term alcohol-related implies a direct causal relationship between the chemical ethanol and certain types of behaviour. However, this assumption is rarely supported by empirical evidence or theoretical perspectives (SIRC 2002). Alcohol-related also refers to the fact that a violent disturbance involved one or more persons who had consumed alcohol, and it is this definition that is frequently used by police and hospitals (SIRC 2002). However, a key problem with this definition (and one that is highlighted in this report) is that official sources may not distinguish between the perpetrators of violence and victims, rendering the interpretation of figures extremely challenging.

Pernanen (2001) argues that the term alcohol-related can be separated into three types of incidents. Either alcohol-related means that the particular incident in question coincides (temporally and spatially) with alcohol's presence, that alcohol is some kind of risk for the incident, or that the incident is caused by alcohol. There may also be a contrived relationship between alcohol and crime—the two elements could be related, but alcohol may not have been a factor in the offence (Pernanen 2001). However, the SIRC report determines that there is an inherent 'wooliness' (2002: 9) in the concept of 'related'. The problems relating to the definition and recording of alcohol-related violence and crime and the subsequent unreliability of evidence in this field have been recognised for a long time (SIRC 2002). SIRC (2002) argues that, given the inherent problems in defining and measuring alcohol-related crime, it is unrealistic to expect that completely valid, reliable and unequivocal data can be obtained that will accurately measure the scale of alcohol-related crime. There are therefore limitations to the comparability of existing alcohol-related data across states and territories (Matthews et al. 2002).

Another area of considerable debate within the alcohol-related crime literature is the definition of harm, which in this context is acknowledged as encompassing a wide range of different negative impacts resulting from alcohol. Broadly, it can mean any kind of associated negative effect from alcohol that occurs, specifically in relation to alcohol and drugs, where the ‘use of a drug involves or leads to offending, victimisation, witnessing, or possession, supply or trafficking’ (Killian et al. 2012: 33). It can also mean a social harm, such as the failure to fulfil a social role—for example, in a family, or, most pertinently for this study, in maintaining respectful conduct in public (Room & Rossow 2001).

Measuring alcohol-related crime

Despite these definitional problems, there has been some progress in the development of more robust estimates of the magnitude of alcohol-related crime. In Australia, a number of sources of data now exist that can be used to better understand the extent of the involvement of alcohol in a range of crime types. This includes health data from emergency departments; state and local wholesale alcohol sales data; recorded crime data (from police or other sources); social surveys; ambulance callouts; police drunk and disorderly reports; liquor infringement notices; child abuse reports; reports from shelters and refuges; and liquor industry data, which may all contain information that could be invaluable in determining the extent of alcohol-related problems in Australia (Chikritzhs 2009). Some of the most frequently used methods for collecting and analysing alcohol-related crime data are described below, followed by a discussion of the various barriers and limitations to data collection systems and national measures of alcohol-related crime.

Routinely collected data

Efforts to reduce the harms associated with alcohol have tended to focus on strategically mobilising and coordinating resources at the community level rather than attempting to change the drinking behaviour of individuals (Holder 2000; Wallin 2007). Breen et al. (2011) suggest that this has prompted the use of routinely collected data suitable for longitudinal analyses. The most common source of routinely collected administrative data is police and health services.

Attempts have been made over the past two decades to routinely measure alcohol-related crime for specific purposes, such as to gauge the number of hours police officers spend responding to alcohol-related incidents. An early attempt to estimate and quantify the percentage of alcohol-related crime was conducted by Ireland and Thommeny (1993) in six Sydney police patrols in the 1990s. Ireland and Thommeny’s (1993) study found that almost three-quarters of assaults occurring on weekends were alcohol-related. Another more recent example is that of the Alcohol Linking Program (ALP), which found that over 70 percent of recorded incidents in the Hunter area were alcohol-related (Wiggers et al. 2004). The ALP, conducted over a decade, involved police routinely collecting information on the alcohol consumption characteristics of persons involved in police-attended accidents (Wiggers 2007). The information collected describes whether the person consumed alcohol before the incident

(whether observed or reported), their intoxication status (based on observation of behavioural signs), the place of last drinks (as reported), whether the place of last drinks was a licensed premises and the address of the premises (Wiggers 2007). The case is recorded as alcohol-related if the person is identified as having consumed alcohol prior to the incident (Wiggers 2007).

Building on these earlier examples, state and territory police agencies now routinely collect specific data on the contribution of alcohol to various forms of crime (which is the focus of subsequent sections of this report). However, estimates continue to vary significantly regarding the extent of the involvement of alcohol in recorded crime. According to Morgan and McAtamney (2009) these variations are often the result of differences in the way that the involvement of alcohol in crime is defined, whether the figure relates to incidents attended by police or total recorded crime, different data collection processes, issues associated with accurate and reliable measurement of alcohol consumption and intoxication, and under-reporting by victims.

Routinely collected hospital admissions data also provides a source of information that can complement and give further insight into the nature of the harm caused by alcohol. There are quite a few Australian reports that utilise hospital admissions data to generate a more accurate picture of the extent of the alcohol-crime problem (eg NDRI & National Alcohol Indicators Project [NAIP]). In particular, hospital data can be a reliable and useful source for the measurement of alcohol-related harm and, specifically, violent assault (eg Matthews et al. 2002; Chikritzhs 1999).

Treno and Holder (1997) suggest that routinely collected data are often more useful than survey data because they are less expensive, they are not biased by non-consent (as they generally do not require individual consent) and they can be used retrospectively. However, Shakeshaft et al. (1997) point out that the primary disadvantages of routinely collected data are that there is insufficient evidence for their validity (extent to which they truly estimate the contribution of alcohol to offending) and their reliability (consistency over time and between groups). Brinkman et al. (2001) argue that the decision to flag an incident as alcohol-related in a police database is a subjective judgement by an individual officer at a particular time and is influenced by policing practices. Thus, the reliability of this type of routinely collected data is inherently problematic (Breen et al. 2011).

Surveys

Scholars such as Brinkman et al. (2001) have promoted the use of surveys as an effective tool in measuring alcohol-related crime. The most common survey method has involved asking people who consume alcohol about problems caused by their own drinking (Laslett et al. 2010). According to Brinkman et al. (2001), population-representative surveys are the best method for estimating the prevalence of alcohol-related violence as they do not suffer from the underestimation problems associated with routinely collected data and police and hospital records. An early example of a survey that collected alcohol-related crime data is an intensive community survey conducted by Lang et al. (1992), in which respondents were asked whether

they had experienced an alcohol-related problem, due to their own alcohol consumption, in the previous three months. The survey collected information on alcohol consumption patterns, characteristics of drinking settings, characteristics of drinkers and the drinking situation, respondents' knowledge of laws on alcohol consumption and sales and attitudes to server responsibilities with regards to drinking excessively (Lang et al. 1992). A second survey approach has involved capturing information from the perspective of the victim (Laslett et al. 2010). Specifically, these surveys require victims to identify whether they believe alcohol was a factor in the crime (or crimes) they experienced. In Australia there are currently four major surveys that monitor drug- and alcohol-related victimisation—the Personal Safety Survey (PSS), the NDSHS, the Victorian Youth Alcohol and Drug Survey (VYADS) and the ABS Crime Victimisation Survey (CVS).

The NDSHS collects information on alcohol-related harm through drop-and-collect self-completion questionnaires (Laslett et al. 2010). It includes a number of questions about the respondent's experience of harm by someone affected by alcohol in the last year (as well as questions about certain behaviours while they themselves are affected by alcohol). The PSS is a victimisation survey conducted by the ABS. It is an extension of the Women's Safety Survey (WSS), Australia's first population-based victimisation survey, and is designed to capture detailed accounts of both men's and women's experiences of various types of violence (Laslett et al. 2010). Killian et al. (2012) suggest that the PSS has the best measures relating to victimisation and has the best overall response rate, but is limited by the fact that it is not regularly conducted and has a small Victorian sample. Killian et al. (2012) suggest that the CVS represents the best national measure of crime victimisation, providing annual statistics from the Multipurpose Household Survey (MPHS). But it too has limitations relating to its estimation of alcohol involvement, which will be discussed at length in subsequent sections of this report.

Another approach to the use of surveys has been to focus on the costs that are actually incurred by police services in dealing with crime problems that are associated with alcohol. A study by Donnelly et al. (2007) developed estimates of the short-term cost of policing alcohol in NSW. Similar costing studies have been conducted in other countries. In the UK in 2003 the Cabinet Office of the United Kingdom conducted a costing exercise of alcohol misuse that included the cost of law enforcement related to alcohol (Cabinet Office 2003). The methodology involved first estimating the total number of alcohol-related incidents committed using British Crime Survey data for specific crime types and, second, estimating the average cost to respond to these reported crime incidents, obtained from a study by Brand and Price (2000). Using these measures the UK Government Cabinet Office (2003) estimated that the total cost of alcohol-related law enforcement in 2001 was 1.66 billion pounds.

There are limitations with the use of surveys. For example, Brinkman et al. (2001) argue that some surveys conducted in an Australian context, such as the NDSHS, use different sampling techniques and questionnaire design, and thus lack consistency when they are repeated over time. They have also observed that, while conducting interviews with perpetrators and offenders of alcohol-related crime is undoubtedly the most precise method of determining whether alcohol was involved in a violent act, it is not usually possible to conduct a sufficient

number of local surveys of residents to develop localised estimates (Brinkman et al. 2001). Self-reported data may be an issue for offenders who were drug- or alcohol-affected at the time of their offence (Hingson & Rehm 2013). Recalling instances of consumption in relation to their offence, especially if the offence was committed some time ago, may be problematic. Further, there may also be issues with the mode in which data is collected from respondents, such as the impact that face-to-face questioning may have on self-reporting of alcohol consumption (Hingson & Rehm 2013).

Surrogate/proxy measures

Another approach to measuring alcohol-related crime is the use of surrogate or proxy measures, which are less reliant on individual judgement and have been widely used to measure alcohol-related harm (Chikritzhs et al. 2000; Matthews et al. 2002). Proxy measures apply a consistent formula to routinely collect data, based on the current knowledge of harms (Breen et al. 2011). An example of these measures is night-time assault, which has been used as a measure of alcohol-related crime because the majority of these assaults are alcohol-related and they are reported more consistently by police, compared with less significant crimes (Matthews et al. 2002). Another example is a study by Chikritzhs et al. (2000), which applied a proxy or surrogate measure of alcohol involvement in road crashes derived from a standard model. The basic approach used by the researchers was to use the timing of road crashes to identify alcohol- and non-alcohol-related crashes (Chikritzhs et al. 2000). Other researchers have employed surrogate measures, for example, single vehicle night-time crashes or just night-time crashes to establish a consistent measure of the overall level of alcohol-related crashes in large populations over time (Cavallo & Cameron 1992; Holder & Wagenaar 1994).

Brinkman et al. (2001) have argued in support of using health and police data on cases known to be highly alcohol-related to develop effective surrogate measures of alcohol-related harm. They specify three main varieties of indicators to be used for measuring alcohol-related harm: night-time assaults occurring in public places, night-time presentations of assault injuries to emergency departments, and hospital admissions for assault injuries adjusted by a locally estimated aetiologic fraction. The data sources include hospitalisation records (morbidity and mortality data), police recorded crime data (particularly for assaults), emergency room data, and surveys (Brinkman et al. 2001). However, as highlighted by Breen et al. (2011), despite the recent widespread use of proxy measures of alcohol-related crime there are few published assessments of their reliability, which makes it challenging to separate changes in alcohol-related crime over time or across geographic locations. Breen et al. (2011) argue that because current proxy measures of alcohol-related crime data are collected over time, their reliability could be quantified using repeated measures analysis of variance. There are limitations to this approach. For example, Laenen et al. (2009) point out that such an approach relies on assumptions that may not be applicable to longitudinal data, in that it does not model all possible sources of variability over time, it assumes observations conform to a specific correlation structure and it assumes complete data for all observations. Breen et al. (2011) suggest that another possible approach could be to use hierarchical linear modelling (HLM)

regression analysis. These analyses have the potential to account for various sources of variability and correlation in repeated measurements (Laenen et al. 2009). HLM analyses can provide useful information on the suitability of measures and are increasingly being used for longitudinal data (Cheng et al. 2009).

Attributable and aetiologic fractions

Attributable fractions are used to demonstrate the extent to which alcohol contributes to a health, violence or road traffic outcome, among other outcomes. To establish the alcohol-attributable fraction of, for example, road traffic injuries, researchers determine the proportion of road traffic injuries in a specific population that would be eliminated in the absence of alcohol consumption. In Australia, estimates of the cost of policing alcohol-related harm have been provided by researchers such as Collins and Lapsley (2002), who used the fractions as part of their investigation into the social costs of drug abuse. They used attributable fractions developed on the basis of data from audits of male-only police detainees conducted in 1995 during the National Police Custody Survey (NPCS; Taylor & Bareja 2005). Collins and Lapsley (2002) determined from their study that 11 percent of all violent offences for which people were incarcerated were attributable to alcohol, and subsequently derived the costs of policing alcohol-related crime in Australia on the basis of this figure (Donnelly et al. 2007). Donnelly et al. (2007) argue that there are limitations to the approach used by Collins and Lapsley (2002). Donnelly et al. (2007) suggest that the study by Collins and Lapsley (2002), which bases the profile of incident caseload on the offences committed by males held in custody, potentially underestimates the contribution of the alcohol-related offence types that are dealt with using sanctions other than arrest. Another criticism by Donnelly et al. (2007) of the Collins and Lapsley (2002) study is that police may spend significant amounts of time dealing with alcohol-related problems that do not necessarily result in the offender being charged or held in custody (Donnelly et al. 2007). Further, Donnelly et al. (2007) suggest that the study does not capture proactive policing activities—for example, random breath testing—which attempt to prevent problems from arising in the first place. Donnelly et al. (2007) instead investigated the amount of time and resources consumed by police on alcohol-related duties, to provide an estimate of the dollar cost of this time, by conducting an activity survey across a representative sample of NSW Police Force Local Area Commands.

Payne and Gaffney (2012) have also explored the use of attributable fractions. They used data collected by the AIC's DUMA program to examine the self-reported alcohol and drug attributions of 1,884 police detainees from nine separate data collection locations across Australia (Payne & Gaffney 2012). The study represented a first attempt to examine attribution estimates for specific drugs and by specific attribution types. The scholars determined that attributable fractions need two essential components to give an accurate picture of alcohol's attribution to crime (Payne & Gaffney 2012). The first of these is reliable data on crimes committed—that is, numbers on every crime committed in Australia— and the second is the best available information on the causal relationship between alcohol and crime (Payne & Gaffney 2012). The authors argue that these two factors are not complete, and therefore attributable fractions can only provide a limited picture of alcohol-related crime in Australia (Payne & Gaffney 2012).

With regards to estimating crime costs, most studies attribute crime costs by drawing upon a method where alcohol-attributable policing and court cost fractions are derived from the proportion of police incidents related to alcohol. However some scholars, such as Crampton et al. (2009), criticise the methodology because these studies tend to inflate the true costs of alcohol-related crime. Crampton et al. (2009) also suggest that the counterfactual needs to be considered. They argue that the relevant attributable costs are in fact the difference between the extra level of costs incurred if the incidence of alcohol misuse was reduced to zero, and the additional costs when alcohol is misused (Crampton et al. 2009).

Aetiologic fractions are a related method used by researchers to measure alcohol-related harm by multiplying the number of people with a specific condition by the alcohol aetiologic fraction for that condition, then deriving the results. Chirikritzhis et al. (2011) suggest that the aetiologic fraction method is currently not only the preferred but also the only feasible method for identifying the contribution of alcohol consumption to mortality and morbidity in Australia. Because routinely collected morbidity and mortality data are unsuitable for providing accurate data about the drinking habits of individuals, the most accurate means of estimating the total number of alcohol-attributable injuries or illnesses in a population is to multiply the number of people with each condition by the 'alcohol population aetiologic fraction' specific to that condition, and then to derive the sum of the results (Chirikritzhis et al. 2011: 3). Other scholars, such as Brinkman et al. (2001) explain that following the identification of assaultive injuries from morbidity/mortality data, application of the alcohol aetiologic fraction allows researchers to estimate alcohol-related assaults for specific populations. A key benefit of applying aetiologic fractions is that they remove the need to rely on subjective judgments made by hospital or police personnel regarding alcohol involvement in crime (Brinkman et al. 2001).

Population aetiologic fractions are often used as they are a function of both the strength of the causal relationship between a particular level of drinking and the condition (measured as the relative risk of the condition for those who do drink compared with those who do not) and the prevalence of 'at-risk' alcohol consumption levels in the population (Chirikritzhis et al. 2011). Chirikritzhis et al. (2011) explain that for some conditions such as alcoholic liver cirrhosis the alcohol population aetiologic fraction is one, because such conditions are entirely attributable to alcohol. Other conditions such as assault have an alcohol population aetiologic fraction of less than one because they are only partially attributable to alcohol. Other researchers such as English et al. (1995) derived estimates of population aetiologic fractions using the 'direct method' methodology, based on the pooled results of case series studies. However, Brinkman et al. (2001) argue that the 'indirect method' is preferable because it is based on the pooled results from cohort and case-control studies to create an estimate of relative risk. This estimated relative risk is then combined with the available information to approximate the frequency of harmful alcohol consumption in the target community to calculate a precise fraction (Brinkman et al. 2001). Brinkman et al. (2001) recommended that future attempts to estimate alcohol-related harm should utilise time- and location-specific aetiologic fractions. Further, the accuracy of derived assault rates can be improved by using age- and sex-specific aetiologic fractions (Brinkman et al. 2001).

Issues associated with measuring alcohol-related crime

As has been highlighted by the previous section, there are numerous barriers to the effective collection of alcohol-related crime data. However, accurate and robust measures are important, particularly in terms of informing alcohol policy. As highlighted by Collins and Lapsley:

“

Only those crime costs should be estimated where a causal connection can be demonstrated between the consumption of a drug and the commission of a crime. A mere association between the two is insufficient. To confuse association with causation would result in a vast overestimate of the costs of drug-attributable crime (2008: 41).

Under-reporting of alcohol-related crime

There is consensus in the literature that alcohol-related crime is significantly under-reported. Morgan and McAtamney (2009) argue that the under-reporting of alcohol-related crime makes it extremely difficult to determine the full extent of alcohol-related crime in Australia. A study conducted by Bryant and Williams (2000) found that 70 percent of people who were physically abused by someone under the influence of alcohol or other drugs in a 12-month period did not report the incident to police. Doherty and Roche (2003) suggest that this figure is even higher for assaults that occur in pubs and clubs, with approximately 85 percent of assaults not being reported to police. Similarly, a study commissioned by the Victorian Community Council Against Violence (VCCAV; 1990) to investigate the level of under-reporting of alcohol-related violent incidents to the police found that only 22 percent of assault victims sought medical treatment, and only 16 percent reported the incident to police. There are multiple reasons for this, with the most common being that those involved in the incident believe that it is too trivial for police involvement, or that police would not act on the incident (Bryant & Williams 2000).

A study by the SIRC (2002) in the UK concluded that, because police officers differ widely in what they consider to be ‘alcohol-related’, there is significant under-recording of alcohol-related crime. SIRC (2002) found that some police officers thought the term should only be applied if alcohol consumption was relevant to the offence, whereas others saw the term as applying to all crimes where the perpetrator or the victim or both had consumed alcohol. Another group thought that the term only applied when the offence was committed by someone who was drunk (SIRC 2002). The consensus from the interviews with police officers for the purpose of the report was that, at best, it was possible for police to identify whether the offender was inebriated (SIRC 2002). A key finding of the study was that much data relating to alcohol-related offences is ‘lost’ because many alcohol-related incidents are never reported to the police in the first place and, due to this under-reporting, the data that is recorded may only represent approximately 10 percent of all alcohol-related crime and disorder (SIRC 2002). The report suggested that alcohol-related violence in the home was a particularly significant area of under-reporting (SIRC 2002).

Subjective assessments of alcohol-related crime

In all Australian jurisdictions, police collect varying levels of information on alcohol-related crime. Police assessments of alcohol involvement in crime are based on the attending officer's judgement, and are thus highly subjective in nature (Brinkman et al. 2001). Such judgements are, therefore, fairly unreliable and do not accurately measure the magnitude of alcohol-related crime or trends in alcohol-related crime (Brinkman et al. 2001). This argument is supported by a study conducted by Ireland and Thommeny (1993), which estimated that the routine use of flags by police underestimated incidents involving alcohol consumption in the six hours prior to the incident by as much as 50 percent. Further, estimates collected by police and hospital emergency staff are not reliable because they are too busy to reliably and consistently make judgements as to whether alcohol was involved in particular events (Brinkman et al. 2001). Moreover, police in all Australian jurisdictions are thought to often only record information on alcohol-related crime incidents that are considered particularly severe (Brinkman et al. 2001).

Researchers recommend that enforcement and health agencies reduce their reliance on flags unless they are well trained in the application of the term alcohol-related (Brinkman et al. 2001). Brinkman et al. (2001) recommend that both the victims and the perpetrators of alcohol-related violence be asked if they have consumed alcohol in the previous six hours by police and health personnel collecting information on alcohol-related violence. Brinkman et al. (2001) also advocate the national standard use of breathalysers in hospitals and by police attending assault incidents which would, they argue, reduce the reliance on subjective judgment.

Data collection and management: Other issues and barriers

A report by the SIRC (2002) on alcohol-related crime in the UK, which involved interviews with police officers in different parts of the country, highlighted the fact that a substantial number of forces and command units keep no records at all on the extent to which certain types of crime are determined to be alcohol-related. According to the report the lack of data was most evident in Scotland where, in a meeting of senior officers from all the Scottish forces, none were able to say that they could provide accurate statistics on alcohol-related crime in their areas (SIRC 2002). The literature suggests that the situation in Australia is not too dissimilar to the UK case. Using the specific example of alcohol-related traffic accidents, no national Australian data currently exists on the extent of incidents of driving under the influence of alcohol or the extent of alcohol-related road traffic accidents (Roche et al. 2011). The data gap that exists is not, as highlighted by Roche et al. (2011), a problem associated with basic data collection but, rather, the failure to undertake national-level data collection.

Research also points to the complexities of housing alcohol-related crime data in a number of distinct databases (Roche et al. 2011). Further, relevant alcohol-related data is often contained in larger datasets such as the ABS National Health Survey (NHS) (Roche et al. 2011). The result is that datasets vary in their definitions of excessive alcohol drinking, information collection methods, dataset size and nature of sample population, and purpose (Roche et al. 2011). Monitoring of alcohol-related harm in Australia tends to occur through the review of a number of sources including national surveys, sales data, hospital morbidity and mortality data, injury

data and road fatality figures (Killian et al. 2012). However, when used in isolation, these indicators may contain varying degrees of error (Killian et al. 2012). More importantly, there is little coordination of the datasets and few attempts to reconcile the anomalies across the various datasets (Roche et al. 2011). Finally, the work involved in compiling the data mean that, while point-in-time estimates are possible, regular monitoring can be prohibitively resource intensive.

Summary

This literature review has discussed the various data collection methods currently used to measure alcohol-related crime in Australia. The review has also explored the various challenges associated with collecting alcohol-related crime data and the limitations for researchers and policymakers of using data that is potentially inconsistent across datasets. Based on this review, it is possible to identify a number of recommendations for improving the current alcohol-related crime data collection tools and systems.

Gruenewald (1997) has stressed the value of triangulation across different sets of data to discern trends and patterns in alcohol-related crime. Similarly, Brinkman et al. (2001) have suggested that the more sources of information that can be used to consider the measurement of alcohol-related crime, the more confident researchers and policymakers can be in interpreting trends in the data. This approach is also supported by the National Expert Advisory Committee on Alcohol (NEACA; 2001), which argued that the use of a variety of indicators from different sources allows for triangulating information and data to establish overall trends and is therefore a more reliable approach to national measures. For example, to estimate the harm that alcohol plays in deaths and hospitalisations between 1990 and 2001, Chikritzhs et al. (2003) combined five sources of data: results from the NDSHS, mortality data from the ABS, hospitalisation data from all states and territories, and data on alcohol consumption and sales for a number of jurisdictions.

Past experience also highlights the importance of interagency collaboration and coordination for improving current data collection systems and sharing knowledge and information across relevant agencies. Roche et al. (2011) argue that the development of alcohol-related data collection standards and the establishment of a mechanism for improving collaboration and coordination between data owners may improve the quality of current data collection systems. Further, Brinkman et al. (2001) suggest that researchers should also estimate external threats to data validity, such as changes in police enforcement practices, changes in hospital alcohol-related harm-recording systems and changes in major reporting systems. This requires a certain degree of transparency and accountability between partners.

It is important to note that complexities in establishing a national dataset are not limited to the problem of alcohol-related crime. The ABS (2013a) and other agencies have been attempting in recent years to establish national standards and national datasets for other phenomena such as family, domestic and sexual violence and, in the United States, options to develop standard measures for estimating the scale of drugs have also been explored (Office of National Drug Control Policy 2013). It is also important to consider the reality that attempts to establish

national measures for alcohol-related crime and other phenomena are not limited to the Australian context. Attempts to standardise data collection processes are also being attempted in countries such as the United Kingdom.

This report examines the possibilities of establishing a national minimum dataset on alcohol-related crime in Australia. The rest of this report sets out to explore, through the interviews conducted with policing and non-policing personnel, some of the themes and issues that have already been identified in the literature. In particular, the report aims to establish an appropriate definition of alcohol-related crime and describe a suite of relevant indicators based on routinely collected data and the application of proxy or surrogate measures and attributable fractions. It also sets out to explore whether the barriers and challenges highlighted in the literature remain relevant today, and the extent to which modifications have been made to existing data collection efforts, particularly police collections, to overcome the problems and barriers identified in the literature. By highlighting recent and current data collection tools and systems, issues and barriers to establishing national indicators of alcohol-related crime, and opportunities for establishing a national dataset, the literature review has situated the study within an international discussion on the importance of developing accurate measures of alcohol-related crime to improve policy responses and reduce harm.

Police information systems and the recording of alcohol involvement in crime

While the connection between alcohol and crime is not thoroughly understood at the national level, the involvement of alcohol in crime and offending has been captured in a range of different ways by jurisdictional law enforcement agencies. There has been significant investment in the development of new data collections (both targeted and large-scale) and on enhancements to existing data systems. This experience is valuable in informing the development of national measures.

In this section of the report, relevant police information systems are reviewed to understand what alcohol-related crime data currently is, and is not, being collected, to better understand the degree to which reliable, timely and useable data can be obtained from existing law enforcement data systems, processes and collections. Specifically, the review sought to identify each system's capabilities, technical characteristics, users and uses, definitions of alcohol-related crime and measurement practices.

Police information systems are described for each state or territory in which the system operates. A brief summary of each of the systems is presented, as well as a description of the perceived strengths and limitations of each system. For each jurisdiction's data collection system discussion a sample alcohol-related crime data extract is presented to demonstrate what information is currently collected. It is worth noting that, given the focus of this study is on alcohol-related *crime*, this review has prioritised recorded crime databases, rather than focusing on custodial or calls-for-attendance data.

Australian Capital Territory

Summary of data system and use of data

ACT Policing uses the Police Realtime Online Management Information System (PROMIS) to record information about the involvement of alcohol in crime. Information is recorded for all activity that requires a police response; therefore, information in the database relates to

incidents of both recorded crime and police calls for attendance, among others. Police are mandated to document the involvement of alcohol in an incident through a flag system.

Police information systems in Australia can either have a dichotomous yes/no flag or mutually exclusive categories, such as ‘no alcohol involved’, ‘unknown’, ‘offender affected’, ‘victim affected’ or ‘both offender and victim affected’. ACT Policing’s flag system involves a dichotomous yes/no flag to distinguish whether or not alcohol was involved in the incident. Alcohol-related crimes are defined as any incident involving alcohol consumption, a licensed premises, an intoxicated person in a public place, and drinking alcohol in a public place in contravention of local regulations. Therefore, the criteria used to determine if a crime is alcohol-related are both objective (eg the incident involves a licensed premise) and subjective (ie the incident involves alcohol consumption or an intoxicated person).

In addition to recording whether alcohol was involved in a recorded crime incident through the flag system, further information is collected by police while an offender is in custody at the watch house. At the watch house, police are required to ask the following questions of the offender.

- How much alcohol have you consumed?
- How would that amount of alcohol usually affect you?
- Do you have any concerns in relation to your level of intoxication?

This custodial information is only relevant to the offender and is added to PROMIS via a separate entry that is linked to the existing incident-level information by a unique identifier. This information is obtained through a questionnaire administered by the attending police officer to the offender. The offender’s responses to and the police officer’s comments on these questions are recorded via a free-text narrative. A visual assessment is also completed by the attending police officer, who then records whether the offender appears to be under the influence of alcohol and whether there are visible signs of alcohol/drug withdrawal. Visual assessments are recorded via drop boxes in the database with dichotomous yes/no response options. Features of ACT Policing’s information system are summarised in Table 3.

ACT Policing collects data on alcohol-related crime as part of its harm minimisation, prevention and enforcement initiatives. The data are used for operational plans, intelligence purposes and targeted exercises to reduce alcohol-related violence (ACT Policing 2014a). Alcohol-related crime data are also provided to the ACT Government to inform policy at both territory and national policy forums.

In 2013, the City Beats Team and the Alcohol Crime Targeting Team were combined into the Regional Targeting Team to provide intelligence-led, high-visibility policing in entertainment precincts during peak hours. Data collected through PROMIS are used by the Regional Targeting Team to identify and respond to current and emerging alcohol-related crime problems in the ACT. Specifically, data are analysed to identify:

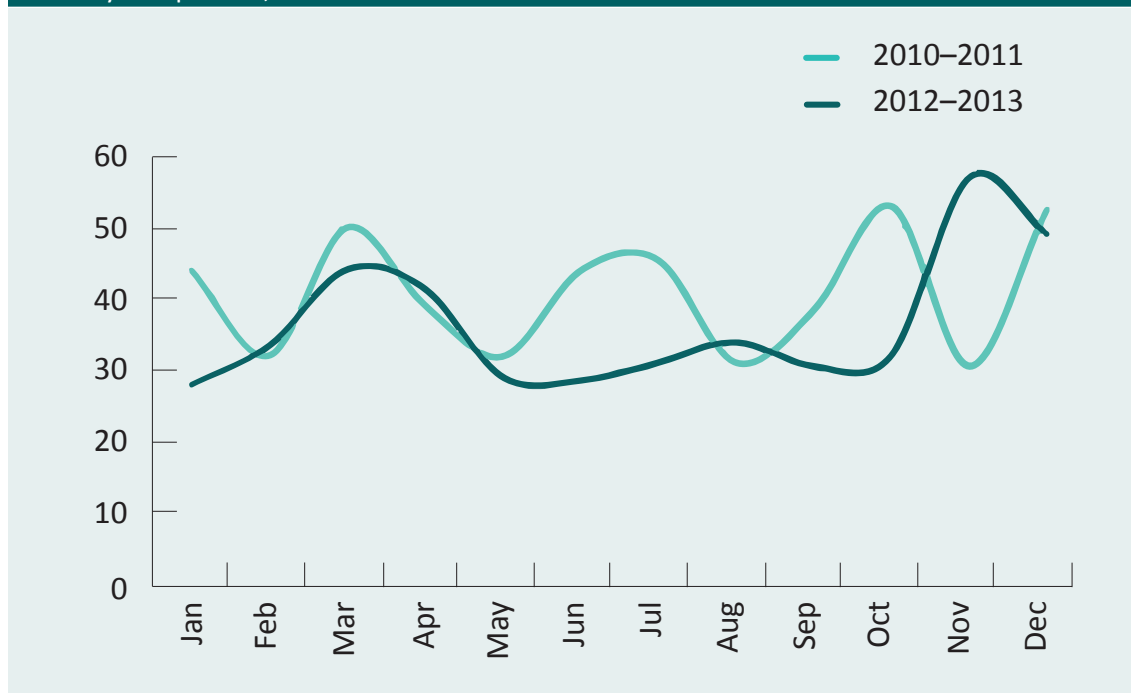
- where the problem is occurring, ie public premises and places that have particularly high rates of alcohol-related crime, disorder and regulatory breaches;

- when the problem is occurring, ie seasons, events, weekdays and hours of the day with particularly high rates of alcohol-related crime, disorder and regulatory breaches;
- who is involved with the problem, ie recidivist offenders of alcohol-related crime, disorder and regulatory breaches (licensees, employees, patrons); and
- the type of alcohol-related problem, ie new or re-emerging forms of alcohol-related crime, disorder and regulatory breaches (eg assault, public disorder, intoxicated driving), including how and why they occur.

ACT Policing has also used alcohol-related crime data for the Safe Summer campaign, which combined an increased police presence in Canberra’s civic centre using high-visibility patrols with a high-profile communications and public engagement initiative. Data from the campaign were collated to provide trends across years. For example, the 2013–14 reporting period showed a 39 percent decrease in alcohol-related violence compared with 2012–13.

Further analysis of the 2013–14 data indicates that 28 percent of all offences against the person were related to alcohol, with approximately 60 percent of these offences relating to assaults in public places and 30 percent relating to assaults in the home (ACT Policing 2014a). An alternative way these data have been assessed is in relation to the number of alcohol-related offences reported across the ACT each month. Between late 2010 and September 2013, 44 per cent of alcohol-related offences reported each month were for offences against the person. A comparison of the average number of alcohol-related offences against the person reported each month during 2010–11 and 2012–13 is presented in Figure 1. As this comparison demonstrates, alcohol-related offences against the person decreased marginally, by an average of 11 per cent, between the two time periods (ACIL Allen Consulting 2014b).

Figure 1: Average number of alcohol-related offences against the person reported in the ACT, monthly comparison, 2010–11 and 2012–13



Source: ACT Policing [computer file], cited in ACIL Allen Consulting 2014b.

In 2013, the ACT Government commissioned a review of the *Liquor Act 2010*, which was introduced to respond to growing concerns from the community and the liquor industry about the antisocial and violent behaviour associated with alcohol abuse (ACT Government 2014). The review involved analysis of relevant data from a range of agencies, including alcohol-related crime data obtained from ACT Policing. ACT Policing data used for the review included:

- alcohol-related offences committed on licensed premises, by offence type;
- alcohol-related offences committed in a public place, by offence type;
- persons taken into custody for being intoxicated; and
- people admitting or observed to have been intoxicated in police custody, by offence type (ACIL Allen Consulting 2014b).

The review outlined nine main findings with regards to alcohol-related violence and public health outcomes associated with alcohol abuse. Of relevance to this study is the finding that a number of possible improvements to data collection were identified. These relate to the continued collection of alcohol-related crime data to support analysis and research and the sharing of these data between relevant agencies on a regular basis to support and coordinate activities aimed at reducing the harms associated with alcohol abuse (ACT Government 2014).

Review of ACT Policing's information system

There are three main strengths of ACT Policing's information system. The first is that PROMIS is designed to collect information at both the incident level for all offences and the individual level when a person is admitted into custody, allowing different dimensions of the involvement of alcohol in an offence to be recorded. Second, the flag system enables the involvement of alcohol in an incident to be easily identified and extracted for analysis to support operational initiatives. Third, information is obtained through several methods, including subjective assessments, visual observation of the scene and of the offender, and self-report information provided by the offender.

There are also several limitations to ACT Policing's information system. First, it cannot be determined from the incident-level alcohol flag whether the victim, the offender, or another person (such as a witness) had, according to the attending police officer, consumed alcohol, leading to the incident being recorded as alcohol-related. Second, aside from the dichotomous alcohol flag, no additional information relating to the involvement of alcohol is collected. While information is collected from the offender in custody at the watch house regarding their own alcohol use, this information is collected for the purpose of monitoring the offender's health and safety, and not used to determine if alcohol was a factor in the person's offending. Third, data on incidents linked with licensed premises are not able to be extracted readily from PROMIS, and data on where offenders consumed their last drink is mostly obtained in cases of drink-driving, but rarely for offenders involved in other incident types. Further, in many instances of intoxication in a public place, police may ask a person to pour out their drink and then move on. No record of such incidents is entered into PROMIS.

	Incident	Offender
Definition of alcohol-related crime	Incidents involving alcohol consumption, a licensed premise, persons intoxicated in a public place, and alcohol consumption in a public place in contravention of local regulations	Offender appears to be under the influence of alcohol and/or shows visible signs of alcohol withdrawal
Record type	Dichotomous yes/no alcohol flag	Dichotomous yes/no drop box
Data source	Recorded crime	Custodial
Crime types	All recorded crime incidents	All crime incidents resulting in the offender being admitted to custody
Mandatory recording	Yes	Yes
Measurement	Objective (ie incident occurred on licensed premise) Subjective, based on police assessment (ie person is intoxicated)	Subjective based on police assessment Self-report by offender
Additional information collected	None	Place of last drink (drink-driving)

New South Wales

Summary of data system and use of data

NSW Police Force’s (NSWPF) Computerised Operational Policing System (COPS) records information relating to the involvement of alcohol in any police activity, including recorded crime and move-on directions. NSWPF define an alcohol-related incident as an incident where one or more of the participants has consumed alcohol prior to the incident. Police officers are mandated to record this information using a two-flag system with mutually exclusive categories relating to the victim, offender or other person (such as a witness). The first flag identifies whether alcohol was consumed by the participant prior to the incident using the categories ‘no’, ‘not known’, ‘not recorded’, ‘refused to answer’ and ‘yes’. This information is obtained directly from the participants regarding their own drinking behaviour. The second flag identifies the intoxication level of the participant using the categories ‘not affected’, ‘slightly affected’, ‘moderately affected’, ‘well affected’ or ‘seriously affected’. Police determine the appropriate category of intoxication through observations of the person for visible signs of intoxication and observations of the scene. Police officers are trained in the signs of intoxication to identify whether a person is affected by alcohol. Their assessment is recorded independently of the first flag, so that even if the participants state they have consumed no alcohol but are showing signs of intoxication, the observed intoxication level is still documented. Information is recorded at the individual level for both flags, and the database is able to distinguish between the different participants involved in the incident.

In addition to the intoxication level of the participants involved in the incident, police also record the last place alcohol was consumed, whether the incident occurred on or near a licensed premise, whether the incident occurred after leaving a licensed premise and the source of the alcohol.

Aside from analysing trends in alcohol-related crime more generally, the data are used by NSW Police to examine offending on licensed premises. This information is then used in discussions with licensed premises to assist them in understanding the nature and volume of crime that occurs on their premises and assist them in implementing crime reduction initiatives.

Alcohol-related crime data are also used for the Alcohol Related Crime Information Exchange (ARCIE) database. ARCIE is maintained by NSWPF, and can be accessed by the Office of Liquor, Gaming and Racing and the Office of State Revenue to identify and target locations and licensed premises associated with alcohol-related crime.

Significantly, the NSW Bureau of Crime Statistics and Research (BOCSAR) can also access information contained within COPS and ARCIE for research purposes. For example, data have been used by BOCSAR for the purpose of examining:

- the effect of liquor-licensing concentrations on rates of assault (Donnelly, Menendez & Mahoney 2014);
- whether changes to legislation and the regulation of licensed premises have affected the staff willingness to report assaults on licensed premises (Snowball & Spratley 2013);
- the association between alcohol outlet density and assaults on and around licensed premises (Burgess & Moffatt 2011);
- the nature of assaults recorded on licensed premises (Fitzgerald, Mason & Borzycki 2010); and
- the short-term costs of police time spent dealing with alcohol-related crime (Donnelly et al. 2007).

BOCSAR also regularly report incident data from NSWPF on both a quarterly and annual basis. Within these data, BOCSAR reports on alcohol-related non-domestic assault and alcohol-related domestic assault. According to these data, in 2013, 40 percent of non-domestic violence related assaults and 35 percent of domestic violence related assaults involved alcohol (see Table 4; BOCSAR 2014).

Table 4: Incidents of alcohol-related assaults in NSW by assault category, January 2013 to December 2013

	n	%
Non-domestic violence related assault	13,192	40
Domestic violence related assault	10,007	35

Source: NSW Bureau of Crime Statistics and Research 2014

Review of NSW Police Force’s information system

Through COPS, NSWPF has implemented comprehensive data-capturing protocols that allow a breadth of information about the involvement of alcohol to be recorded. The two-flag system allows for the recording of alcohol-relatedness using different measures, including whether alcohol was consumed by the participant prior to the incident and the participant’s level of intoxication. The mutually exclusive categories contained within the flags also allow greater detail to be captured than a dichotomous flag system does. Recording the observed intoxication of the offender, for example, could enable the association between crime and level of intoxication to be analysed. Finally, the database is able to distinguish between multiple persons involved in an incident and record relevant information for each individual. The fact that the information collected within COPS was validated through a rigorous research study (Wiggers et al. 2004), and the frequency with which alcohol-related crime data from COPS has been used in research and crime reporting, demonstrates both the validity and value of the data collected by NSWPF.

Table 5: Features of NSW Police Force’s information system (COPS)

	Offender	Victim
Definition of alcohol-related crime	Consumed alcohol prior to the incident	Consumed alcohol prior to the incident
Record type	Two categorical alcohol flags: prior consumption ('no', 'not known', 'not recorded', 'refused to answer', 'yes') intoxication level ('not affected', 'slightly affected', 'moderately affected', 'well affected', 'seriously affected')	Two categorical alcohol flags: prior consumption ('no', 'not known', 'not recorded', 'refused to answer', 'yes') intoxication level ('not affected', 'slightly affected', 'moderately affected', 'well affected', 'seriously affected')
Data source	Recorded crime	Recorded crime
Crime types	All recorded crime incidents	All recorded crime incidents
Mandatory recording	Yes	Yes
Measurement	Self-report by offender (prior consumption) Subjective based on police assessment (intoxication level)	Self-report by victim (prior consumption) Subjective based on police assessment (intoxication level)
Additional information collected	Place of last drink, on or near licensed premises, incident occurred after leaving licensed premises, source of alcohol	Place of last drink, on or near licensed premise, incident occurred after leaving licensed premises, source of alcohol
Reporting of alcohol-related crime	All crimes involving alcohol consumption are reported annually at the local government and state levels	

Northern Territory

Summary of data system and use of data

NT Police use PROMIS to record alcohol-related crime data. NT Police identify a crime as alcohol-related crime based on the reasonable belief that alcohol was involved in the incident. Data are collected at the incident level through a mandatory flag system that contains the mutually exclusive categories 'nil', 'not known', 'victim', 'offender' or 'participant'. An incident is classified as involving alcohol if one or more victims, offenders or participants are reasonably believed to be influenced by alcohol. NT Police officers are given information on how to identify if a person is affected by alcohol during their training, and the responding police officer conducts an assessment of the victim, offender, other participants and the scene. Further, NT Police officers are guided by several legislative instruments that govern police responses to alcohol-related crime incidents and alcohol intoxication. For example, the *Liquor Act 2011* (NT) states that a person is drunk if 'the person's speech, balance, coordination or behaviour appears to be noticeably impaired' (s 7(a)) and 'it is reasonable in the circumstances to believe the impairment results from the person's consumption of liquor' (s 7(b)). Information is recorded in two main ways. Police can generate their own incident through proactive policing activities, or an incident is generated when the police officer is dispatched to the scene. After resolving the incident, police officers advise the police call centre of the details to be entered into PROMIS. The recent, but as yet limited, introduction of iPads also facilitates the real-time entry of data by police officers into the system. For more serious offences, police officers may also enter data into the information system directly.

The flag is recorded for most police activity, including recorded crime, calls for attendance and proactive police activities (including, for example, when a police officer pours out alcohol in situations or locations where drinking is not allowed). Information is also recorded for incidents where, prima facie, an incident appears to have happened but no offender or victim is at the scene. This includes situations where police are dispatched to an incident involving drinking in a public place, where alcohol is found but the offender has absconded.

Further, information on the involvement of alcohol is captured for infringement notices. When a notice is issued, if the person is alcohol-affected this is recorded. In protective custody, information is also gathered about an offender's level of intoxication. However, these data are contained within a separate data system and are not able to be linked with PROMIS. Features of Northern Territory Police's information system are summarised in Table 6.

Alcohol-related crime data contained within PROMIS are used by NT Police for a variety of purposes. Internally, NT Police have a dedicated team that examines the issue of alcohol-related violence. Data are monitored daily, weekly, monthly, quarterly, annually and over five to ten years. Trends are analysed through the Office of the Commissioner and Chief Executive Officer or by intelligence officers in various NT Police divisions. Data are used by the executive, media or Minister's Office, as well as by operational members, through either standard reporting or ad hoc requests for information.

Recently, alcohol-related crime data have been used for family and domestic violence prevention and response initiatives. An intergovernmental program on family safety was established to examine the proportion of domestic violence incidents that are alcohol-related. The data has also been used to support the Stronger Futures legislative and policy intervention and the development of local alcohol management plans. The *Stronger Futures in the Northern Territory Act 2012* repealed the Northern Territory Emergency Response legislation, but retained some of the same policy elements (Parliamentary Joint Committee on Human Rights 2013). One of these key policy elements aims to tackle alcohol abuse by instituting alcohol protected areas, but gives the Minister for Indigenous Affairs the power to approve alcohol management plans. Alcohol management plans allow areas covered by the protections to be managed by the community, and the development of local solutions (Parliamentary Joint Committee on Human Rights 2013). Alcohol-related crime data collected by NT Police are used to inform the approval and development of such plans.

Externally, alcohol-related crime data are analysed and reported by the Department of Attorney-General and Justice on a quarterly basis. These reports contain data relating to the number of assault and domestic violence assault offences that involved alcohol (Department of the Attorney-General and Justice 2015; see Figure 2). These data enable detailed and timely monitoring of alcohol-related assaults in the Northern Territory, as well as analysis of trends over time.

NT Police's alcohol-related crime data have also been used by the Northern Institute at Charles Darwin University and by the AIC for the Safe Streets Audit. The audit was commissioned by NT Police to examine crime and safety issues in Darwin, Katherine and Alice Springs and to help inform effective strategies to reduce the actual and perceived risk of victimisation (Morgan et al. 2014). Analysis of PROMIS data revealed marked differences in the prevalence of alcohol-related non-domestic violence across the Northern Territory, with Darwin experiencing a higher proportion of offences than any other location (41%). Other important information also emerged regarding this type of alcohol-related assault, including that offences were likely to occur on streets, footpaths and in open areas (62%), and that victims were likely to be non-Indigenous males (32%) or Indigenous females (34%). Several gaps in the data were identified through the audit, including the need to consider instituting a system for recording whether an incident occurred within the vicinity of a particular place, such as a licensed premises (Morgan et al. 2014)

Review of NT Police's information system

One of the main strengths of the information recorded in PROMIS is that the quality of the data is consistent over time, allowing for trends analysis to be conducted and prevalence to be monitored across different regions of the Northern Territory. Further, the attending police officer is required to refer the case to a supervisor who conducts final quality control before the case is finalised. Second, the mutually exclusive categories for recording the involvement of alcohol mean that analysis can be undertaken to assess whether the victim, the offender or both were influenced by alcohol during the incident.

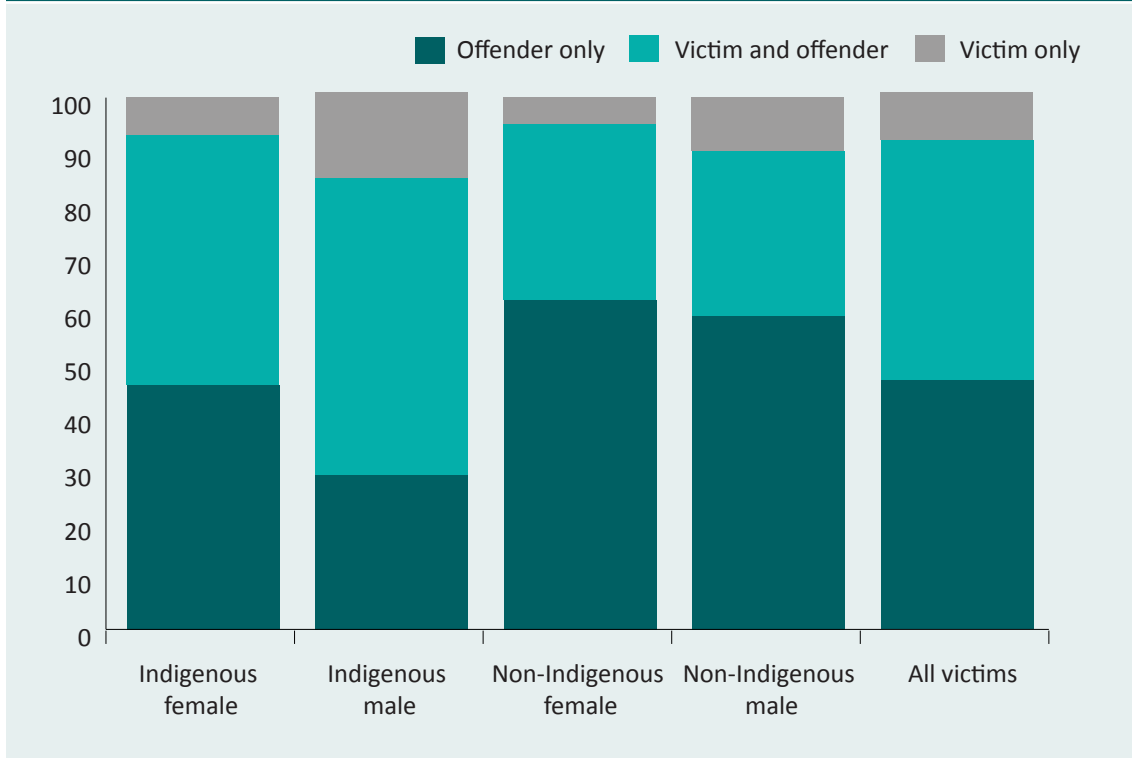
Although the indicator for ‘nil’ is robust, police officers often do not have enough information to decide on the ‘not known’ category of alcohol involvement in an incident. Sometimes, police officers may believe that alcohol was involved in an incident, but there was not enough information from the scene to make a definitive decision. These types of incidences are then recorded as ‘not known’.

Table 6: Features of Northern Territory Police’s information system (PROMIS)

Incident	
Definition of alcohol-related crime	Reasonable belief that alcohol was involved in the incident
Record type	Categorical alcohol flag (‘nil’, ‘not known’, ‘victim’, ‘offender’, ‘participant’)
Data source	Recorded crime
Crime types	All recorded crime incidents
Mandatory recording	Yes
Measurement	Subjective based on police assessment and informed by legislation defining intoxication
Additional information collected	None
Reporting of alcohol-related crime	Quarterly (domestic and non-domestic violence related assaults)

The NT Department of the Attorney-General and Justice has previously published alcohol-related assault and domestic violence assault statistics on a quarterly basis. The most recent statistics for 2011–12 indicate that alcohol was involved in the incident for 59 percent of assault victims (Department of the Attorney-General and Justice 2012). The victim alone was influenced by alcohol in nine percent of incidents, and the offender alone was influenced by alcohol in 47 percent of incidents. Both the victim and offender were influenced by alcohol in 45 percent of incidents (Department of the Attorney-General and Justice 2012). The percentage of alcohol-related assault victims, by whether the offender or victim was influenced by alcohol and the victim’s Indigenous status, is presented in Figure 2.

Figure 2: Percentage of 2011–12 alcohol-related assault victims by person influenced by alcohol



Source: Department of the Attorney-General and Justice 2012

Queensland

Summary of data system and use of data

The Queensland Police Service's (QPS) data on drug and alcohol-related crime is contained within the Queensland Police Records and Information Management Exchange (QPRIME). At the incident level, information is collected through a flag containing the mutually exclusive categories: 'no alcohol', 'no drugs', 'alcohol', 'drugs' and 'alcohol and drugs'. It cannot be determined whether this information relates to a victim or offender, and if there are multiple persons involved in the incident this information is replicated across each individual's record. Additional information collected at the incident level includes whether the offence occurred on or near a licensed premises.

Further information is recorded for offenders and victims including the place of last drink, where the alcohol was purchased, and the alcohol intoxication level of the individual. Alcohol intoxication level is recorded through the mutually exclusive categories 'not affected', 'mildly affected' and 'grossly affected'. It is mandatory for information to be recorded at both the incident and individual levels.

Police officers make a subjective assessment of the involvement of alcohol based on signs of intoxication and observations of the scene. Police officers are trained in signs of intoxication and base their assessment on these. Data can be captured and entered into the database in

several ways. Depending on the mode of collection and entry, data may be promptly entered into the database or entered at a later time. The different methods of collection and collation involve the police officer compiling information in a notebook or completing a form.

Information from the form is entered into the system at a later time, or by contacting Police Link and providing designated personnel with the information to be entered into the database, enabling instant and consistent data entry. The recent, but as yet limited, introduction of iPads also facilitates the instant entry of data by police officers into QPRIME. Features of the QPS information system are summarised in Table 7.

QPRIME data on alcohol-related crime are used in several ways. Commonly, data are used to monitor alcohol-related crime occurring on or near licensed premises. This information is used to inform risk assessments of licensed premises, and to assist police in the case management of at-risk premises. Data are also provided to licensees so they can monitor crime in or around the venue and implement crime reduction strategies.

In 2010, the Law, Justice and Safety Committee held an inquiry into alcohol-related violence. As part of the inquiry, the committee voiced concerns about the lack of data on the incidence and causes of alcohol-related violence, and emphasised the need for better research and data collections in relation to this issue. Specifically, the committee highlighted that:



...apparent lack of comprehensive, reliable data relating to alcohol-related violence indicates that further research and more efficient, uniform collection of data is required to fully assess the prevalence and impact of, and possible solutions to, alcohol-related violence (Law, Justice and Safety Committee 2010: 15).

One of the recommendations of the committee to address the problem of alcohol-related violence was the introduction of management plans in entertainment precincts to ensure adequate policing, security and public transport. In response to this recommendation, the Queensland Government trialled Drink Safe Precincts in Townsville, Fortitude Valley and Townsville between December 2010 and September 2013 (Queensland Government 2013). An evaluation of the trial found that there was an association with a reduction in alcohol-related violence at two of the three trial sites. Following the conclusion of the trial, the QPS continued to provide a high-visibility, increased police presence in the Drink Safe Precincts until mid-2014. The outcomes of the trial have informed the Safe Night Out Strategy. The strategy commenced in 2014 with the aim of restoring responsible behaviour and respect, reducing alcohol-related violence and improving safety in Queensland's late-night precincts (Queensland Police Service 2014).

While the reports of the Law, Justice and Safety Committee and the Drink Safe Precincts trial evaluation used police, health and hospitals data to demonstrate the problem of violence, neither report utilised data that indicated the involvement of alcohol in incidents of violence. Therefore, the need for reliable policing data that is able to indicate the involvement of alcohol

at both the state and national levels was evident. Data extracts are also used by universities for research purposes, and by the Queensland Government to inform legislative change, policy positions, and crime and harm reduction initiatives.

Review of Queensland Police’s information system

QPRIME has several strengths in terms of the recording of alcohol-related crime information. First, the system is designed to collect information at both the incident and individual levels, allowing different layers of information to be recorded. Second, the use of mutually exclusive categories for the recording of information at both the incident and individual levels allows for more detailed information to be collected than would a dichotomous flag system. Further, important additional information regarding the involvement of alcohol is collected, such as place of last drink, where the alcohol was purchased, whether the incident occurred on or near a licensed premises, and intoxication level of the persons involved in the incident.

At the incident level, it cannot be identified whether this information relates to a victim or an offender. If there are multiple victims or offenders, it also cannot be determined which individual or individuals this information pertains to. For example, if there are two offenders involved in one incident but only one offender is affected by alcohol, then both offenders will automatically be flagged as being affected by alcohol. Consequently, there may be an overestimation of alcohol-relatedness when examining individual information.

Table 7: Features of Queensland Police’s information system (QPRIME)

	Incident	Offender	Victim
Definition of alcohol-related crime	One or more persons affected by alcohol	Offender affected by alcohol	Victim affected by alcohol
Record type	Categorical alcohol flag ('no alcohol', 'no drugs', 'alcohol', 'drugs', 'alcohol and drugs')	Categorical flag ('not affected', 'mildly affected', 'grossly affected')	Categorical flag ('not affected', 'mildly affected', 'grossly affected')
Data source	Recorded crime	Recorded crime	Recorded crime
Crime types	All recorded crime incidents	All recorded crime incidents	All recorded crime incidents
Mandatory recording	Yes	Yes	Yes
Measurement	Subjective based on police assessment	Subjective based on police assessment	Subjective based on police assessment
Additional information collected	On or near licensed premises	Place of last drink, where alcohol was purchased	Place of last drink, where alcohol was purchased

South Australia

Summary of data system and use of data

SA Police records data on alcohol-related crime through the Police Incident Management System (PIMS). South Australia Police defines an alcohol-related crime based on one or more of the participants (victims and/or offenders) having consumed alcohol prior to the incident. Police officers are mandated to record this information using a two-flag system.

The first flag is recorded at the incident level in PIMS and indicates whether the offence was 'drug/alcohol-related', based on the modus operandi or the motivations and methods employed by the offender. The second flag is recorded at the individual level and exists in the Police Intelligence Alcohol incident data system (a subset of data held in the PIMS system), which allows police officers to record:

- whether the accused consumed alcohol prior to the incident;
- the level of intoxication of the victim and/or offender; and
- where the accused had their last drink and, if it was a licensed premises, the name of the venue.

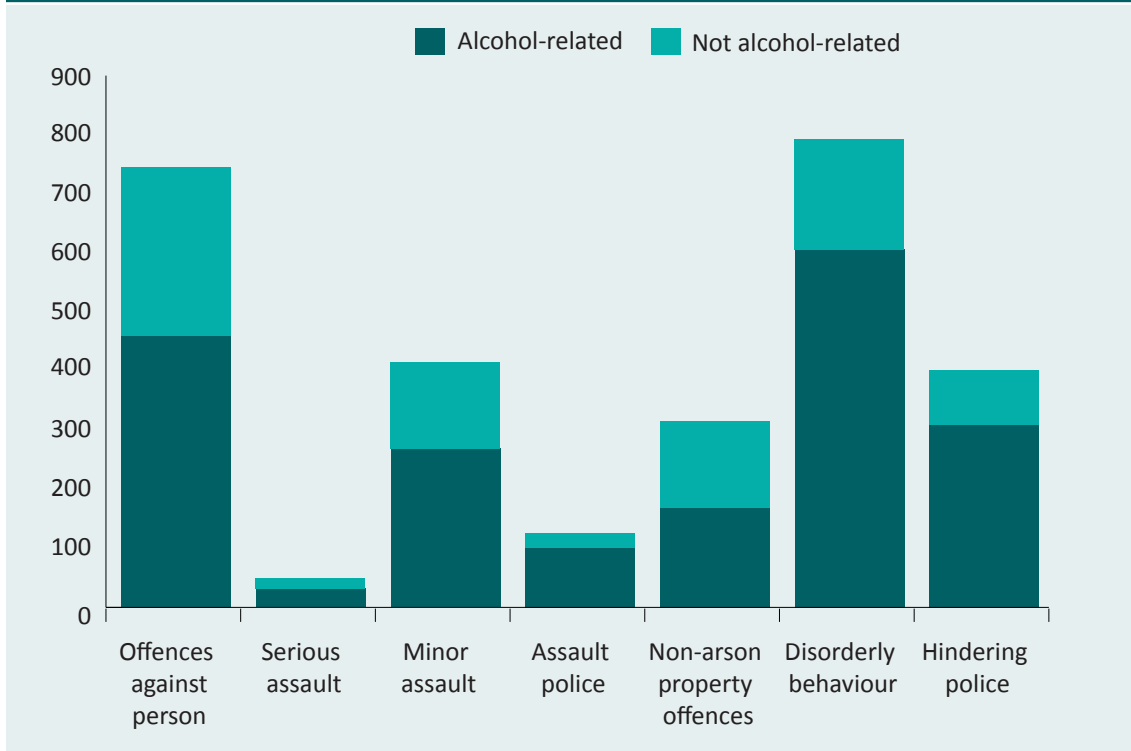
Data contained within the PIMS and Police Intelligence Alcohol incident data systems are able to be linked.

Incident level and individual level information is gathered through a combination of subjective observations and direct questions to the accused offender and the victim. The subjective nature of self-reported consumption information is balanced with SA Police members' training, experience, and situational recording of observation assessments of each person's apparent level of intoxication using the mutually exclusive categories: 'not affected', 'slightly affected', 'moderately affected', or 'grossly affected'. Reports are vetted by supervisors for completeness. Features of SA Police's information system are summarised in Table 8.

Data recorded in PIMS is mostly used by SA Police for intelligence purposes; however data have also been used for research purposes, such as the report on the impact of alcohol misuse on violence, social disorder and drink driving in the late-night economy of the Adelaide Central Business District (CBD) commissioned by SA Police in 2010 (SA Police 2010). According to these data, in 2008–09, 58 percent of victim-recorded crime in the Adelaide CBD was alcohol-related. More specifically, over the same period in the Adelaide CBD:

- 62 percent of offences against the person were alcohol-related (459 out of 744 offences);
- 65 percent of serious assaults (32 out of 49 offences) and minor assaults (269 out of 416 offences) were alcohol-related; and
- 76 percent of offences related to disorderly or offensive behaviour was alcohol-related (606 out of 793 offences; see Figure 3; SA Police 2010).

Figure 3: Alcohol use and offending in the Adelaide CBD, 2008–09 (n)



Source: South Australia Police 2010

Review of SA Police's information system

SA Police's information system has several key strengths. First, the database contains both incident and individual level flags to capture greater detail and varying layers of information. Second, the database captures information relating to both victims and offenders, which allows for more robust analysis of the influence of alcohol on all participants involved in an incident. Third, information is obtained through several methods, including subjective assessments, visual observation of the scene and of the offender, and self-report information provided by the offender. The triangulation of data through different collection methods increases the reliability and accuracy of the data. Further, reports are vetted by supervisors for completeness, which again improves the rate of recording and reliability of the data.

There is one main limitation of SA Police's information system. At the incident level, the involvement of alcohol cannot be separated from the involvement of drugs. The unique involvement of alcohol can only be established by examining information at the individual level in the Police Intelligence Alcohol incident data system.

Table 8: Features of South Australia Police’s information system (PIMS)

	Incident (PIMS)	Offender (Police Intelligence Alcohol system)
Definition of alcohol-related crime	One or more persons having consumed alcohol prior to the incident	Accused consumed alcohol prior to the incident
Record type	Dichotomous ‘yes/no’ alcohol flag	Categorical flag (‘not affected’, ‘slightly affected’, ‘moderately affected’, ‘grossly affected’)
Data source	Recorded crime	Recorded crime
Crime types	All recorded crime incidents	All recorded crime incidents
Mandatory recording	Yes	Yes
Measurement	Subjective based on police assessment	Subjective based on police assessment Self-report by offender
Additional information collected		Place of last drink, on or near licensed premises, name of venue

Tasmania

Summary of data systems and use of data

Tasmania Police records the involvement of alcohol in crime in both the Offence Recording System (ORS) and the Family Violence Management System (FVMS). Incident level information is recorded in the ORS via a flagging system with mutually exclusive categories to indicate whether alcohol, drugs or both were a contributing factor in the incident. The categories that may be selected are ‘alcohol’, ‘alcohol and drugs’, ‘drugs’, ‘neither alcohol or drugs’ or ‘unknown’. No additional information is collected regarding the involvement of alcohol at the incident level; however, for drink-driving offences information on place of last drink is recorded, as well as the results of breath analysis.

In the FVMS, information about the involvement of alcohol is collected at the individual level for incidents of family violence and family arguments. Family violence is defined according to Tasmania’s *Family Violence Act 2004*, while family arguments are defined as argumentative incidents involving persons in a significant relationship that do not rise to the level of family violence. The involvement of alcohol in these incidents is recorded against each of the involved individuals, who are likely to be offenders and victims. Alcohol-related information is entered using tick boxes to indicate whether the individual is affected by alcohol and normally alcohol dependent.

It is mandatory for a police officer to record alcohol-related information in the ORS; however, it is not a requirement to record this information in the FVMS. In the ORS, the contribution of alcohol is also related to the incident, and cannot be attributed to the offender, victim or both. The decision of whether alcohol was a contributing factor in an offence is at the officer’s

discretion based on experience and information available at the time of responding to the incident. It is not based on a specific measure of consumption or intoxication. Features of Tasmania Police's ORS and FVMS are summarised in Tables 9 and 10, respectively.

Data are most commonly used by Tasmania Police to respond to information requests on how many crime incidents involved alcohol and the number of assaults involving alcohol. To a lesser extent, information has also been sought on the location and time of alcohol-related incidents. Internally, Tasmania Police uses alcohol-related data to inform prevention approaches and report on key priorities, namely public order incidents, including vandalism, public place assaults, licencing breaches and antisocial behaviour. Tasmania Police also places a strong emphasis on alcohol-related issues through a high-visibility presence in and around entertainment precincts and other licensed premises by the Road and Public Order Service (RPOS) and Community Support Services, with a focus on compliance by licensees (Department of Police and Emergency Management 2014b) and the proactive policing of the possession and consumption of alcohol in public places and streets. Tasmania Police also uses data from the ORS and FVMS to measure the success of alcohol-related crime reduction initiatives in relation to:

- the number of public order incidents, including public disturbances and offensive behaviour;
- the number of public place assaults;
- the number of offences committed against the person;
- the number of alcohol-related family violence incidents;
- the number of liquor confiscations; and
- the number of drink driving offenders detected (Department of Police and Emergency Management 2014a).

Review of Tasmania Police's information systems

Tasmania Police's information systems have two main strengths. First, the involvement of alcohol is recorded consistently across the ORS and the FVMS, which allows the data from each system to be collated for analysis. Second, each system contains separate drug and alcohol flags, which enables the involvement of alcohol-only or the combined involvement of alcohol and drugs to be easily identified and extracted for analysis.

Four important limitations currently exist in Tasmania Police's information systems. First, it is not a requirement for police officers to record the involvement of alcohol in the FVMS. Consequently, the data in the FVMS may be less reliable and accurate than data recorded in the ORS. Second, alcohol-relatedness is recorded at the incident level, and therefore cannot be attributed to the offender, victim or both. Third, there is no specific definition of what constitutes alcohol contributing to an offence—for example, alcohol consumption or intoxication. Finally, no additional information relating to the involvement of alcohol is collected or recorded.

Table 9: Features of Tasmania Police’s information system (ORS)	
	Incident
Definition of alcohol-related crime	Alcohol was a contributing factor in the incident
Record type	Categorical drug and alcohol flag ('alcohol', 'alcohol and drugs', 'drugs', 'neither alcohol or drugs', 'unknown')
Data source	Recorded crime
Crime types	All
Mandatory recording	Yes
Measurement	Subjective based on police assessment
Additional information collected	Place of last drink (drink-driving only)

Table 10: Features of Tasmania Police’s information system (FVMS)		
	Offender	Victim
Definition of alcohol-related crime	Offender affected by alcohol	Victim affected by alcohol
Record type	Tick box	Tick box
Data source	Recorded crime, police attendance	Recorded crime, police attendance
Crime types	Family violence, family arguments	Family violence, family arguments
Mandatory recording	No	No
Measurement	Self-report by offender Subjective based on police assessment	Self-report by victim Subjective based on police assessment
Additional information collected	None	None

Victoria

Summary of data system and use of data

Victoria Police have recently made changes to the Law Enforcement Assistance Program (LEAP) database and now record the presence of alcohol and drugs separately, rather than as a single item, for all offences against the person. There is a tick box for 'suspect was alcohol affected' and a separate tick box for 'suspect was drug affected'. The same information is collected for the victim. Prior to July 2015, a combined alcohol/drug affected flag was used.

At all family violence incidents attended by Victoria Police, police complete a Family Violence Risk Assessment and Management Report. This report records whether the perpetrator is alcohol-affected (definitely/possibly) or drug-affected (definitely/possibly). The same information is collected for the victim.

Information is recorded for all activity that requires a police response; therefore information in the database relates to incidents of both recorded crime and police calls for attendance. It is not mandatory for police to identify whether a suspect in an offence was alcohol-affected; the responsibility to complete the flag and enter the record into LEAP is at the discretion of the police officer.

A subjective assessment is made by the police officer at the time of responding to an incident, and a statement regarding the suspect’s consumption of alcohol/drugs is taken from the victim. Alcohol-relatedness is not recorded at any other stage. Police make a subjective assessment of the involvement of alcohol based on signs of intoxication and the visible presence of alcohol. Features of Victoria Police’s information system are summarised in Table 11.

Victoria Police use the alcohol/drug-related crime data to identify trends over time, to inform operational policing activities, for tasking and coordination and to analyse the crime types that have been identified as having a stronger association with alcohol/drug misuse. Data are also provided to universities and research agencies for research purposes.

Review of Victoria Police’s information system

LEAP has contained a flag to indicate the involvement of drugs/alcohol since 1993. As such, data are able to be analysed over a long period to determine trends over time. However, recent changes to how an offender’s or victim’s status as alcohol-affected or not is recorded mean that alcohol involvement (separate to the involvement of drugs) can only be assessed from July 2015.

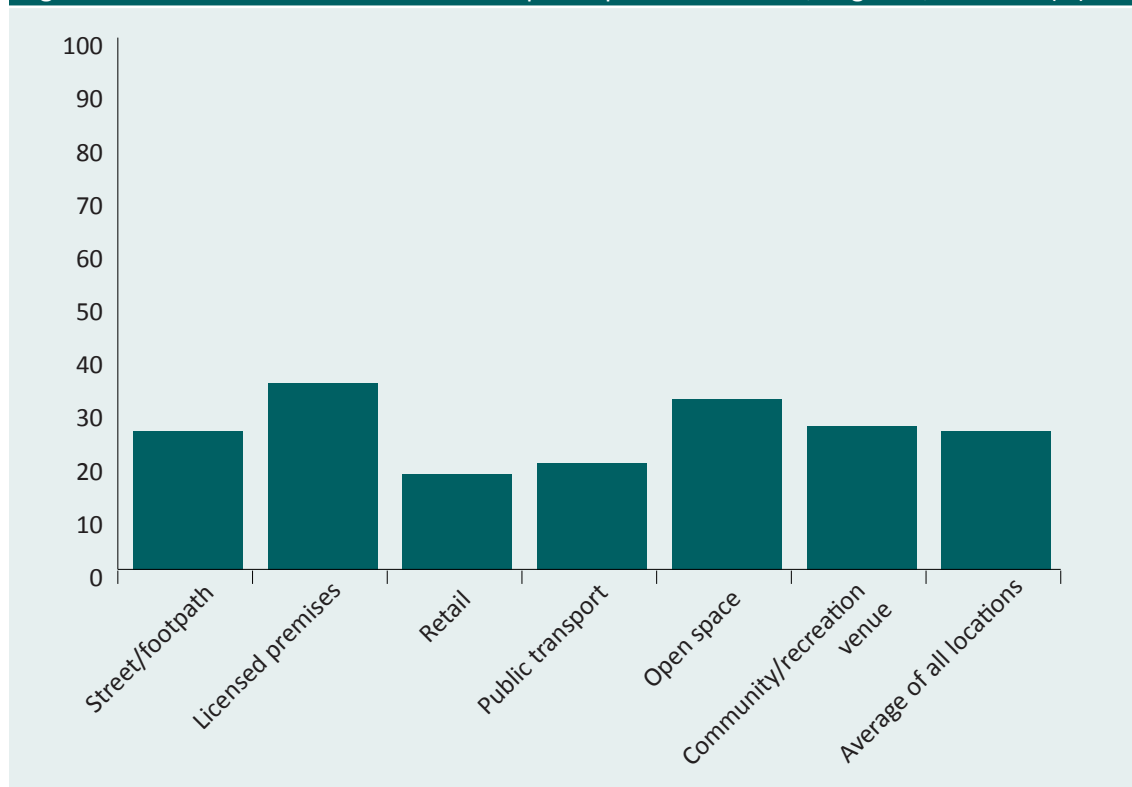
It is not mandatory to record whether the suspect was affected by alcohol, which impacts the accuracy and reliability of the data. Victoria Police’s system is also limited by the amount of information that is collected and recorded. While standard information relating to the incident is recorded, no further information relating to the involvement of alcohol is collected.

Table 11: Features of Victoria Police’s information system (LEAP)	
	Offender
Definition of alcohol-related crime	Offender is affected by alcohol
Record type	Dichotomous ‘yes/no’ alcohol flag
Data source	Recorded crime
Crime types	Offences against the person
Mandatory recording	No
Measurement	Subjective based on police assessment
Additional information collected	Place of last drink

In 2009, a parliamentary inquiry was held to consider strategies to reduce crimes against the person in Victoria, with a particular focus on assaults in public places (Drugs and Crime Prevention Committee 2010). One of the aims of the inquiry was to report on the level, nature and incidence of crimes against the person in Victoria and trends in recent years. To this end, the AIC was engaged to examine available Victoria Police data regarding assaults in public places in Victoria and the Melbourne CBD.

Analysis showed that in 2008–09, police flagged an incident as alcohol-related in 26 percent of all assaults in public places across Region 1 (the region including Melbourne’s CBD). The locations most likely to involve alcohol-related assault were licensed premises (35%), open spaces (31%), streets or footpaths (26%), and community or recreational venues (27%). Incidents of assault occurring at or near public transport facilities (20%) and in retail venues (18%) were least likely to be flagged as alcohol-related (Figure 4; Drugs and Crime Prevention Committee 2010).

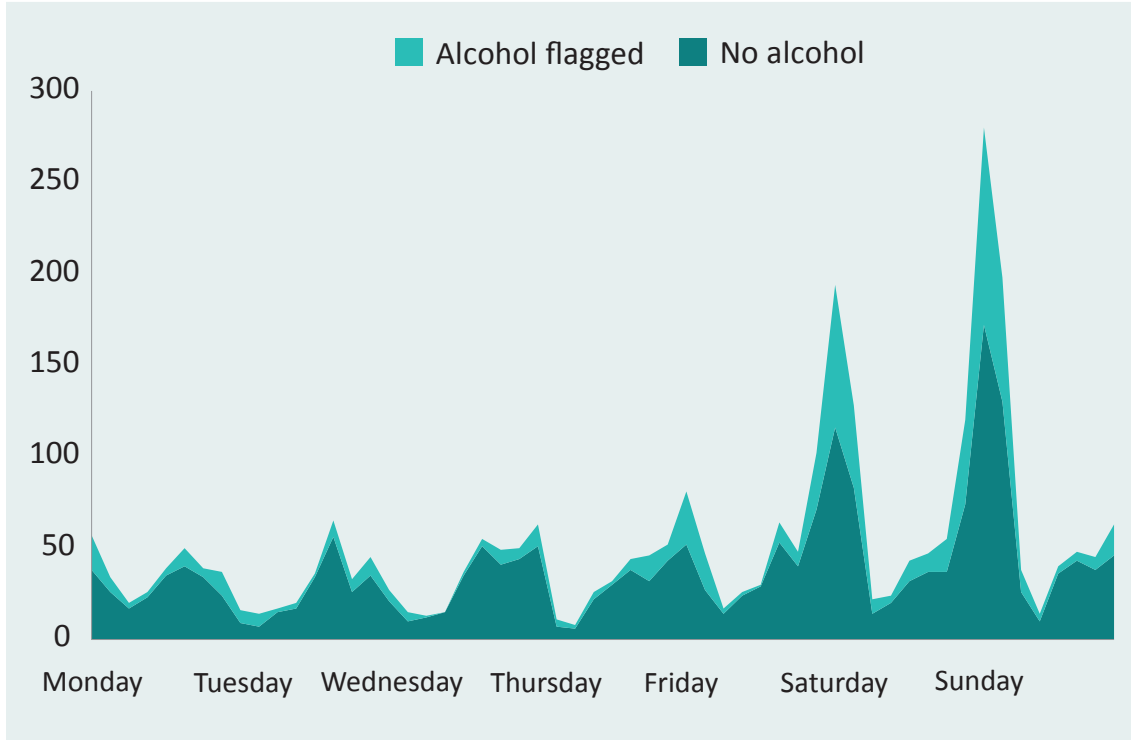
Figure 4: Alcohol involvement in assault in public places in Victoria, Region 1, 2008–09 (%)



Source: Victoria Police [computer file], cited in Drugs and Crime Prevention Committee 2010

Analysis also showed that assaults most commonly occurred on Friday and Saturday evenings, which were also the days and times of the week with the highest number of alcohol-related incidents (see Figure 5; Drugs and Alcohol Prevention Committee 2010).

Figure 5: Alcohol involvement in assault in public places in Victoria by time and day of week, Region 1, 2008–09 (n)



Source: Victoria Police [computer file], cited in Drugs and Crime Prevention Committee 2010

The Drugs and Crime Prevention Committee (2010) noted that, without further information or data, it was difficult to assess whether the figures relating to alcohol-related assaults on licensed premises reflected the reality of the involvement of alcohol in assaults on licensed premises, or whether they were affected by under-utilisation of the non-mandatory alcohol flag system by police. The Drugs and Crime Prevention Committee (2010) acknowledged that it was likely that the involvement of alcohol in incidents of violence more broadly across Victoria was being under-recorded by Victoria Police. They indicated that '[f]uture analysis of assault and related offences would clearly benefit from a more refined set of alcohol involvement indicators that were consistently and compulsorily collected for all offences' (Drug and Crime Prevention Committee 2010: xiv). The Drug and Crime Prevention Committee therefore recommended that Victoria Police develop a standard and mandatory alcohol flag that is consistently measured and applied across all offences across Victoria (Drugs and Crime Prevention Committee 2010).

Western Australia

Summary of data system and use of data

WA Police uses the Frontline Incident Management System (IMS), which captures information on all offences, to record information about the involvement of alcohol in crime. Information is collected and entered into IMS using dichotomous incident and individual level flags for all police activity, including recorded crime incidents and police calls for attendance. At the incident level, the police officer is required to record whether alcohol was involved in the incident. At the individual level, a police officer can also record whether the offender is affected by alcohol.

The incident level flag is mandatory; however, police officers are not mandated to indicate whether the offender was affected by alcohol. If the offender is identified as being alcohol-affected, then the police officer is able to indicate where the last alcoholic drink was consumed (ie licensed premises, a licensed event, a private residence etc), suburb of last alcoholic drink (if this is where the person consumed the majority of his/her alcohol intake), and where the alcohol was purchased.

Police in attendance at the scene provide their judgement on whether alcohol was involved in an incident. This is informed by training in how to identify whether an offender is alcohol-affected, including being provided with a list of signs of intoxication.

Data on alcohol-related crime is used by WA Police for operational purposes in assessing liquor license applications, to impose conditions on a premise's opening hours and to support interventions and disciplinary action against licensed premises. The data are also used to detect patterns in the location of alcohol-related incidents and, more broadly, as evidence to support state-based policy decisions. According to these data, 41 percent of the 26,250 assaults that occurred between January and December 2013 were alcohol-related (see Table 12). Similarly, 46 percent of the 14,752 domestic violence assaults occurring over the same period involved alcohol.

Table 12: Total and alcohol-related assaults and domestic violence assaults in Western Australia, January–December 2013

	Total (n)	Alcohol-involved (n)	%
Assault	26,250	10,871	41
Domestic violence assault	14,752	6,750	46

Review of Western Australia data system

WA Police’s information system has several key strengths. First, through IMS, WA Police has implemented comprehensive data capturing protocols that allow important additional information about the involvement of alcohol to be recorded, such as place of last consumption, suburb of last consumption, place of most consumption and whether the incident occurred on or near a licensed premises. Second, IMS is designed to collect information at both the incident and individual levels, allowing different layers of information to be recorded. Third, police officers are provided with training on how to identify if a person is affected by alcohol and, therefore, whether the incident is alcohol-related.

Some of the data indicating alcohol-relatedness have only been collected and recorded for a relatively short period of time (since the end of 2013), meaning that these particular data cannot as yet give a reliable indication of prevalence and trends over time cannot yet be established. This includes data relating to whether the offence occurred on or near a licensed premises and whether alcohol was consumed by the offender at the premises. Further, for circumstances where an offender is not able to be identified or the offender details are not entered into the system, then no information about where the alcohol was consumed will be recorded.

Table 13: Features of Western Australia Police’s information system (IMS)

	Incident	Offender
Definition of alcohol-related crime	Alcohol was involved in the incident	Offender affected by alcohol
Record type	Dichotomous ‘yes/no’ alcohol flag	Dichotomous ‘yes/no’ alcohol flag
Data source	Recorded crime	Recorded crime
Crime types	All recorded crime incidents	All recorded crime incidents
Mandatory recording	Yes	No
Measurement	Subjective based on police assessment	Subjective based on police assessment
Additional information collected		Place of last consumption, on or near a licensed premise, suburb of last consumption, place of most consumption, where alcohol was purchased

Summary

The review of police information systems has outlined the existing data capacity for each jurisdiction, with strengths and limitations of each system being acknowledged. Importantly, the review confirmed that each state and territory police agency collects data that are relevant to the measurement of alcohol-related crime in Australia. This is a reflection of the significant gains that have been made in recent years in terms of capturing alcohol-related crime data in police information systems.

Although advances have been made to improve the breadth and quality of alcohol-related crime information, the review also revealed that not all the data that are collated are reliable or useable, and therefore cannot be collated at the national level without jurisdictions’ data collection systems undergoing some modification. The main limitations to the collation of national level data involve the lack of uniformity in the definitions, variables, collection processes and measures of alcohol-related crime across different databases and different jurisdictions. Therefore, there is currently insufficient consistency and thus limited opportunity for comparability of the current alcohol-related crime data across jurisdictions or at the national level.

A jurisdictional comparison of alcohol-related crime definitions is presented in Table 14. The table highlights that a range of definitions exist at the incident, offender and victim levels across jurisdictions. The varying definitions are based on the consumption, influence, effect, involvement or contribution of alcohol. *Consumption* means that a police officer has determined that alcohol was consumed prior to the offence. *Influenced* means that a police officer has assessed an offender as being under the influence of alcohol while committing an offence. *Affected* means that a police officer has assessed an offender and/or victim and determined that they were affected by alcohol at the time of the offence. *Involvement* means that, broadly, alcohol was involved in some way in the offence. *Contribution* means that a police officer has determined that alcohol has wholly or partially contributed to the offence. The most common definition of alcohol-related crime used by jurisdictions centres around the offender being affected by alcohol at the time of offending.

	Incident	Offender	Victim
ACT	Consumption ^a	Influenced	—
NSW	—	Consumption and affected	Consumption and affected
NT	Involvement	—	—
Qld	Affected	Affected	Affected
SA	Consumption	Consumption and affected	—
Tas	Contribution	Affected	Affected
Vic	—	Affected	Affected
WA	Involvement	Affected	—

a: Incidents on licensed premises are taken to involve alcohol consumption

Other indicators of alcohol involvement in crime

In this section of the report, national data currently collated by relevant non-policing agencies are examined to identify complementary collections, systems and processes that could potentially be utilised to satisfy the information requirements of the IGCD. Relevant data collections and systems have been reviewed to identify the source of data, type of data, data collection methods, crime types, definitions of ‘alcohol-related crime’ and measurement practices. Some of these data sources have been used by the IGCD to populate relevant performance measures as part of its annual report on performance.

Importantly, the focus of this review has been on those data collections that are conducted on a regular basis, include some information about the involvement of alcohol in crime in either an offence or specific episode of contact with the criminal justice system and have a national focus (or at least multi-jurisdictional). Several data collections were identified for potential inclusion in the review but excluded on the basis that they did not meet all three criteria. Most commonly, they did not include any information about the involvement of alcohol. This included the ABS Recorded Crime Victims and Offenders collections, the AIHW’s Prisoner Health Survey and Juvenile Justice National Minimum Dataset and the AIC’s National Police Custody Survey. Hospitalisation admissions and emergency room data were excluded because of these criteria and also because they have been reviewed at length elsewhere (Chikritzhs et al. 2011; Killian et al. 2012; Laslett et al. 2010).

National Drug Strategy Household Survey—Australian Institute of Health and Welfare

The NDSHS collects information about self-reported alcohol, tobacco and illicit drug use in the general population, and is administered to residential households every three years. Relevant to the measurement of alcohol-related crime, the NDSHS elicits information regarding incidents of both victimisation and offending from survey respondents, including:

- experience of verbal and physical abuse (including sexual abuse) by the respondent, from a person under the influence or affected by alcohol;
- the relationship of the person affected by alcohol to the survey respondent;

- the location of the alcohol-related incident(s);
- whether any of the alcohol-related incidents of physical abuse involved sexual abuse;
- the nature of the most serious injury sustained by the survey respondent in the incident(s);
- whether the most serious incident was reported to police and, if not, why it was not reported;
- whether the survey respondent had also been drinking alcohol (or using drugs) at the time of the incident; and
- whether the survey respondent had undertaken the following activities while under the influence of or affected by alcohol:
 - operated a boat and/or driven a motor vehicle;
 - created a public disturbance or nuisance;
 - caused damage to property;
 - stole money, goods or property; and
 - verbally and/or physically abused someone.

The NDSHS is conducted under the auspices of the National Drug Strategy and is the leading survey of licit and illicit drug use in Australia. The data are used for several purposes, though the primary objective of the survey is to contribute to the development of policies to respond to key drug and alcohol-related issues (AIHW 2014). In 2013, 23,855 responses were received from people aged 12 or over regarding their drug-use patterns, attitudes and behaviours (AIHW 2014).

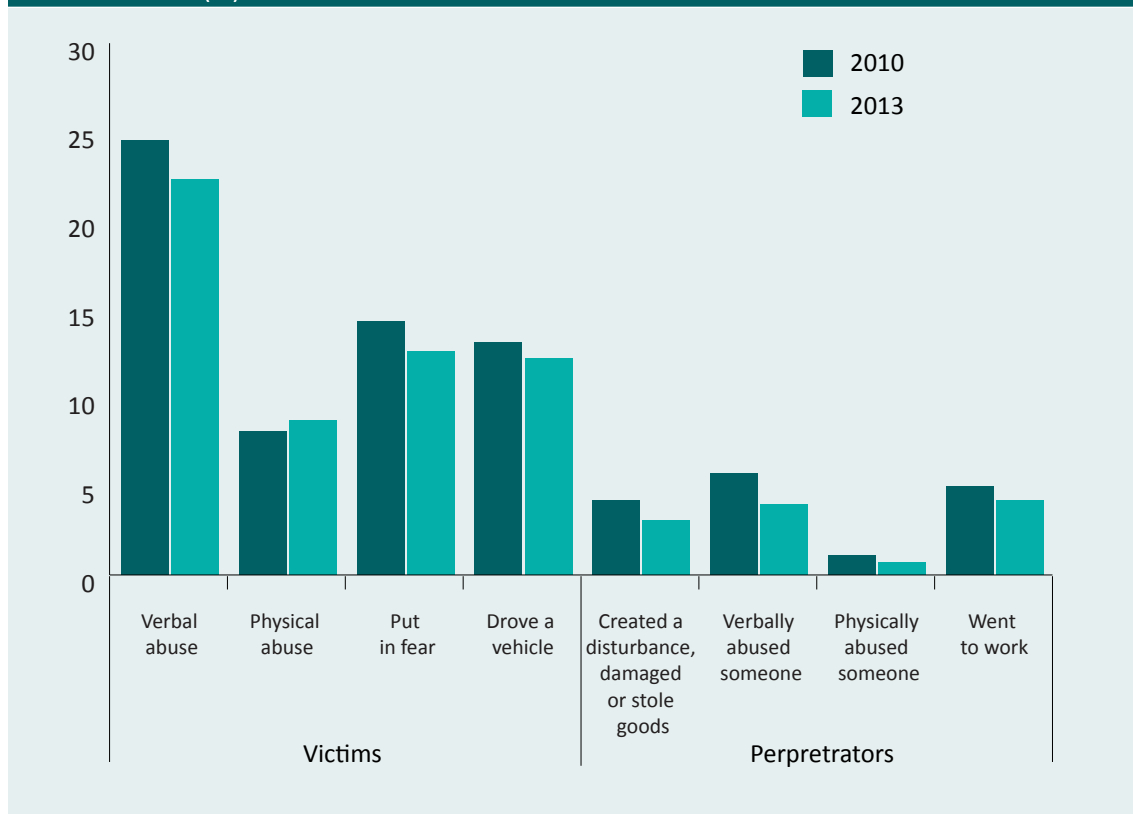
The NDSHS has several key strengths that make it a valuable source of alcohol-related crime data in Australia. First, it is a nationwide survey involving a multistage, stratified area random sample. This sampling technique ensures that an even representation of households from capital cities and regional areas is included. For smaller states and territories, the sample sizes are also boosted to improve the reliability of estimates. Weighting is also used to overcome any imbalances arising from the design and execution of the sampling technique.

Further, a comprehensive data collection method is employed that involves drop-and-collect, whereby interviewers make three attempts to contact households to deliver the survey and three attempts to collect surveys. If collection is unsuccessful after the third attempt, interviewers make a reminder phone call to the household and then leave a reply-paid pre-addressed envelope for the respondent to return the completed survey themselves. These measures are employed to maximise the sample size and thus increase the generalisability of the findings. The 2013 survey was modelled on the 2010 survey to maximise comparability of the findings.

A sample data extract is presented at Figure 6, illustrating how the NDSHS can be used to measure changes in alcohol-related crime and related harmful behaviours over time. In 2013, one in five recent drinkers indicated that they had put themselves or others at risk of harm

while affected by alcohol. This represents a drop in the number of perpetrators reporting alcohol-related offending compared to 2010. While the percentage of persons reporting being verbally abused and put in fear is lower in 2013 than 2010, a higher proportion of persons indicated they were physically abused by someone affected by alcohol.

Figure 6: Victims and perpetrators of alcohol-related harm, recent drinkers aged 14 or older, 2010 and 2013 (%)



Source: AIHW 2014

There are three main limitations of the NDSHS. First, the response rate for the 2013 survey was 49 percent (reduced to 33% if all cases of non-contact were included rather than only including households where contact was made but the survey was not completed or was ineligible for inclusion), which represents a decline in responses compared with the 2010 survey (which elicited a response rate of 51%; AIHW 2014). Second, as with any self-report data, survey estimates are subject to errors arising from incorrect completion of the survey, memory failure, unwillingness of respondents to provide true responses (particularly for sensitive topics such as illicit drug use and other offences), and higher levels of non-response from certain subgroups surveyed (AIHW 2014). These limitations mean the findings are likely to be underestimated.

Third, the fact that the survey is administered annually means that annual estimates of alcohol-related crime are not available. Finally, as identified in the literature review, Brinkman et al. (2001) argue that the NDSHS lacks consistency when repeated over time.

Drug Use Monitoring in Australia—Australian Institute of Criminology

Established in 1999, the DUMA program is a quarterly collection of data on drug use and offending from police detainees at multiple police watch houses across Australia. There are currently four sites in operation: Perth, Brisbane, Sydney and Adelaide. Prior to 2013, DUMA operated at nine sites and in six jurisdictions. Interviews are conducted quarterly at each site.

Data collection for the DUMA program consists of two components. The first component is a self-report questionnaire that collects demographic data and other information about each detainee's drug use and offending history. The second component is a urine sample that is sent to a toxicology unit and tested for seven different classes of drug to independently verify the presence of drugs and/or alcohol in the detainee's system at the time of being detained. Information routinely collected as part of the core DUMA survey that is relevant to the measurement of alcohol-related crime includes:

- detainees' perceptions of how much the consumption of alcohol contributed to their detention;
- whether the detainee had been drinking in the 24 hours before detention;
- what type of liquor was consumed, how much and over what period of time;
- place of last drink before being detained;
- time of first and last drink; and
- whether the detainee had been drinking before any charges laid in the past 12 months.

DUMA data are published regularly through the AIC's various publication series, and are used by the public, academics, researchers, legislators, policymakers, law enforcement and drug and alcohol practitioners. For example, DUMA data have been used to examine:

- how much crime is drug or alcohol-related (Payne & Gaffney 2012);
- polydrug use among detainees (Sweeney & Payne 2011);
- women, drug use and crime (Loxley & Adams 2009); and
- the effectiveness of drug law enforcement (Willis, Anderson & Homel 2011).

Evidence and trends can be used for program development, to determine the effectiveness of interventions or police operations or for monitoring purposes. DUMA data can also be used to inform policy in areas such as housing, treatment, mental health, policing, courts, and correctional institutions (Sweeney & Payne 2012). DUMA data have been used to develop attributable fractions for alcohol involvement in crime (Makkai & McGregor 2002; Payne & Gaffney 2012), which have been used as the basis for estimating the societal costs of alcohol misuse.

A sample data extract of self-reported alcohol-crime attributions by most serious offence is presented in Table 15. The data demonstrate that detainees attributed 48 percent of public disorder offences, 35 percent of violent offences, 27 percent of breach offences and 16 percent of property offences to alcohol (Ng et al. 2015).

	n	%
Violent	716	35
Property	223	16
Drug	76	12
Driving under the influence	258	76
Traffic	55	14
Disorder	250	48
Breach	483	27
Total	2,112	28

Source: Ng et al. 2015

DUMA has several key strengths. Compliance with the voluntary survey is high due to well-trained interviewers, strict confidentiality measures and the aggregate reporting of data. The longevity of the collection allows for analysis of long term trends. However, addenda may also be developed and added to the standard survey questions, to investigate a particular issue of interest and relevance to police detainees. Recent addenda include questions on stolen goods, drink-driving and random breath testing, drug driving (Sweeney & Payne 2012), and domestic violence.

However, several limitations of the DUMA data are evident. First, the catchment area varies between DUMA sites, resulting in varying numbers of respondents at each site. Second, interviewers enter the sites at times when the number of detainees is expected to be at a maximum. However, because interviewers have no control over when a person will be detained, at times a large number of detainees will be interviewed and coverage maximised but, at other times, there may be few detainees and coverage will be limited. Further, the size of the sample may be affected because potential interview subjects are diverted from detention by the police, for example via a caution or a notice to attend court. In addition, DUMA is not a random sample of all people detained by police. As many as 21 percent of detainees may be excluded from participation for a variety of reasons, including being unfit for interview because police have deemed the detainee to be a risk to the interviewer or because the detainee is ineligible, having been held in custody for more than 48 hours. Arguably, those who are unfit for interview due to severe intoxication and safety concerns may also be the group whose drinking may have had the most significant impact on their offending. Similarly, intoxication is notoriously difficult to assess because detainees may have been arrested several hours before the interview. Finally, the sample is one of episodes of detention, rather than individual detainees, so it is possible that detainees appear more than once in the sample.

Crime Victimization Survey—Australian Bureau of Statistics

The ABS Crime Victimization Survey (CVS) is administered as part of the Multipurpose Household Survey (MPHS) and collects information about people's experience of crime victimisation. The survey is conducted annually via personal telephone interviews with participants over the age of 15 (over the age of 18 for sexual assault victims) and gathers information about survey respondents' experiences of selected crime types in the last 12 months. More specifically, information is collected about experiences of personal crimes (such as assault, robbery and sexual assault) and property crimes (such as break-ins, motor vehicle theft and malicious damage to property). In addition, data are collected on respondents' sociodemographic characteristics, incident characteristics (location, relationship between victim and offender, etc) and whether the crime was reported to police (ABS 2015a).

The CVS collects the following information regarding the involvement of alcohol in assaults experience by respondents in the last 12 months:

- whether alcohol or other substances contributed to a physical assault;
- whether the offender was under the influence of alcohol and/or another substance during the assault;
- whether alcohol or other substances contributed to face-to-face threatened assault; and
- whether the offender was under the influence of alcohol and/or another substance in a face-to-face threatened assault (ABS 2015a).

Table 16: Whether victims of physical assault (aged 18 years and over) believed alcohol or any other substance contributed to most recent incident experienced, 2013–14

	Victims who experienced physical assault in the last 12 months (thousands)	Victims who believed alcohol or any other substance contributed to the assault (%)
Gender		
Male	210.0	67.4
Female	173.7	54.7
Age group (years)		
18–24	70.8	74.8
25–34	100.1	70.2
35–44	81.0	64.5
45–54	81.5	49.3
55–64	38.3	47.0
65 and over	12.5	51.9
Gender of offender		
Male	290.0	65.9
Female	56.6	46.6
Some male, some female	32.0	65.0
Relationship to offender		
Intimate partner	63.1	59.1
Known to victim (including intimate partner)	235.7	55.7
Stranger	149.2	69.6
Location of incident		
Person's home	133.1	56.3
Another person's home	35.5	78.9
On public transport eg train, bus, taxi	3.6	77.7
In the street or other open land	59.8	63.4
Licensed entertainment/recreation venue	34.2	90.7

Source: ABS 2014a

In 2013–14, 27,327 people responded to the survey, a response rate of 76 percent (ABS 2015a). A sample extract of data on victims of physical assault who believed alcohol or any other substance contributed to the most recent incident is presented at Table 16. Analysis of the data indicates that 67 percent of males and 55 percent of females believed alcohol or another substance contributed to their most recent experience of physical assault. Alcohol-related assaults were most likely to occur on licensed premises (91%), followed by at another person's home (79%) and on public transport (78%). Estimates of the proportion of incidents involving an offender under the influence of alcohol are not reported as part of the annual release.

Information from the CVS is reported widely in Australia and used by police, researchers, public policy agencies and all levels of government. Importantly, the survey collects valuable information on the scale of under-reported crime, which can complement police recorded data to establish a more accurate representation of crime in Australia. The CVS is used to develop multipliers that form the basis of estimates of the cost of different categories of crime in Australia (Smith, Jorna, Sweeney & Fuller 2014).

The CVS has a number of strengths. First, the CVS collects information on crime not reported to or detected by police, as well as providing information about repeat victimisation. Second, the CVS employs a strong survey design and quality control measures—the survey went through a pilot phase, interviewers were trained and supervised throughout the collection and extensive procedures were implemented at all stages of data processing to minimise errors. As a result, the survey elicited a high response rate with over three quarters (76%) of the sample completing the survey. Third, weighting is used to adjust results in order to make them generalisable to the total population. Finally, questions from previous surveys were repeated for the 2013–14 CVS, which enables comparisons over time to be made.

The main limitation of the CVS data is that it does not distinguish between alcohol and other substances (ie illicit drug use), meaning that it does not produce an independent estimate for alcohol-related victimisation as part of its annual release. Further, while data are collected on whether an offender was under the influence of alcohol, this is not included as part of the release (but is available on request). Other limitations of the CVS are similar to those of the NDSHS. The survey requires victims to be aware of and recall their victimisation experiences, and victims to be willing to disclose this information over the telephone to interviewers. The CVS also only collects information about crimes of which there is a clear victim. Finally, the 2013–14 survey excluded households in Indigenous communities and people living in non-private dwellings, such as boarding schools and university residences, retirement homes and hotels (ABS 2015a). Therefore, the findings are likely to be underestimated.

Personal Safety Survey—Australian Bureau of Statistics

The PSS has been conducted twice, first in 2005 and more recently from February to December 2012. The PSS is a general population household survey that collects information via face-to-face interviews with respondents aged 18 years and over regarding experiences of violence from the age of 15 years, including information about the contribution that alcohol made to their most recent experience. In 2012, a response rate of 57 percent was achieved, with 17,050 men and women completing the survey questionnaire nationally (ABS 2013b).

The PSS asks respondents about their experiences of physical, sexual and threatened assault at the hands of male or female perpetrators. The survey contributes information regarding the following experiences of alcohol-related violence:

- whether alcohol or other substances contributed to the incident;
- how the respondent thought alcohol or other substances contributed to the incident;

- if the offender was under the influence of alcohol or drugs at the time of the incident; and
- if the respondent himself or herself was under the influence of alcohol or drugs at the time of the incident.

The PSS is based on the design of the WSS, which was conducted in 1996 but has been adapted to include men’s experiences of violence (ABS 2013b). The PSS was conducted in 2012 for the purpose of providing updated information on the nature and extent of violence experienced by both women and men, as well as collecting other related information regarding people’s safety at home and in the community (ABS 2013b).

The need for data to be collected on the prevalence of violence and sexual violence against women was recommended in the National Plan to Reduce Violence against Women and their Children 2010–2022 (Council of Australian Governments [COAG] 2011). According to the national plan, the PSS is an important resource for government to make decisions and inform policy around the types of violence that affect women and their children (COAG 2011).

Table 17 presents PSS data on experiences of sexual violence since the age of 15 where the respondent perceived alcohol or drugs contributed to the most recent incident. The data are divided by whether the victim or the perpetrator was under the influence of alcohol or drugs, allowing for the involvement of alcohol both in victimisation and offending to be explored.

In the most recent incident of sexual assault reported by survey respondents involving a male victim and male perpetrator, 54 percent of victims and 25 percent of perpetrators were under the influence of alcohol. In the case of sexual assault involving a male victim and a female perpetrator, 37 percent of victims and 15 percent of perpetrators were under the influence of alcohol in the most recent incident reported by respondents. In the most recent incident of sexual assault reported by survey respondents involving a female victim and female perpetrator, 50 percent of victims and 21 percent of perpetrators were under the influence of alcohol, and for sexual assault involving a female victim and a male perpetrator, 11 percent of victims and five percent of perpetrators were under the influence of alcohol.

Table 17: Whether alcohol or drugs contributed to most recent experience of sexual violence (experienced since age 15), by type of violence and gender of perpetrator, 2012

	Victim under the influence of alcohol (%)	Perpetrator under the influence of alcohol/drugs (%)	Total (%)
Male			
Sexual assault by a male	54	25	25
Sexual assault by a female	37	15	10
Female			
Sexual assault by a male	11	5	4
Sexual assault by a female	50	21	20

Source: ABS 2013b

The PSS has several strengths relating to its design and administration protocols. First, the PSS is administered via face-to-face interviews conducted by experienced and trained interviewers. In addition to attending a comprehensive two-day survey training program on the survey content and field procedures, interviewers also receive tailored sensitivity and awareness training, designed to increase their knowledge and understanding of what happens when a person experiences violence (ABS 2013). Interviews are also conducted by female interviewers to ensure respondents' comfort and wellbeing. To cater for instances where a male interviewer might be preferred by the respondent, a small number of male interviewers were also trained. Interviews are conducted in private so that other members of the household, which could potentially include perpetrators, are not aware of the survey content or the responses given. The respondent also has the option of having the interview conducted at an alternative location or by telephone.

Dwellings included in the personal safety surveys that have thus far been conducted were selected at random using a stratified, multistage area sample design to ensure that households from capital cities and regional areas were evenly represented. For each dwelling, it was randomly decided whether the interview was to occur with a male respondent or with a female respondent (ABS 2013). The results were also weighted in order to make them generalisable to the total population. The questions for the 2012 survey were similar to those for the 2005 PSS and the 1996 WSS, meaning the data are comparable with those sources and across time (ABS 2013).

The main limitation of the PSS data are that they do not distinguish between alcohol and other substances (ie illicit drug use), meaning that the PSS does not produce an independent estimate for alcohol-related victimisation and offending. A number of other limitations of the PSS were identified. First, the survey is conducted irregularly, having taken place only in 2005 and 2012. The National Plan to Reduce Violence against Women and their Children 2010–2022 (COAG 2011) recommends that the PSS be conducted every four years over the life of the national plan to measure the success of establishing services to meet the needs of women and children experiencing domestic and sexual violence. This would improve its utility as a measure of changing patterns of violence over time. Second, the ABS (2013) has identified that the response rate for the 2012 survey was lower than expected. Third, although extensive measures were taken to minimise the non-response rate, the sensitive nature of questions and potential memory failure may have resulted in inaccuracies in the data. Further, due to the relatively small numbers of persons experiencing certain types of violence, some of the estimates derived from the survey results are subject to high sampling errors.

National Survey of Community Satisfaction with Policing— Australian and New Zealand Policing Advisory Agency

The Australian and New Zealand Policing Advisory Agency (ANZPAA) was established in 2007 to provide cross-jurisdictional services to all Australia and New Zealand policing jurisdictions. Since 2001, the ANZPAA has commissioned and managed the National Survey of Community Satisfaction with Policing (NSCSP). This national household survey is conducted by telephone at fortnightly intervals with persons aged 15 years or over. The results are compiled annually, with an average base sample of 16,000 respondents per year.

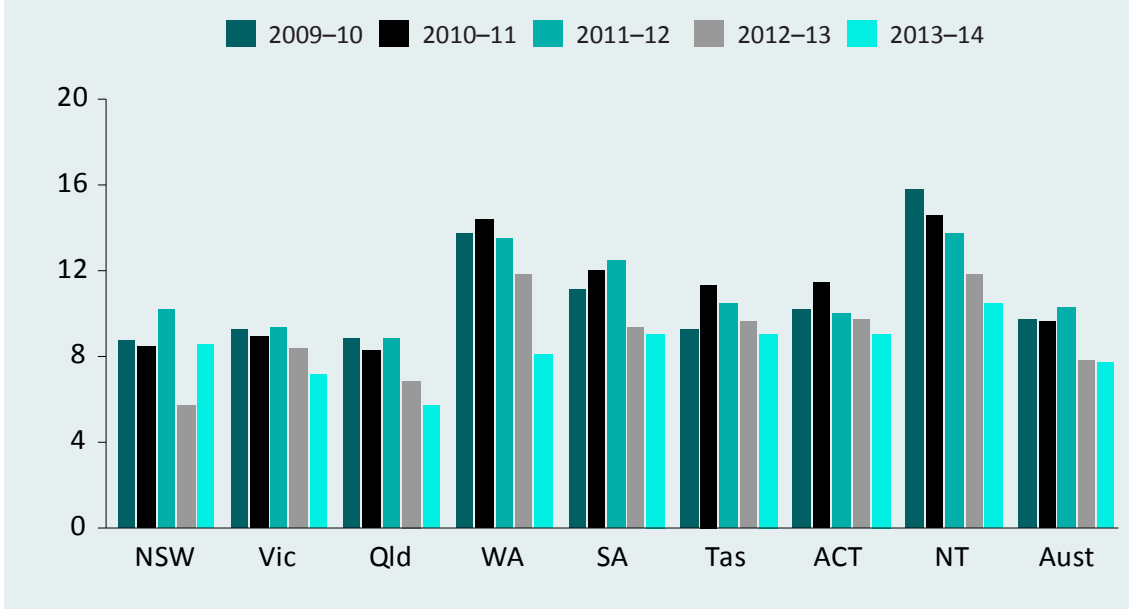
The NSCSP is the only Australian survey to provide nationally comparable data and trends over time regarding public satisfaction with police and police services. Key objectives of the survey are to monitor and report on:

- levels of community satisfaction with police services;
- the degree of safety or otherwise felt by the community in a range of situations;
- perceived crime and safety problems;
- perceptions of police ethics and integrity;
- shifts in reported driving behaviours; and
- community satisfaction with the outcomes of police contact over the past 12 months.

The survey is conducted to support government aims of maintaining public safety and reducing fear of crime in the community, with survey data being used for performance reporting at state and national levels (SCRGSP 2015). Relevant to the national measurement of alcohol-related crime, the NSCSP specifically asks respondents to indicate how often they have driven when they felt that they might have been over the alcohol limit in the last six months (see Figure 7). These data are regularly reported in the Report on Government Services (SCRGSP 2015).

Data from the NSCSP indicate that in 2013–14, eight percent of people nationally who had driven in the previous six months reported that they had possibly driven over the blood alcohol limit. When comparing drink-driving figures by each state and territory, the Northern Territory, followed by South Australia, Tasmania and the ACT, had the highest percentage of people who reported driving over the prescribed blood alcohol concentration limit (BAC) during 2013–14 (see Figure 7). When comparing trends across years, NSW was the only state to experience an increase in drink-driving offences in 2013–14 compared with 2012–13; however at the national level the trend in drink-driving is decreasing.

Figure 7: People aged 15 years or over who drove while over the BAC limit rarely or more often in the previous 6 months, by year, 2009–2014 (%)



Source: ANZPAA (unpublished); table 6A.34, cited in Productivity Commission 2015

As well as including questions about drink-driving, the survey also asks respondents the extent to which drunken or disorderly behaviour is a problem in their own neighbourhood (with potential responses of not a problem, somewhat of a problem or a major problem). These data are not routinely reported as part of the *Report on Government Services* (SCRGSP 2015).

One of the main strengths of the NSCSP is that it is the only survey to collect data regarding public satisfaction with police and police services. As the same methodology has been applied over many years, including the same questions and consistent data collection processes, the NSCSP provides for nationally comparable data and trends over time. However, there are some limitations associated with the NSCSP. First, the survey provides limited information regarding the involvement of alcohol in crime. Relevant information is limited to responses regarding driving over the prescribed alcohol limit and perceived problems with drunken behaviour in the respondents' neighbourhoods. Second, the accuracy of the information provided relies on the willingness of respondents to provide answers and recall this information correctly. Further, the reliability of the data depends on the accuracy of compilation by an external survey provider. Nevertheless, it remains one of the few national sources of data on drink-driving behaviour and perceived alcohol-related crime problems.

Operation Unite—ANZPAA

In addition to the NSCSP, ANZPAA also manages and holds statistics on Operation Unite. Operation Unite is a cross-jurisdictional project between Australian and New Zealand police commissioners that aims to address the wider harms associated with alcohol misuse, including crime, violence and other antisocial behaviour. The initiative commenced in December 2009, with two operations per year conducted in 2010 and 2011, and subsequent operations conducted annually. The operations were conducted in large regional centres and capital cities, where state and territory police provided a visible presence, including deploying licensing enforcement units, traffic resources, mounted police and other resources as jurisdictions see fit.

Between 2009 and 2010, four categories of data were collected by jurisdictions and collated to provide national level data: total number of police deployed; number of arrests/reports made; number of assaults reported in policed areas; and number of licensing breaches by traders and the public. In 2011, an additional category was added to include breathalyser offences (see Table 18).

Data are collected by ANZPAA through jurisdictional reports and submissions, and rely on the policing jurisdiction providing the data to assess whether alcohol was involved in the incident. After each operation, a report is made to the ANZPAA board that presents an evaluation of the operation in terms of media attention (positive and negative) and the perceptions of jurisdictions as to the success of the operation (through a survey). As shown in Table 18, the data indicates a decline in arrests, assaults, licensing breaches and breathalyser offences between the first operation in 2009 and the most recent operation in 2013.

Table 18: Operation Unite, number of offences by category and year, all locations

	December 2009	September 2010	December 2010	May 2011	December 2011	December 2012	December 2013
Arrests	2,781	2,432	2,617	1,914	2,228	2,485	2,633
Assaults	570	320	222	186	231	347	266
Licensing breaches	1,280	739	1,073	528	578	1,906	947
Breathalyser offences ^a	n/a	n/a	10,721	1,052	987	912	810

a: Breathalyser offences were only counted from December 2010
Source: ANZPAA (unpublished)

The major strengths of Operation Unite are the regularity of collections, that data are collected in regional areas as well as capital cities, and that all states and territories participate. Therefore, a large amount of data can be collated and national trends can be analysed. However, the data are limited because each jurisdiction is different in size, population and number of licensed venues. Therefore, while data can be aggregated at the national level, it is

not comparable across jurisdictions. To mitigate concerns regarding attempts to undertake comparisons, each jurisdiction has access to its own figures as well as the aggregate figures, but not to data relating to other jurisdictions. Further, the data represent a point in time estimate from a period of saturated police resources; therefore, they are not representative of average rates of alcohol-related crime.

National Homicide Monitoring Program—Australian Institute of Criminology

The NHMP dataset is compiled from police offence reports, media and coronial reports containing information on homicide incidents, victims and offenders, including their alcohol and illicit drug use (see Bryant & Cussen 2015). The NHMP reports on a range of variables related to the national measurement of alcohol-related crime, including data on:

- the apparent motive and precipitating causes of the homicide, including whether this was an alcohol-fuelled argument; and
- whether alcohol consumption by either the offender or the victim preceded the homicide.

The data are used to monitor homicide rates, facilitate detailed analysis of homicide types and trends and communicate this to key stakeholders including police, government and non-government organisations. The findings also inform prevention initiatives for Australian criminal justice and law enforcement agencies (Bryant & Cussen 2015).

In 2009–10, alcohol-fuelled arguments accounted for four percent of the apparent motives and precipitating causes of all homicides, and alcohol was consumed prior to the homicide by either the offender or the victim in 37 percent of cases. This is a reduction in the 2008–09 to 2009–10 findings, which estimated alcohol consumption in almost half of all incidents (Bryant & Cussen 2015). More recently, in 30 percent of cases the victim had been drinking and in 26 percent of cases an offender had been drinking (see Table 19). In total, participants who had been drinking prior to the homicide accounted for 37 percent of cases.

	n	%
Victim drinking ^a	144	30
Offender drinking ^b	115	26
Any alcohol use	179	37
Victim drinking unknown/not stated	138	29
Offender drinking unknown/not stated	249	56

a: In 197 cases the victim was not drinking

b: In 81 cases the offender was not drinking

Source: AIC NHMP 2010–12 [computer file], cited in Bryant & Cussen 2015

The NHMP has two key strengths. First, data are compiled from different sources, including offence records extracted from state and territory police information systems, state coronial records including post-mortem reports, and newspaper clippings. Therefore, data are collected through both objective and subjective measures that involve post-mortem toxicology testing of the victim and assessments of the offender's alcohol consumption by investigating police officers (Bryant & Cussen 2015). Second, a rigorous quality-control process is implemented to maximise the accuracy of the data. This involves triangulating information contained in each police offence record with additional data sources. If there are discrepancies, the police source is queried to verify the circumstances (Bryant & Cussen 2015). However, a key limitation of the NHMP data is that alcohol consumption by the victim is more easily identified and able to be verified than for the offender. Alcohol consumption by the victim can be identified through post-mortem toxicology tests, whereas for the offender, identification of alcohol consumption may be based on the subjective assessment of the police without any toxicology confirmation (Bryant & Cussen 2015). There are, as a result, a large proportion of cases for which the consumption of alcohol by the offender (and, to a lesser extent, victims) is not stated or unknown.

Summary

A review of non-policing data collections reveals that there are many potential sources of alcohol-related crime information that may be used to complement or triangulate data obtained from police information systems. Some of these additional data are directly relevant to measuring the magnitude of alcohol-related crime, while other data sources may be more relevant for proxy measures and attributable fractions. Features of non-policing data systems are summarised in Table 20. The table shows that most data collected by non-policing agencies to examine alcohol-related crime is self-report information provided by victims and offenders. The typical method of collecting this information is through national surveys that are administered annually. Non-policing data collection systems most commonly obtain information relating to violent offences against the person (physical abuse, sexual assault, verbal abuse and homicide) and, to a lesser extent, public order offences and property offences.

Table 20: Features of non-policing data collection systems

System	National Drug Household Survey	Drug Use Monitoring in Australia	Crime Victimization Survey	Personal Safety Survey	National Survey of Community Satisfaction with Policing	Operation Unite	National Homicide Monitoring Program
Data source	Persons aged 14 years and older	Detainees	Persons aged 18 years and over	Persons aged 15 years and over	Persons aged 15 years and over	Police	Police, coroner
Data type	Self-report	Self-report, urinalysis	Self-report	Self-report	Self-report	Administrative	Administrative
Information level	Victimisation and offending	Offending	Victimisation	Victimisation	Offending and perceived crime problems	Offending	Victimisation and offending
Collection method	Survey	Survey	Survey	Survey	Survey	Recorded crime	Recorded crime
Crime type/s^a	Verbal abuse (victimisation and offending), physical abuse (victimisation and offending), put in fear (victimisation), disturbance (offending), property damage (offending), theft (offending), drink driving (offending)	All charges (includes violence)	Physical assault, face-to-face threatened assault	Physical assault, sexual assault, threatened assault	Drink driving Drunk and disorderly behaviour	Assault, licensing breaches, breathalyser offences	Homicide
Alcohol involvement	Perpetrator under the influence or affected by alcohol (victimisation and offending)	Alcohol consumption prior to most recent or prior charges	Whether alcohol or other substance contributed to the incident	Victim under the influence of alcohol	Driving when over the legal limit	No specific reference to alcohol involvement	Alcohol-fuelled argument as motivating factor
Reporting frequency	Every three years	Annual	Annual	Ad hoc	Annual	Annual	Biennial
Coverage	National	Qld, NSW, SA, WA	National	National	National	Australia, New Zealand	National

a: Limited to those crime types for which alcohol involvement is reported (overtly or implied)

Measuring alcohol-related crime: Conceptual, definitional and practical considerations

This report set out to identify whether it is possible to develop national indicators of alcohol-related crime, with a particular focus on the feasibility of using police recorded crime data to develop robust prevalence estimates. In assessing the feasibility of national indicators of alcohol-related crime there are many conceptual, definitional and practical decisions to be considered. This section of the report explores the various issues associated with measuring alcohol-related crime using police data. It examines the preferences, concerns and recommendations articulated by key policing and non-policing stakeholders consulted for the purpose of this study, with a particular focus on the possibilities and limitations of alcohol-related crime measurement and data management options.

The need for and purpose of national indicators

The value of appropriate, practically obtainable, quality indicators of alcohol involvement in Australian crime is undeniable. There was strong support for the development of indicators reflecting national prevalence estimates among all the stakeholders consulted as part of this study. Interviews with policing and non-policing agencies identified a range of needs and purposes for establishing nationally consistent indicators of alcohol-related crime in an Australian context. For instance, national indicators are essential for:

- monitoring prevalence and national trends in alcohol-related crime;
- developing an understanding of the extent of the relationship between alcohol and crime;
- informing the development of national responses to alcohol-related crime, including supply reduction, demand reduction and harm reduction initiatives;
- effectively allocating law enforcement and/or health resources to address harms that arise from alcohol-related crime; and
- enabling the effectiveness of policy interventions or operational initiatives to be evaluated in accordance with agreed measures.

Stakeholders were primarily interested in developing national estimates of the prevalence of alcohol involvement in crime and having the capacity to monitor national-level indicators over time. While there was some interest in being able to better inform estimates of the societal costs attributable to alcohol-related crime, the vast majority of stakeholders agreed that national prevalence estimates were more feasible, would offer greater benefit to police agencies and policymakers and should therefore be the priority for any future work in this area.

There was strong support for efforts to improve the availability of information on the involvement of alcohol in offences recorded by police. Policing and non-policing stakeholders identified that there are current operational and policy needs that are not being met by existing data collections at either the state or national level. A particular concern is that it is currently difficult, if not impossible, to align alcohol-related crime figures across states and territories to provide meaningful aggregated data. These data are necessary to inform the development and evaluation of national responses to alcohol-related crime. Certain data exist—including a number of national collections described in the previous section—but none of these provide a complete picture of the prevalence of alcohol-related crime, particularly in the absence of police data.

Individual police agencies also acknowledged the limitations of state-based prevalence estimates of alcohol-related crime and data collected by police. A national agreement to collect uniform data will enhance the quality of alcohol-related crime data for each policing jurisdiction by encouraging best practice in the recording of alcohol involvement in incidents that are brought to the attention of police. Interviews with police highlighted a number of examples whereby the absence of robust data on alcohol involvement had impacted on efforts to build a convincing argument for changes to liquor licensing legislation, to support revocations or variations to a venue's licensing conditions, or to evaluate the impact of strategies targeting entertainment precincts in terms of their impact on alcohol-related crime. In addition, there is scope to better understand the role of alcohol in other forms of crime, such as family violence, which occur outside entertainment precincts and away from licensed premises.

As such, the development of national indicators of alcohol-related crime based on police data has the potential to not only fulfil national requirements, but is also likely to improve the validity and reliability of data collected by police in each state and territory. This will improve the capacity of police to collect data for operational, intelligence and local policymaking purposes. To this end, the development of nationally consistent indicators will represent a significant step towards supporting jurisdictional law enforcement priorities.

A suite of indicators of alcohol-related crime

While representatives of police and non-police organisations were supportive of improving the quality and availability of police data on alcohol involvement in crime, there was also widespread support for developing a suite of indicators of alcohol-related crime. This was seen as particularly important in monitoring the impact of national responses to alcohol-related crime, such as the National Drug Strategy.

As discussed in the previous section of this report, there are currently a number of non-policing data collections that contribute to an overall national estimate of the prevalence of alcohol-related crime. There are, for example, a number of collections based on self-report survey data that provide estimates of the rate of victimisation among the general population (Laslett et al. 2010), as well as a number of national monitoring programs that provide estimates of the role of alcohol in certain types of offending (ie DUMA and the NHMP). During the consultation process stakeholders noted the breadth and accuracy of health data, suggesting that data on hospitalisations (assault-related injuries, combined with the applicable attributable fraction) could be useful for understanding the national situation on alcohol-related crime. These data sources are already reported at the national level.

While the data produced by these collections are of a different nature and purpose to policing data, drawing on these other sources presents an opportunity to triangulate information obtained from multiple sources and provide a more complete picture of alcohol-related crime. For example, while survey data have certain limitations—notably the costs associated with administering a survey, issues related to the way in which respondents might define or categorise certain incidents and potential problems relating to respondents' capacity to recall or willingness to report being a victim or offender (Hingson & Rehm 2013), survey data can address some of the limitations associated with police recorded crime data, such as the under-reporting of alcohol-related violence (Brinkman et al. 2001). Using police data as part of a dashboard of indicators from a range of sources therefore offers significant benefit.

This approach is consistent with best practice in monitoring the performance of government services. In its *Report on Government Services* (SCRGSP 2015), the Productivity Commission argues that there are merits of both survey and administrative data, but that neither method provides a definitive measure of efficiency or effectiveness. Combining data sources can provide a more comprehensive picture, and this is frequently done as part of the annual report on the performance of justice services, including police, courts and corrections (SCRGSP 2015).

This approach is also consistent with past IGCD performance reporting on the National Drug Strategy (up to 2011–12). In its most recent annual report on performance, the IGCD included a number of indicators related to alcohol-related crime and community perceptions of safety:

- proportion of people aged 14 years and older who had experienced physical abuse by someone under the influence of alcohol in the past 12 months (based on the AIHW NDSHS);
- proportion of people aged 14 years and older who had experienced verbal abuse by someone under the influence of alcohol in the past 12 months (based on the AIHW NDSHS);
- proportion of recent drinkers aged 14 years and older who had driven a vehicle while under the influence of alcohol in the past 12 months (based on the AIHW NDSHS);
- proportion of police detainees who report alcohol had contributed to the offence(s) for which they were currently detained (based on DUMA); and
- proportion of people who identified public drunkenness as a social disorder issue in their local area (based on the ABS CVS which is no longer collected; IGCD 2013).

While this annual report on performance has not been produced in more recent years, there was support for an annual report card on performance at the recent IGCD stakeholder forum that was focused on the development of the next National Drug Strategy.

There are potential enhancements that could be made to some of these non-policing data collections, such as disaggregating the involvement of alcohol and drugs in self-reported victimisation from physical assault reported in the ABS CVS. However, there was consensus among interview participants that developing a prevalence estimate using police data should be the priority, and the first and most important step towards developing robust national indicators.

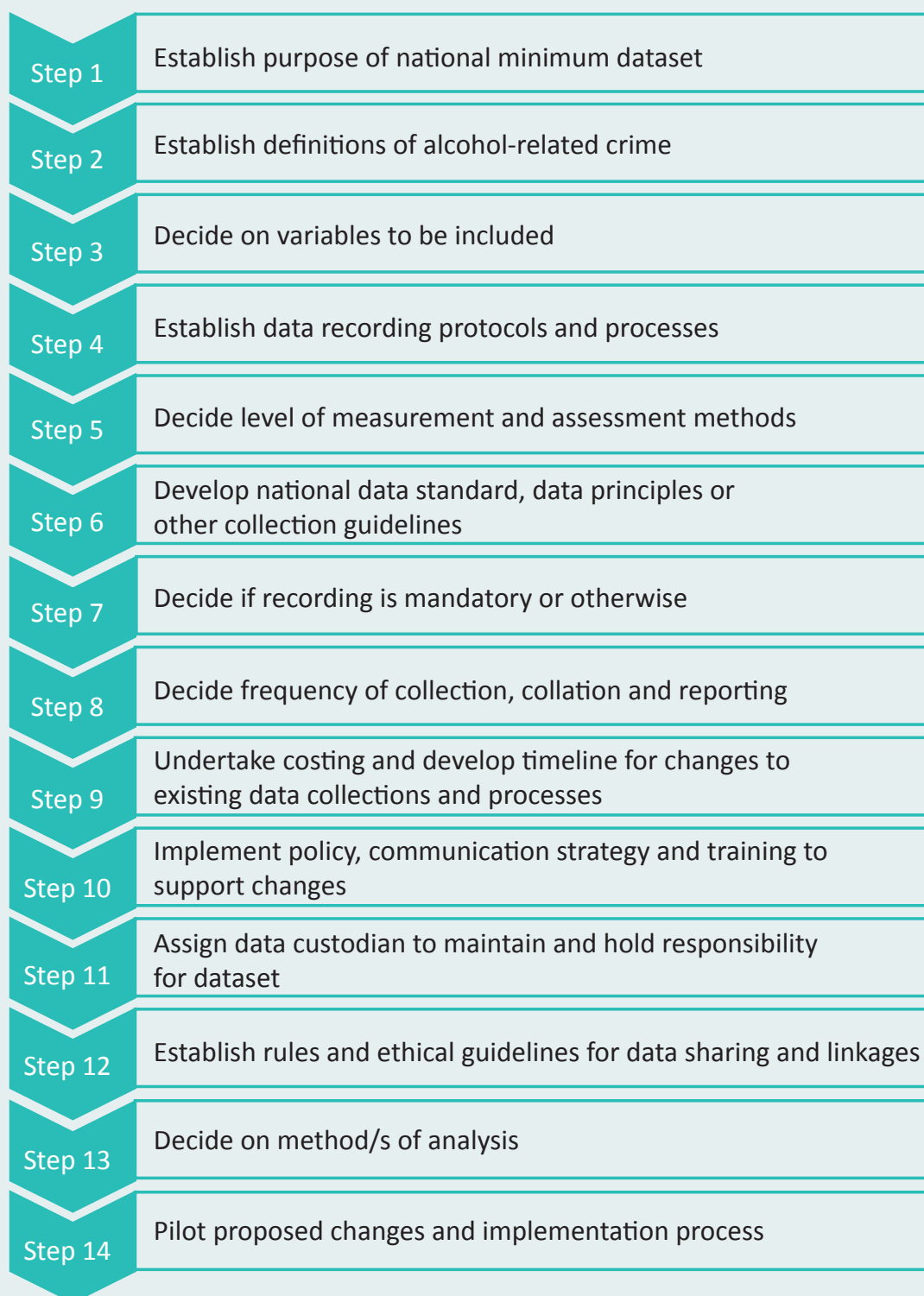
A national minimum dataset?

There was strong support for the development of a national minimum dataset (NMDS) for alcohol-related crime based on police recorded crime data, particularly among IGCD members (see *Appendix B*). This would provide the data necessary to populate relevant national indicators. As described by the AIHW (2015a), an NMDS is 'a minimum set of data elements agreed for mandatory collection and reporting at a national level' (www.aihw.gov.au/national-minimum-data-sets/). As there is currently no national repository of alcohol-related crime information and data in Australia, an NMDS would enable the collation and analysis of data derived from policing administrative data systems. Based on the interviews, and setting aside limitations in terms of data consistency and availability, at a minimum the following variables would need to be collected as part of the NMDS:

- incident date;
- offence type (ANZSOC classification);
- incident time;
- incident location (licensed premises, residential, street or footpath etc);
- whether the incident involved alcohol (incident-level flag);
- offender characteristics (age, sex, Indigenous status etc);
- victim characteristics (age, sex, Indigenous status etc);
- relationship between victim and offender; and
- extent to which the offender was affected by alcohol at the time of the offence.

In addition to providing for a prevalence estimate of alcohol-related crime (at both a state and territory and a national level), these variables would allow for a more nuanced understanding of the relationship between alcohol and offending (eg the role of alcohol in family violence offences). Additional data such as place of last drink, while desirable, is not essential to an NMDS for alcohol-related crime.

Figure 8: Steps involved in developing a national minimum dataset on alcohol-related crime



What it means for crimes to be alcohol-related

In Australia, a nationally consistent definition of alcohol-related crime does not currently exist. As highlighted earlier in the review of police information systems, there are differences between police agencies in the way the involvement of alcohol in crime is conceptualised, defined and measured. Interpretations of what constitutes alcohol-related crime also vary between policing and non-policing agencies. Further, there is no consistent use of terminology or agreement as to the terminology that most appropriately represents what is to be measured. This creates problems when interpreting data from routine collections that are based on different definitions of alcohol-related crime.

Alcohol-related crime can refer to those offences that, by their nature, require alcohol to be present and/or consumed and that exist because of policy positions regarding alcohol use, such as drink-driving offences. Other offences could occur without the presence of alcohol but, in some circumstances, be seen as related to alcohol misuse or intoxication, such as assault or property damage. In the literature, the term alcohol-related is commonly used to indicate a partial causal factor; however, alcohol-related could also be used to refer to crimes where one or more participants has been drinking, irrespective of whether they are intoxicated (SIRC 2002). Alcohol-related could therefore refer to crimes where alcohol is the main factor in the offence, crimes where someone has offended under the influence of alcohol, or where alcohol has been consumed by one or more participants (Institute of Alcohol Studies 2012; SIRC 2002).

Stakeholders were consulted regarding the definition of alcohol-related crime and what incidents should be included within this definition. Stakeholders defined alcohol-related crime in various ways, according to whether:

- alcohol consumption was involved in the incident (eg drink-driving);
- alcohol was consumed prior to the offence;
- participants were affected by alcohol; and/or
- alcohol was a contributing factor in the offence.

Further, these definitions could refer to a variety of circumstances, including:

- the perpetrator of an offence consuming, or being intoxicated or affected by, alcohol;
- the victim of an offence consuming, or being intoxicated or affected by, alcohol;
- alcohol as an object in an incident, for example an item taken in a burglary;
- proximity to a licensed venue, regardless of alcohol consumption by the victim and/or offender;
- alcohol as a direct causal factor, where alcohol consumption or intoxication leads directly to the crime—for example, intoxication causing physical aggression and therefore leading to an assault; and/or
- alcohol as an indirect causal factor—for example, intergenerational transmission of alcohol-related crime, such as alcohol-related child abuse or neglect resulting in later alcohol misuse and offending by the victim of that neglect.

However, based on the crimes and criminal behaviours that stakeholders considered to be relevant to the measurement of alcohol-related crime (see below), and for reasons of practicality, the consensus among stakeholders was that the definition of an alcohol-related incident should first and foremost centre around the perpetrator's intoxication and, specifically, whether they were affected by alcohol at the time of the offence. This would ensure that prevalence estimates are focused on the contribution of the excessive consumption of alcohol to offending behaviour. While there was support for the inclusion of offences that relate to the sale and supply of alcohol (eg breaches of liquor licensing), or for which the consumption of alcohol was the offence (eg drink-driving), these would largely be defined by the category of offence, rather than by specifically being identified as alcohol-related.

Further, while some stakeholders identified the benefit of recording whether the victim of an offence had consumed alcohol, was affected by alcohol, or was intoxicated, the majority of stakeholders agreed that such data collection is unnecessary at a national level. This is because, while potentially useful for assessing the increased risk of victimisation due to excessive alcohol consumption, such information could lead to unintended and negative consequences such as victim blaming. This was highlighted as an area of concern for the presentation of data on sexual assaults, where data could potentially be used to highlight the increased risk of women's drinking to sexual assault that could, in turn, lead to the focus being placed on the behaviour of victims rather than the behaviour of the offender.

Crime types for inclusion in national indicators

Another key area of discussion during the interviews with policing and non-policing representatives was which crime types should be measured as part of any attempt to establish a national minimum dataset (or suite of national indicators). At the conceptual level, stakeholders were asked to describe the offences of most interest to the national measurement of alcohol-related crime.

As with definitions of alcohol-related more broadly, few Australian policing jurisdictions have formal or documented definitions of what constitutes an alcohol-related crime. However, the priorities with regards to alcohol-related offences are often implicit in the targeting of resources and other operational uses of data. For example, Operation Unite, a joint initiative of police commissioners across Australia and New Zealand, 'demonstrates the united determination of police to challenge alcohol misuse, crime, violence and anti-social behaviour' (ANZPAA 2010: np). Statistics from each Operation Unite campaign are collated to analyse trends over time in arrests, assaults, licensing breaches and breathalyser offences (ie driving over the prescribed alcohol limit or refusing to take a breathalyser test).

Not surprisingly, stakeholders expressed a range of views regarding the offence types that should be included in an NMDS on alcohol-related crime. At the broadest level, stakeholders asserted that any crime where alcohol was directly or indirectly involved should be included in a national dataset. This would allow for the widest possible use of the data by a broad range of consumers. However, these stakeholders were also cognisant of resource and

practical constraints that may limit what information could reasonably be captured as part of national indicators.

In light of these constraints, stakeholders identified a range of individual offences or offence categories that could be priority areas for data collection, including:

- assault (broadly and non-domestic violence);
- domestic violence;
- sexual assault;
- homicide;
- public order offences;
- property crime (especially property damage); and
- breaches by an offender.

These crimes were considered the most relevant and appropriate to be included in an NMDS on alcohol-related crime as they are more likely to be associated with alcohol than other crime types. Recorded drink-driving offences and liquor licensing breaches, while important, were regarded as reflecting policing activity rather than the prevalence of alcohol involvement in crime. By definition, these offence types require alcohol to be involved (ie all offences are alcohol-related in some way); they are also more easily defined and require an objective assessment by police against specified (legislated) criteria—there is little room for improvement in the collection of these data and limited value to national indicators.

There was strong support for focusing on violent crime, specifically assault, in the first instance as the most important indicator of alcohol involvement in crime. This is due to the overwhelming evidence of the relationship between alcohol, aggression and violence. For example, according to data collected as part of DUMA, in 2011–12 violent offences were more likely than all offence types—with the exception of drink-driving and disorder offences—to be attributed by detainees to their alcohol use. Further, the number of detainees charged with a violent offence in this same period who attributed the offence to alcohol was higher than all other offence types, without exception. The societal costs attributable to alcohol-related violence are significant, as is the financial burden of alcohol-related violence on policing resources (Donnelly et al. 2007; Smith et al. 2014). Finally, focusing on assault would complement other indicators based on self-report data, which have tended to focus on the role of alcohol in violent offending (eg the CVS and NDSHS).

Current recording practices

Developing a national indicator for the prevalence of recorded alcohol-related assault using police administrative data will require nationally comparable data on assault and the involvement of alcohol in those assaults. An earlier section of this report explored in detail the data currently collected by state and territory police agencies on the involvement of alcohol in recorded crime. Based on this review, the following conclusions can be drawn regarding current recording practices and the availability of data on alcohol-related crime using police administrative data.

- Each state and territory policing agency collects data that are relevant to the measurement of alcohol-related crime in Australia, and significant gains have been made in recent years in terms of capturing alcohol-related crime data in police information systems.
- Relatively few jurisdictions routinely report estimates of alcohol-related crime, with only NSWPF and NT Police currently reporting data on alcohol-related assault on a regular (quarterly or annual) basis.
- The most common jurisdictional definitions of alcohol-related crime centre around the offender being affected by alcohol at the time of offending, with all jurisdictions collecting some variant of this information (albeit in different ways).
- NSWPF, QPS, SA Police, Victoria Police and WA Police all currently collect information on whether the offender was affected by alcohol (as distinct from other drugs) for recorded offences. WA Police uses a dichotomous flag (yes/no), while the other three jurisdictions use a scale indicating level of intoxication.
- Tasmania Police collects information on whether the offender was affected by alcohol for family violence incidents, while Victoria Police does not distinguish between alcohol and other drugs. ACT Policing collects information on whether offenders are affected by alcohol when they are detained in custody.
- While NT Police does not currently collect information on whether offenders are affected by alcohol at the offender level, information is collected at the incident level on whether an incident involved alcohol, which is determined on the basis of whether one or more participants was affected by alcohol. It does not distinguish between victims, offenders and other participants.

Setting aside issues related to consistent recording of offences (described below), this review has found five jurisdictions—NSW, Queensland, SA, Victoria and WA—currently have the capability to report on the proportion of assault offences that are alcohol-related, based on the definition proposed by this report (ie incidents involving an offender affected by alcohol). Further, there may be scope to refine and adapt the definition applied and recording practices in at least two other jurisdictions (ACT & NT), without significant modifications to their database.

Modifying police administrative databases

The review of police databases concluded that there has been significant investment by state and territory police agencies to enhance their existing databases and improve the availability of information on the involvement of alcohol in crime to meet local operation and intelligence requirements. The number of jurisdictions that systematically record alcohol involvement in criminal incidents has increased since other recent reviews (eg Laslett et al. 2010). While this is positive, there are likely to be a number of practical barriers to making further improvements to these databases, particularly in the short term. During the interviews, police representatives highlighted a number of issues related to database development that would need to be considered as part of any attempt to implement nationally consistent standards.

The potential for changes to impose an additional burden on police time (in terms of recording additional information), the significant costs associated with changing current data systems and attitudes towards collecting and recording information among individual police officers may represent potential barriers to the effective collection and recording of alcohol-related crime data. Some agencies noted that the implementation of previous changes to data collection systems and processes were lengthy; therefore further modification may be considered difficult for police. There may be varying levels of support for efforts to implement national indicators where database enhancements are required, particularly from police outside of drug and alcohol sections who may not see an immediate and direct benefit. It is worth noting that the introduction of fields to record alcohol involvement is only a recent development in some jurisdictions, and not all police officers may be aware of their purpose or usefulness in informing operational initiatives and policymaking decisions.

A further issue will be the potential break in data that would likely result from any modifications to the collection rules, recording practices or database fields resulting from the standardisation of data on alcohol involvement. Some jurisdictions will be more impacted by these changes than others, particularly those that do not currently collect data on alcohol involvement in accordance with the proposed definition. While for some jurisdictions, estimates may vary slightly from year to year following the introduction and promotion of an agreed definition (that varies slightly from the one that is in existence), the changes in other jurisdictions will be much more significant and will likely produce markedly different estimates of alcohol involvement. While this will impact on the ability to monitor trends prior to the implementation of national indicators, the fact that very few jurisdictions currently report these data, and the limitations with current measures of alcohol-related crime, means that the benefits from the implementation of national indicators will outweigh the immediate short-term consequences.

Subjectivity of police assessments of alcohol involvement

One of the major limitations that emerged in relation to the recording of alcohol involvement by police, from both the review of police information systems and interviews with police representatives, was the subjective nature of assessing whether an offender was affected by alcohol. As a result, there can be important differences in the way the involvement of alcohol is assessed and recorded by individual police officers both within and between jurisdictions. This issue is not limited to developing national indicators; rather, it has important implications for the validity and reliability of recording practices both at the state and territory and national level. While previous studies have found a high rate of compliance by police in terms of recording whether alcohol was involved in a criminal incident, they have also concluded that the alcohol flags are 'fundamentally subjective and have not been formerly validated for accuracy' (Laslett et al. 2010: 68).

This issue was highlighted in the earlier section of the report on police information systems. To summarise, the decision to categorise an incident as alcohol-related or an offender as affected by alcohol is based on a subjective assessment by the responding officer. This assessment is

informed to varying levels by agency policies and protocols, professional training, work experience, life experience, observations of the scene and of the victim and/or offender and information provided by the parties involved. There are no objective criteria for determining whether alcohol is involved, except where the presence of alcohol is central to the offence (eg assessing BAC levels for drink driving offences, identifying liquor as the object stolen during a theft offence, or breaches of liquor licensing legislation relating to the sale and supply of alcohol).

To address this issue, some jurisdictions have implemented clear definitions of what is meant by alcohol-related offending, either at the offence and/or individual level (or both) along with criteria for making an assessment (eg self-reported intoxication, visible signs of intoxication). These definitions and criteria are then communicated to police officers through different mediums and to varying degrees. A number of jurisdictions have provided training, released policies or formal communiqués, distributed relevant information through staff correspondence and included appropriate prompts within the database (placeholder or help text) to help guide officers through the process of making a decision and recording the information. This was regarded as vital to ensuring a high level of compliance and maximising the validity and reliability of the data that are collected and recorded.

However, police representatives identified the lack of communication and training for frontline officers collecting information on the involvement of alcohol in an incident as a significant issue impacting on the validity and reliability of the data. Another issue raised was the potential for inconsistent instruction to be provided to the personnel responsible for entering information into the system. Information recorded in the database may also differ from an assessment made at the scene because the person entering data may or may not be the same person as the responding officer.

There is evidence that police apply a higher threshold than members of the general public when assessing an incident as alcohol-related, reflected in significant differences between estimates derived from recorded crime data and self-report surveys (Laslett et al. 2010; SIRC 2002). A number of interview participants also suggested that the longer an individual has worked as a police officer, the more inclined they may be to only record the involvement of alcohol in more serious offences ('where it really matters'). As a result, the decision to record an incident as alcohol-related is subjective not only in terms of the definition that may be applied, but also in terms of the thresholds for recording an offence as alcohol-related. Definitional ambiguities—both within and across jurisdictions—may compound issues related to the subjective assessment and recording of alcohol-related crime in police data systems.

Related to this issue, and further contributing to the under-recording of alcohol-related crime, is the variability in mandatory recording practices across policing jurisdictions. Not all jurisdictions have established mandatory fields, either at the incident or offender level. A considerable amount of police time is spent on data entry; police may choose to leave fields that are not mandatory blank, particularly where a positive response would require additional fields to be completed (eg place of last drink). Where voluntary fields are used, alcohol involvement is likely to be underestimated (potentially significantly).

Finally, not all criminal incidents that may be alcohol-related are recorded in police data systems. There is strong evidence of significant under-reporting of assaults to police by victims (ABS 2014a), and that the reporting rates for alcohol-related assault are particularly low, especially for assaults that occur in pubs and clubs (Morgan & McAtamney 2009). While this is a limitation, it is in no way restricted only to estimates of alcohol-related crime, highlighting the importance of a suite of indicators drawn from multiple sources.

There may also be inconsistencies in the way certain incidents are recorded (including assault offences; see discussion below), and other incidents may not be recorded due to the manner in which police respond or use their discretion. Responses such as move-on powers and cautions, the use of police discretion in determining whether a particular incident meets the threshold to be recorded as an offence, and call-outs that require attendance by a police officer but do not result in a record being entered into the system (eg because there is no evidence of an offence by the time police arrive) all influence whether a criminal incident is recorded by police as an offence. The way in which individual officers adopt these practices will therefore contribute to the underestimation of alcohol-related crime and also to differences between police districts and/or jurisdictions in terms of the prevalence of recorded alcohol-related crime, irrespective of whether there is a mechanism for consistently recording the involvement of alcohol in crime.

Nationally agreed protocols and minimum data standards

To address issues related to the subjective nature of police assessments and to establish nationally consistent data on the involvement of alcohol in criminal incidents recorded by police it will be necessary to establish a set of nationally agreed protocols and minimum data standards. While agreed definitions are fundamental to developing national indicators of alcohol-related crime, so too are the criteria used to determine the involvement of alcohol in an incident, processes around how criteria are measured and the protocols for recording this data in policing systems.

Specifically, nationally agreed protocols and minimum data standards will be required for the following:

- the definition of alcohol-related crime that will be used by all state and territory police agencies—namely that it is an offence that involves an offender affected by alcohol at the time of committing an offence;
- the level at which this information is recorded, including whether it should be at the incident level (an incident is recorded as alcohol-related if at least one offender was affected by alcohol) or offender level (the offender was affected by alcohol at the time of the incident), or both;
- response categories for recording whether an incident was alcohol-related or an offender was affected by alcohol, including dichotomous yes/no fields and/or rating scales that allow for information to be recorded on the level of intoxication (and what the minimum requirement will be);

- the criteria for assessing whether an offender was affected by alcohol, involving some combination of self-reported intoxication (ie by the offender), reported intoxication (ie by the victim or some other participant), visible signs of intoxication that can be identified by an attending police officer and/or BAC readings;
- protocols for extracting and providing the relevant data to the agency responsible for collating and reporting national indicators on alcohol-related crime (eg the ABS); and
- protocols for collecting, recording and reporting other data relating to the involvement of alcohol in offending that may not be central to national indicators but which may benefit from guidance around best practice, such as information about victims (consumption and/or intoxication), place of last drink, where the majority of alcohol was consumed and proximity to a licensed premise.

Embedding these protocols in a national minimum data standard, such as the ABS National Crime Recording Standard (NCRS), may be required to facilitate the consistent collection and recording of alcohol-related crime. The NCRS was developed to ensure a level of uniformity when compiling national statistics from state and territory policing systems (ABS 2013c). Given the different business rules, procedures, systems, policies, legislation and recording practices of policing agencies, national data standards can enable a level of consistency through guidelines and instructions. For example, the NCRS provides police agencies with guidance about how an incident should be recorded from the point at which it comes to police attention to the point at which it is compiled into crime statistics (ABS 2013c). As such, there are clear criteria that inform the collection and recording of data in police recording systems to meet the requirements of a national minimum dataset (ABS 2013c). Further, the application of the standard enables the recording of crime for statistical purposes in a comparable manner, but importantly the standard still allows for the recording and retention of other kinds of operational information on police systems to support investigation and law enforcement operations (ABS 2013c).

If the decision is made to adopt a national minimum data standard for the recording of alcohol-related crime, the standard will need to be developed in collaboration with police agencies to ensure their support and agreement.

Measuring assault rates using police data

This section has focused primarily on the issues that need to be considered in developing national indicators for alcohol-related crime using police-recorded crime data; in particular, key considerations for the measurement of alcohol involvement in criminal incidents. However, developing a national indicator for the prevalence of recorded alcohol-related assault using police administrative data will also require nationally comparable data on assault offences. There are issues that relate to the national measurement of crime (and specifically assault) more generally that will impact on efforts to implement these national indicators.

There are currently no national data on the number of recorded assault offences based on administrative data provided by state and territory police agencies. The ABS Recorded Crime—Victims publication series, which represents the principal collection of data on victims of

criminal incidents, reports data on assault victims from NSW, SA, WA, NT and the ACT (ABS 2014b). Data for the remaining jurisdictions (Qld, Vic and Tas) are excluded due to the findings from the Differences in Recorded Crime Statistics (DiRCS) project. The DiRCS project found that data were not comparable across all states and territories because there were different recording practices. While some jurisdictions recorded a criminal offence within their recorded crime database, others only recorded an offence when a certain threshold is met. These thresholds include the willingness of the victim to proceed against the offender or the seriousness of the assault. In response to these findings, the ABS modified the collection to restrict it to certain states. While this should not prevent the development of national indicators for alcohol-related crime, it may impact what can be reported at the national level.

However, the ABS also produces the Recorded Crime—Offenders publication series (ABS 2015b). In it, the ABS report the total number of offenders proceeded against by police in Australia for assault offences (a subcategory of acts intended to cause injury). While the Recorded Crime—Victims publication may provide a better approximation of the number of criminal incidents (based on the number of victims), Recorded Crime—Offenders provides a current national collection that may be better suited to national indicators of alcohol involvement in crime, at least in the short-term. This further highlights the importance of a definition of alcohol-related crime that emphasises the offender being affected by alcohol as the principal inclusion criteria.

Polysubstance misuse

A final issue raised by policing and non-policing agencies is related to offenders' use of other illicit substances with alcohol. While it is important that there be separate fields for recording the involvement of alcohol and other drugs (to determine the distinct contribution of alcohol), it is also relevant to consider whether, and how, drug use and polydrug use is recorded across jurisdictions. While it was beyond the scope of the current study, many of the limitations of data on the involvement of alcohol in crime recorded in administrative databases apply equally to data on illicit drugs. Work undertaken to develop and implement national indicators of alcohol-related crime may provide the catalyst for enhancements to collecting, recording and reporting data on the involvement of illicit drugs.

Summary

There is a clear need and strong support for high quality national indicators of alcohol-related crime using police data as part of a suite of complementary indicators drawing on multiple sources of data. This information would be invaluable in monitoring the prevalence of alcohol-related crime, particularly violence, and the effectiveness of national responses. Information collected and recorded within police administrative databases could be used to populate an NMDS on alcohol-related crime, preferably as part of an established national collection.

However, there are inconsistencies in current definitions and data collection processes between jurisdictions and, as a result, comparable data do not currently exist. There are also a number of limitations associated with alcohol-related crime data recorded by police. The

current study has drawn the following conclusions with respect to the use of police data as part of a suite of national indicators.

- A nationally consistent definition of alcohol-related crime will need to be adopted by all state and territory police agencies before a national measure that relies on police data can be fully implemented.
- There are a number of crime types of interest to national measures of alcohol-related crime, but given some of the practical constraints and the overwhelming evidence of the relationship between alcohol, aggression and violence there was support for focusing on assault offences as the priority in the short-term.
- Despite significant progress by police in capturing alcohol-related crime data in recent years there are still differences between jurisdictions in the way alcohol involvement is recorded; however, there are at least five jurisdictions that currently have the capability to contribute to national indicators using the definitions proposed by this report.
- Modifications to police administrative databases would be a requirement of any future national collection of alcohol-related crime data but there are likely to be a number of practical barriers to future amendments, including resource constraints and potential resistance from within police agencies.
- The subjective nature of police assessments of whether an offender was affected by alcohol impacts on the validity and reliability of estimates of alcohol-related crime and it will be necessary to establish and promote a set of nationally agreed protocols and minimum data standards.
- There are some limitations with national collections of assault data that may impede, but not prevent, the development of national indicators.

Strategies and possible next steps to overcome these issues in establishing national indicators are presented in the following section of this report.

Towards national measures of alcohol-related crime

This project has sought to explore the feasibility of developing appropriate, practically obtainable, quality indicators of alcohol involvement in Australian crime. While previous studies (Killian et al. 2012; Laslett et al. 2010; Roche et al. 2011; WHO 2000) have identified the benefits of measuring the range of harms associated with alcohol at the national level—including crime and violence—and there is strong support among both policing and non-policing stakeholders for national indicators, there remain a number of barriers that have impeded the national measurement of alcohol-related crime in Australia thus far. While these barriers and potential solutions have been well canvassed in the literature, and there has been significant progress in many jurisdictions and with some national collections, further work is required in order to institute the most valid, reliable and useful measures of alcohol-related crime.

Building on the discussion from the previous section, this section of the report articulates what steps could be taken to better meet the information needs of the IGCD and to refine current data collections to move closer to national indicators of alcohol-related crime. Recognising that alcohol-related crime, particularly violence, remains a national priority, that there is an immediate need for national indicators, but also that there a number of practical issues that may take some time to resolve, options for both short and longer-term solutions are provided. This provides a potential roadmap for the IGCD that, if followed, would provide robust evidence to inform the development, monitoring and evaluation of national responses to alcohol-related crime.

National indicators of alcohol-related crime

The measurement of alcohol-related crime at a national level needs to be based on a suite of national indicators drawing from multiple sources of data. That way it would be possible to establish a more complete picture of the prevalence of alcohol-related crime, taking into account both recorded and unrecorded crime. Consistent with advice from policing and non-policing stakeholders, these indicators should focus on violent crime, particularly assault.

This would help provide a reliable estimate of the prevalence of alcohol-related violence that can be monitored at a national level over time. Should they be developed, these indicators

could be included in future annual performance reports prepared by the IGCD. This would enable the IGCD (and others) to monitor the extent of alcohol-related crime (specifically violence), make informed decisions regarding future priority areas, develop effective national responses and assess the effectiveness and impact of these responses (IGCD 2012).

A proposed suite of national indicators is presented in Table 21. These indicators are aspirational in nature; that is, they are proposed on the basis that the data are either currently collected and reported, currently collected but not regularly reported (or not at all), or not currently collected or reported but could be reasonably expected to be collected (based on the findings of the current study).

As well as being aspirational, these indicators are also high-level. They provide overall estimates of the level of alcohol-related violence (actual, reported and perceived) based on police recorded crime data, self-report data and hospital data. Additional data for specific subcategories of alcohol-related violence are, in many cases, available from the data source. More focused indicators may be included in future iterations of the national indicators (eg a specific indicator for alcohol-related family violence or alcohol-related violence involving Indigenous victims or offenders), where an issue is identified as a priority issue requiring national measurement.

These indicators are consistent with the principles that have underpinned previous performance reporting by the IGCD. Specifically, these indicators:

- are limited in number;
- are based upon contemporary data and (primarily) cover a 12-month period, enabling annual estimates to be produced;
- make use of robust, cross-sectional and time series data that can be triangulated to account for both recorded and unrecorded alcohol-related crime;
- prioritise published data and impose minimal administrative burden associated with collecting and/or compiling the data because they rely on existing collections;
- include indicators that require further development but make a meaningful contribution to the national measurement of alcohol-related crime; and
- provide scope for monitoring indicators relevant to specific sub-populations, especially disadvantaged groups.

It will be important that any reporting based on these indicators be written in a format that is suitable for a non-technical audience, and that the limitations with the various data sources that are described at length in this report are summarised and explained in future performance reports to assist with the interpretation of the data.

Finally, any attempt to develop a national suite of indicators will require collaboration between policing and non-policing agencies, particularly health agencies (at both Commonwealth and state and territory levels) and the data custodians identified in Table 21 (the ABS, AIC and AIHW).

Table 21: National indicators of alcohol involvement in crime (high-level indicators for violent crime)				
	Unit of measure	Source of data	Frequency of reporting	Most recent reporting period
1. Police recorded crime data				
1.1 Number of offenders proceeded against for acts intended to cause injury who attribute their offence to the consumption of alcohol ^a	Offenders	Recorded Crime, Offenders (ABS)	Annual	2013–14
1.2 Number and proportion of homicides involving an offender who had been drinking	Incidents	National Homicide Monitoring Program (Bryant & Cussens 2015)	Biennial	2010–11 to 2011–12
1.3 Number of recorded victims of alcohol-related assault	Incidents	Recorded Crime, Victims (ABS)	Not currently collected or reported	-
1.4 Number and proportion of offenders proceeded against for acts intended to cause injury who were affected by alcohol at the time of the offence	Offenders	Recorded Crime, Offenders (ABS)	Not currently collected or reported	-
2. Self-reported victimisation				
2.1 Number and proportion of people aged 14 years and older who had experienced physical abuse by someone under the influence of alcohol in the past 12 months	Victims	National Drug Strategy Household Survey (AIHW 2014)	Every three years	2013
2.2 Number and proportion of people aged 14 years and older who had experienced verbal abuse by someone under the influence of alcohol in the past 12 months	Victims	National Drug Strategy Household Survey (AIHW 2014)	Every three years	2013
2.3 Number and proportion of people aged 18 years and over who experienced physical assault in the last 12 months and believed the offender was under the influence of alcohol in the most recent incident	Victims	Crime Victimization Survey (ABS 2015a)	Not currently reported (but is collected)	-

Table 21: National indicators of alcohol involvement in crime (high-level indicators for violent crime) cont.

	Unit of measure	Source of data	Frequency of reporting	Most recent reporting period
2.4 Number and proportion of people aged 18 years and over who experienced face-to-face threatened assault in the last 12 months and believed the offender was under the influence of alcohol in the most recent incident	Victims	Crime Victimization Survey (ABS 2015a)	Not currently reported (but is collected)	-
3. Self-reported offending				
3.1 Number and proportion of recent drinkers aged 14 years and older who had physically abused someone while under the influence of alcohol in the past 12 months	Offenders	National Drug Strategy Household Survey (AIHW 2014)	Every three years	2013
3.2 Number and proportion of recent drinkers aged 14 years and older who had verbally abused someone while under the influence of alcohol in the past 12 months	Offenders	National Drug Strategy Household Survey (AIHW 2014)	Every three years	2013
4. Hospital injury data				
4.1 Number and rate of hospital separations (hospitalisations) for alcohol-related assault injury for persons aged 15 years and over (public and private hospitals combined; applicable ICD-10-AM codes [X85-Y09]) ^b	Injuries	Admitted patient care: Australian hospital statistics (AIHW 2015b)	Not currently reported (but is collected)	-
4.2 Number of emergency department presentations for alcohol-related assault injury for persons aged 15 years and over (public and private hospitals combined; applicable ICD-10 and SNOMED codes) ^c	Injuries	Emergency department care: Australian hospital statistics (AIHW 2015c)	Not currently collected or reported	-

a: Requires the application of attributable fraction based on the proportion of detainees charged with a violent offence as their principal offence who attributed their offence to alcohol consumption, derived from DUMA (35% in 2011–12)

b: Requires the application of relevant PAAF (47%) based on English et al. (1995), which has not been annually adjusted to account for changes over time. Based on a total of 24,326 hospital separations in 2013–14

c: Requires the application of relevant PAAF (28% for recent consumption, 18% for excessive consumption) based on Chikritzhs et al. (2011). Specific injury data relating to assaults are not currently available

Enhancing non-policing data collections

While representatives of police and non-police organisations were supportive of improving the quality and availability of police data on alcohol involvement in crime, there are a number of potential improvements that could be made to non-policing data collections that would enhance the overall suite of national indicators.

- The timely release of annual estimates of the number and proportion of homicides involving an offender who had been drinking based on data from the NHMP, which is currently reported every two years with the most recent data two years old (Indicator 1.2).
- The timely release of annual estimates of the proportion of detainees who attribute their principal offence to alcohol (and/or illicit drugs), based on data collected as part of the DUMA program. The most recent estimates were reported in 2012 (based on 2009 data). More recent estimates (2011–12) were provided specifically for the purpose of this study (required for Indicator 1.1).
- Updating of the population alcohol aetiologic fraction (PAAF) used to estimate the number of hospital separations for alcohol-related assault injuries. The current estimate is based on English et al. (1995) and there is value in assessing whether this estimate remains valid. Annually adjusted estimates that account for changes in drinking patterns have been used (eg Chikrtizhs et al. 2011), but these are a proxy estimate that assume a linear relationship between consumption and alcohol involvement in assault-related injuries (Indicator 4.1).
- Further work to develop a PAAF for alcohol-related assault injuries for emergency department presentations and to develop nationally consistent diagnoses on assaults. Emergency department presentations for alcohol-related assault (as a sub-category of injuries) have been included as an indicator within the framework. However, recent research has only been able to establish a PAAF for alcohol-related injuries more broadly, and further research has been recommended (Chikrtizhs et al. 2011). Further, while the AIHW now collect and report national data on the number of emergency presentations, summary information on patient diagnoses is currently all that is available, with a review currently underway (AIHW 2014). Significant additional work will be required before this indicator will be available (Indicator 4.2).

Enhancing these non-policing collections would serve to improve the overall quality of information available to the IGCD on alcohol-related crime and violence and ensure a more complete picture of the magnitude of the problem.

Measuring alcohol-related crime using victimisation data, hospital separations and attributable fractions: An immediate solution

Given that alcohol-related crime (especially violence) remains an issue of national significance, an immediate short-term solution is required that will enable the IGCD to monitor the level of alcohol-related violence on a regular basis. Three key indicators are proposed.

- The number and proportion of people aged 18 years and over who experienced physical assault in the last 12 months and who believed the offender was under the influence of alcohol in the most recent incident, based on the *ABS (2015) Crime Victimization Survey (Indicator 2.3)*.
- The number and rate of hospital separations (hospitalisations) for alcohol-related assault injury for persons aged 15 years and over, based on administrative data reported as part of the AIHW (2015b) *Admitted patient care: Australian hospital statistics* and the application of the relevant PAAF (47%) based on English et al. (1995; Indicator 4.1).
- The number of offenders proceeded against for acts intended to cause injury (as the principal offence) that can be attributed to alcohol consumption, based on the ABS Recorded Crime Offenders data and DUMA program estimates of the proportion of detainees charged with a violent offence as their principal offence who attributed their offence to alcohol consumption (Indicator 1.1).

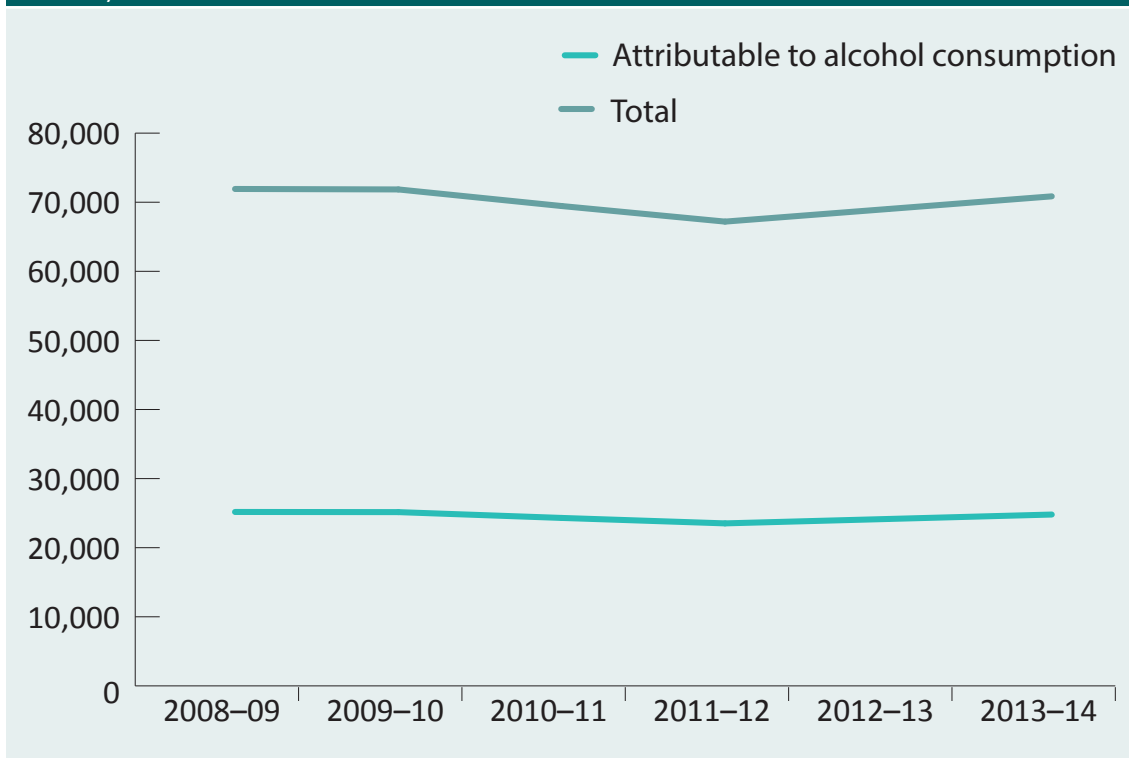
The first of these indicators would require the ABS to publish or provide to the IGCD annual estimates of the number and proportion of people aged 18 years and over who experienced physical or threatened assault in the last 12 months and believed the offender was under the influence of alcohol in the most recent incident. This information is currently collected; however, published estimates are limited to whether alcohol or drugs contributed to the incident. An estimate focused solely on alcohol that is consistent with the definition of alcohol-related crime proposed in this report would be far more valuable in terms of national indicators. In the interim, an estimate of the number and proportion of people aged 18 years and over that experienced physical assault in the last 12 months and believed alcohol *or* any other substance contributed to the most recent incident may meet IGCD reporting requirements.

The second indicator would require the publication or provision to the IGCD by the AIHW annual estimates of the number of hospital separations for assault-related injury for persons aged 15 years and over. At present total estimates for all persons are reported annually, however the PAAF required to estimate the number and rate of alcohol-related assault injury is different for persons less than 15 years of age (0.16) than it is for persons aged 15 years and over (0.47). The most recent publication of the preferred estimate reported on the number of assault-related injury hospitalisations in the ten years up to 2010–11 (while the most recent annual estimate of total assault-related injury hospitalisations was for 2013–14). As per this earlier publication, any estimates should exclude inward transfers to determine the total number of assault injury cases. Age standardised rates can then be calculated for persons aged 15 years and older.

The third and final indicator is based on readily available data from the ABS and estimates produced by DUMA. Specifically, this involves the application of the attributable fraction for the proportion of DUMA detainees charged with a violent offence as their most serious offence who reported that alcohol contributed to the most recent incident to the ABS estimate of the total number of offenders proceeded against for acts intended to cause injury. This would enable an annual estimate to be derived of the total number of offenders proceeded against for acts intended to cause injury attributable to alcohol consumption (Figure 9). In 2013–14,

there were 24,798 offenders proceeded against for acts intended to cause injury attributable to alcohol consumption. There are some limitations with this approach, including that the attributable fractions obtained through DUMA do not conform with the definition of alcohol-related crime proposed by this study, and are based on interviews with police detainees in four jurisdictions. Nevertheless, this represents an important immediate solution to the lack of nationally consistent data on alcohol-related violence based on existing police data.

Figure 9: Number of offenders proceeded against for acts intended to cause injury (principal offence)



Note: Based on the proportion of detainees charged with a violent offence as their principal offence who attributed their offence to alcohol consumption, derived from DUMA (35% in 2011-12)

Source: ABS 2014; Drug Use Monitoring Australia, 2015 [Computer file]

As an important first step, data for these three indicators—including recent trend data—could be collated by the IGCD and, subject to the data being available, included as part of future performance reports. This interim measure could help meet the reporting needs of the IGCD while further work on developing long-term indicators for ongoing monitoring activity is progressed.

National indicators of alcohol-related crime using police data

While a proxy indicator using existing data and attributable fractions offers an immediate solution, it may not offer an adequate longer-term measure of the prevalence of alcohol-

related crime recorded by police. The suite of indicators proposed in Table 21 therefore includes two key indicators of alcohol-related assault based on police recorded crime data compiled by the ABS—the number of recorded victims of alcohol-related assault and the number and proportion of offenders proceeded against for acts intended to cause injury that were affected by alcohol at the time of the offence. These have been identified as the optimal measure of alcohol-related assault using police data and approach to reporting national estimates of the magnitude of alcohol-related violence.

Responsibility for collating and reporting data in accordance with these indicators would need to rest with the ABS as part of the *Recorded Crime Victims* and *Recorded Crime Offenders* collections. This would involve state and territory police agencies providing data on alcohol involvement to the ABS as part of the larger national collection. Given the different business rules, procedures, systems, policies, legislation and recording practices of policing agencies, this may require modification to the ABS National Crime Recording Standard to incorporate relevant business rules and requirements relating to the collection and recording of data on alcohol involvement, in accordance with the way forward described in this report. A national data standard for the recording and collation of alcohol-related crime data could provide guidance about how an incident should be recorded from the time it comes to the attention of police, through to the time it is compiled into the national dataset (ABS 2013c). This would then guide the counting of alcohol-related criminal incidents and offenders and ensure consistency in reporting. If the decision is made to implement national business rules and requirements for the recording of alcohol-related crime, the standard would need to be developed in collaboration with police agencies to ensure their support and contribution to its creation. Other stakeholders, including those within the health sector, may also assist with this work.

While agreement on relevant business rules and requirements would need to be reached, and there are some questions about the overall quality of the data that may still need to be answered, it is the finding of this study that police in five jurisdictions (NSW, SA, WA, Victoria and Queensland) could provide the necessary data to the ABS for the purpose of producing a consistent estimate of the number and proportion of offenders proceeded against for acts intended to cause injury who were affected by alcohol at the time of the offence. Police agencies in these jurisdictions all collect data on whether an offender was affected by alcohol at the time of the offence (albeit with some differences in terms of the level of detail recorded). These same five jurisdictions (NSW, SA, WA, Victoria and Queensland) could also provide the necessary data to the ABS for the purpose of producing a consistent estimate of the number of recorded victims of alcohol-related assault (defined as involving an offender affected by alcohol at the time of the incident). However, nationally consistent estimates of the number of victims of assault are not available for all states and territories due to differences in the definition and collection of assault data. This will impact on efforts to develop national indicators, and means that only three of the five jurisdictions (NSW, SA and WA) are in a position to report the number of recorded victims of alcohol-related assault.

In light of these findings, it is proposed that a pilot study be undertaken, involving the NSWPF, SA Police and WA Police providing additional data on alcohol involvement to the ABS for a 12-month period, in accordance with agreed business rules and requirements set by these participating agencies. This would enable the feasibility of including data on alcohol as part of the ABS *Recorded Crime Victims* and *Recorded Crime Offenders* collections to be assessed prior to any national expansion. To be expanded into other jurisdictions, both indicators would require the implementation of a nationally consistent definition of alcohol-related crime, changes to data collection processes and (in a number of jurisdictions) modification to police information systems. This pilot study would need to be led by the ABS in partnership with NSWPF, SA Police and WA Police and also in consultation with police agencies in other jurisdictions not directly involved in the pilot study.

A nationally consistent definition of alcohol-related crime

An important step towards nationally consistent data on the involvement of alcohol in recorded crime is the application of a consistent definition of alcohol-related crime. Earlier sections of this report highlighted the different ways ‘alcohol-related’ has been defined and the implications in terms of collecting and recording information on alcohol involvement. Therefore there is a need to align definitions of ‘alcohol-related crime’ across jurisdictions. The definition of an ‘alcohol-related crime’ proposed by this study is one in which the offender was affected by alcohol at the time of committing the offence. This is the most common definition currently used by state and territory police agencies.

Applying consistent definitions for alcohol-related crime will help improve reliability in the way that the information is recorded across jurisdictions. As data are currently recorded at the incident and/or offender level in police data systems, two definitions will need to be developed—one for information recorded at the incident level and another for information recorded at the offender level. In the short-term, the recording of alcohol-related crime in police systems could remain unchanged, but the policies, guidelines and training that support police officers in the subjective decision-making process to record an incident as alcohol-related would be better aligned, resulting in more uniform data collections. To support this change, consistent communication that defines alcohol-related crime at the incident level and the offender level, along with information on how to assess an offender as being affected by alcohol, would need to be conveyed through policing agencies that provides the definition of alcohol-related crime at the incident level and the offender level, along with information on how to assess an offender as being affected by alcohol. It would be important that any such communication be developed in partnership with police and that it does not conflict with local protocols around the recording of data on alcohol involvement. There may be benefit in consulting with Commonwealth and state and territory health departments to develop guidelines for assessing intoxication and resources developed to assist first responders. The IGCD could also produce a report detailing the new definitions and the date from which they apply. As part of the proposed pilot study described above there may be an opportunity to trial this communication with a smaller number of jurisdictions for a 12-month period.

Modifying police administrative databases

Subject to the outcome of the pilot study, and following any attempt to implement nationally consistent definitions, possible next steps include modifying the recording of alcohol involvement in police administrative data systems, where there is a divergence from the agreed protocols. At present, there is little consistency across jurisdictions as to the level at which data is recorded. Jurisdictions either record alcohol-related crime data at the incident level, the offender level or, in limited cases, at both levels. Ultimately, the most comprehensive solution would be (as a minimum) to record the involvement of alcohol in crime at the incident level and also at the offender level. However, it may be agreed that it is sufficient to record alcohol involvement at the offender level (which can then be used to assess whether incidents are alcohol-related). To further improve confidence in the reliability of data collected, the recording of the involvement of alcohol should be mandatory in all jurisdictions.

In deciding on the nature and extent of any changes to administrative databases, careful consideration will need to be given to the potential resource implications and implications for breaks in any long-term trend data (although given how little data on alcohol involvement is reported the latter point is unlikely to be a significant barrier). Only essential changes should be made. Changes to information systems in jurisdictions with well-established collections (eg NSW) should be kept to a minimum. Based on prior experience, it is likely that the most significant impediment to changing police information systems will be the time required to make these changes. As such, this represents a long-term solution that will likely take a number of years to fully implement.

Summary

This section of the report has attempted to provide a national framework of indicators for alcohol-related crime and a roadmap for implementing this framework. In summary, it was proposed that the IGCD consider:

- adopting a suite of indicators that draw upon police recorded crime data, self-reported victimisation data, self-reported offending data and hospital injury data, which will require collaboration between police agencies, health departments and relevant data custodians;
- addressing the limitations of non-policing data collections to improve the overall suite of indicators available to the IGCD;
- adopting three indicators as immediate solutions to the problem of measuring the level of alcohol-related crime, including the number of people who report being a victim of physical assault by an offender affected by alcohol at the time of the incident (using ABS data), the number and rate of hospitalisations for alcohol-related injury (using AIHW data and the relevant population alcohol aetiological fraction), and the number of offenders proceeded against for acts intended to cause injury attributable to alcohol consumption (using ABS data and attributable fractions from DUMA);
- developing two new indicators of alcohol-related assault based on police recorded crime data compiled by the ABS, including the number of recorded victims of alcohol-related

assault and the number and proportion of offenders proceeded against for acts intended to cause injury who were affected by alcohol at the time of the offence, and modifying the ABS National Crime Recording Standard (in consultation with police) to address the collection, recording and reporting of alcohol-related crime;

- undertaking a pilot study involving NSWPF, SA Police and WA Police with the ABS to assess the feasibility of including data on alcohol involvement as part of the ABS *Recorded Crime Victims* and *Recorded Crime Offenders* collections prior to any national expansion; and
- subject to the outcomes of this pilot study, taking steps to establish a nationally consistent definition of alcohol-related crime, modifying data collection processes according to agreed business rules and requirements and (in a number of jurisdictions) modifying police information systems to enable the recording of information on whether offenders were affected by alcohol at the time of the offence.

These proposed next steps are offered as short-, medium- and longer-term solutions for the consideration of the IGCD. This provides a potential roadmap for the IGCD that, if followed, would provide robust evidence to inform the development, monitoring and evaluation of national responses to alcohol-related crime.

Conclusion

This study set out to explore the feasibility of establishing practical, high-quality indicators of alcohol-related crime at a national level. The study involved a brief facilitated workshop with IGCD members, an extensive literature review on alcohol-related crime, a review of policing and non-policing agency data and interviews with representatives of policing and non-policing agencies in all Australian jurisdictions.

There is a clear need and strong support for high-quality national indicators of alcohol-related crime using police data as part of a suite of complementary indicators drawing on multiple sources of data. This information would be invaluable in monitoring the prevalence of alcohol-related crime, particularly violence, and the effectiveness of national responses. Further, while challenges remain, significant progress has been made by state and territory police agencies in recent years to improve the quality of data on alcohol-related crime. In addition, there are a range of data collected by non-policing agencies that are relevant to the national measurement of alcohol-related offending, victimisation and assault-related injury.

Significantly, this study has provided several options for achieving a suite of national indicators of alcohol-related crime. Short- and longer-term options have been identified and explored. In the short term, there are opportunities to use existing ABS national collections and attributable fractions to estimate the volume of offenders proceeded against for violent offences attributed to the consumption of alcohol which, alongside other ABS data on self-reported victimisation and AIHW data on hospitalisations, may serve the data, information and policy needs of the IGCD. There are limitations to this approach, but it represents an immediate solution to the information needs of the IGCD.

There also exists an opportunity to include information on the involvement of alcohol in existing ABS collections based on state and territory police data. Based on the findings from this review, and subject to national agreement on the relevant definitions and counting rules presented in this report, it would be possible to report on the number of victims of alcohol-related assault and number of offenders proceeded against for alcohol-related acts intended to cause injury for three jurisdictions. Beyond this, significant work would be required to establish nationally consistent definitions, address issues impacting on the quality of information recorded by police and modify police information systems in a number of jurisdictions to ensure consistent data are available. There are also a number of potential improvements that could be made to non-policing data collections that would enhance the overall suite of national

indicators. The report suggests that this task be approached in phases, with opportunities for input from policing and relevant non-policing agencies at each stage and pilot testing where applicable.

In the long term, the benefits of achieving a suite of robust national indicators will be significant. This information will benefit not only the IGCD in its endeavours to understand the magnitude of alcohol-related crime at the national level, but also police personnel across all Australian jurisdictions. Other stakeholders that will benefit include health agencies, policymakers, researchers and members of the Australian public. As the challenge of collecting and analysing national level alcohol-related crime data is not limited to Australia, it is also envisaged that the development of national indicators on alcohol-related crime in Australia will be of immense interest to relevant agencies internationally.

Currently it is challenging, if not impossible, to measure the scale of alcohol-related crime in Australia. The result of this is that national level policy and other responses to alcohol-related crime are based on the best available information and data, which is often lacking, inconsistent or inaccurate. Through the achievement of a national suite of indicators on alcohol-related crime the IGCD will address an important gap in the current understanding and measurement of alcohol-related crime and ensure a better informed operational and policy response to alcohol-related crime at the local, state and national level in Australia.

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Appendix A: Interview schedule

1. What are your agency's holdings with regards to data on alcohol-related crime?
2. What is your agency's definition of alcohol-related crime?
3. When is an incident categorised as alcohol-related? What indicators or measures are currently used?
4. What information related to alcohol use or involvement in crime is collected? What can be extracted from current data systems?
5. How is this information collected? Is the information verified in any way?
6. What criteria are used by your agency to determine the involvement of alcohol in the incident?
7. If based on a subjective assessment, what criteria are used when making judgments of the involvement of alcohol?
8. Is it mandatory to record alcohol involvement in incidents?
9. How is the data analysed and used by your agency?
10. What are the strengths and limitations of the data and data collection system with regards to measuring alcohol-related crime?
11. In your opinion, what are the benefits of a national minimum dataset on alcohol-related crime?
12. What information do you think should be collected at a national level about alcohol-related crime?
13. How would your agency use a national minimum dataset on alcohol-related crime?
14. What might be the obstacles or barriers to achieving a national minimum dataset on alcohol-related crime? How might they be overcome?
15. What is the scope for modification of current data collection systems and processes?
16. Can the AIC obtain a sample data extraction?
17. Do you have any future plans for collecting information about alcohol involvement in crime?

Appendix B: Summary of facilitated discussion with the IGCD

Following the facilitated discussion on 30 July 2014, key points were summarised to reflect the information needs of the IGCD.

- IGCD members agreed that indicators should be used to measure the magnitude of alcohol-related crime, rather than to measure the cost of alcohol-related crime. While measuring the cost of alcohol-related crime may be beneficial to input into cost of crime estimates, it was determined that it would be more feasible to use the data to illustrate prevalence and trends in alcohol-related crime at a national level.
- IGCD members agreed that indicators should be used to consolidate data on alcohol-related crime at the national level, rather than to compare alcohol-related crime across state and territory jurisdictions. Indicators should therefore be developed for the purpose of informing national-level policy decisions.
- IGCD members provided contrasting views on the crime types that should be included in the development of a national minimum dataset on alcohol-related crime. Some members suggested that indicators should be restricted to the most significant offences against the person, that is, assault, serious assault, sexual assault and domestic violence. Other members suggested the need to include public order, disorderly and public nuisance offences, and argued that it would be difficult to evaluate the effectiveness of interventions if not all crime types were included. Members also held concerns over displacement effects, lower level but costly crimes being excluded (eg call-outs to noisy residences), the impact of targeted police operations and diversion measures on data trends, and the exclusion of unrecorded incidents.
- IGCD members discussed the definition and meaning of a crime incident being 'alcohol-related'. Members suggested that appropriate measures could include intoxication of offenders/victims, consumption of alcohol by offenders/victims, offenders/victims showing signs of being affected by alcohol, presence of alcohol, liquor licence breaches, and theft of alcohol. Members held concerns around determining/measuring intoxication, consumption

and being affected by alcohol, and what the threshold would be before an incident is assigned an alcohol flag. It was suggested that the last point of consumption might also be relevant to data collection. Issues around subjectiveness, and determining whether alcohol caused the crime or was incidental to the crime were raised. It was suggested that a rating scale might be used by police officers to assist with subjective decision making, but that for certain offences an independent measure (ie BAC) be used.

- IGCD members expressed concerns about the source/s of data, the consistency of data across different sources and jurisdictions, and the (in)consistency in definitions of crimes across jurisdictions. Solutions to these concerns will need to be developed before the conclusion of the project. The next phase involving consultations with policing and other agencies that collect data on alcohol-related crime may inform appropriate solutions and also identify examples of existing systems and data collections that could be replicated in other jurisdictions.
- IGCD members agreed that a national minimum dataset will be developed for the recording of alcohol involvement in crime and offending in police administrative systems.
- In addition to police administrative data, the minimum dataset will also include national data on alcohol-related crime from other sources, including victim and community safety surveys and survey data for individuals within the criminal justice system. These will be explored as part of the consultation process.
- IGCD members agreed that indicators for measuring alcohol-related crime will be collected, analysed and reported at regular intervals, as decided by the IGCD.

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