SEX, DRUGS AND BACKPACKING

STUDY REPORT

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This report documents a collaborative pilot study inclusive of stakeholders from the Queensland Health Alcohol and Drug Service, Queensland Health Sexual Health and HIV Service and the Ethnic Communities Council of Queensland. It investigates the behaviours of international backpacker travellers with a focus toward exploring their alcohol consumption and sexual risk taking behaviours. The study highlights a lack of knowledge and understanding of safe alcohol consumption levels, risky behaviours whilst under the influence of alcohol as well as the prevalence of sexually transmitted infections such as Chlamydia Trachomatis.

Although the literature indicates that there is a link between overseas travel and an increase in risk taking behaviours in relation to alcohol use and patterns of sexual behaviour among travellers, there appears to be a significant gap in the knowledge and understanding of these issues within the Queensland context. It is therefore proposed that findings from this study will not only provide valuable contextualised information to guide the development of appropriate targeted interventions for the international backpacker population, but it will also provide information that will protect the public health of the broader community and assist in ensuring backpacking and tourism remain one of Queensland's major sources of revenue.

Background

It is well recognised that international travellers, especially international backpackers, are a significant contributor to the Queensland and Australian economies. However, travellers are potentially vectors for introducing new pathogens and resistant strains (Abdullah et al., 2004) of sexually transmitted infections. international backpackers may be a specific risk to both themselves, other travellers and to the host population due to their patterns of alcohol consumption and associated risk behaviours. The associated risk behaviours can affect health directly, for example adverse drug reactions, or indirectly, for example accidents and violence which can have negative impacts on the host country (Bellis, Hughes, Dillon, Copeland, & Gates, 2007).

However, whilst there are several cross-sectional studies on alcohol intoxication and sex practices amongst backpackers, there is little focus on these two issues and none have prospectively assessed patterns and behaviours amongst backpackers, nor therefore the potential for public health interventions.

Research Question

This study is a collaborative pilot inclusive of stakeholders from the Queensland Health Alcohol and Drug Service, Queensland Health Sexual Health and HIV Service and the Ethnic Communities Council of Queensland which examined the behaviours of international backpacker travellers with a focus toward answering the following research questions:

1. Is it feasible to conduct a prospective, longitudinal study with this transient population?
2. What do international backpackers know regarding responsible alcohol consumption and safe sex?
3. What demographic characteristics, risk and protective behaviours, attitudes and environments predict risk taking (alcohol intoxication; unsafe sex) within this group?
4. Where are the opportunities for public health intervention with this group?
5. Does the provision of a brief knowledge based intervention and 'prevention pack' decrease behaviours?

Research Aim

While literature indicates that there is a link between overseas travel and an increase in risk taking behaviours in relation to alcohol use and patterns of sexual behaviour among travellers, there appears to a significant gap in the knowledge and understanding of these issues within the Queensland context.

It is therefore proposed that findings from this study will not only provide valuable contextualised information to guide the development of appropriate targeted interventions for the international backpacker group, it will also provide information that will protect the public health of the broader community and assist in ensuring backpacking and tourism remain one of Queensland's major sources of revenue.

Purpose

As a result of this project we expect to see:

- Longitudinal assessment of alcohol consumption and sexual practices amongst backpackers travelling through Queensland
- Identification of risk and protective factors that may predict binge drinking and unsafe sex
- Identification of opportunities for reducing harm, specifically alcohol intoxication and unsafe sex
- Whether it is feasible to apply the proposed methodology to a Queensland-wide study and intervention
- Whether the provision of a brief knowledge based intervention supported by the provision of 'prevention packs', reduces binge drinking and unsafe sex practices

Performance Indicators

- Identification of measures which may be administered across language groups
- Ethical clearance received

- In-principle support by backpacking operators for recruiting participants on location at hostel/backpacking accommodation
- Recruitment of 110 participants, collection and collation of data on risk taking attitudes, intentions and behaviours
- Follow-up recruitment of at least 50% of participants 28 days later for administration of secondary survey
- Submission of a drafted paper for peer review

Significance of Research

While international backpackers are believed to have a greater exposure to problems compared to other visitors because they are younger, stay longer and participate in more risky activities (Peach & Bath, 2000), little research has been conducted on the impact of this population on health service use and public health, particularly with respect to alcohol intoxication, sexually transmissible infections, accidents and injury (Bellis et al., 2007) and within the specific context of Queensland, Australia.

Justification of Research

Findings from this pilot study have the potential to provide the following benefits;

1. Promote responsible consumption of alcohol and reduce unsafe sexual practices within a major sector of the Queensland economy.

2. Promote positive images of the Australian community in an effort to reduce alcohol misuse among young travellers and international backpackers.

3. Implement grassroots collaboration between key agencies to determine the interrelationship between alcohol intoxication and sexually transmissible infections.

4. Assess the level of public sexual health risk posed by the transmission and acquisition of sexually transmissible infections.

5. Support the development of evidence-based interventions on alcohol intoxication and for the prevention of sexually transmissible infection transmission and acquisition amongst young travellers and international backpackers.

Literature Review

Introduction

Each year masses of young people undertake international travel on the quest to experience the world, visit tourist resorts and holiday (Bellis, Hughes, Thomson, & Bennett, 2004). For a large number of predominantly young people the aim is to seek fun and adventure which is different from the everyday. The international backpacker experience can be considered a laminal one (Adkins & Grant, 2007) in a travel environment which promotes alcohol and drug use as well as the mixing of broad sexual networks (Rogstad, 2004).

International backpacker experiences are facilitated by globalisation and the ease with which populations and groups can cross borders and traverse the globe. Thus, with international travel rapidly increasing, high risk behaviours including the promotion of alcohol and drug use by travellers is of increasing concern as these behaviours have the potential to increase in frequency than when at home (Bellis, Hughes, Thomson, & Bennett, 2004). This concern relates to the impacts on both the holidaymaker and the host country, however extends to include the globalised spread of behaviours including associated consequences, such as sexually transmissible infections (Carter et al., 1997). It is suggested that in some countries, a significant proportion of heterosexuals with newly acquired Human Immunodeficiency Virus acquire the infection whilst abroad (Steffen, Debernardis, & Baños, 2003). The magnitude of the global health burden from sexually transmissible infections remains unknown but would certainly be considered excessive (Memish & Osoba, 2006).

Throughout the context of a holiday, many factors can influence the behaviour of the international backpacker. These factors can stem from past travel experiences that can contribute to intentions, and therefore expectations, from the current holiday aeon. This may be the impetus for the phenomenon literature describes as situational disinhibition and act as a driver for increased use of drugs, alcohol and increased acquisition of sex partners. However, individual characteristics and personality traits can also influence behaviours (Leigh, Morrison, Hoppe, Beadnell, & Gillmore, 2008). The use of drugs, alcohol and increased partner acquisition are behaviours that have the potential to affect decision-making and consequently increase a risk of an adverse health outcome.

The International Backpacker

Definition

Tourism Research Australia defines international backpackers as travellers who spend at least one night in either backpacker or hostel accommodation during their travel in Australia (Ipalawatte, 2004). Distinguishing characteristics of an international backpacker are: they typically are young budget travellers who exhibit a preference for budget accommodation; an emphasis on meeting other people; an independently organised and flexible travel schedule; longer rather than brief travel schedules; an emphasis on informal and particularly recreational activities; a preference to travel alone but if they do travel with others, their interpersonal relationships are often temporary but intense (Murphy, 2001).

Travel Patterns

Favourable exchange rates, cheaper international airfares and tourism marketing have improved accessibility to and attraction toward Australia as a travel destination of international backpackers. These improvements are reflected in an increase in arrivals of 3.2 percent per annum from 1999 to 2003 (Ipalawatte, 2004). Throughout this period international backpackers accounted for 11 percent of all international arrivals, with Queensland attracting 57 percent of international backpacker tourists and 11 percent opting to land in Brisbane from an overseas destination (Ipalawatte, 2004).

Over 350,000 international backpackers visit Queensland annually and in 2006 stayed 11.9 million nights, with an average stay of thirty-three nights (Tourism Queensland, 2008a) and an average stay in Australia of sixty-four nights (Ipalawatte, 2004). Five of the top ten destinations on the international backpacker itinerary are in Queensland and include Far North Queensland, Brisbane, Whitsundays, Hervey Bay and the Gold Coast. This market sector was unabated throughout the recent global financial crisis spending $AUD4 billion in Queensland to the year ending 2008 (Tourism Queensland Press Release, March 2009).

The main purpose of travelling to Australia (72%) is to have a holiday (Ipalawatte, 2004). Tourism Queensland data on demographics of this group cite 49 percent of backpackers are between the ages of 15 and 24, with 44 percent between the ages of 25 and 44; most (66%) travel alone and 51 percent spending more than half their nights in a youth or backpacker hostel. Potentially reflective of the demographics of the average international backpacker, attending pubs, clubs and discos (76%) is cited as the third most popular activity undertaken (Ipalawatte, 2004).

Because international backpackers visit 6.2 regions whilst in Australia including rural and some remote locations, the economic benefits are felt in industries adjacent to the tourism sector and it is for the above that international backpackers have an importance for Australian tourism greater than their numbers alone would suggest (Buchanan & Rossetto, 1997).

Factors that Influence Behaviour

The backpacker experience can be representative of a transition or rite of passage throughout the journey from adolescent to adulthood occurring most often between the end of one part of life's journey and the beginning of another (Adkins & Grant, 2007). This experience may be a laminal one, contribute to the sense of a temporary loss of social bearings, and in the absence of ones own social and cultural constraints of country, community and family, the backpacking experience can promote situational disinhibition (Maticka-Tyndale, Herold, & Oppermann, 2003).

In the search for explanations to the cause of situational disinhibition, it has been hypothesised that the lifestyle established at home 'spills-over' or is replicated within the holiday environment. This is exampled in the Bloor et al. (1998) case-control study (N=968) that demonstrated a relationship between behaviour at home and behaviour while on holiday abroad. An alternative to the lifestyle theory is the effect of the characteristics of the holiday has upon behaviour. This is exampled in the Bellis, Hale, Bennett, Chaudry, & Kilfoyle (2000) cross-sectional study (N=846) which identified a positive and significant association in altered drug, alcohol and tobacco use whilst on holiday abroad. In substantiation to the latter theory, the Hughes, Downing, Bellis, Dillon, & Copeland (2009) cross-sectional study (n=1012) demonstrated elevated levels of sexual activity throughout the travel period when compared to an equivalent time period prior to travel.

Clearly these theories do not occur in isolation; rather behaviour is influenced by both established characteristics, prior experiences and the present situation or circumstance. This is exampled in the Albarracin, Johnson, Fishbein, & Muellerleile (2001) meta-analysis study (N=22,594 from 96 data-sets) which noted intention and perceived behavioural control strongly correlated with past behaviour rather than future behaviour. This highlights how attitudes and norms influence the development of intentions.

In this way, the positive past experiences while on holiday abroad can contribute to intentions, and therefore expectations, from the current holiday epoch. For example, the Bellis, Hughes, Bennett, & Thomson (2003) cross-sectional study (N=1,714) identified that the proportion of illicit drug use increases with the number of times a location is visited. Similarly, the Bavastrelli et al. (1998) cross-sectional study (N=130) found significance (OddsRatio=20, 95%CI P=<.02) between one or more sex partners, and overseas travel, with a diagnosis of a sexually transmissible infection.

Individual characteristics and personality traits can also influence behaviour (Leigh, Morrison, Hoppe, Beadnell, & Gillmore, 2008) and herald risk (Shrier et al., 2009). For example, the Donohew et al. (2000) cross-sectional study (N=2,949) identified that sensation seeking plays a crucial role in susceptibility to both drug and alcohol use with high-sensation seekers being more likely to become involved in risky situations and actually engage in the risky behaviours. Additionally, the author described sensation seeking and

impulsive decision-making as characteristics that could predispose an individual's involvement in situations which pose health risks. These findings are echoed in the Perera, Reece, Monahan, Billingham, & Finn (2009) cross-sectional study (N=539) which describes a positive association between sexual sensation seeking scores and alcohol use and stimulant drug use. The sensation-seeking characteristics appear to fit the profile, and characteristics of an international backpacker (Hughes, Downing, Bellis, Dillon, & Copeland, 2009).

The risks, therefore, are associated with behaviours that have the potential to affect decision-making and consequently increase risk. This can arise, for example, as the adverse effects of illicit drug use which can leave individuals with an inability to negotiate safe sex or refuse and repel unwanted sexual advances (Bellis et al., 2008).

Risks Associated with Behaviour

There are several contextual behaviours that literature describes as risks to the health of an international backpacker and the first of those is alcohol consumption. Alcohol consumption plays a significant role within the lives of international backpackers. However, literature suggests that the environment and characteristics of travellers pose greater opportunities for becoming intoxicated in environments that are conducive to, and encourage by association, experimentation and indulgence (Bellis et al., 2003). Additional to this, alcohol consumption in large quantities over a longer time-frame has been shown to be associated with acquiring an alcohol-related injury requiring treatment (Kelly, Donovan, Chung, Bukstein, & Cornelius, 2009).

Several studies identify alcohol as a risk for the international backpacker. For example, in a cross-sectional study (N=1,008) conducted in Cairns and Sydney of backpackers from the United Kingdom, Bellis et al. (2007) found that 40.3 percent drunk more than five times a week compared to 20.7 percent at home. From this study the author concluded that the data indicated there could be potential health risks both directly and indirectly to the host country as well as the backpacker. Similarly, the Pedrana, Aitken, Higgs, & Hellard (2008) cross-sectional study (N=89) of transient workers in rural Victoria found a range of risk behaviours being undertaken including 30 percent consuming alcohol at levels risky to health. From this study the author concluded that transient workers and their contacts would benefit from targeted harm-reduction services focusing on sexual behaviour, alcohol and drug use. Additionally, the Andersson, Wirehn, Olvander, Ekman, & Bendtsen (2009) randomised control trial (N=2,858) among university students found that 91 percent of respondents had consumed alcohol, and the most common pattern of alcohol use among males was "at least weekly heavy episodic drinking" (42.9%). Further to this, the Paradis, Demers, Picard, & Graham (2009) study using data from the GENder Alcohol and Culture: an International Study (N=14,067) data to determine moderate drinking found that the risk and frequency of binge drinking increases with the frequency of drinking particularly for young men (Male 18-24: OR=5.61).

Like many of the developed areas used as study locations described above, Brisbane is marketed to backpackers as a "drinking adventure". For the international backpacker, Brisbane offers "visitors a range of…restaurants, café and nightclub experiences" (Queensland Tourism Industry Council, 2008b). Indeed 76 percent of backpackers reported attending "pubs, clubs, discos" and 92 percent reported "eat out/dining at restaurant and/or café" in Brisbane (Queensland Tourism Industry Council, 2008c). Brisbane is promoted to international backpackers through a variety of web-based applications focused and themed around nightlife and alcohol.

Although significant efforts are put into promoting events that surround fun, emerging health risks associated with intoxication highlight that risks increase when drinking to excess is undertaken in a foreign country. Within the literature these additional risks are described as culture, language, and geography (Tutenges, 2009). Throughout travel the risks are elevated because of geographic unfamiliarity which can inhibit or obstruct access to police and health care services, and exacerbated by the absence of an environment which may normally moderate substance use (Hesse, Tutenges, Schliewe, & Reinholdt, 2008). This point is reinforced in the Tutenges & Hesse (2008) cross-sectional study (N=1,101) involving Dane holiday makers which noted significant increases in alcohol consumption frequency while on holiday abroad, with alcohol-related adverse outcomes including fights which required medical intervention for injury.

Alcohol is associated with risk behaviours that can affect health directly, for example adverse drug reactions, or indirectly, for example accidents (Knapik, Marin, Grier, & Jones, 2009) and violence which can have negative impacts on the individual and the host country (Bellis et al., 2007). Interesting then is the de Visser & Smith (2007) cross-sectional qualitative analysis (N=31) of young men highlighting that ambivalence toward alcohol is widespread, and of significance, is that reasons for drinking could also be motives for not drinking if consumption became excessive. From these findings the author suggests they form the basis of harm-minimisation intervention design specifically targeting young men. Literature also suggests that alcohol consumption at or around the time of sexual activity is correlated to unprotected sex (Leigh, Morrison, Hoppe, Beadnell, & Gillmore, 2008).

The second contextual behaviour literature describes as risks to the health of an international backpacker are behaviours relating to sexual events, and sexually transmissible infections. Having sex overseas is recognised as an increased risk for Human Immunodeficiency Virus and sexually transmissible infections (Memish & Osoba, 2003) because of an increased prevalence, the mixing of broad sexual networks and the increased sexual activity associated with recreational pursuits. Holidays provide the opportunity for increased sexual mixing (Rogstad, 2004), and in conjunction with the ideology of situational disinhibition, can present the international backpacker population at greater risk of infection (von Sadovszky, 2008).

Several factors contribute to this increase risk and include behavioural intention. For example, a cross-sectional study conducted by the National Centre for HIV Social Research reported that 25 percent of study participants who had expectations of having casual sex whilst travelling do so. Further to this, over half of those who had a sexual event with a new partner on the trip did so within a dormitory room in the presence of others. Of concern is that despite reports that condoms were often carried, only 53.9 percent used condoms all of the time. Within this study sample, 1.15 percent reported being HIV-antibody-positive, and half of this group, 3 backpackers, had contracted HIV during the trip. The concept that individuals possess a set of 'rules' about condom use which can simplify the decision-making process in the context of sexual situations was also an inferred result from the Leigh, Morrison, Hoppe, Beadnell, & Gillmore (2008) study.

Despite a profundity of literature investigating the frequency of partner acquisition whilst travelling (Hamlyn, Peer, & Easterbrook, 2007; Mercer et al., 2007; Richens, 2006), it is suggested that preparedness in relation to sexual activity during travel periods is also important. For example, the Ragsdale, Difranceisco, & Pinkerton (2006) cross-sectional study (N=128) observed that women who travel with an expectation of having sex whilst travelling were more likely than other female travellers to report one or more sex partner, to travel with condoms and to initiate condom use. The author of this study suggests that these findings could inform public health efforts in directing education to women regarding safer sex precautions while abroad. However, Memish & Osoba (2006) cautions the procurement of condoms from international travel destinations such as developing countries as condom manufacturing quality may be poor. This point further strengthens the argument for, and is recommended as an intervention within the Hughes, Downing, Bellis, Dillon, & Copeland (2009) study, to engage early protective behaviour mechanisms throughout pre-travel planning, education and support to aid traveller preparedness throughout the travel period.

Related to preparedness, an additional factor increasing risk is inconsistent condom use (Richens, 2006). For example, the Egan (2001) cross-sectional study (N=504) found 26 percent of study participants had sexual intercourse with a casual partner, and despite 94 percent expecting to use a condom only 64 percent did so with their most recent casual partner. The author of this study also suggests that behaviour from home can influence and 'spill-over' to holiday behaviours citing 83 percent (N=30) of participants who reported always using condoms at home did so during travel. Conversely, of those who reported not using a condom during the last sex event at home, 57.1 percent of men and 30.8 percent of women reported not using a condom during travel. Likewise, the Hughes, Downing, Bellis, Dillon, & Copeland (2009) study found 40.9 percent of backpackers inconsistently used condoms and 24 percent had unprotected sex with multiple partners. In the context of extended travel, the Hughes & Bellis (2006) case-control study (N=920) demonstrated that being an extended-stay traveller and casual worker in an international nightlife resort is

independently associated with having unprotected sex and multiple sexual partners when compared to (short-stay) holidaying travellers.

The corollary to the above is an increased likelihood for acquisition of a sexually transmissible infection (Mercer et al., 2007) and exposure to new pathogens (Abdullah et al., 2004) especially within areas of high prevalence. For example, an early cross-sectional study (N=386) by Hawkes, Hart, Bletsoe, Shergold, & Johnson (1995) identified a sexually transmissible infection notification rate of 11.6 percent among attendees at a London Genitourinary Medicine Clinic in the presence of recent international travel. Similarly, an early case-control study (N=152) by Bonneux et al. (1988) reported a 14-fold likelihood of unprotected sex by Belgian men residing in Africa which resulted in HIV-seroconversion. Additionally, the Bavastrelli et al. (1998) cross-sectional study (N=130) also reported a 20-fold chance of a Chlamydia trachomatis infection in participants with more than one sex partner in the context of international travel. Increased sexual risk has also been associated with substance use prior to sexual activity (Shrier et al., 2009).

The third contextual behaviour literature describes as risks to the health of an international backpacker are behaviours relating to drug use, including illicit drugs. Tourism resorts and tourist destinations offer opportunities to increase levels of alcohol and other drug use and to try different substances in atmospheres conducive to experimentation (Bellis et al., 2003; Hughes et al., 2008). There is a well established relationship within the literature between recreational drug use and dance music events (Winstock, Griffiths, & Stewart, 2001).

This is exampled in literature where, for example, the Bellis et al. (2003) cross-sectional study (N=1,714) identified that illicit drug use by young holiday makers at international dance resorts had increased. The author of this study also records an increase in frequency of use of all substances. For example, this study reported significantly higher ecstasy use of five or more nights a week between uses in the United Kingdom (6.7%) compared to use within the international dance resort (36.9%). Of concern is that the author records that people who used drugs were also more likely to binge-use whilst in this environment.

Similarly, the Paz, Sadetzki, & Potasman (2004) case-control study (n=1,000) described substance abuse rates within Israeli international travellers and found several positive predictors to drug use which included a maximum twelve years of education (Relative Risk (RR)=3.5: 95% CI: P=.017) and being 25 years of age or less (RR=2.7: 95% CI: P=0.97). Interestingly, the intervention group received information outlining drug information and consequences but failed to decrease drug use rates between the intervention (38.9%) and the control (34.8%) groups. However, this study achieved a poor response rate (22.3%: Intervention Group = 108/500; Control Group = 115/500) and thus the generalisabiltiy of these findings to other travelling populations is limited.

In contrast to the above findings, the Uriely & Belhassen (2006) longitudinal cross-sectional study (N=30) identified a net drug use increase within the travel environment was done so by travellers in conjunction with an awareness of legal, social and medical risks; possible arrest, stigmatisation as a deviant; and possible irreversible cognitive damage. This therefore infers a degree of voluntary risk-taking behaviour, where travellers may perceive the risks associated with drug use during international travel as less risky when compared to drug use within their home country, and in doing so individuals continue to restrain behaviour in conjunction with individual fears. Further to this, the Peters & Kok (2009) ecstasy use meta-analysis suggests that reasons for different behaviours, such as starting to use, using or ceasing use, differ between individuals and that interventions need to target determinants of a specific behaviour relating to substance use, but cautions that interventions themselves may fail to influence other behaviours.

The above contextual behaviours in which literature describes as risks to the health of an international backpacker should be considered as synergistic. That is, each behaviour can influence the outcome of the proceeding behaviour. For example, the negative effects of specific drugs can vary according to biologic and psychological effects and can be dependant upon level of use (Prestage, 2009). This is exampled between ecstasy and cocaine, where ecstasy can induce feelings of euphoria and affection, and cocaine can induce feelings of self-importance and has been associated with violence (Bellis et al., 2003). The association between cocaine and violence is reiterated in the Hughes et al. (2008) cross-sectional comparative study (N=3,003) of young holidaymakers to international dance resorts in which the author reported cocaine use as a predictor of fighting (Adjusted Odds Ratio (AOR)=2.89: 95% CI: P=<.005) and violence.

In addition to drug use, alcohol can also influence sexual risk behaviours. For example, studies suggest that recreational drug and alcohol use can impede an individuals' ability to negotiate safe sex by affecting rational decision-making which can have consequences including increased risk-taking. For example, the Bellis et al. (2008) cross-sectional study (N=1,341) of younger adults who engage in nightlife rituals reported that younger individuals were more likely to regret a sex event post alcohol or drug use; that regular cocaine use and being gay or bisexual were strong predictors of multiple sex partners; and cannabis use was associated with sex without a condom. However, the above study methodology did not allow for overall response rate measure and thus the generalisability of these findings to the international backpacker population is limited. Nevertheless, safe sex messages can become laissez-faire in the presence of alcohol use and drug taking behaviour (Poulin & Graham, 2001).

A relatively recent concept describes the need to extend interventions beyond the direct effects of substance use, and focus upon the environment in which alcohol and drugs are used as a more holistic harm reduction strategy (Bellis, Hughes, & Lowey, 2002). For example, the afore mentioned author

suggests environmental hazards such as dehydration (relating to altered thermoregulation), acquisition of sexually transmissible infections (resulting from alcohol-related disinhibition), accidents (associated with increased risk-taking) and violence (as a consequence to drug use) could be prevented by access to free water and crowd control, ready access to condoms, restrictions to high-risk activities, staggered closing times and access to a variety of transport options which can, respectively, support the health of individuals through healthy environments.

Limitations in Research

Within the available research the limitations are three-fold. In the first instance there is a paucity of research within the area of international backpackers. Specifically, there is a dearth of available research that has a focus toward the traveller which is inclusive of behavioural consequences. Literature is available which investigates partner exchange rates throughout travel periods, alcohol and drug use within international travel resorts, however few focus on these two issues and none have prospectively assessed patterns and behaviours amongst the international backpacker population.

Secondly, a vast majority of studies concerned with international backpackers or international travellers have been cross-sectional and descriptive. Additionally, there is a lack of comparison or control group studies employing a Random Controlled Trial methodological approach. The disparity in the available literature is studies that use a methodological framework that is prospective and analytical.

The final limitation within available literature is the potential for recall bias. The majority of studies used to build the literature review where studies that investigated alcohol, drug and sexual partner numbers in the context of international travel. These activities have been recognised in many studies as limitations in relation to accuracy of situational recall potentiated by concurrent activities that could impede recall accuracy.

Of significance is that whilst there are several cross-sectional studies on alcohol intoxication and associated risk behaviours, including sex practices, amongst backpackers, few have focused on these two issues. Until recently, there was no immediate referent study upon which to model and qualify findings from this study against, however the recent publication which studies risk-taking behaviours including sexual behaviour outcomes in association with alcohol and drug use by United Kingdom backpackers in Australia should be considered a referent and comparable study (Hughes, Downing, Bellis, Dillon, & Copeland, 2009) from which to compare data.

Study Method

This study is an exploratory pilot study which employs cross-sectional and longitudinal methodological frameworks. Longitudinal follow-up will be performed with a 28 day prospective follow-up. Ethics clearance for this project was obtained from the Metro North Health Service District, Queensland Health, Human Research Ethics Committee. Protocol Number: HREC/09/QPCH/144.

The 'Sex, Drugs and Backpacking' pilot study aimed to recruit international backpackers staying in inner-city Brisbane accommodation. Participants were asked to self-complete a questionnaire and to undertake a urine based PCR test for Chlamydia Trachomatis and Gonorrhoea. The questionnaire contains knowledge, attitudinal and behavioural questions. Upon survey completion participants were provided with questions and answer card 'prevention packs' and resources. Follow-up contact was via email and participants were asked to complete an online survey.

Objectives

The purpose of this study is to identify:

- How much risk is taken by visitors to Australia, whether this presents a real threat to their health, and the health of fellow travellers as well as to Australians
- Potential harm reduction strategies to increase safer alcohol consumption and safer sexual practices.

To this end we are conducting a prospective follow-up study. The intention is to recruit 110 international backpackers staying at inner-city Brisbane hostel/backpacker accommodation and try to follow them up 28 days later. Participation in this study is completely voluntary.

Sample Size

A sample size of 110 conveniently recruited male and female international backpackers was targeted. No power analysis was conducted to confirm the sample size as this pilot study is designed to test methodology rather than significance, however throughout any proceeding study phase; a power analysis will be conducted.

Questionnaire

Several sources informed the construct of the questionnaire (see appendix 9). To ensure validation of the *Sex, Drugs & Backpacking* tool, two major instruments were accessed. These instruments are validated tools and include the Alcohol Expectancy Questionnaire III (Brown, Christiansen, & Goldman, 1987), and the

survey tool used within the National Survey of Australian Secondary Students, HIV/AIDS and Sexual Health (Smith, Agius, Mitchell, Barrett, & Pitts, 2009).

The goal of the questionnaire was to capture data relating to traveller demographics, travel patterns, alcohol use and behaviours including consumption patterns, rates and environment in which consumption occurred. Information relating to sexual events including sex practices such as condom use, the context of sexual events including behaviours, environment and the relation of the event to alcohol or other drug use was also used.

Questions were themed to align with behaviours that literature describes as factors which can influence behaviour, for example, the use of alcohol or other drugs prior to a sex event. Questions were also posed which were designed to solicit individual perceptions of behaviours within the current environment of travel in comparison to the home environment, as well as patterns and rates of service use as a measure of protective behaviours.

The *Sex, Drugs & Backpacking* project team fed into tool design providing expert advice with the available literature also providing indications for the need to review and assess alcohol intoxication and associated risk behaviours such as sexual events. The *Sex, Drugs & Backpacking* project team endorsed the tool for use within the focus group. The primary tool taken to the focus group is attached as Appendix 5.

Inclusion Criteria

For inclusion, each participant must be;

- An International Backpacker as defined by Tourism Research Australia.
- Willing and able to provide informed consent.
- Aged 18 years of age and over.
- Willing and able to provide a urine sample for PCR Chlamydia testing.
- Willing and able to provide an e-mail address for follow-up.

Exclusion Criteria

Participants will be excluded from participating if:

- Under the age of 18 years
- Unable to give informed consent (e.g. comprehension difficulties, intoxicated)
- Have insufficient English comprehension

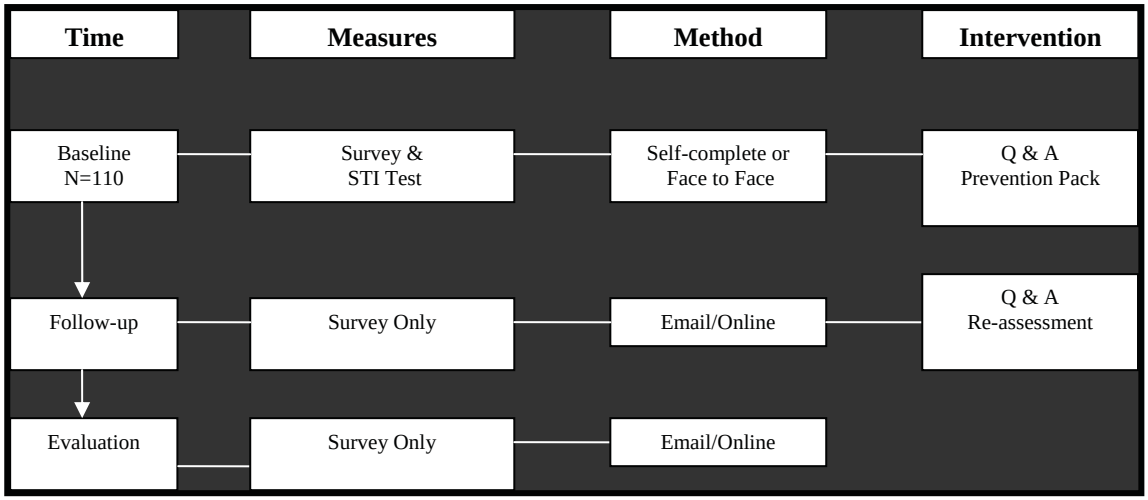
Recruitment and Follow-up Procedures

The project approached and obtained the consent of managers/owners of hostel/backpacking accommodation located within inner city Brisbane, Australia. At recruitment informed consent was

obtained from potential participants. At this time participants were asked to self-complete, or be administered a short questionnaire and to provide a urine sample for Chlamydia trachomatis testing. Interviewers administered the questionnaire to facilitate reliability in reporting sensitive behaviours (Vanable et al., 2009).

Follow-up occurred through email contact 28 days after completion of the survey instrument. At follow-up participants were asked to self-complete an on-line survey. Vanable et al. (2009) cite a decreased reliability in data recall about the most recent sex event if the recall period is three months or more, and so follow-up at 28 days is well within this timeline to test-retest.

Overview of Methodology



Reimbursements

Participants were reimbursed $AUD20 at recruitment, and $AUD20 was transferred to their Australian bank accounts (where available) at follow-up.

Monetary reimbursements are a standard practice in Australian Alcohol Tobacco and Other Drug related public health research. The Bellis et al. (2007) and Hughes, Downing, Bellis, Dillon, & Copeland (2009) study of UK backpackers in Sydney and Cairns offered $AUD10 cash reimbursements for participation in the cross-sectional study. The *Sex, Drugs & Backpacking* study however consists of two interviews and the provision of a urine sample.

Intervention

The intervention took two forms. Initially, when the survey was completed and returned the research assistant supplied a question-and-answer card to the study participant and clarified any questions asked. At follow-up the knowledge questions were re-administered to participants.

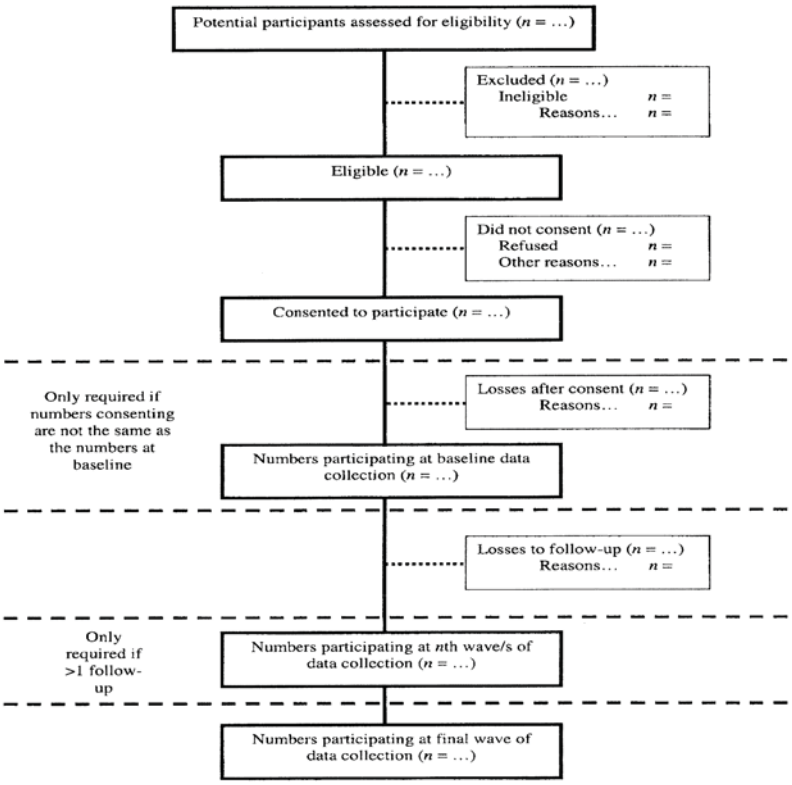
In addition to the question-and-answer cards, 'prevention packs' were also provided to study participants. The prevention packs contained condoms, water-based lubricant, standard drinking glass and related resources.

As other studies have described brochures as a sole agent as inadequate (Paz et al., 2004), the interviewer served several functions beyond questionnaire administration and included answering questions and queries from the question-and-answer cards, promoting safe behaviours and support services available for traveller access.

Reporting and Limitation

The *Sex, Drugs & Backpacking* study applied the Tooth, Ware, Bain, Purdie, & Dobson, (2005) checklist for reporting observational longitudinal research. This validated checklist / criteria is concerned with recruitment, data collection, biases, data analysis and descriptive issues relevant to the study rationale, population and the generalisability of findings. Building on the work of others, particularly that behind the CONSORT statement, the following diagram can be used to summarise sample selection, participant recruitment, eligibility criteria, consent and reasons for non-consent, timing of follow-up and attrition at each stage. This data will aid in assessing the viability of the methodology to conduct a Queensland-wide study and intervention.

Flow Diagram to Clarify Participation
Source: (Tooth et al., 2005)



Focus Test

A focus group of the questionnaire was undertaken as a quality activity to determine feasibility of, and interpretation of the questionnaire within international backpacker populations.

The focus test was designed to provide an interim measure of the questionnaire design, structure and layout. Within the focus test scenario a specific focus was on the ability of the international traveler to comprehend the questionnaire. As a large number of international backpackers are from English as second language countries, the focus test aims and objectives were threefold.

In the first instance, the focus test provided an insight to comprehension of question structure within the international backpacker population. This process was paramount as translated questionnaires were not available throughout the pilot study. To this end the objective was to identify any potential confounding factors prior to participant recruitment.

Secondly, the focus test aimed to ascertain the feasibility of the longitudinal study methodological design within the international backpacker population. Primary to this was the identification of the international backpacker population attraction to the remuneration scheme within the pilot study. To this end the objective was to ensure maximal participation throughout the study period including compliance at follow-up.

Finally, the focus test aimed to establish if the request to provide a urine screen would impact upon potential continued participation in the study. Securing a urine sample for Chlamydia screening was integral to the pilot study given the plethora of literature which describes the study target population as being at risk of sexually transmissible infections. To this end the objective sought clarification from the focus test group on issues of cultural relevance in obtaining a urine sample as an 'invasive procedure'.

Results- Initial Survey

The recruitment phase ran over 5 days (Monday – Friday), based at 'Biala' City Community Health Centre in Roma Street, Brisbane. One of the outcomes of the focus group was that the location of 'Biala' was the preferred venue for this study, compared to their hostel. This venue was conveniently located right next to a string of backpacker hostels in Brisbane City, which allowed fluid recruitment.

The sample size aimed for 110 conveniently recruited male and female international backpackers. However, the final sample size was 168 backpackers as a result of positive response to recruitment and sufficient funds to sustain an increased sample size.

Social and Demographic Descriptions

A total of 168 backpackers were successfully recruited and completed the questionnaire, with 160 consenting to providing a urine sample. The mean age of this sample was 23 (min = 18, max = 61), with 57.1% male. 76.6% arrived without a partner. 81.5% of the total cohort came from European backgrounds with English participants (24%) being the largest group represented. The countries most frequently visited prior to their arrival in Australia were all located within SE Asia: Thailand (27.6%), Singapore (18.6%), Cambodia and Laos (17.4%) and Malaysia (15.6%). The majority of respondents had been residing in Australia between 1 and 6 months, and in Brisbane itself for less than one month with most having traveled north from NSW. The majority of participants were planning to visit Cairns after their stay in Brisbane.

Patterns of Alcohol Consumption

The majority of the group was drinking on two to four days of the week (53.7%), with a small percentage consuming alcohol on none (7.2%) or on all seven days (7.8%). Binge drinking patterns were detected with 22.4% drinking at least 10 drinks when drinking, though 55.3% admitted they had no alcohol the day before. It was also found that 43% of the cohort drank more alcohol compared to back home. However 44.8% identified that they drink less than before and a further 22.8% admitted they were trying to reduce their drinking. Only 1.2% of the sample drinks alone, whilst 59.1% drinks with the same person or group most of the time.

Licensed premises and hostel accommodation were the most common places where drinking occurred.

Knowledge of Safe Alcohol Consumption Levels

The data highlights very limited knowledge and understanding of safe alcohol consumption levels. Majority of this group (53.3%) had never heard of the term 'standard drink' before. Of those who had heard of it, most of them (66.9%) did not understand what it was. When later asked if they could indicate the correct

Blood Alcohol Concentration level for drinking in Australia, only 36.2% of the cohort correctly identified the correct number out of four possibilities.

Reported Risk Behaviours Associated with Alcohol Consumption

The highest reported risk taking behaviour associated with alcohol consumption was unprotected sex (41.1%). The second highest alcohol related risk taking behaviour was swimming whilst under the influence (40.1%). 60% do not count the number of drinks they consume, however consuming food while drinking, having nonalcoholic drinks first to reduce thirst, and refusing alcoholic drinks when offered were the most commonly identified techniques for managing alcohol consumption. Another 24.3% also reported to creating a public disturbance or nuisance whilst under the influence of alcohol. Only a minority (less than 10%) had physically abused, stolen property or caused damage.

2.4% reported having been sexually assaulted, and 19.6% had experienced fear as a result of someone else's drinking. 31.5% had been verbally abused.

Patterns of Sexual Behaviour

Approximately a quarter (25.5%) did not have any sex since arriving in Australia, with another 29.1% and 25.5% having sex monthly and weekly respectively. 50% of the partners the last time respondents had sex were casual partners. Less than half the cohort reported having sex with 2 or more partners since arriving in Australia. 26.5% of sexual partners were Australian. 20.5% reported they were having more sex than in their home country, whilst 30% reported less sex. Interestingly, this paralleled perceptions of risk with 23.9% of respondents reporting they felt at greater sexual risk and 35.3% feeling at less or no sexual risk. 42% admitted to having had unprotected sex, of which 23% were with a casual partner. Nonetheless, the majority of the cohort (69%) was found to have increased their condom use since becoming a backpacker, though only 25% always used a condom with a further 18.6% using condoms most of the time. 82% reported consuming alcohol prior to having sex.

20.4% of the sample reported symptoms suggestive of an STI within the previous 12 months. 41% had never been tested for an STI and 10.2% had been tested in the previous 6 months. 5.4% had been tested for HIV in the previous 6 months.

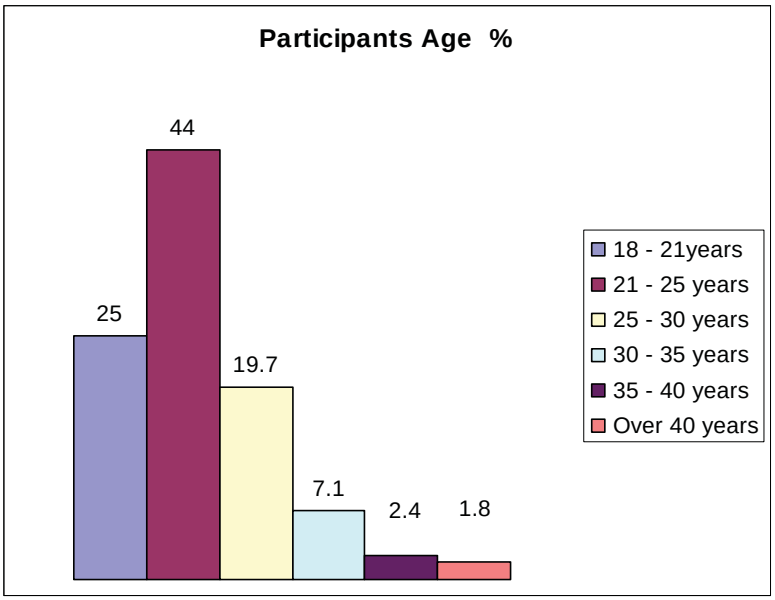
Health Care Usage

In the previous 4 weeks 24% had sought medical advice from a pharmacist, 7.8% from a sexual health service and 12% from a doctor. 8.9% and 13.3% had taken antibiotics in the previous month and three months respectively.

Prevalence of Chlamydia and Gonorrhoea

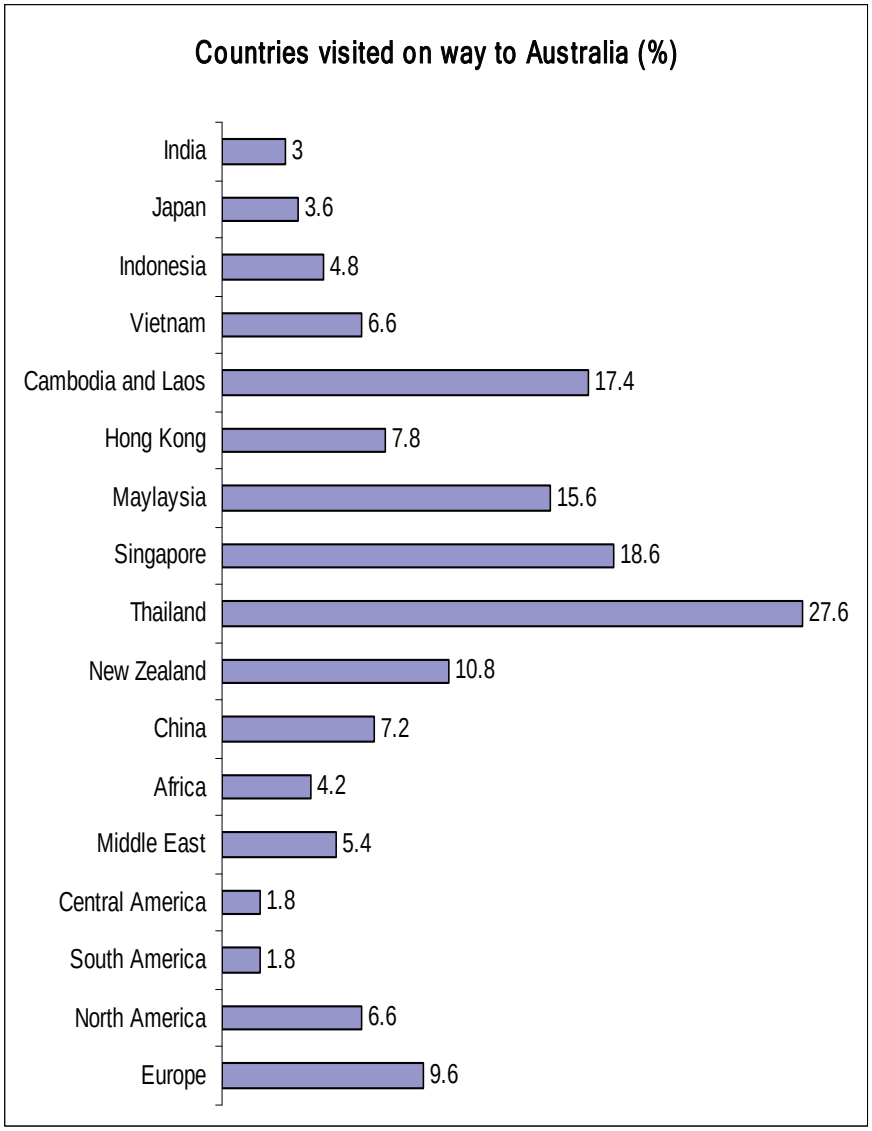
7 out of 160 tested positive for Chlamydia and none tested positive for Gonorrhea. This accommodates a Chlamydia prevalence rate of 4.3%.

Survey Results

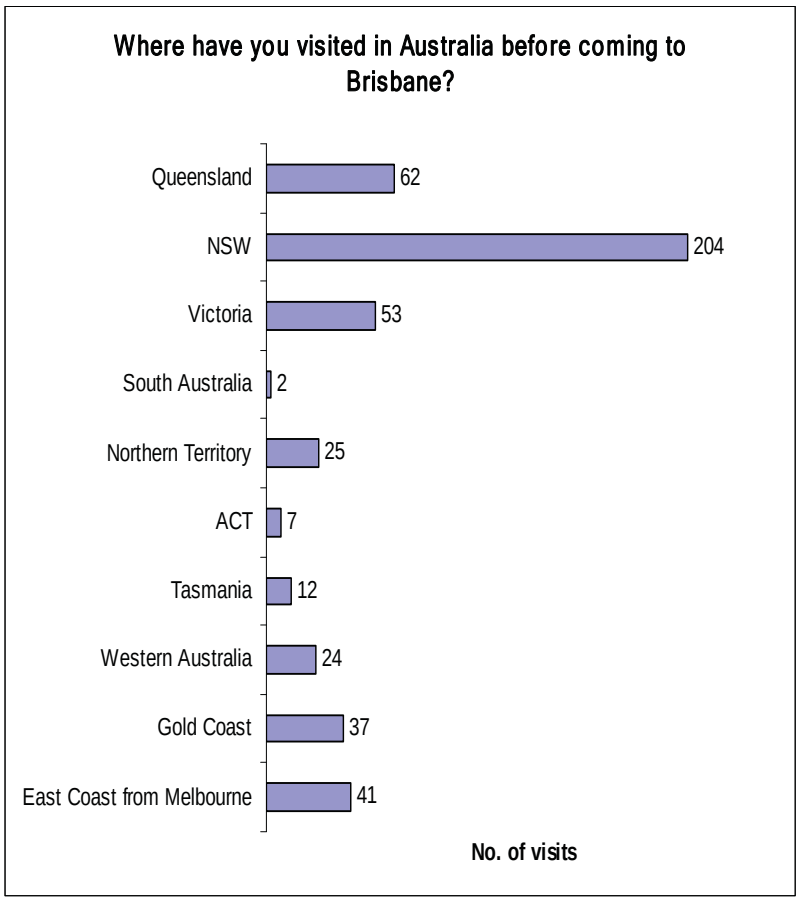


Gender of Participants N = 168	
Female	42.9
Male	57.1

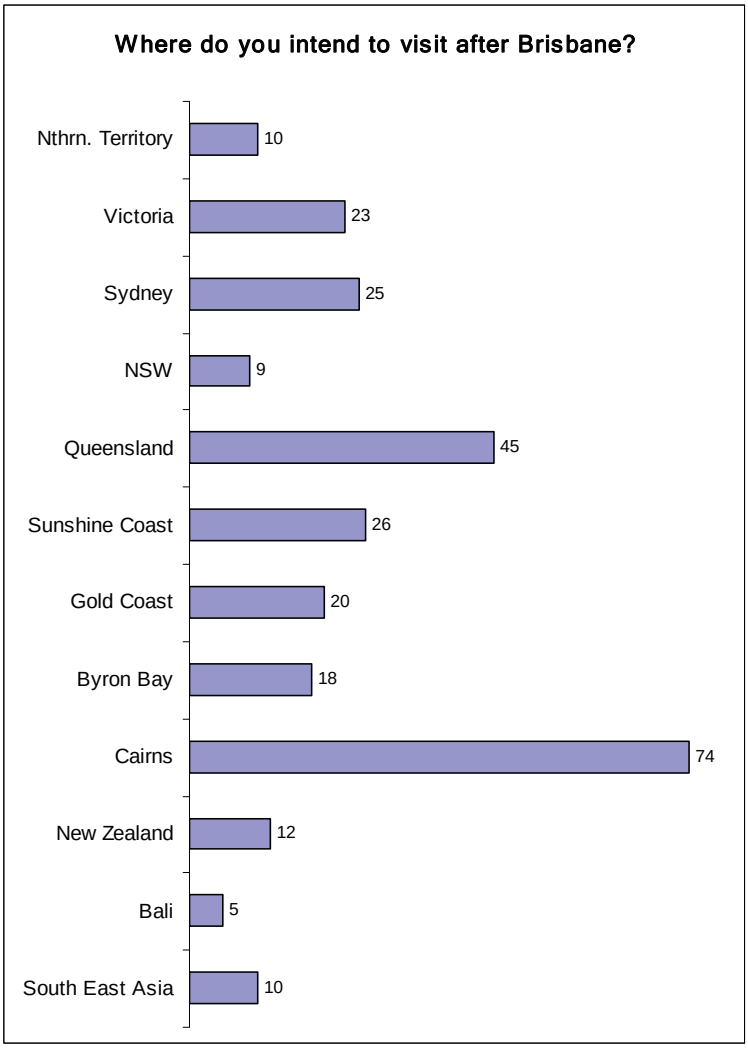
Country of Origin N = 168	
Europe	81.5%
Asia	9.6%
North America	6.6%
Africa	1.2%
Australasia	1.1%



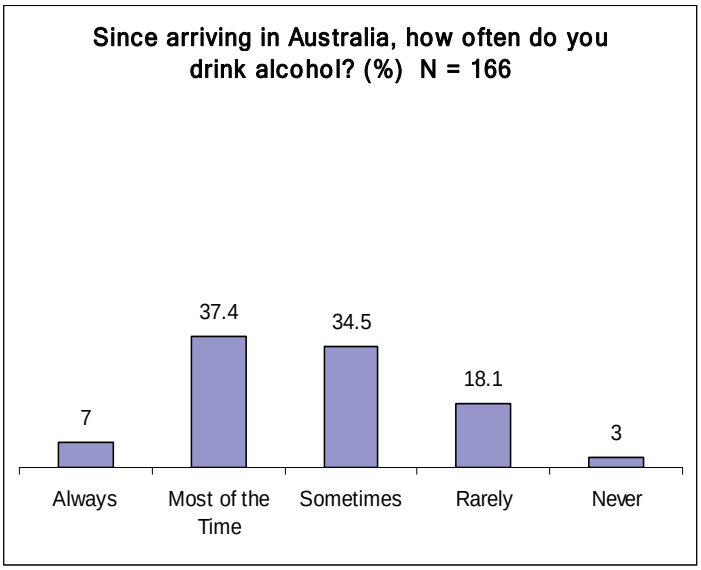
How long have you been in Australian? N = 168	
1 day to 4 weeks	28
4 weeks to 3 months	52
3 months to 6 months	52
6 months to 1 year	31
1 year or more	5
Total	168

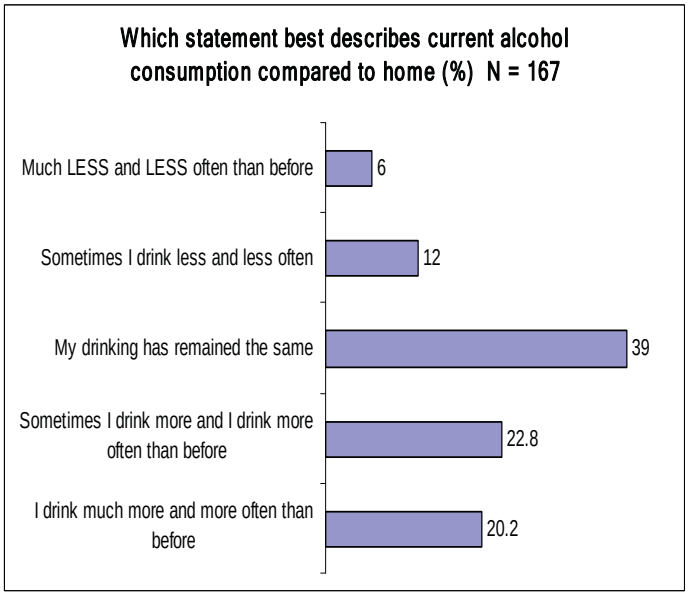


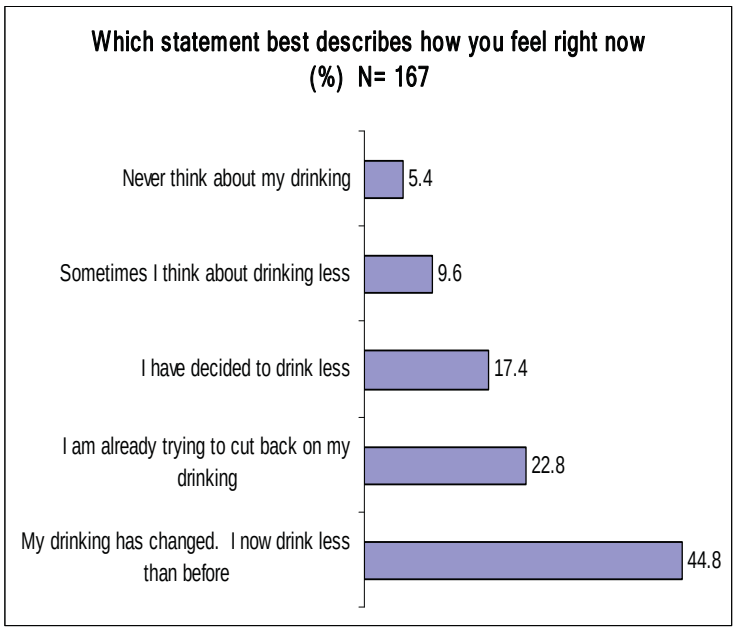
How long have you been in Brisbane? N = 168	
1 day to 4 weeks	119
4 weeks to 3 months	35
3 months to 6 months	9
6 months to 1 year	3
1 year or more	2
Total	168

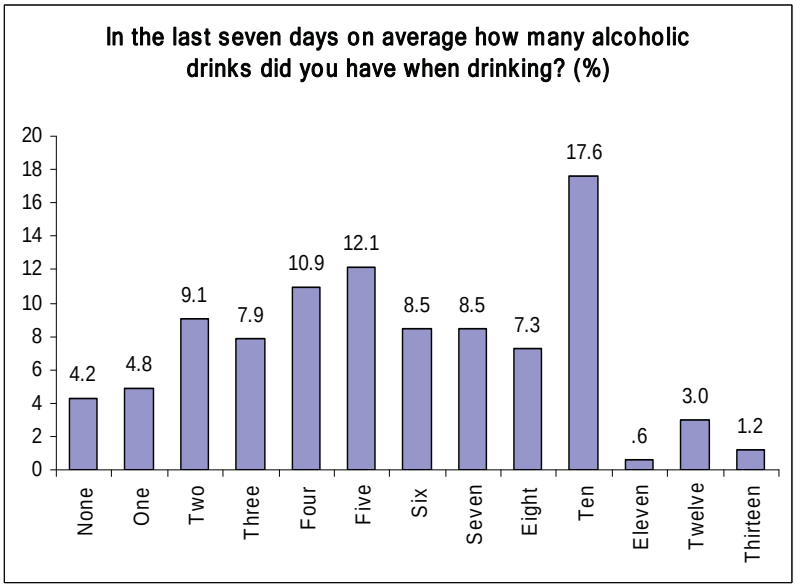

Where do you intend to visit after Brisbane?
Nthrn. Territory
10
Victoria
23
Sydney
25
NSW
9
Queensland
45
Sunshine Coast
26
Gold Coast
20
Byron Bay
18
Cairns
74
New Zealand
12
Bali
5
South East Asia
10


Which statement best describes who arrived with you in Australia (%) N = 167
With a group
37.7
With boyfriend/girlfriend
23.4
Alone
38.9


Since arriving in Australia, how often do you drink alcohol? (%) N = 166
7
37.4
34.5
18.1
3
Always
Most of the Time
Sometimes
Rarely
Never

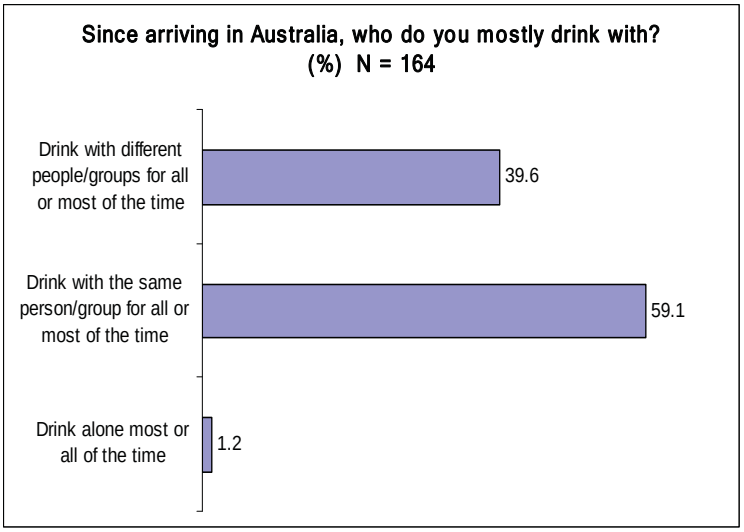

Which statement best describes current alcohol consumption compared to home (%) N = 167
Much LESS and LESS often than before
6
Sometimes I drink less and less often
12
My drinking has remained the same
39
Sometimes I drink more and I drink more often than before
22.8
I drink much more and more often than before
20.2

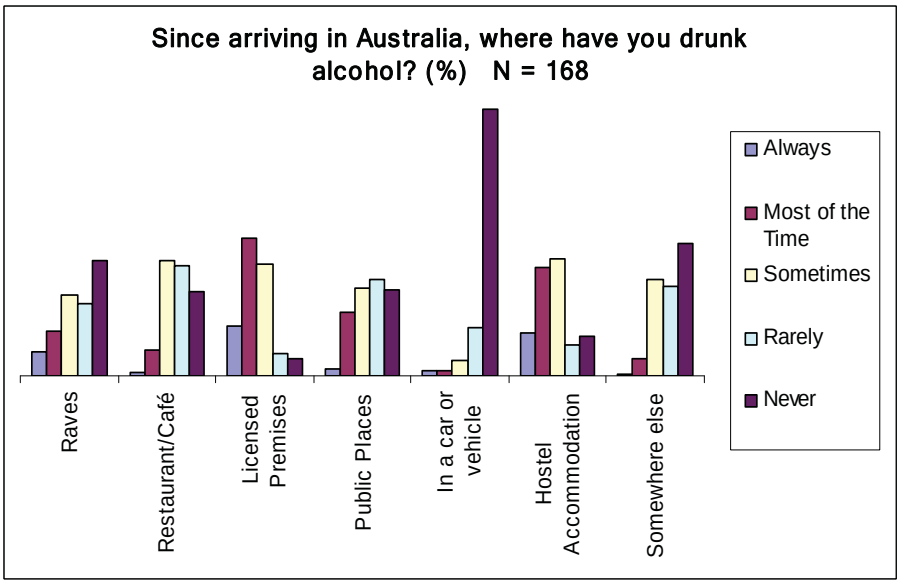

Which statement best describes how you feel right now
(%) N= 167
Never think about my drinking
5.4
Sometimes I think about drinking less
9.6
I have decided to drink less
17.4
I am already trying to cut back on my drinking
22.8
My drinking has changed. I now drink less than before
44.8

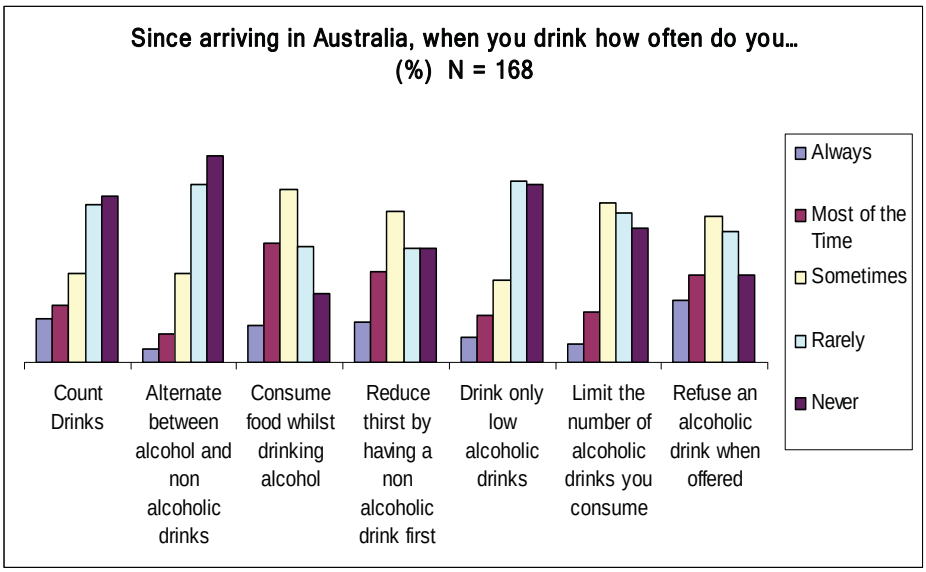

In the last seven days on average how many alcoholic drinks did you have when drinking? (%)
20
18
16
14
12
10
8
6
4
2
0
4.2
4.8
9.1
7.9
10.9
12.1
8.5
8.5
7.3
17.6
.6
3.0
1.2
None
One
Two
Three
Four
Five
Six
Seven
Eight
Ten
Eleven
Twelve
Thirteen

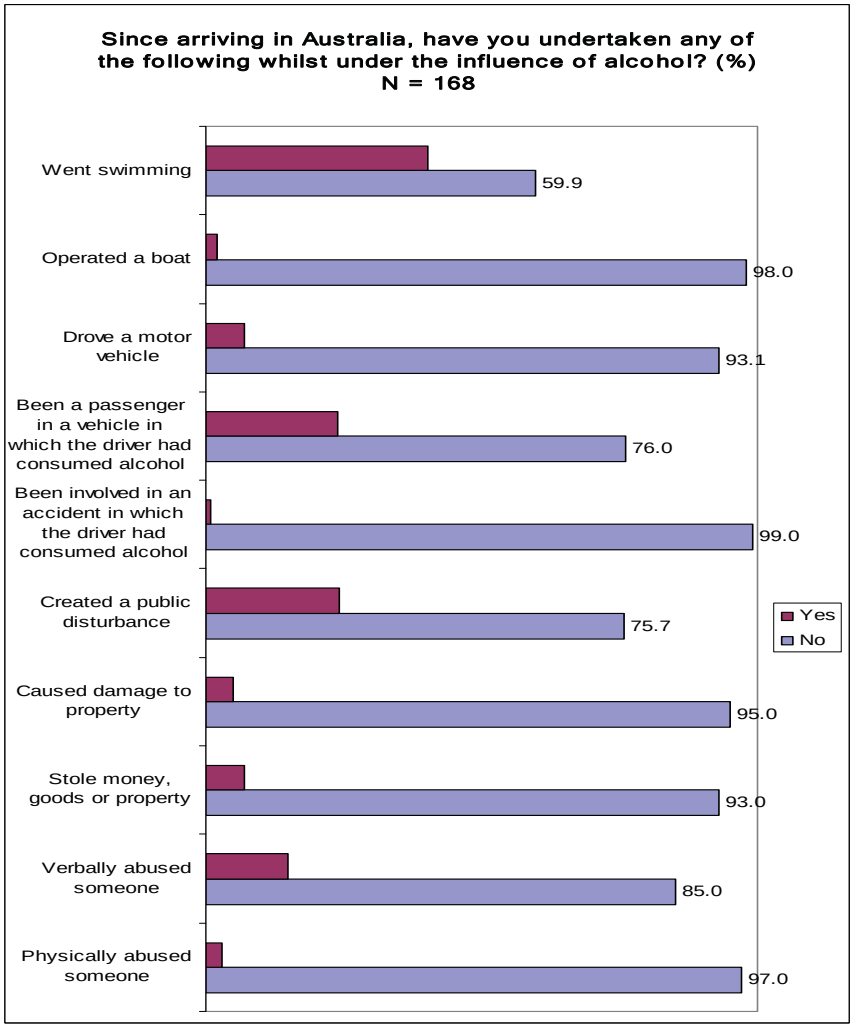

How many alcoholic drinks did you have yesterday? (%)
55.3
9.0
7.2
3.0
4.2
5.0
2.4
3.6
3.6
4.2
None
One
Two
Three
Four
Five
Six
Seven
Eight
Ten or more

Since arriving in Australia, how often have you been unable to remember what happened the night before?		
No. of times		Percentage
1	75	45.2
2	36	21.7
3	29	17.5
4	23	13.8
5	3	1.8
Total	166	

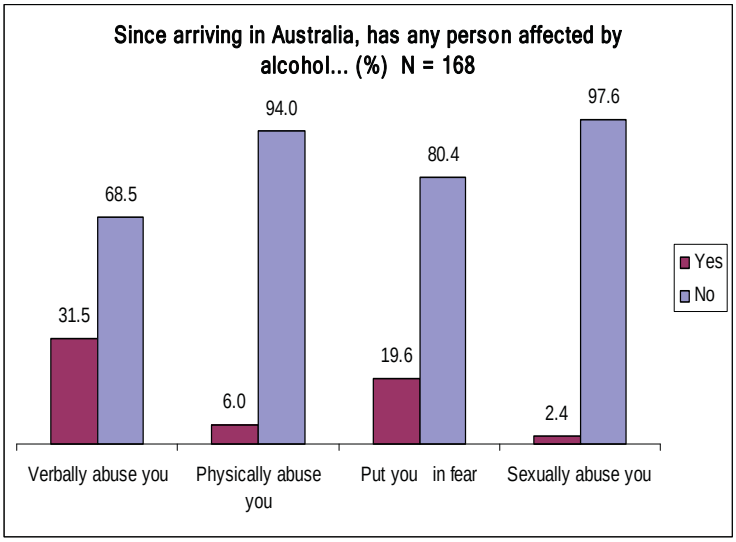


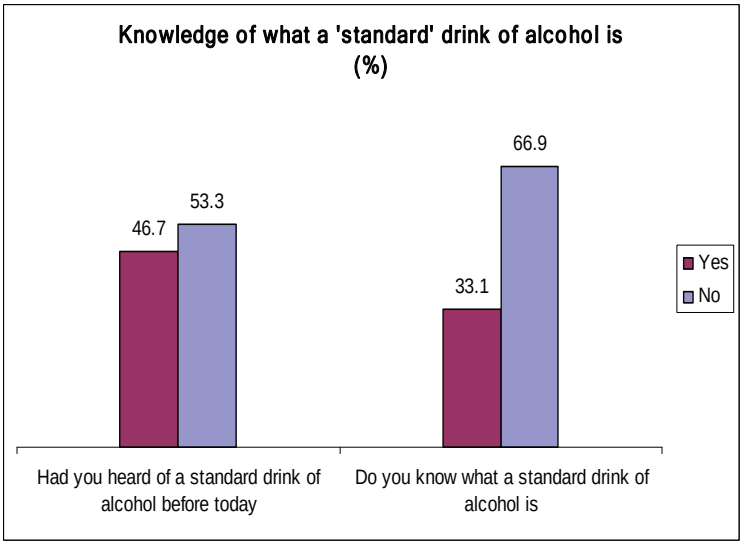


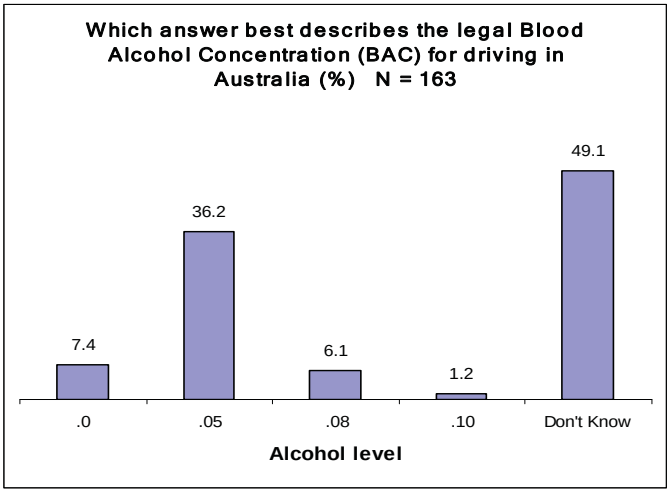

Since arriving in Australia, when you drink how often do you…
(%) N = 168
Always
Most of the Time
Sometimes
Rarely
Never
Count Drinks
Alternate between alcohol and non alcoholic drinks
Consume food whilst drinking alcohol
Reduce thirst by having a non alcoholic drink first
Drink only low alcoholic drinks
Limit the number of alcoholic drinks you consume
Refuse an alcoholic drink when offered

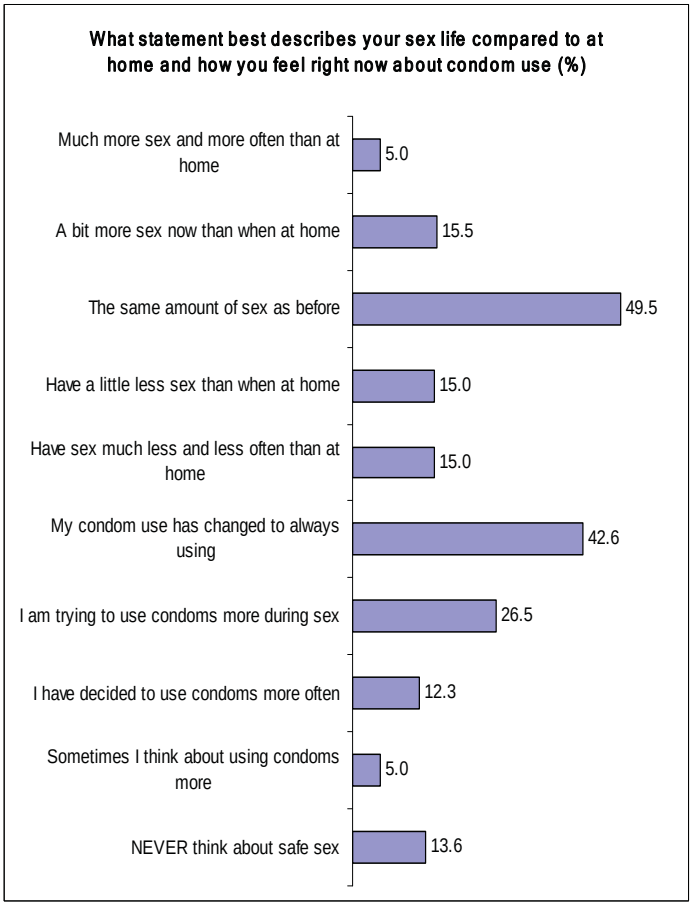

Since arriving in Australia, have you undertaken any of the following whilst under the influence of alcohol? (%)
N = 168
Went swimming
59.9
Operated a boat
98.0
Drove a motor vehicle
93.1
Been a passenger in a vehicle in which the driver had consumed alcohol
76.0
Been involved in an accident in which the driver had consumed alcohol
99.0
Created a public disturbance
75.7
Caused damage to property
95.0
Stole money, goods or property
93.0
Verbally abused someone
85.0
Physically abused someone
97.0
Yes
No

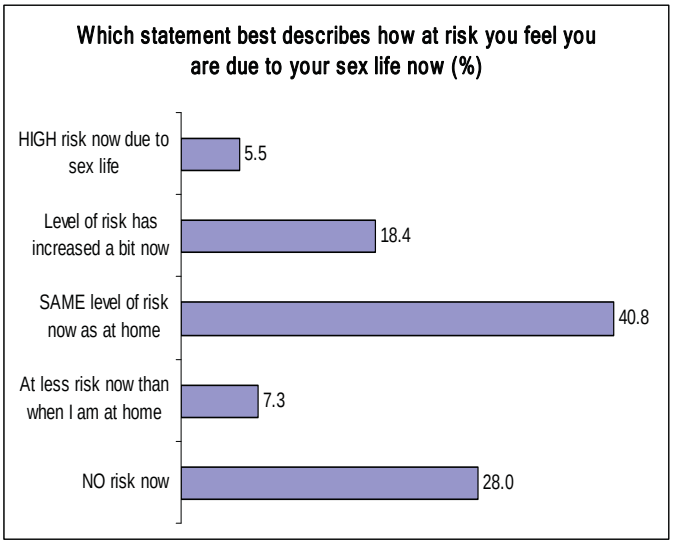
Number that had unprotected sex (%)		If 'Yes' your partner was: (%)		
		Regular Partner	Casual Partner	Other
Yes	42.0	14	23	5.0
No	58.0			

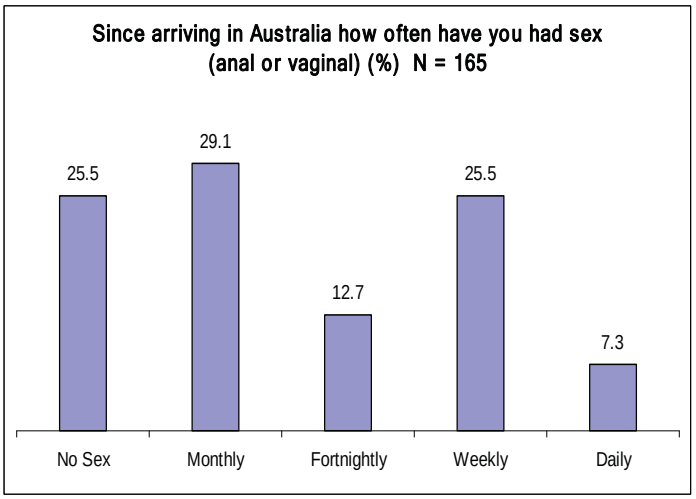


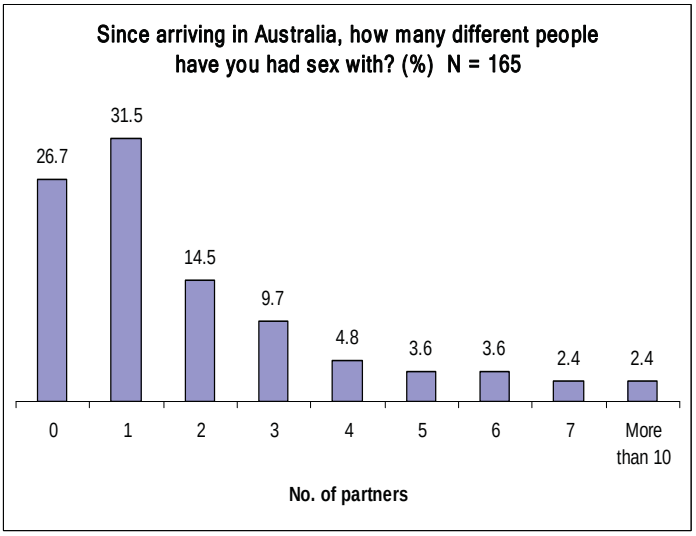


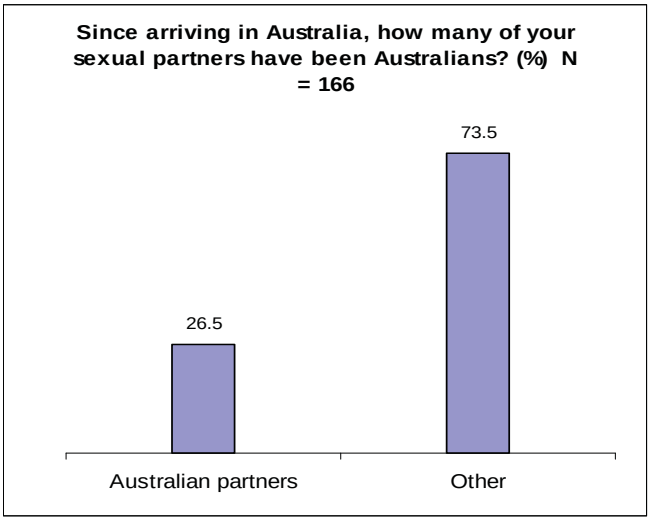

Which answer best describes the legal Blood Alcohol Concentration (BAC) for driving in Australia (%) N = 163
49.1
36.2
7.4
6.1
1.2
.0
.05
.08
.10
Don't Know
Alcohol level

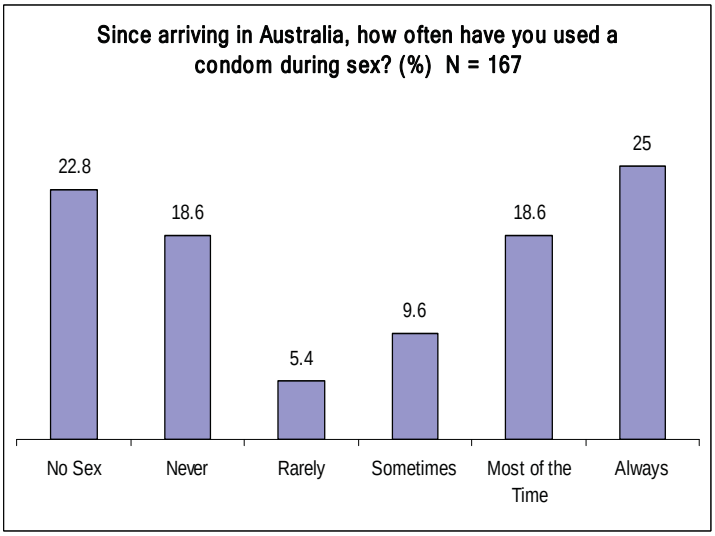

What statement best describes your sex life compared to at home and how you feel right now about condom use (%)
Much more sex and more often than at home
5.0
A bit more sex now than when at home
15.5
The same amount of sex as before
49.5
Have a little less sex than when at home
15.0
Have sex much less and less often than at home
15.0
My condom use has changed to always using
42.6
I am trying to use condoms more during sex
26.5
I have decided to use condoms more often
12.3
Sometimes I think about using condoms more
5.0
NEVER think about safe sex
13.6

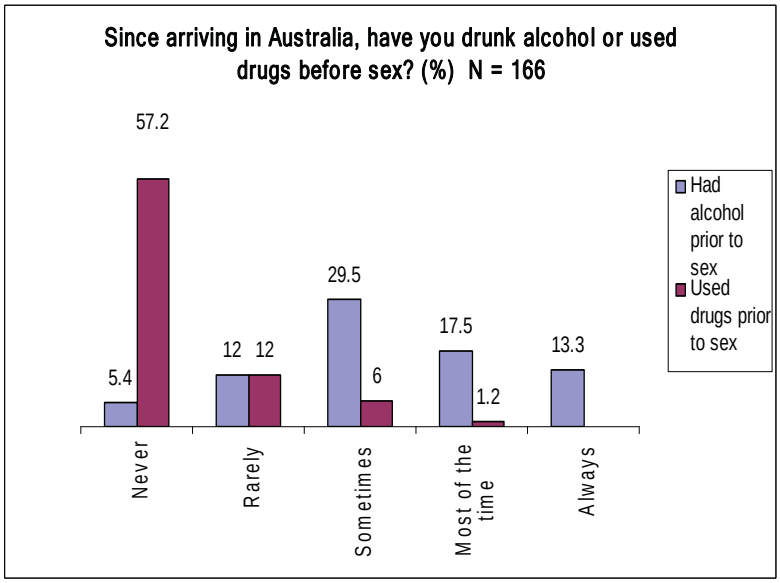

Which statement best describes how at risk you feel you are due to your sex life now (%)
HIGH risk now due to sex life
5.5
Level of risk has increased a bit now
18.4
SAME level of risk now as at home
40.8
At less risk now than when I am at home
7.3
NO risk now
28.0


Since arriving in Australia how often have you had sex (anal or vaginal) (%) N = 165
25.5
29.1
12.7
25.5
7.3
No Sex
Monthly
Fortnightly
Weekly
Daily

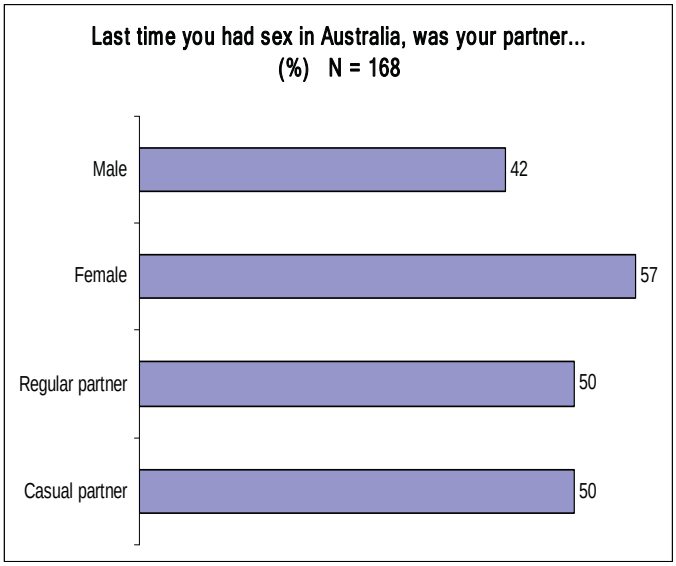

Since arriving in Australia, how many different people have you had sex with? (%) N = 165
26.7
31.5
14.5
9.7
4.8
3.6
3.6
2.4
2.4
0
1
2
3
4
5
6
7
More than 10
No. of partners

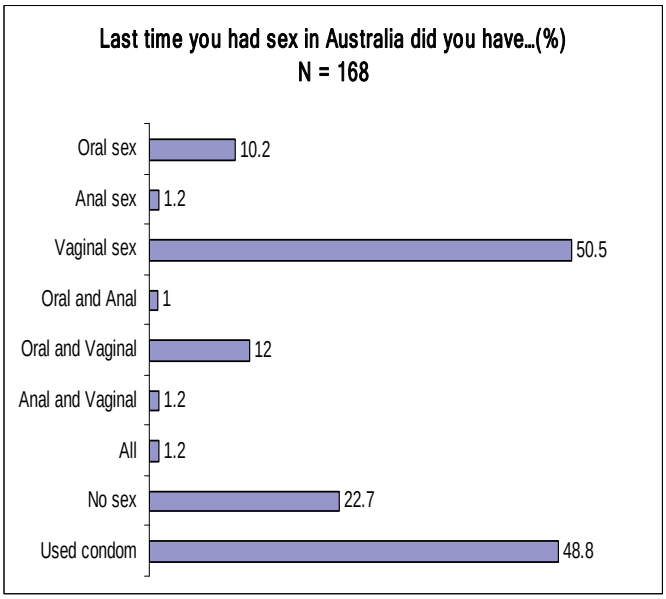

Since arriving in Australia, how many of your sexual partners have been Australians? (%) N = 166
73.5
26.5
Australian partners
Other

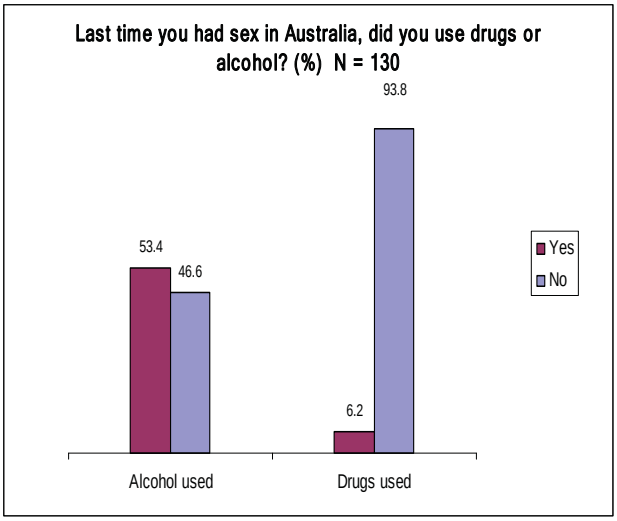

Since arriving in Australia, how often have you used a condom during sex? (%) N = 167
22.8
18.6
5.4
9.6
18.6
25
No Sex
Never
Rarely
Sometimes
Most of the Time
Always

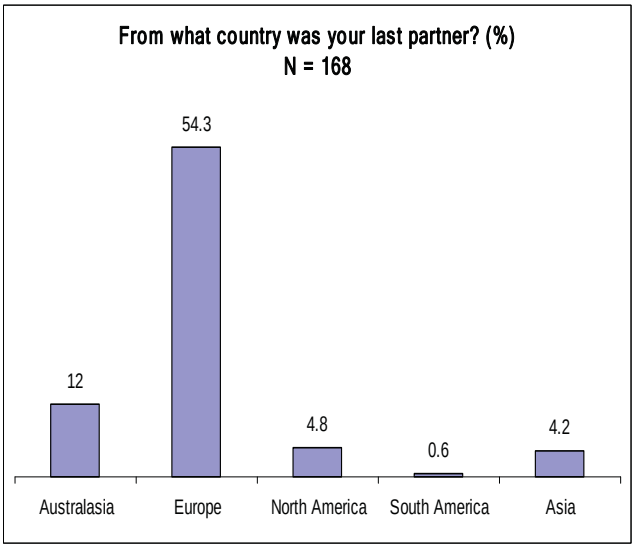

Since arriving in Australia, have you drunk alcohol or used drugs before sex? (%) N = 166
57.2
5.4
12
12
29.5
6
17.5
1.2
13.3
Never
Rarely
Sometimes
Most of the time
Always
Had alcohol prior to sex
Used drugs prior to sex

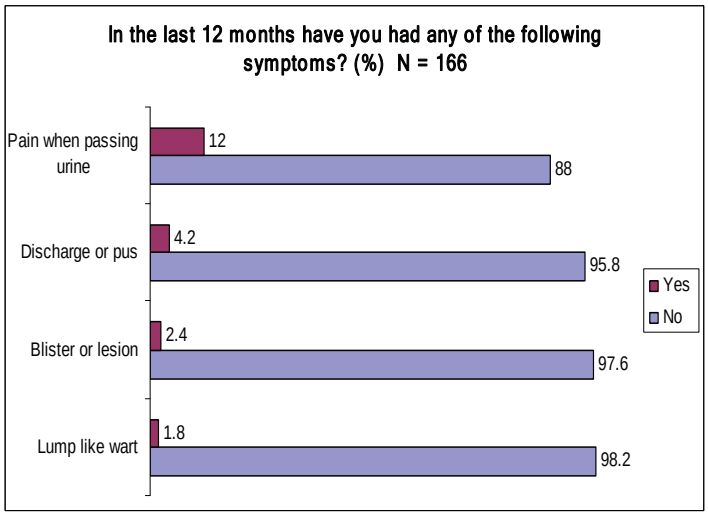
Since arriving in Australia, have you been forced to have sex when you did not want to N = 163		
Don't know	7	4.3%
No	152	93.2%
Yes	4	2.5%

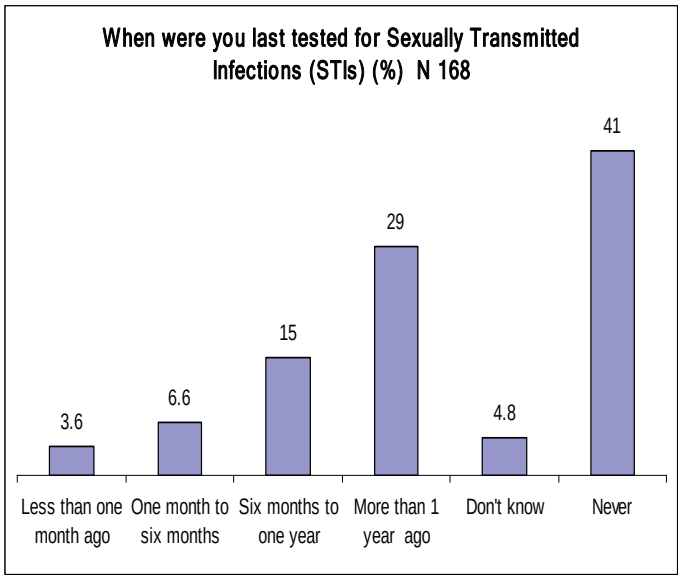


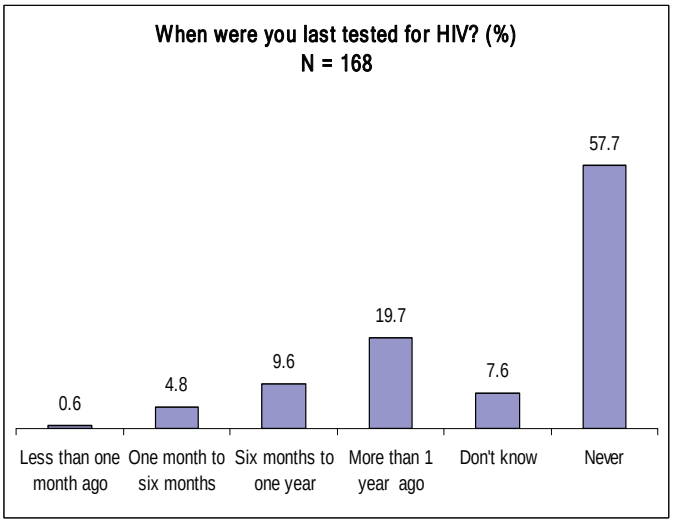


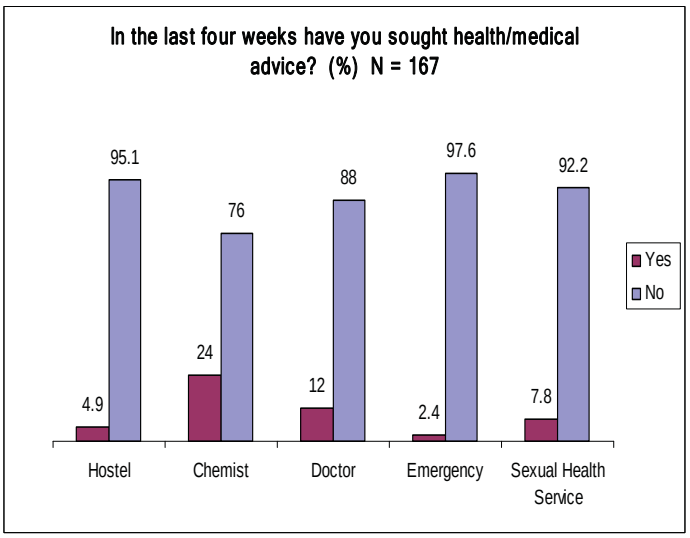

Last time you had sex in Australia, did you use drugs or alcohol? (%) N = 130
53.4
46.6
6.2
93.8
Yes
No
Alcohol used
Drugs used

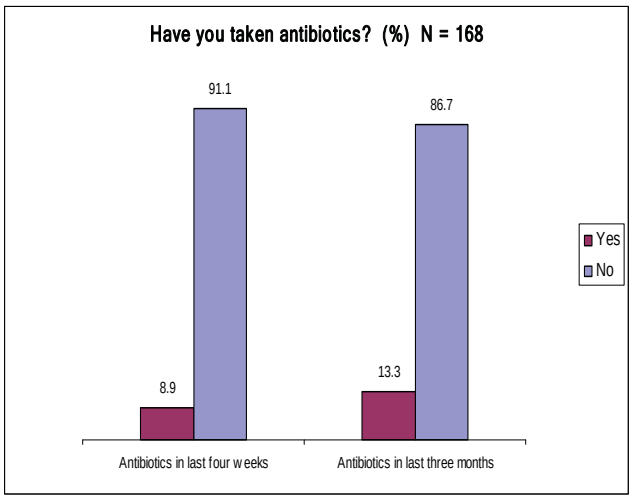

From what country was your last partner? (%) N = 168
12
54.3
4.8
0.6
4.2
Australasia
Europe
North America
South America
Asia


In the last 12 months have you had any of the following symptoms? (%) N = 166
Pain when passing urine
12
88
Discharge or pus
4.2
95.8
Blister or lesion
2.4
97.6
Lump like wart
1.8
98.2
Yes
No


When were you last tested for Sexually Transmitted Infections (STIs) (%) N 168
3.6
6.6
15
29
4.8
41
Less than one month ago
One month to six months
Six months to one year
More than 1 year ago
Don't know
Never


When were you last tested for HIV? (%) N = 168
0.6
4.8
9.6
19.7
7.6
57.7
Less than one month ago
One month to six months
Six months to one year
More than 1 year ago
Don't know
Never


In the last four weeks have you sought health/medical advice? (%) N = 167
4.9
95.1
24
76
12
88
2.4
97.6
7.8
92.2
Hostel
Chemist
Doctor
Emergency
Sexual Health Service
Yes
No



Will you be in Australia 28 days from now?		
Hope so	1	.6
Maybe	2	1.2
No	29	17.3
Yes	136	81.0
Total	168	

Results- Follow up survey

Follow-up of participants occurred through email contact 28 days after completion of the survey instrument. At follow-up participants were asked to self-complete an on-line survey. As with the initial survey, respondents were reimbursed $20 deposited electronically to their Australian bank accounts.

Social and Demographic Descriptions

A total of 91 backpackers were successfully followed up and completed the questionnaire (54.2% follow-up rate). 35.2% of participants remained in Brisbane; a quarter had traveled interstate, whilst 10.9% had left for overseas. 4.4% (4) respondents had returned home. 24.1% of the sample was intending to travel overseas following their current location, whilst the remainder would be visiting other regions of Queensland or interstate. 44% were travelling alone, and 17.6% were travelling with a partner.

Patterns of Alcohol Consumption

37% of the sample reported that they were drinking less than reported 4 weeks, whilst 47.8% remained unchanged. 35.9% stated that they never thought about their drinking whilst the remainder contemplated reducing their alcohol intake to varying degrees. There was a small increase in the number of respondents drinking on two to four days of the week (64.9% vs 53.7%), with a smaller increase consuming alcohol on none (11% vs 7%) and none drinking on all seven days (0% vs 8%). Binge drinking patterns were detected with 22.4% drinking at least 10 drinks when drinking in the last 7 days.

In the previous 4 weeks, 56% did not report being unable to remember what happened the night before as a consequence to their drinking. Only 2.2% reported drinking alone while 67.8% drank with the same person or group for all or most of the time. Licensed premises and hostel accommodation were rated as the locations where alcohol was most commonly consumed. Raves/dance parties or motor vehicles were the sites least associated with drinking.

Knowledge of Safe Alcohol Consumption Levels

The previous survey highlighted very limited knowledge and understanding of safe alcohol consumption levels. However, 4 weeks later, 90.1% of this group (cf 53.3%) had heard of the term ‘standard drink’ before. Of those who had heard of it, only a minority (24.2% vs 66.9%) did not understand what it was. When asked if they could indicate the correct Blood Alcohol Concentration level for drinking in Australia, 62.6% (cf 36.2%) of the cohort could correctly identified the correct number out of four possibilities.

Reported Risk Behaviours Associated with Alcohol Consumption

The highest reported risk taking behaviour associated with alcohol consumption was unprotected sex but the reported numbers were almost half to that reported 4 weeks previously (23.3% vs 41.1%). The second highest alcohol related risk taking behaviour was being a passenger in a vehicle where the driver had recently consumed alcohol (18.9%). Swimming whilst under the influence had greatly reduced (13.2% vs 40.1%). Previously 24.3% reported creating a public disturbance or nuisance whilst under the influence of alcohol, but 4 weeks later, only 7.7% reported this.

Over the previous 4 weeks, 17% reported being verbally abused by a person affected by alcohol, whilst 10.2% felt fearful and 2.3% had been sexually abused.

34.1% (cf 60%) do not ever count the number of drinks they consume when they are drinking. Eating, drinking non alcoholic drinks first (to reduce thirst) and limiting the number of drinks were reported as preventive strategies used by a majority of respondents. 28.6% admitted to never refusing an alcoholic drink offered to them even if they didn't really want one.

Patterns of Sexual Behaviour

43.5% of respondents reported unprotected sex with a casual partner. 54.5% reported their level of sexual activity as unchanged compared with 4 weeks ago, whilst 31.0% reported a reduction in sex. 55.5% of the sample reported currently using condoms more or always. 34% believed that their sexual risks were the same as 4 weeks previous whilst 6.5% reported increased risk. The majority reported their risk as less. Over the previous 4 weeks, 11.1% had sex monthly (cf 29.1%) and 23.3% had sex weekly (cf 25.5%). The majority, 40%, had not had sex over the 4 week follow up period. 28% reported always using a condom (cf 25%). Over the previous 4 weeks 49.4% reported consuming alcohol prior to having sex (cf 82%), whilst 13.2% consumed other drugs.

30.7% of all respondents reported having sex with more than one person in the previous 4 weeks. Only 14.3% of previous sexual partners were Australian- the majority of sexual partners were from Europe (58.3%).

One respondent reported forced sex in the previous month. The last time the respondents had sex, 67.5% reported oral sex, 4.4% reported anal and 92.9% reported vaginal sex. 58.6% reported using condoms on the last occasion they had sex, 52.9% had consumed alcohol and 3.6% had consumed drugs. 47.1% had sex with a casual partner the last time they had sex.

4.5% reported symptoms suggestive of an STI over the previous 4 weeks. Since the previous survey 19.3% and 4.5% had been tested for STIs and HIV respectively.

Health Care Usage

4.5% of the sample reported being admitted to a hospital during the current backpacking holiday due to alcohol related behaviour or injury. In the previous 4 weeks 18.1% had sought medical advice from a pharmacist, 12.5% from a sexual health service and 10.2% from a doctor. 5.7% of the sample had taken antibiotics in the previous 4 weeks.

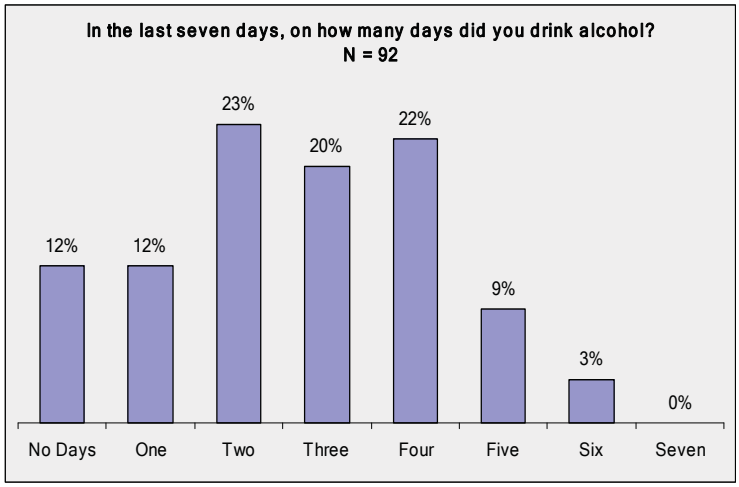
Interestingly, 44.8% of respondents admitted that participating in the study had made them think about their alcohol and sexual behaviour, 21.8% reported that it had some effect on changing their behaviour, 1.1% had a significant effect and 32.2% reported no impact on behaviour.

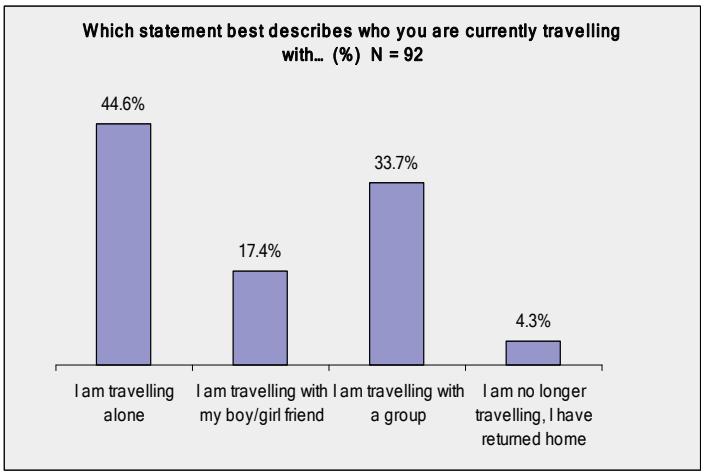
Follow Up Survey Results

What town are you currently visiting? N = 91	
Brisbane	32
Queensland	28
Interstate	21
Overseas	10

How long have you been at this location? N = 89	
1 week or less	30
1 week to 4 weeks	29
4 weeks to 6 months	26
6 months to 1 year	3

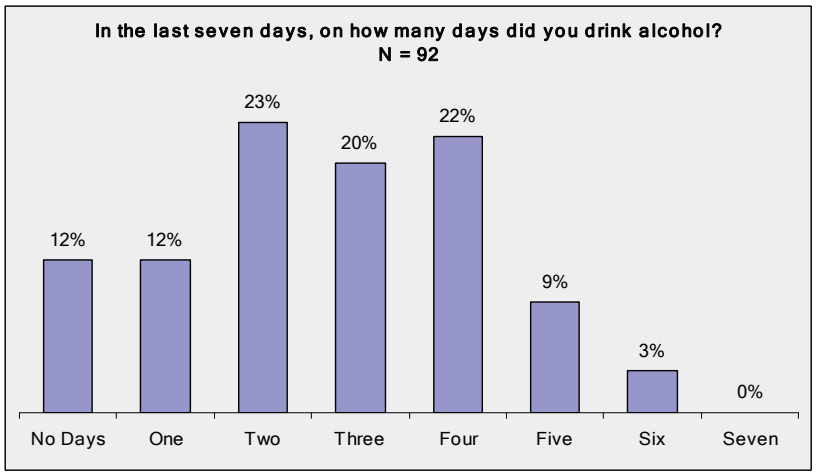
Where do you intend to visit after this location? N = 87	
Brisbane	4
Queensland	20
Interstate	38
Overseas	21
Not Sure	4





Which statement best describes your current consumption of alcohol, compared to four weeks ago (%) N = 92				
I drink MUCH LESS and LESS often	**Sometimes I drink LESS and LESS often**	**My drinking has remained the same**	**Sometimes I drink MORE and MORE often**	**I drink MUCH MORE and MORE often**
9.8	27.2	47.8	8.7	6.5

Which statement best describes how you feel <u>right now</u> about your alcohol use (%) N = 92				
I NEVER think about my drinking	**Sometimes I think about drinking less**	**I have decided to drink less**	**I am already trying to cut back on my drinking**	**I now drink less than before**
35.9	31.5	20.7	8.7	3.3

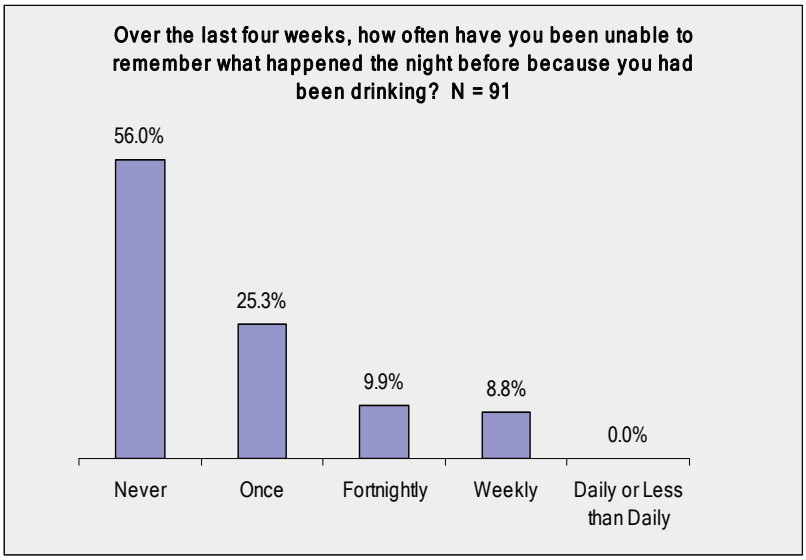


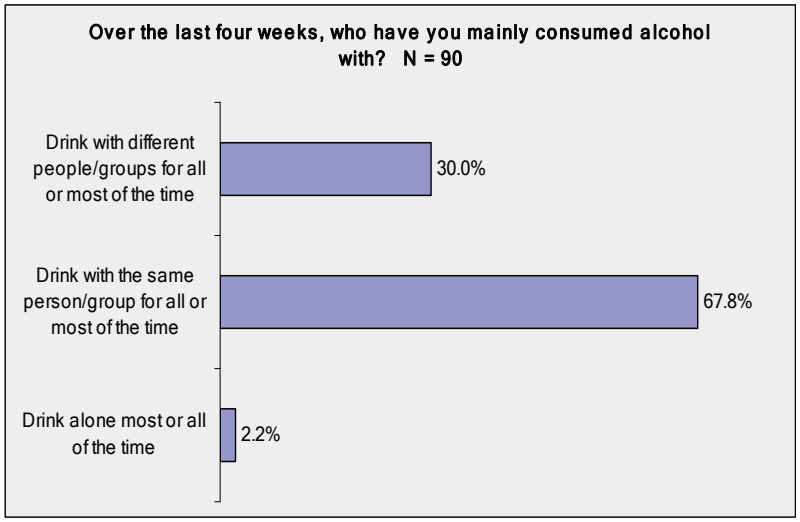
In the last seven days, on average, how many alcoholic drinks did you have when you were drinking? N = 90	
No. of Alcoholic Drinks	**Responses**
0	9
1 to 3 drinks	19
4 to 5 drinks	22
6 to 10 drinks	16
More than 10 drinks	18
Other	6

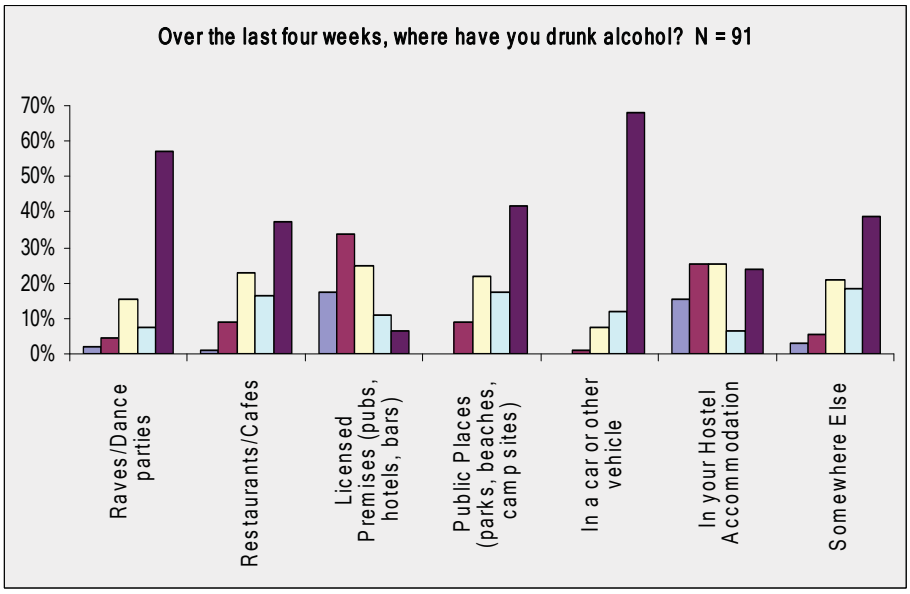
Other: 1 six pack
2-3 litres of wine
½ bottle wine
1 goon
2 bottles beer
3 jugs wine

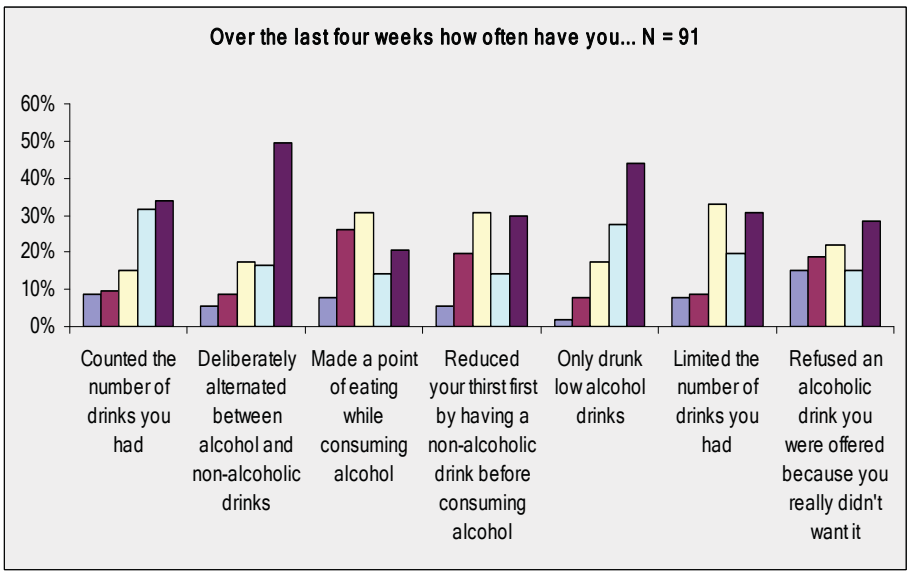
Yesterday, how many alcoholic drinks did you drink? N = 91	
No. of Alcoholic Drinks	**Responses**
0	47
1 to 3 drinks	22
4 to 5 drinks	5
6 to 10 drinks	7
More than 10 drinks	7
Other	3

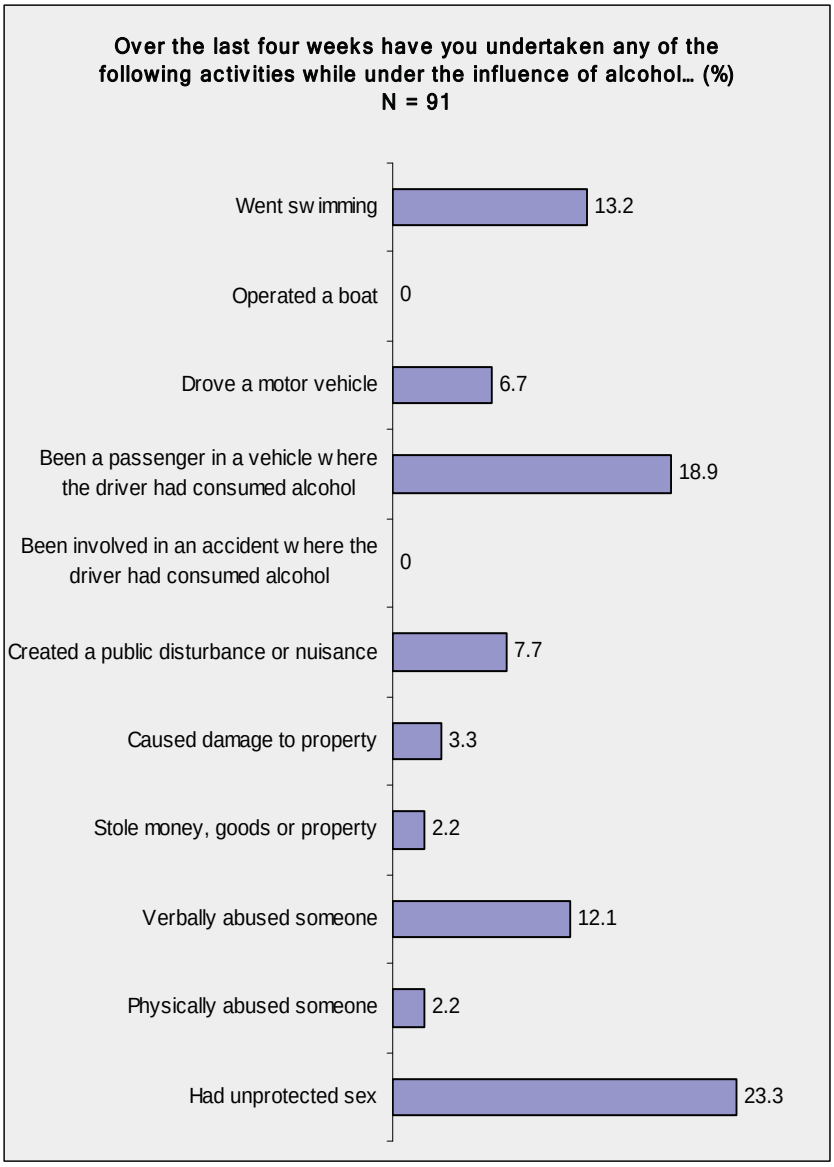
Other: 1 jug
2 goons
2 bottles beer

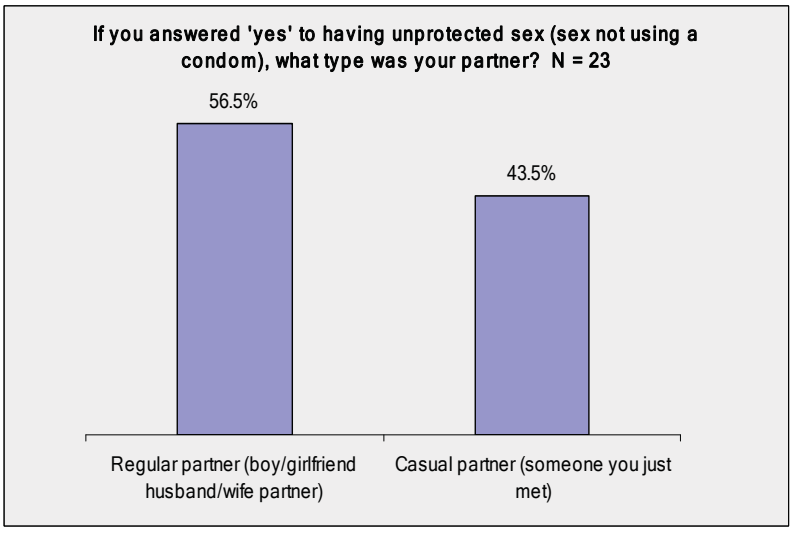


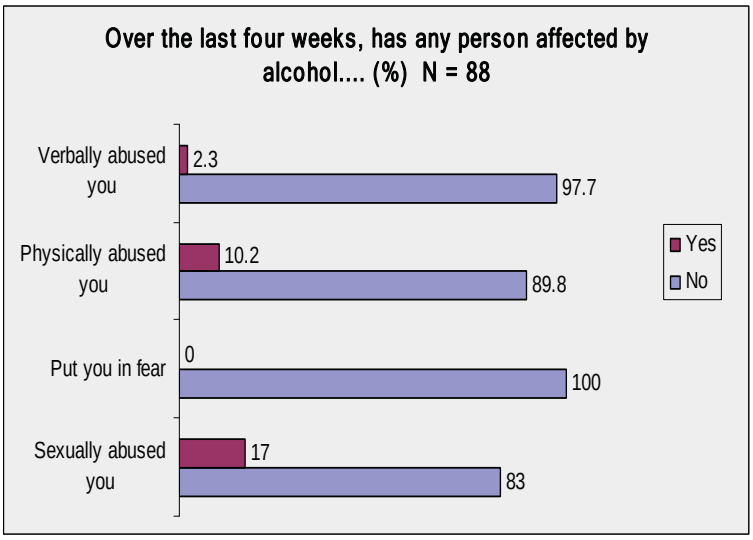

Over the last four weeks, who have you mainly consumed alcohol with? N = 90
Drink with different people/groups for all or most of the time
30.0%
Drink with the same person/group for all or most of the time
67.8%
Drink alone most or all of the time
2.2%


Over the last four weeks, where have you drunk alcohol? N = 91
70%
60%
50%
40%
30%
20%
10%
0%
Raves/Dance parties
Restaurants/Cafes
Licensed Premises (pubs, hotels, bars)
Public Places (parks, beaches, camp sites)
In a car or other vehicle
In your Hostel Accommodation
Somewhere Else


Over the last four weeks how often have you... N = 91
60%
50%
40%
30%
20%
10%
0%
Counted the number of drinks you had
Deliberately alternated between alcohol and non-alcoholic drinks
Made a point of eating while consuming alcohol
Reduced your thirst first by having a non-alcoholic drink before consuming alcohol
Only drunk low alcohol drinks
Limited the number of drinks you had
Refused an alcoholic drink you were offered because you really didn't want it

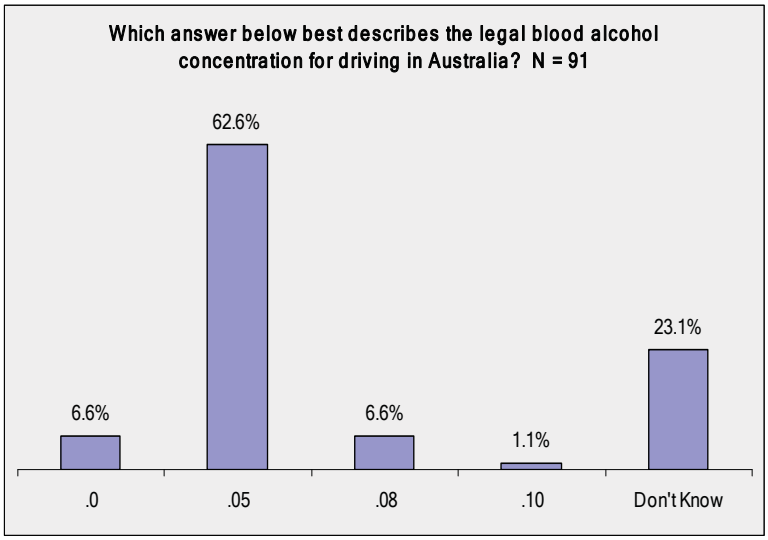

Over the last four weeks have you undertaken any of the following activities while under the influence of alcohol… (%)
N = 91
Went swimming
13.2
Operated a boat
0
Drove a motor vehicle
6.7
Been a passenger in a vehicle where the driver had consumed alcohol
18.9
Been involved in an accident where the driver had consumed alcohol
0
Created a public disturbance or nuisance
7.7
Caused damage to property
3.3
Stole money, goods or property
2.2
Verbally abused someone
12.1
Physically abused someone
2.2
Had unprotected sex
23.3


If you answered 'yes' to having unprotected sex (sex not using a condom), what type was your partner? N = 23
56.5%
43.5%
Regular partner (boy/girlfriend husband/wife partner)
Casual partner (someone you just met)



Before today had you ever heard of a 'standard' drink of alcohol?		
	Percent	Response Count
Yes	90.1	82
No	9.9	9

Do you know what a 'standard' drink of alcohol is?		
	Percent	Response Count
Yes	75.8	69
No	24.2	22



Which statement best describes your sex life now compared to four weeks ago (%) N = 90				
I have sex MUCH LESS and LESS often	I have a bit LESS sex now	The amount of sex has remained the same	I have a bit more sex now	I have sex MUCH MORE and MORE often
17.7	13.3	55.5	11.2	2.3

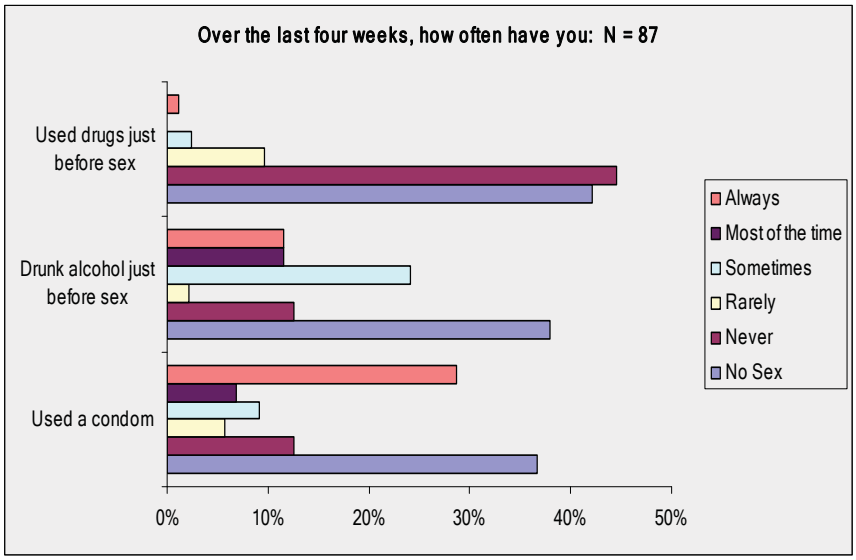
Which statement best describes how you feel right now about condom use (%) N = 90				
I NEVER think about safe sex	I sometimes think about using condoms more	I have decided to use condoms more often	I am already trying to use condoms more	My condom use has changed to using condoms always
13.5	11.0	20.0	15.5	40.0

Which statement best describes how much at risk you think you are due to your sex life now compared to four weeks ago (%) N = 90				
I think that I am at NO risk	I think I am at LESS risk now	I think I am at the SAME level of risk	I think my level of risk has INCREASED a bit	I think that I am at HIGH risk now
38.5	21.0	34.0	5.5	1.0

Over the last four weeks, how often have you had sex (anal or vaginal)? N = 90		
	Responses	Percent
Daily	8	8.9
Weekly	21	23.3
Fortnightly	15	16.7
Once	10	11.1
No Sex	36	40.0

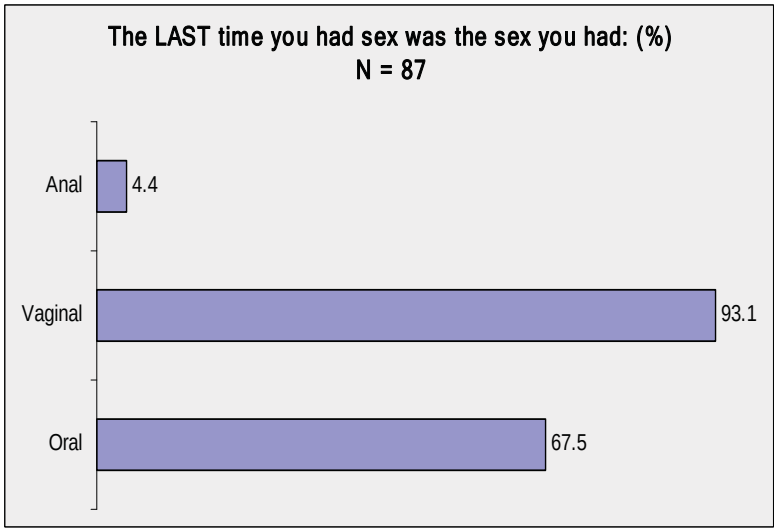
Over the past four weeks, how many different people have you had sex with? N = 88	
None	34
One	24
Two	16
Three	9
Four	0
Five	2

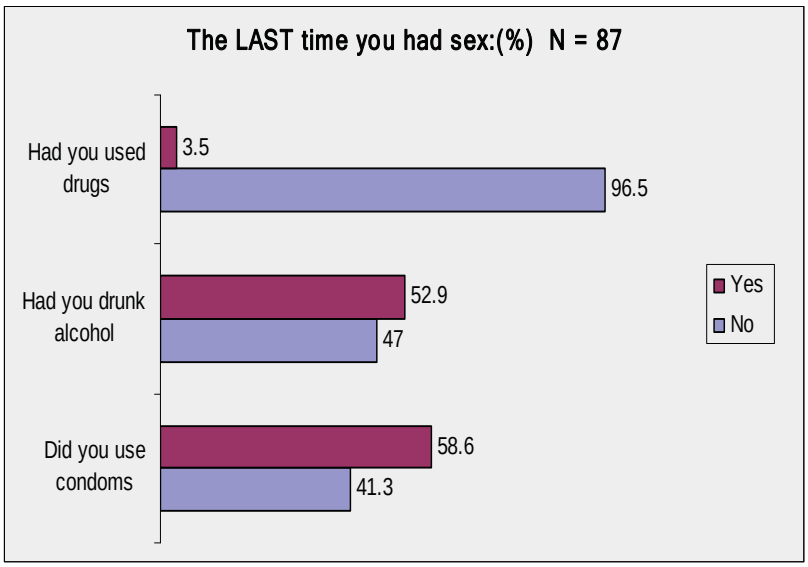
Over the last four weeks, how many of your sexual partners were Australian: N = 88		
	Responses	Percent
Yes	14	15.9
No	74	84.1

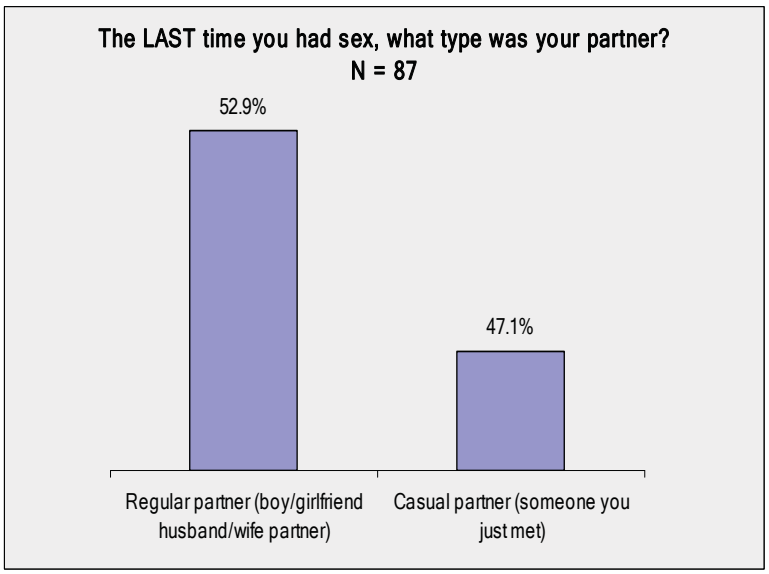


Over the last four weeks, have you been forced to have sex when you did not want it? N = 89

	Responses	Percent
Yes	1	1.1
No	86	96.6
Don't Know	2	2.2







What country was your LAST sexual partner from? N = 88	
North America	11.0%
South America	0
Europe	58.3%
Australia	14.3%
Asia	8.8%
Africa	1.0%

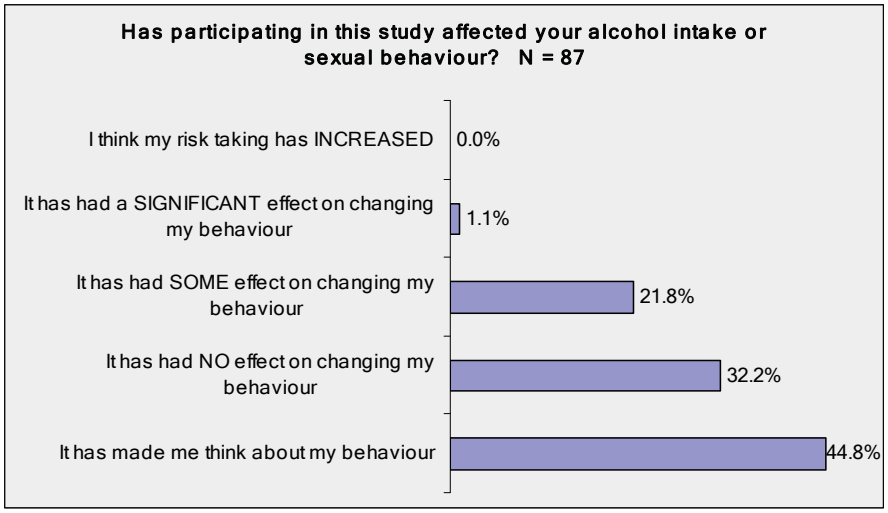
In the last four weeks, have you had any of the following symptoms? N = 88		
	Yes	No
Pain (like a stinging or burning) when passing urine	2	86
A discharge or pus or smelly fluid from your penis or vagina	1	87
A painful blister or lesion around your genitals	0	87
A lump like a wart around your genitals	1	86

Since the last survey, have you had had a test for…? N = 88		
	Yes	No
STIs	19.3%	80.7%
HIV	4.5%	95.5%

In the last four weeks have you taken antibiotics? N = 88		
	Responses	Percent
Yes	5	5.7
No	83	94.3

During your current backpacking holiday have you EVER been admitted to hospital due to an alcohol related behaviour or injury? N = 88		
Yes	4	4.5%
No	84	95.5%

In the last four weeks have you sought health/medical advice from... N = 88		
	Yes	Percent
Hostel	4	4.5
Pharmacist/Chemist	16	18.1
Doctor	9	10.2
Emergency Department	2	2.2
Sexual Health Service	11	12.5
Other	2	2.2
Total	44	



Discussion

In this study, current knowledge and risk behaviours associated with alcohol and sex among international backpackers were assessed. To the understanding of the authors this is the first study which aimed to establish a comprehensive picture on the current knowledge and practices amongst backpackers in Queensland and the first nationally to include a follow-up survey.

At the outset, a number of research questions were posed and these served as key outcomes for the project-

- Is it feasible to conduct a prospective, longitudinal study with this transient population?
- What do international backpackers know regarding responsible alcohol consumption and safe sex?
- What demographic characteristics, risk and protective behaviours, attitudes and environments predict risk taking (alcohol intoxication; unsafe sex) within this group?
- Where are the opportunities for public health intervention with this group?
- Does the provision of a brief knowledge based intervention and 'prevention pack' decrease behaviours?

Certainly, the successful recruitment of our target number within a short period, and the successful recruitment of more than 50% of the sample 28 days later demonstrated the feasibility of our methodology and provides an opportunity for further, expanded research of international travelers.

The results show an initial overall lack of knowledge and understanding of safe alcohol consumption levels, increased risky behaviours such as low level condom use and swimming whilst under the influence, alongside increased alcohol consumption and condom use since becoming a backpacker. However, the follow-up survey did show an increase in knowledge of safe drinking patterns, a reduction in drinking over the previous 4 weeks, and an overall decrease in alcohol and sexual risk behaviours. Whether the brief intervention and the provision of information at the time of the initial survey was responsible for this change is difficult to determine, but certainly the experience of participating in the study, thinking about and responding to questions concerning alcohol and sexual behaviour, discussing these with the researchers and being provided with educational materials should be considered a significant contributing factor, and was identified as such by 22.9% of follow-up respondents.

Patterns of Alcohol Consumption

In general, the patterns of alcohol consumption (where they drink, who they drink with and how much they drink) among international backpackers are in line with what current literature already suggests. The study provided a snapshot of backpackers mostly drinking in pubs and clubs (40.5% vs 54.2%), whilst others

(33.9% vs 42%) drinking in hostel/backpacker accommodation. The majority of them (58% vs 67.8%) drank with the same person/group each time, some (39% vs 30%) with different people or groups. The backpackers drank on two to four days of the week (53.7% vs 64.9%), with a small percentage consuming alcohol on none (7% vs 11%) or on all seven days (8% vs 0%). However, it was found that when they did drink, they drank a lot, as according to Johnston and White (2003), the definition of binge drinking would be 5 or more drinks for men and four or more drinks for women. This study demonstrates binge drinking patterns with most of them and unchanged over the time period of the study with approximately one fifth drinking at least 10 drinks or more when drinking.

There is much literature that confirms binge drinking habits that correlate with this age group (Tutenges and Hesse, 2008; Weitzman et al, 2003; Kuntsche et al, 2005), with further concerns regarding the number of adverse health consequences observed from these patterns, including fights, accidents and a range of other negative affects (Bellis et al., 2005). To add to this level of risk, are those who undertake alcohol misuse in a foreign country. Barriers such as language, limited or delayed communication with family or friends and geographical unfamiliarity can obstruct access to health services (Belis et al., 2002), particularly when experiencing blackouts, personal injuries or sudden death (Tutenges and Hesse, 2008). Furthermore, individuals who are far away from home are not held back by the constraints of work and family that normally moderates substance use (Bellis et al., 2002). Therefore, binge drinking patterns amongst backpackers in a foreign context continues to be consistent in literature and further public health attention in this area should be adhered to.

The study also found that 60% of the cohort drank more alcohol compared to back home. There are other studies which agree with these findings, echoing a significant increase in frequency of alcohol consumption in backpackers compared to their behaviours back home (Belis et al. 2007). While the study from Belis et al. (2007) did not measure the amount of alcohol consumed each night, they concluded that this increase in use associated with backpacking is a cause for concern and intervention. They argue that alcohol consumption is not only associated with direct acute (e.g. poisoning) and long term (e.g. liver disease) impacts on health, but also associated with accidents resulting in drink driving injuries or death, violence and engagement in unprotected sex are of a major concern (Traeem and Kvalum, 1996; Room et al, 2005). Furthermore, with Queensland being such a hot climate, it can also play a role in over exposure to the sun (Belis et al. 2007) by sleeping on the beach and sitting outside bars (Elliot, 1998), thus increasing the risk of skin damage, burning and cancer, in which European travellers are not experienced (Gandini et al, 2005).

However, our follow-up survey 4 weeks later identified a reported reduction in alcohol consumption with 37.0% of respondents claiming a small to significant decrease in drinking.

Overall, the patterns of alcohol consumption found from this study seem to be in line with already existing literature. A possible advancement forward from here may be to investigate further if, how and why these patterns of binge drinking can potentially be viewed as detrimental towards a traveller's experience.

Knowledge of Safe Alcohol Consumption Levels

Having knowledge of safe alcohol consumption levels is important when laying the foundation for health promotion and harm minimisation strategies. However, when basic understandings of these concepts do not exist, there lies a gap in health promotion interventions (Bettinghaus, 1986). Accordingly, the initial survey highlights very limited knowledge and understanding of safe alcohol consumption levels. The majority of this group (53.3%) had never heard of the term 'standard drink' before. Of those who had heard of it, most of them (66.9%) did not know what the definition meant. Such comprehension levels are further echoed by Carruthers and Binns (1992) who also agreed that knowledge of the term standard drink and what it represents in terms of absolute alcohol is very poor. They recognise that alcoholic beverages (red and white wine, champagne and spirits) are likely to be poured in amounts well in excess of a standard drink when people are drinking in their own home. Kaskutas and Graves (2000) further confirm in their study that majority of drinkers for each beverage were unable to accurately judge the size of their drinks, underestimating fluid levels by about 30%. Correspondingly, in the backpacker's initial study, when participants were asked to indicate the correct Blood Alcohol Concentration level for drinking in Australia, only 36.2% of the cohort correctly identified the correct figure, out of four possibilities.

However these poor figures significantly changed with the follow-up survey 4 weeks later. Only 9.9% (cf 53.3%) had never heard of the term 'standard drink' before. Of those who had heard of it, only 24.2% (cf 66.9%) did not know what the definition meant. Of the participants, 62.6% (cf 36.2%) were able to correctly identify the correct Blood Alcohol Concentration level for drinking in Australia out of four possibilities.

It is widely recognised that an increase in knowledge does not immediately result in individual behaviour change (Bettinghaus, 1986). Nonetheless, the finding of very limited knowledge and understanding of safe consumption levels initially, and the large increases in that understanding in follow-up is significant for public health interventions targeted for this population. The study also found that only 3.6% and 7.7% of backpackers always limited the number of drinks they had when drinking. This may be due to the social environment when backpacking, as constraints from education and work commitments are reduced, with increased time to socialise, relax and consume substances (Bellis, 2007). A limitation of the study was that it failed to capture why the number of drinks were limited, but anecdotally, the authors found that the backpackers complained about the high price of alcohol in Australia, which limited the number of drinks they consumed.

Therefore, there is a wide array of studies looking at behaviours of international backpackers, and there are very few who look specifically into the existing knowledge and understanding of safe alcohol consumption. As literature on knowledge and understanding of safe alcohol consumption levels for the backpacker cohort is scarce, it is therefore important to acknowledge this limitation if interventions are going to be designed to target these populations. As a result, there are implications for the efficacy of educational campaigns designed to encourage safe and responsible drinking practices through the monitoring of personal intake. Before these can be effective, the terminology used must be familiar and well understood by the targeted population.

Reported Risk Behaviours Associated with Alcohol Consumption

The highest reported risk taking behaviour associated with alcohol consumption was unprotected sex (41.1% vs 23.3%). Consideration should be given to those who arrived in couples (23%), in which the female may be on the pill, thus biasing unprotected sex rates. After excluding those who arrived in couples, 65% reported to not always using a condom.

There is ample evidence across a variety of literature revealing high rates of unprotected sex for international backpackers (McNutty et al., 2010; Hughes et al., 2009; Traeen & Kvalum, 1996; Room et al., 2005; Belis et al., 2007). One of the most alarming concerns attributed to unprotected sex is the risk of contracting a sexually transmissible infection (STI). Any backpacker is at risk of an STI if they have unprotected sex (oral, vaginal or anal sex without a condom) with a new partner or if their current partner has an infection. Once contracted, they can also have an STI without developing any signs or symptoms, and as a result, delay access to treatment. Although there may not always be symptoms, if STIs are not treated early, some can cause further complications such as infertility or pelvic inflammatory disease (Hocking et al., 2008). It is also important to realise that not all STIs are 100% prevented through the use of condoms. Viral STIs such as the human papillomavirus (HPV) can also be passed on if the condom is not covering all of the infected genitalia, especially during oral sex when condoms are most commonly not used (Wald, et al., 2001). In this study, it was found that 24% and 67.5% of the international backpackers in Brisbane had oral sex the last time they had sex in Australia. As sexual activity was found to be high among the backpacker cohorts, particularly unprotected sex, this poses a severe threat to STI prevalence to both the backpacker community and also the host country. In a recent study by Hughes et al. in 2009, they found that 73.2% had sex during their stay in Australia, including 68.9% of those who arrived without a partner. Of those arriving single and having sex, 40.9% reported inconsistent condom use and 24% had unprotected sex with multiple partners. They also echoed high frequency of alcohol intake and use of illicit substances in Australia as indicators for risky sexual behaviour. Our study further confirmed this trend, as it was found that 82% and 79.6% consumed alcohol prior to having sex.

The second highest alcohol related risk taking behaviour identified in the initial survey was swimming whilst under the influence of alcohol (40.1%), but this dropped to 13.2% four weeks later. According to Wearing et al. (2002), international backpackers travel on a low budget, therefore swimming is a favourable and frequent activity in Australia, as it is a low-cost leisure activity that they can share with as many people as they like. Literature confirms that short-term effects of alcohol consumption can impair memory, comprehension, speech and other senses, distort vision, hearing, coordination, alter perception, emotions and induce dizziness, staggering and vomiting (Daniel et al., 2001; Grattan & Sprott, 2001). When such effects are added to swimming conditions, one can become vulnerable to the unexpected harsh conditions and cause severe harm (Ballantyne et al. 2005). In a recent study by Ballantyne et al. (2005), it was found that beaches are social centres that attract tourists for two types of recreational activities. These are divided into land and water based activities. Land based activities include: fishing, beach volley-ball, sun bathing and socialising at the many marketed restaurants, cafes and pubs. Water based activities include: swimming, surfing, jet skiing plus others. The beach is therefore a meeting point for both tourists and residents covering mutual social interests, with alcohol consumption potentially overlapping both of these land and water activities.

In another study, Wilks and Pendergast (2010) specifically identified the 18-34 year old cohort of international visitors or travellers as 'at risk groups' for drowning, especially in the surf. While international life-saving practice has incorporated safety flags on patrolled beaches to ensure beach safety, their study found that tourists continue to disregard safety messages and swim outside the flags, believing incorrectly that swimming in 'relatively' close proximity to the flags includes the same safety benefits. Accordingly, approximately 77% of international students did not know what a rip was. Given that a large number of all rescues conducted by Surf Life Saving Australia occurred in rips, this poses significant implications for both surf life savers and international visitors. Furthermore, they also affirm that alcohol is identified as a significant factor in drowning and near-drowning events. To add to this, we found that 60% do not count the number of drinks they consume whist drinking (reduced to 34.1% four weeks later), which raises much concern for future interventions.

As literature recognises international travellers as 'at risk' populations in beach safety due to their limited knowledge, our study adds to the discussion that there is a significant (40%) number of backpackers who report drinking alcohol whilst swimming. This suggests the need for crucial public health intervention tailored towards future beach safety and safe alcohol consumption in other swimming areas for international travellers such as backpackers.

Another risky behaviour relating to alcohol consumption was that 24.3% self-reporting to create a public disturbance or nuisance whilst under the influence. This was reduced to 7.7% four weeks later though

12.1% admitted to verbally abusing others. Public disorder including violence, is also motivated by the celebratory atmosphere at some drinking establishments. It provides a show for the clientele and a 'pleasurable' entertainment for those who wish to interact in the behaviour (Tomsen, 1997). Tomsen (1997) recognises that in Sydney, Australia, there is an element of masculinity in this administration that achieves 'personal pleasure' and further explains that the emphasis on masculinity does not mean that only men experience negative consequences (such as violence) in public drinking establishments. At least one U.S. study has shown that nearly half of female frequent bar drinkers reported experiencing physical aggression, and nearly a third reported experiencing some form of sexual assault associated with drinking in a bar (Parks & Miller, 1997). Therefore, it is widely understood that alcohol consumption is also related to creating a public disturbance.

In the follow-up survey, 18.9% of respondents reported in the previous 4 weeks being a passenger in a vehicle where the driver had recently consumed alcohol. Given the tendency for backpackers to travel and socialise together, it could be assumed that the drivers in these instances are also international tourists. A further 6.7% of respondents reported driving a vehicle under the influence of alcohol within the previous month. This data identifies a significant hazard posed by a number of travellers to themselves and others and highlights the need for road safety initiatives to focus on backpackers.

Patterns of Sexual Behaviour

It was found that 74.5% of the cohort had sex since arriving in Australia. In a study by McNutty in 2009, international backpackers reported higher numbers of sexual partners (three or more partners in the past 3 months), with low rates (22%) of consistent (100%) condom use. In our study, the majority of the cohort reported having sex monthly (29.1%) or weekly (25.5%). A further 9.8% reported having sex daily. In the follow-up survey, the majority (40%) reported no sex in the previous month, followed by 23.3% and 16.7% have sex weekly or fortnightly respectively. Similar figures (8.9%) reported daily sex.

In conjunction to such frequent sex patterns whilst backpacking, only 25% reported always using a condom which is similar to McNutty's study of international backpackers in Sydney which only found 22%. Although there was a low level of consistent condom use, majority of the cohort (69%) had actually increased their condom use since becoming a backpacker. 45.5% of those reporting sex in our follow-up study identified they always used condoms in the previous 4 weeks. In those previous 4 weeks, 32.1% of respondents reported reduced sexual activity. 55% of the sample reported having decided or are currently using condoms more or always. 31.5% believed that their sexual risks were the same as 4 weeks previous whilst 7.8% reported increased risk. The majority reported their risk as less.

According to Abdullah (1998), perception of risk in contracting STIs such as HIV from sexual activity is associated with the intention of being involved in such activities. This resulted in perceived severity of and

susceptibility to their consequences, and the perceived effectiveness of preventative means. Therefore, subjects who had a higher perceived susceptibility of being infected with HIV were more likely to use condoms. Accordingly, our study found a moderate to high level reported feeling towards being at risk due to their sex life. Nonetheless, another pattern of sexual behaviour was the consumption of alcohol prior to sex.

We found 82% and 79.8% consumed alcohol prior to having sex. Literature also acknowledges that alcohol use is frequently identified as a potential contributor to sexually related infections such as HIV (Dermen et al., 1998; Cooper et al., 1994). Several studies have also revealed that alcohol use and sexual risk taking often co-occur (Cooper et al., 1994; Leigh & Stall, 1993). However, research on the topic has been marked by conflicting findings (Bolton et al., 1992; Cooper et al., 1994; Leigh & Stall, 1993). The only consensus that appears to have emerged is that the relationship between alcohol use and sexual risk taking is complex (Derman et al., 1998) and that more learning is required about the nature of the relationship (Bolton et al., 1992; Leigh & Stall, 1993).

Prevalence of Chlamydia

A number of studies have reported Chlamydia infection prevalence in Australia, which is approximately 4.6% (Vajdic et al., 2005), with a much higher prevalence for indigenous communities. However, these studies mostly consist of health service and treatment seeking populations (Vajdic et al., 2005; Chen & Donovan 2004). Several studies have reported the prevalence of STIs particularly Chlamydia amongst travellers, including backpackers (McNutty et al., 2010; Hughes et al., 2009). However these studies too, are of health service and treatment seeking populations. This study which found a 4.3% prevalence of Chlamydia is a random sample of international backpackers, all of whom were asymptomatic and not seeking treatment or health services, as they did not expect to test positive. This in itself is an interesting finding, as it shows travellers are particularly vulnerable to STIS due to the risky behaviour they are involved in. It is possible that the prevalence may have been higher, but has been masked by the curative effect of antibiotics taken by the participants for other health reasons. Approximately 10% of the sample has consumed medication in the previous 1 to 3 months.

Travellers are particularly vulnerable to STIs because of sexual behaviour whilst abroad and are significant vectors for the introduction of new pathogens and resistant strains to unaffected parts of the world (Abdullah et al 2004). Having sex overseas is recognised as an increased risk for HIV and other STIs because of increased prevalence, the mixing of broad sexual networks and the increased sexual activity associated with recreational pursuits. The consequence to this is that visitors to Australia can become important bridging populations for the introduction of sexually transmitted infections into the local population. For example, recent increase in heterosexual acquisition of HIV in Australia as a result of travel between high prevalence countries, such as Africa, Asia and Papua New Guinea and Australia (Richens, 2006). There are

also further concerns for the potential sexual transmission of pathogens that are currently a concern overseas, for instance, ceftriaxone resistant gonorrhoea emergence in Japan and Korea, which are two significant tourist markets for Australia (Tapsall, 2005) and recent strains of Chlamydia Trachomatis reported in Sweden which are not detectable by current diagnostic methods (Marions, et al., 2008). The role of backpackers as potential bridges for infection is significant given that the majority of travelers pass through the SE Asian region (Thailand, Cambodia, Laos and Malaysia) where higher prevalence of HIV, gonorrhoea and syphilis exist.

In our study, we found that 20.4% reported symptoms of STIs (e.g. pain, stinging or burning when passing urine) at some time during their travel and a further 41% had never been tested for an STI before. Four weeks later, 4.6% reported symptoms over that time period and 19.3% and 4.5% had tested for STIs and HIV respectively. Given that only 10.2% of the initial sample reported an STI test in the previous 6 months, there was a significant increase in testing among the follow-up group. It is likely that the intervention of the study created greater awareness amongst the participants and encouraged increased testing. The Sydney Sexual Health Centre data show that backpackers are significantly more likely to have a history and current diagnosis of Chlamydia than locals of the same age who attend the clinic (Egan et al 2005). Away from the social and cultural constraints of ones own country, community and family, backpacking seems to have a proliferated effect on sexual behaviour.

Study Strengths and Limitations

Strengths

A number of studies have investigated STI (Chlamydia) infection prevalence in Australia and also amongst backpackers, however all of these studies have mostly been conducted in health service and treatment seeking populations (Vajdic et al., 2005; Chen & Donovan 2004). In contrast, our study stands out as the 4.3% prevalence rate of Chlamydia is a random sample of international backpackers, all of whom were asymptomatic, not seeking treatment or health services, and did not expect a positive test. An additional strength is the follow-up component of this study 28 days later which was able to demonstrate an effect of even a brief intervention on knowledge and behaviour.

Limitation

On data entry it was recognised that 5 questions in the initial survey (Q16, Q17, Q56, Q57, Q58, found in Appendix 9) was not laid out correctly, and as a result this may have confounded the results slightly, by skewing those answers towards the left. Those specific questions were related to current consumption of alcohol, feelings towards condom use and how much risk the backpackers think they are now in due to their sex life. This therefore implies the results from this study show potentially lower levels than the reality for current alcohol consumption levels and their assumed risk due to their sex life since becoming a backpacker.

Unfortunately it was not possible to identify causes for the changes in behaviour identified in the follow-up study. Whilst we can infer that the brief intervention during the original study did have some effect, the strength of its contribution and that of other potential causal factors cannot be determined.

Study Recommendations

Further interventions need to be tailored towards binge drinking patterns among backpackers. This would be particularly useful if started prior to their departure so travellers are aware of safe consumption levels. One of the most significant findings of this study was identifying the initial limited knowledge and understanding of safe alcohol consumption levels for international backpackers. There are significant outcomes in effective educational campaigns designed to encourage safe and responsible drinking practices through the monitoring of personal intake. However, before these can be effective, the terminologies used (e.g. 'standard drink') must be familiar and well understood by the targeted population. Certainly the significant increase in knowledge and understanding reported 4 weeks later demonstrates the effectiveness of even simple interventions (such as our study) in increasing awareness. This creates a number of opportunities for either the distribution of alcohol related resources to backpacker hostels, the creation of specific resources relevant to international tourists, or the insertion of brief information in existing backpacker publications or tourist information. Our study has demonstrated a receptivity amongst backpackers to discuss and receive health information. Indeed a resource that was particularly popular amongst our sample group was the Standard Drink Glass. It was considered a novelty, while simultaneously providing a clear message about standard drinks. Distribution of the glasses to hostels could be an effective promotion.

This study further echoed unprotected sex as the highest reported risky behaviour. With an identified high prevalence of Chlamydia, interventions need to be targeted at increasing one's attitudes towards using condoms when backpacking. Any such campaigns would be most useful in and around the backpacker hostel and accommodation venues, aimed at their perceived risk and susceptibilities of contracting an STI.

The higher prevalence of Chlamydia certainly identifies a need for more proactive screening programs targeting backpackers, either as outreach to venues frequented by tourists, or as strategies increasing access of tourists to mainstream services. The method of recruiting backpackers from neighboring hostels using a small financial incentive proved extremely effective and should be considered for future programs. Brief interventions such as recruitment to a survey have demonstrated a positive impact on testing rates.

Another interesting finding in this study was a significant number of backpackers consuming alcohol whilst swimming and driving. The literature recognises international travellers as 'at risk' populations in beach safety due to their limited knowledge, in addition to the vulnerable effects of alcohol whist swimming, there is a need for crucial public health intervention tailored towards combining future beach safety and safe alcohol consumption in swimming areas for international travellers such as backpackers. Similar

programs increasing safe driving awareness, linked to education about legal BAC levels need to be developed.

The use of small financial incentives was identified as a key factor in the successful recruitment of participants. The willingness of backpackers to actively collaborate in the project demonstrates a potential for future, expanded research based on this same methodology. A further study would be to describe the social sexual networks of backpackers, thereby identifying patterns for the potential transmission of infections. Using a system of small incentives, it would be possible for participants to recruit their sexual partners who in turn can recruit others, thereby setting up a snowball effect. This would allow us to map the various relationships linking backpackers across the state and country.

Overall, this project has generated a number of benefits for the agencies involved in its delivery.

- It has clarified the level of risk behaviour experienced by international backpackers, confirming anecdotal reports.
- Significantly, this study has also demonstrated that backpackers are very amenable to health promotion interventions, and that creative resources and strategies hold great potential for attracting interest and effecting behaviour change. Even the intervention of a survey itself may generate a level of substantial change.
- The study has also demonstrated to the participants the value of small financial incentives for enlisting backpacker involvement and provides a methodology for expanded research.

As a result of this initial study, Alcohol & Drug Services and Sexual Health & HIV Services will seek to coordinate its approach towards greater promotion within surrounding backpacker hostels, particularly with respect to resource development and distribution. Novelties such as Standard Drink Glasses should be utilized to promote the concept of a Standard Drink and legal BAC.

Given the close proximity of the Alcohol & Drug Service to the majority of backpacker hostels in Brisbane, the service is well placed to utilize the experience and knowledge gained from this study, and engage in regular contact with managers and patrons.

Dissemination of Information

Information gained from this study will be important for guiding the development of health promotion resources and interventions targeting backpackers. It is important that all key stakeholders be informed to enhance their participation in such programs. The results of this study will be presented to the Queensland Hostels Association, and the report circulated to Backpacker organizations, representatives of the State and Commonwealth Departments of Tourism, the Brisbane City Council Tourist office, Sexual Health Services and Alcohol & Drug Services. In addition, the results will be published in selected, peer review journals such as Travel Health.

Further to this, the experiences gained from this study will be shared with other Sexual Health and Alcohol & Drug Services located in areas of high tourism in an effort to replicate the study. In particular, discussions with the Cairns based Sexual Health Service have indicated a strong interest in conducting a similar study for North Queensland.

Conclusion

In conclusion, this is the first study of its kind in Queensland that investigates alcohol consumption and sexual risk taking behaviour among international backpackers and which incorporates a follow-up study. It found a very low level of knowledge and understanding of safe alcohol consumption levels, high rate of unprotected sex, high rate of swimming whilst under the influence, in addition to an identified Chlamydia prevalence among the general population of international backpackers. However, these behaviours are amenable to change as demonstrated by significant changes in behaviour and knowledge reported 4 weeks later. Backpackers should be a priority population for sexual health promotion and access to services. Interventions should be tailored towards increasing understanding of safe alcohol consumption levels and terminologies, tackling binge drinking patterns, swim/road safety and alcohol use for backpackers and their sexual risk taking.

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APPENDICES

APPENDIX 1

Queensland Government
Queensland Health

Sex, Drugs and Backpacking Study: Briefing

Queensland Health and the Ethnic Communities Council of Queensland are jointly conducting an exploratory study into alcohol intoxication and associated unsafe sexual practices by backpackers traveling through Queensland. This project is being funded by the Alcohol and Education Research Foundation (AER Foundation).

Background
International travellers, especially "backpackers", are a significant contributor to the Queensland and Australian economies. However when young people travel, they often take risks they may normally not take in their home country. Often these risks involve alcohol, unsafe sex or other potentially risky activities, such as drink driving.

Objectives
The purpose of this study is to identify:

i) How much risk is taken by visitors to Australia, whether this presents a real threat to their health, and the health of fellow travelers as well as to Australians
ii) Potential harm reduction strategies to increase safer alcohol consumption and safer sexual practices.

To this end we are hoping to recruit 110 international backpackers staying at inner-city Brisbane hostel/backpacker accommodation and trying to follow them up 28 days later. Participation in this study is completely voluntary.

Backpacker/Hostel Involvement
In order to recruit participants, we will be approaching inner-city Brisbane hostel/backpacker accommodation to participate in the study as recruitment locations through providing an opportunity for one of our health workers to be present at the hostel over a one-two week period. The worker will advertise the project to backpackers, distribute surveys and collect urine samples.

Methodology
At recruitment interested participants will be asked to self-complete a short questionnaire which will ask some questions about their drinking and sexual behaviour. The questionnaire is completely anonymous and voluntary. As well, the participant will be asked to provide a urine sample which we will test for Chlamydia trachomatis, a very common sexually transmitted infection amongst young people and a significant cause of infertility. Those taking the test will receive their results back and be offered treatment if found to be infected. Treatment for Chlamydia is very easy- just a couple of antibiotics taken once by mouth. Results will be emailed or phoned to participants within a week and people will be referred to their closest treatment centre.

Participants will also be invited to complete an online survey 28 days later. This survey will again ask a number of questions about their alcohol use and sexual practices in the past 28 days. Participants will be contacted by email about this.

For participating in the initial survey, participants will receive AUD $20 cash as a way of compensating for their time. They will also receive an AUD $20 equivalent in a global application voucher if they decide to complete the follow-up survey 28 days later.

Ethics Clearance
Ethics clearance for this project is currently being sought from the Metro North Health Service District, Queensland Health, Human Research Ethics Committee.

Further Information Jane Fischer, Program Coordinator, Centre for Drug and Alcohol Studies, Statewide Services, Queensland Health. Telephone: 07) 3837 5715 and Email: Jane_Fischer@health.qld.gov.au**.**

APPENDIX 2

Follow up details card for Participants

Thank you for participating in the Queensland Health Sex, Drugs and Backpacking Project Please look out for our email on or about: ____/____/2010 to complete a short follow-up online survey. At that time, if you still have an Australian bank account we will reimburse you for completing the survey (please note reimbursements take awhile to process). If you have any questions at anytime about the project, please contact: Jane Fischer Email: Jane_Fischer@health.qld.gov.au Tel: +61 7 3837 5715 Fax: +61 7 3837 5716 In the mean time … *Safe & Happy Travels!* Photo taken by J. Fischer, Ullapool, Scotland, June 2010	*Thank you* for participating in the Queensland Health Sex, Drugs and Backpacking Project Please look out for our email on or about: ____/____/2010 to complete a short follow-up online survey. At that time, if you still have an Australian bank account we will reimburse you for completing the survey (please note reimbursements take awhile to process). If you have any questions at anytime about the project, please contact: Jane Fischer Email: Jane_Fischer@health.qld.gov.au Tel: +61 7 3837 5715 Fax: +61 7 3837 5716 In the mean time … Safe & Happy Travels! Photo taken by J. Fischer, Ullapool, Scotland, June 2010
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APPENDIX 3 - Poster

Holidaying overseas is a source of great enjoyment. However, when people travel, they often take risks they may usually not take in their home country. Often these risks involve the use of alcohol and sex.

Researchers from Queensland Health are conducting a study into how much risk is taken by backpackers, and whether this presents a real threat to their health, the health of your fellow travelers, as well as to Australians.

If you are:

- ☑ **18 years of age or older**
- ☑ **Male or Female**
- ☑ **Have stayed in a hostel or backpackers for one night**
- ☑ **From overseas**

Perhaps you might like to participate in our study?

- ☑ **Participation is confidential**
- ☑ **Involves:**
  - **Completing a short survey**
  - **Taking an optional urine test for sexually transmitted infections (STI)**
  - **Being able to contact you by email in one month time**
- ☑ **Being reimbursed for your time (AUD $20 cash)**

When:

- **10 am to 5 pm**
- **Anytime between Tuesday 23rd February – Friday 26th February and Monday 1st March**

Where:

"Biala" City Community Health Service (The Big Brown Building on the right hand side as you walk down to the train station), 5th Floor, 270 Roma Street.

Project – Sex, Drugs & Backpacking **When:** Anytime between: 10am-5pm	**QH Project** – Sex, Drugs & Backpacking **When:** Anytime between: 10am-5pm	**QH Project** – Sex, Drugs & Backpacking **When:** Anytime between: 10am-5pm	**QH Project** – Sex, Drugs & Backpacking **When:** Anytime between: 10am-5pm	**QH Project** – Sex, Drugs & Backpacking **When:** Anytime between: 10am-5pm	**QH Project** – Sex, Drugs & Backpacking **When:** Anytime between: 10am-5pm	**QH Project** – Sex, Drugs & Backpacking **When:** Anytime between: 10am-5pm	**QH Project** – Sex, Drugs & Backpacking **When:** Anytime between: 10am-5pm	**QH Project** – Sex, Drugs & Backpacking **When:** Anytime between: 10am-5pm	**QH Project** – Sex, Drugs & Backpacking **When:** Anytime between: 10am-5pm

APPENDIX 4

List of Resources included in Handout to Participants

HANDOUT RESOURCES FOR BACKPACKER SURVEY

1x Frig Magnet. 'Know your standard drinks'

1x Overdose Wallet Card – Queensland Ambulance Service

1x Coaster. 'Watch out for drink spiking'

1x Wallet size fold-out brochure. 'Make up you own mind about drinking'

1x Wallet size card 'how many standard drinks to help stay under .05?' Men and women

1x Post Card. 'Don't turn a night out into a nightmare'

1x Postcard. 'The Power of saying no to a drink'

1x Alcohol and Drug Information Service 24 hour Information Brochure

1x Brochure – Information about Sexual Health Checks

1x Brochure – Information about Chlamydia

1x 2 sided Brochure 'Alcohol and your brain don't mix'

2x Condoms

2x Wet Stuff

1x Measuring Clear Plastic Cup. 'Count your drinks for better health'

APPENDIX 5

Focus Group Report

Method

Six inner-city Brisbane Backpacker Hostels were randomly selected. Written correspondence was sent to each hostel to inform the site of the project and invite participation as a recruitment location. Backpacking Queensland also received formal correspondence of the project. Each site received follow-up one week later via telephone.

Of the six hostels that received correspondence, two (33.3%) agreed to ongoing participation in the study. One (16.6%) hostel agreed to future contact and possible reconsideration of involvement in the pilot study whilst refusing participation in the focus test. Three (50%) hostels refused any level of future participation in the *Sex, Drugs & Backpacking* study. Of those that declined any ongoing participation, a recurring theme throughout discussion with hostel managers was "not wanting to make backpacking clients think we [the hostel] do not them to have a good time".

However, for those hostels that did agree to participate, meeting times were negotiated whereby a brief of the *Sex, Drugs & Backpacking* study was offered in addition to negotiating mechanisms by which, and the level of, hostel participation. At contact it was observed that a significant proportion of the hostel area was shared space. Additionally, there was a notable lack of any breakout areas from which to host the focus test and so the nearby Community Health Building was identified as the most suitable venue. In lieu of this it was negotiated that the hostel would play a significant role in promoting the focus test as delivery would occur off-site. Flyers (appendix B) were produced which detailed the focus test opportunity and promoted international backpacker participation in the focus test sessions. In addition to the flyers, the hostel as the primary recruitment site, were provided with business-card-size flyers with details of the focus test for distribution throughout the target population.

Two dates were allocated for the focus test sessions. The rationale for identifying two focus test groups was to increase opportunities to extend the participant pool. It is proposed that this

process would ensure adequate participant numbers, and therefore the production of quality outcomes from which the survey tool would be enhanced and strengthened. The structure of the focus test incorporated semi-structured and unstructured components (appendix C). The semi-structured components would guarantee those afore mentioned aims achieve outcomes and outputs within a set time-frame and in a sequential manner. The unstructured elements allow the exploration of topics and issues to be discussed, clarification obtained and any addendums to be noted. To ensure information was maintained with accuracy, a scribe recorded feedback which minimised interruption to the focus group facilitator.

Discussion

Over the two focus test groups and throughout the two sessions many lessons were learnt and applicable feedback received about the construct, and application of the survey tool for use in international backpacker populations. This feedback was facilitated by exemplary attendance rates. The scheduled focus test groups resulted in participation of twenty-one international backpackers which comprised eight and thirteen people in respective focus test groups. Overall these groups consisted of thirteen (62%) female and eight (38%) male. It is worth noting that a third focus test group was run, which comprised a further nine participants, however, as this was not facilitated by the author, outputs are not considered in the context of this paper. Information obtained within this third focus test group should append the larger body of work for project team consideration. This ad hoc focus group resulted as the focus test site had reached capacity.

The ethnographic profile of those who participated in the focus test group was diverse with participants identifying country of origin inclusive of the United Kingdom (24%), Germany (33%), Sweden (14%), South East Asia (9%), Scotland (5%), France (5%), Ireland (5%) and USA (5%). This profile matches the country of residence profile described within the Tourism Research Australia Niche Market Report whereby “Other Europe” and the United Kingdom represented 53 percent of the international backpacker visitors to Australia in 2003 (Ipalawatte, 2004).

Within the context of the focus groups, feedback was obtained on all project participant documents including the *Participant Information Sheet*, *Consent Form*, *Survey*, as well as the *Study Evaluation Form*. However, for the purpose of this paper, only outputs such as information and feedback relating to the *Survey* will be considered and represented in the context of this paper. Suffice to say that, despite the need of the project team to address some points which arose from

the consultation process, overall perceptions of the ancillary documents were considered to be easily understood with a high level of comprehension by the group participants.

In considering the survey tool, it is the intention of the author to present points relating to the several recurring themes; however, it is important to note that, despite an English language survey being used within a population whereby English may be a second language, overall comprehension and understanding was reported as "good". Interestingly though, where colloquialisms were central to a cause of initial confusion, the context of the question provided clarification and understanding to a point whereby no alterations to question structure were suggested or noted. This was unquestionably the case around the use of words such as "quench" and "deliberately…alternate" within question 31 and 29 respectively. These words, although causing translation confusion, participant feedback was that the words as concepts were readily identifiable within the context and frame of the question.

Despite the survey tool being somewhat lengthy at five pages, there was no suggestion or feedback which negatively correlated to the length. The range of time to complete the survey was between 10 minutes and 25 minutes. The average length of time to complete was 20 minutes. Despite this, the time to complete the survey was considered "acceptable" and far from arduous. Within the focus test groups, two (9%) participants identified as carrying literacy problems, notably dyslexia, but stated the survey was "no problem" to complete. Overwhelmingly, the remuneration scheme was seen as attractive in terms of the longitudinal structure of the pilot and therefore assurances of compliance at follow-up.

The intent of the survey is to solicit information pertaining to international backpacker behaviour whilst holidaying and traveling in Australia. Feedback from the focus test revealed some ambiguity relating to question structure around this concept. For example, despite question 15 attempting to align responses to The Stages of Change Model (Baum, 2008), the words "right now" caused some confusion with respect to the concept of time verses now. Recommendations from discussion around this topic included a change to specify "since arriving in Australia". Again, specificity to the context of Australian travel was also noted as requiring clarification within questions 63 through 69. Specificity of location in relation to patterns of use and behaviour were also suggested action items for other questions, for example question 19 requiring clarification.

A main theme within the feedback relates to the concept of, and environments in which alcohol is used. For example, the focus test groups broached that alcoholic units are not homogeneous across the globe resulting in a deficit in definitions of what constitutes a 'standard' drink. This notion is pertinent to question 17. Added to this though is the phenomenon that alcohol is considered "expensive" in Australia and so many seek cheaper alcoholic beverage alternatives such as cask wine or "goon". This was raised as an issue in terms of monitoring drink numbers given the ready access to a significant volume of alcohol. This also relates to question 17 of the survey. Additionally, the very nature of backpacking being a transient population would often mean that consumption environments would alter as frequently as consumers themselves. This notion was raised in particular reverence to question 20. Of interest was feedback that the survey tool employed throughout the focus test period did not account for, nor allow people to identify as non-drinkers which require amendment prior to data collection.

Another theme within the feedback related to sexual behaviours and partner acquisition rates. Specifically, and within this theme, was the inability of the survey tool to allow for people who considered themselves to be in long-term or stable relationships to acknowledge this in relation to condom use. The confounder to this is the potential for data to inaccurately reflect higher unprotected sex events within the backpacker population where a stable or long-term relationship could, and should, be accounted for within data representation. This feedback related to a number of questions but also to questions 45 and 46. On these questions, the suggestion was that a "one night stand" be used as a universally understood term which denotes a short-term or casual relationship in the context of condom use. Also of interest was feedback which related to an inability of the survey to capture information from people who are consistent users of condoms. This relates to question 54, where although this question attempts to align responses to The Stages of Change Model (Baum, 2008), the current format fails to acknowledge those who consistently use condoms. In terms of frequency of sex events, it has been highlighted that sex events can also occur sporadically and an amendment need to occur for this to be reflective within the answers of question fifty-six.

Significant discussion occurred within both focus test groups around health care service provision in the context of the study design which seeks urine samples for sexually transmissible infection screening. Specifically, discussion centered to three areas; health information, access and cost, and follow-up communication. Feedback reported a notable lack of readily available health

information within backpacker settings. The corollary to this is a lack of knowledge about access options for interventional support, specifically that Government run Sexual Health Services are readily available and at no-cost. In relation to obtaining results within a traditionally transient population, it was raised that expediting results would ensure participants had opportunities to engage with a service for treatment whilst minimizing anxiety associated with testing, but that communication should be discreet as traditional internet access areas are often open-plan.

Throughout the focus test consultation process, several grammatical errors were identified within the survey tool. For example, question 54 is repeated as a number to a question but the actual questions being asked differ. Additionally, spelling and question structure errors were noted as items requiring amendment prior to the pilot study commencing. Throughout the analysis of the feedback at the completion of the second focus test, an error was observed. It was noted that a prior version of the questionnaire had been printed for use throughout the focus test. The difference between the version focus tested and the questionnaire attached as appendix A is the question relating to antibiotic use and recorded as question 81 and 82. It should be noted that, although this question was omitted in print, it was asked as a matter of curiosity and resulted in identifying only one (5%) participant that was traveling with antibiotics. Interestingly, although unfortunate, the grammatical errors are present in both versions of the questionnaire, and therefore the results of the focus test and subsequent recommendations from this paper should be considered and integrated into future survey design by the *Sex, Drugs and Backpacking* project team.

The focus test consultation process successfully highlighted concerns of privacy in the context of participating in the pilot study. Specifically the issues were two-fold and related to assurances that information was not offered to any third parties, and that the “quite personal” nature of components of the survey could impact on honest responses if privacy was not afforded to study participants. In discussing these, it was identified that clarification of confidentiality and anonymity are required addendums to the *Patient Information Sheet*, and overwhelming consensus that the Biala Community Health Building be the most appropriate study recruitment location whereby anonymity and privacy needs can be accommodated.

Conclusion and Recommendations

Despite the facilitator possessing novice skills in group facilitation, the focus test process, as a quality improvement activity was successful. The measures of success as outcomes are recognizable from three perspectives that align with the aims and objectives of the *Sex, Drugs and Backpacking* focus test. In the first instance comprehension of the survey tool was high within the focus group process. This is of critical importance as the survey tool will not be translated into other languages but used within populations where English may be a second language. From the focus test process it can be concluded that comprehension would not be a confounding factor throughout data analysis, therefore aim and objective one is met. In the second instance, the *Sex, Drugs and Backpacking* methodology has, on a small scale, proven successful. Internal mechanisms of the longitudinal design that include the remuneration scheme will greatly influence ongoing compliance at intervention schedules. As the concept of a longitudinal study within international backpacker populations is novel, this process is of critical importance. From the focus test process it can be concluded that the longitudinal methodological design of the pilot study is feasible, and thus aim and objective two is met. Finally, opportunities to test and access health services was viewed as a positive component of the study design. The opportunity to consent to urine screening for a sexually transmissible infection and receive timely intervention to ensure health maintenance was viewed favorably. Thus, from the focus test process it can be concluded that the urine screening, as an 'invasive procedure' in the study design, would not negatively influence participation, and therefore aim and objective three is met.

Resulting from the focus group testing process, it is recommended that the *Sex, Drugs & Backpacking* project team consider incorporating the following feedback as addendums to the Survey tool and seek Human Research and Ethic Committee approval of amendments. Specifically, the recommendations for future consideration and action include;

1. Incorporate and correct grammatical feedback into survey tool prior to data collection.

This is central to maintaining high levels of comprehension within populations where English is a second language and to minimize any potential confounding effect upon the subsequent pilot study results. In addition to myriad of general grammar corrections, specific recommendations to enhance comprehension include;

- Q15: Alter to reflect "…your drinking since arriving in Australia".
- Q54: Amend to align question number to an individual question.
- Q55: Amend sentence structure and correct grammar.

2. Clarify situational environment from which behavioural data is being collected.

The intent of the survey is to solicit information pertaining to international backpacker behaviour whilst holidaying and traveling in Australia. The focus test revealed some ambiguity relating to question structure around this concept and is vital to correct to ensure specificity to Australian travel and consistency throughout the survey tool. Specific recommendations to ensure accuracy to information recall include;

- Q19: Alter to include "since arriving in Australia".
- Q63-69: Alter to reflect scenario of "since arriving in Australia".

3. Restructure alcohol-use related information and question design.

This component is integral to ensure accurate and consistent data collection within an environment where alcoholic units are not homogeneously represented across the globe which can result in variances in definitions of what constitutes a 'standard' drink. Specific addendums should include;

- Allow for participants to identify as 'non-drinkers'.
- Q17: Incorporate into survey tool standard drink schematic for point of reference use in calculating volume and quantities which will remove 'best guess' scenario.
- Q20: Consider removing question as value of information to study potentially low. Question designed to identify alcoholic tendencies if drinking alone, but backpacker population transient and likely responses will reflect drinking patterns with different people. Value of this information to study questionable.
- Q45: Subjective in nature. Remove.
- Q53: Incorporate into survey tool standard drink schematic for future point of reference guide to assist people to identify mechanisms to remain under .05.
- Assess the value of seeking information relating to type of alcohol consumed and add to questionnaire.

4. Reform and clarify sex-event related question structure and design.

In the context of increased sex events and increased partner acquisition during travel, it is critical to understand the context of sex and have an understanding of a "relationship". This process is critical to gain a clear picture through accurate data collection of behaviours such as condom use in the presence of casual or new relationship, versus a considered stable or long-term relationship where consensus is reached within the relationship about condom use. Specific recommendations to ensure this is accurately reflected within the survey include;

- Q45-46: Reorientate questions to context of a casual or new relationship. Agreed terminology from focus test groups includes "one-night-stand" as a universally known construct.
- Q54: Include measure for participants who identify as consistently using condoms during any sexual encounter.
- Q56: Sex events can be sporadic in nature. Focus test group recommends acknowledging this by the addition of another section such as "less than monthly".

5. Seek to align *Sex, Drugs and Backpacking* questionnaire design to referent study.

Given a recent publication examining UK backpacker sex, alcohol and drug use behaviours in the context of Australian travel, it is recommended that;

- The Hughes, Downing, Bellis, Dillon, & Copeland (2009) authors be contacted and seek the survey tool which may be partially incorporated into the *Sex, Drugs & Backpacking* survey structure to further enhance and validate the outcomes of the tool, and a point from against which the findings of a referent study can be compared.

6. Increase health information within backpacker accommodation environments.

Resounding feedback and significant discussion occurred within both focus test groups which revealed a lack of presence of health information within accommodation environments. This lack of information results in a diminished ability of backpackers to access available and appropriate health services. However, it must be acknowledged that Queensland Health has previously sent health information to backpacker accommodation sites. This recommendation also forms a cornerstone to discussion within the Hughes, Downing, Bellis, Dillon, & Copeland (2009) study. A specific recommendation for consideration include;

- Investigate new and alternative opportunities to increase access to health information where previous strategies may not have resulted in message displays or adequate saturation of sites. Strategies may include the *Sex, Drugs & Backpacking* project team partnering with a peak state body for backpacking organizations to identify potential modalities for health information dissemination.

7. Progress to data collection for *Sex, Drugs & Backpacking* pilot project.

It is suggested that with consideration to the above recommendations the *Sex, Drugs & Backpacking* pilot project move to commence data collection. With addendums rectified to the survey tool and ethics approval sought to amended survey, it is recommended that;

- Biala Community Health Centre be the recruitment site. This was echoed as an appropriate strategy within the focus test groups.
- Mechanisms to ensure privacy throughout the completion of the questionnaire be available to study participants to complete alone as a primary goal compared to group work. This was echoed as an appropriate strategy throughout the focus test group feedback and discussion.

Snapshot of Focus Group Findings

Table 1: Backpackers demographic characteristics

Demographic Characteristics		N=30
Gender (%)		
	Male	50
	Female	46.7
Age	Mean	23.14
	Median	22.50
Geographic Region of Origin (%)		
	North America	13.3
	Europe	36.6
	Britain or Ireland	36.6
	Asia	3.3
	Africa	3.3

Table 2: "Standard drink' knowledge

'Standard Drink" Knowledge	N=30 %
Heard of a 'standard' drink - yes	53.3
Know what a 'standard' drink is - yes	30.0
BAC in Australia for driving	
.0	13.3
.05	43.3
Don't Know	40.0

Table 3: Consumption and attitudes

Consumption & Attitudes	N=30 %
Current alcohol consumption vs home	
Much less and less often	20.0
The same	40.0
Much more and more often	36.7
Feel towards pattern of consumption	
Never think about drinking	53.3
I have decided to drink less	33.3
I now drink less than before	6.7

Table 4: Australian locations where alcohol has been consumed

Consumption Locations	Always/Mostly %	Some Times %	Rarely/Never %
Raves	16.7	20.0	50.0
Restaurants/Cafes	6.7	10.0	70.0
Licensed Premises	40.0	43.3	10.0
Public Places	33.4	13.3	40.0
Car or Vehicle	0	20.0	63.3
Hostel Accommodation	46.7	30.0	20.0

Table 5: Harm reduction practices implemented in Australia

Harm Reduction Practices	Always/Mostly %	Some Times %	Rarely/Never %
Count Drinks	16.7	10.0	63.3
Alternate between alcohol and non-alcohol drinks	6.6	33.3	53.3
Consume food	20.0	33.3	33.3
Quench first with non-alcohol	33.3	23.3	36.6
Drink low alcoholic drinks	16.7	20.0	53.3
Limit number of drinks	20.0	26.7	46.6
Refuse drinks	16.7	33.3	43.3

Table 6: Risk behaviours under the influence of alcohol

Activities under the influence of alcohol	N=30 %
Went swimming	40.0
Drove a boat	6.9
Drove a car	10.7
Passenger in a Car	60.0
Created a public disturbance	23.3
Damaged Property	6.7
Abused Someone - Verbally	16.7
- Physically	3.3
Had Sex - Unprotected	40.0
- Protected	56.7

Appendix A

Sex, Drugs & Backpacking Survey Tool.

Q1. **Date:**	Q2. **Gender:**	Q3. **Age:**

Q4. **Country of origin**

Q5. **List the countries you visited on your way to Australia**

Q6. **How long have you been in Australia?**

Q7. **How long do you intend to stay in Australia?**

Q8. **How long have you been in Brisbane?**

Q9. **How long do you intend to stay in Brisbane?**

Q10. **Where have you visited (in Australia) before coming to Brisbane?**

Q11. **Where do you intend to visit after Brisbane?**

Q12. **Where will you be 28 days from now?**

Q13. **Which statement best describes who arrived with you into Australia…**	
mark **one** response	
I arrived alone (1)	
I arrived with my boyfriend/girlfriend (2)	
I arrived with a group (3)	

Q14. On the ruler below, please circle the number that best describes your current consumption of alcohol compared to at home*:*

0----------1----------2----------3----------4----------5----------6----------7----------8----------9----------10

My drinking has changed - I drink much less and less often than before	Sometimes I drinking less and less often	My drinking has remained the same	Sometimes I drink more and I drink more often than before	My drinking has changed. I drink much more and more often than before

Q15. On the ruler below, please circle the number that best describes how you feel *right now:*

0----------1----------2----------3----------4----------5----------6----------7----------8----------9----------10

Never think about my drinking	Sometimes I think about drinking less	I have decided to drink less	I am already trying to cut back on my drinking	My drinking has changed. I now drink less than before

When have you drunk alcohol in the last seven days…	
Q16. On how many days did you drink alcohol?	Days
Q17. On average how many alcoholic drinks do you have when you were drinking?	Drinks
Q18. How many alcoholic drinks did you have yesterday?	Drinks

Q19. **How often have you been unable to remember what happened the night before because you had been drinking…**				
Never (1)	Less than Monthly (2)	Monthly (3)	Weekly (4)	Daily or Less than Daily (5)

Q20. **Since arriving in Australia who do you drink with…**	
mark one response	
Drink alone most or all of the time (1)	

Drink with same person/group for all or most of the time (2)	
Drink with different people/groups for all or most of the time (3)	

Since arriving in Australia where have you drunk alcohol…					
mark <u>one</u> response for <u>each</u> row below	Always (1)	Most of the Time (2)	Sometimes (3)	Rarely (4)	Never (5)
Q21. Raves/Dance parties					
Q22. Restaurants/Cafes					
Q23. Licensed Premises (pubs, hotels, bars)					
Q24. Public places (parks, beaches, camp sites)					
Q25. In a Car or other Vehicle					
Q26. In your Hostel Accommodation					
Q27. Somewhere Else					

Since arriving in Australia when you drink, how often do you …					
mark <u>one</u> response for <u>each</u> row below	Always (1)	Most of the Time (2)	Sometimes (3)	Rarely (4)	Never (5)
Q28. Count the number of drinks you have					
Q29. Deliberately alternate between alcohol and non-alcoholic drinks					
Q30. Make a point of eating while consuming alcohol					
Q31. Quench your thirst by having a non-alcoholic drink before ng alcohol					
Q32. Only drink low alcohol drinks					
Q33. Limit the number of drinks you have					
Q34. Refuse an alcoholic drink you are offered because you really don't					

Since arriving in Australia have you undertaken any of the following activities while under the influence of alcohol…		
mark <u>one</u> response for <u>each</u> row below	**Yes** (1)	**No** (2)
Q35. Went swimming		
Q36. Operated a boat		
Q37. Drove a motor vehicle		
Q38. Been a passenger in a vehicle where the driver had recently consumed		
Q39. Been involved in an accident in which the driver (another person or you) had recently consumed alcohol		
Q40. Created a public disturbance or nuisance		
Q41. Caused damage to property		
Q42. Stole money, goods or property		
Q43. Verbally abused someone		
Q44. Physically abused someone		
Q45. Had unprotected sex (sex <u>not</u> using a condom)		
Q46. Had protected sex (sex using a condom)		

Since arriving in Australia did any person affected by alcohol…		
mark <u>one</u> response for <u>each</u> row below	**Yes** (1)	**No** (2)
Q47. Verbally abuse you		
Q48. Physically abuse you		
Q49. Put you in fear		
Q50. Sexually abuse you		

Q51. Before today had you ever heard of a 'standard' drink of alcohol?	**Yes** (1)	**No** (2)
Q52. Do you know what a 'standard' drink of alcohol is?	**Yes** (1)	**No** (2)

Q53. **Which answer below best describes the legal Blood Alcohol Concentration for driving in Australia…**				
.0	.05	.08	.10	Don't Know

Q54. On the ruler below, please circle the number that best describes how you feel *right now* about condom use*:*

0----------1----------2----------3----------4----------5----------6----------7----------8----------9----------10

Never think about safe sex	Sometimes I think about using condoms more	I have decided to use condoms more often	I am already trying to use condoms more during sex	My condom use has changed. To using always

Q54. On the ruler below, please circle the number that best describes your sex life now compared to at home*:*

0----------1----------2----------3----------4----------5----------6----------7----------8----------9----------10

The sex life has changed. I have sex much less and less often than before.	I have a bit less sex now than when at home.	The amount of sex has remained the same	I have a bit more sex now than when at home.	My sex life has changed. I have sex much more and more often than at home.

Q55. On the ruler below, please circle the number that best describes how at risk due to your sexual your sex life you think you are now:

0----------1----------2----------3----------4----------5----------6----------7----------8----------9----------10

I think that I am at NO risk now.	I think I am at LESS risk now than when I am at home.	I think I am at the SAME level of risk as at home	I think my level of risk has increased a bit now .	I think I am at HIGHG risk due to my sex life now

Since arriving in Australia …..						
Q56. How often have you had sex (anal or vaginal)?	Daily(1)	Weekly(2)	Fortnightly (3)	Monthly(4)	No sex	
Q57. How many different people have you had sex with?				people	No sex	
Q58. How many of your sexual partners were Australians?				people	No sex	
Q59. How often have you used a condom?	Always (1)	Most of the Time (2)	Sometimes (3)	Rarely (4)	Never (5)	No sex
Q60. How often have you drunk alcohol just before sex?	Always (1)	Most of the Time (2)	Sometimes (3)	Rarely (4)	Never (5)	No sex
Q61. How often have you used drugs just before sex?	Always (1)	Most of the Time (2)	Sometimes (3)	Rarely (4)	Never (5)	No sex
Q62. Have you been forced to have sex when you didn't want to?		Yes (1)	No (2)	Don't Know (3)		

Thinking about the last time you had sex…..			
Q63. Was your last sexual partner a	Male (1)	Female (2)	
Q64. Was the last sex you had	Oral (1)	Anal (2)	Vaginal (3)
Q65. Did you use condoms the last time you had sex?	Yes (1)	No (2)	
Q66. Had you drunk alcohol the last time you had sex?	Yes (1)	No (2)	
Q67. Had you used drugs the last time you had sex?	Yes (1)	No (2)	
Q68. Where did you meet your last sexual partner?			
Q69. What country was your last partner from?			

Have you had any of the following symptoms in the last 12 months?		
Q70. Pain (like a stinging or burning) when passing urine	Yes (1)	No (2)
Q71. A discharge of pus or smelly fluid from your penis or vagina	Yes (1)	No (2)
Q72. A painful blister or lesion around your genitals	Yes (1)	No (2)
Q73. A lump like a wart around your genitals	Yes (1)	No (2)

Sexually Transmitted Infections screening history	
Q74. When did you last have a test for Sexually Transmitted Infections?	
Q75. When did you last have a HIV test?	

In the last four weeks have you sought health/medical advice from about…		
mark <u>one</u> response for <u>each</u> row below	**Yes** (1)	**No** (2)
Q76. Hostel		
Q77. Pharmacist/Chemist		
Q78. Doctor		

Q79. Emergency Dept.		
Q80. Sexual Health Service		

Have you taken antibiotics …..		
mark <u>one</u> response for <u>each</u> row below	**Yes** (1)	**No** (2)
Q81. In the last 4 weeks?		
Q82. In the last 3 months?		

Appendix B

Focus Test Flyer.

Appendix C

Focus Test Programme.

AIM:

1. provide an insight to comprehension of questionnaire structure within the International Backpacker population.
2. ascertain the feasibility of the longitudinal study methodological design within the International Backpacker population.
3. establish if the request to provide a urine screen would influence potential continued participation in the study.

OBJECTIVE:

1. identify and rectify comprehension potential confounding factor prior to participant recruitment.
2. identify that the International Backpacker population is sufficiently attracted to the remuneration scheme and thus ensure maximal participation and compliance throughout the study period during follow-up.
3. identify any issues of cultural significance in obtaining a urine sample as an 'invasive procedure' as incorporated into the study design.

Timeline	Process	Rationale	Person
1300-1315	Welcome & Orientation. Project Introduction: • Background • Overview • Participant requirements.	Investigate feasibility of using a non-translated questionnaire within a international population.	Anthony
1315-1345	Complete Questionnaire.	Time questionnaire completion.	Participants
1345-1405	Review Questionnaire: • Comprehension & Feedback Scribe feedback.	Quality activity to determine feasibility of using a questionnaire within a population of NESB.	Anthony TBA
1405-1425	Seek responses to aims and objectives: • Overall, was the survey easy to complete? • Overall, was the survey easy to understand? • Do you think the survey needs to be translated into different languages? • Would you find this survey embarrassing to complete? • What would be the best environment to do the survey – Biala or at the hostel? • What do you think is the best way to recruit people – flyer/approach them? • Is the dollar value remuneration and IPhone scheme attractive? • How convenient will it be to be contacted by email during your holidays? • Would you be happy to provide a urine sample? • Is there a preference for how you would want to receive any test results – sms/email?	Details from questions will form qualitative and some dichotomous data which when analysed will inform reliability and validity of tool.	Anthony
1430	Close and Thanks.		Anthony

Resource Needs:

Resource	Quantity
Printed Questionnaires	30
Butchers Paper/Markers (to scribe)	8
Pens	20
Post-It Notes	3/participant

APPENDIX 6
Partners

Partners

Alcohol and Drug Service

Primary and Community Health Services, Metro North Health Service District, Queensland Health

The Alcohol and Drug Service (ADS) operates under a mandate to minimise the negative impact of alcohol and other drug use through the provision of a balanced mix of quality prevention and treatment services. As the largest such agency in Queensland and the only one with a critical mass of workers with the potential for developing a system of best available practice, the ADS is optimally placed to strategically lead the sector in facilitating high quality state-wide standards of evidence based practices across the continuum of care. In addition to providing services for approximately 700,000 people within the District, it operates services catering for the Brisbane metropolitan area and the whole of Queensland. To this end the Alcohol and Drug Service has a commitment to serve as a statewide resource, functioning as a centre of excellence in its field in clinical practice, novel research, multidisciplinary education and training.

Several state-wide programs that serve Queensland are located within the Alcohol and Drug Service. Statewide Services Programs include the Alcohol and Drug Training and Resource Unit (ADTRU), the Alcohol and Drug Information Service (ADIS), the Alcohol and Drug Service Library and the Centre for Drug and Alcohol Studies (CDAS) which will be hosting this project.

CDAS is a multi-disciplinary research, education and training team. Its purpose is to:

- develop, design and implement novel clinical and public health research projects across Queensland, with outcomes influencing clinical processes, standards of clinical practice and State and National population health strategies and interventions
- Design, disseminate and evaluate novel clinical interventions for use with people with alcohol and other drug use, including those with identified special needs: Indigenous populations, young people.
- Provide expert counsel on research and development and quality improvement activities for the ADS and State-wide alcohol tobacco and other drugs sector.

Recently CDAS has been responsible for:

- Young People at Risk Project – a descriptive study and development of an intervention for use with young people who have used alcohol, tobacco or other drugs (2007/08)
- The Queensland component of the Pharmaceutical Misuse and Harms Project (2008)
- Evaluation of Component 2 of the Queensland Health Smoking Management Policy (2008/2009)
- Evaluating and rollout of SmokeCheck Smoking Cessation Brief Intervention for Indigenous People (2004/2009)
- Identification of assessment tools by use of the Queensland Indigenous Alcohol Diversion Program Screening (2007)
- Indigenous Risk and Impact Screen and Brief Intervention: Brief Intervention Evaluation and Queensland Rollout (2005-2008)

Sexual Health and HIV Health Services

Primary and Community Health Services, Metro North Health Service District, Queensland Health

The Sexual Health & AIDS Service provides a comprehensive clinical, educational and clinical psychological service targeting all aspects of sexual health, sexually transmissible infections and blood-borne infections. Services are not restricted to particular geographic areas, though some outreach clinics are restricted to particular clients groups such as sex workers, men who have sex with men and transgenders. The Service comprises five major programs:

Brisbane Sexual Health Clinic

This clinic offers a wide range of clinical, educational, health promotional and counselling services for people affected by or concerned with sexual health issues, particularly in the area of sexually transmissible infections. These include:

- Testing, treatment and management of sexually transmissible infections
- Testing and management of HIV infection
- Contraceptive advice
- Emergency Contraception
- Post-Exposure Prophylaxis for suspected exposure to HIV
- Telephone advice, and face to face counselling concerning sexual identity, orientation, relationships, sexual assault (for both men and women)
- Training and in-service education for health workers including general practitioners and other professionals
- Public education for schools, youth services, community organisations, general community
- Health promotion programs, including specialist screening programs, for interested community groups.

AIDS Medical Unit

This is an ambulatory ("outpatient") clinic which offers a wide range of clinical, educational, health promotional, social and counselling services for people infected and affected by HIV. Optimal medical care for PLWHA is shared between the general practitioner and the HIV specialist and the AIDS medical unit (AMU) fosters this model. Services include:

- Testing for HIV infection
- Highly Active Anti-Retroviral Therapies (HAART) for HIV infection
- Ongoing management of HIV at all stages of disease progression
- Prophylaxis and management of opportunistic infections
- Testing and management of concurrent hepatitis B & C
- Post-Exposure Prophylaxis for suspected exposure to HIV (PEP)
- Telephone advice and face to face counselling concerning all aspects of living with HIV infection- for those infected, their partners, family members, significant others and carers
- Social and welfare information and support
- Training and in-service education for health workers including general practitioners and other professionals
- Public education for youth services, community organisations, general community
- Clinical and psychosocial outreach and support for prisoners.

Sexual Health & AIDS Counselling Service

This is a psycho-sexual counselling team of three psychologists and a sessional psychiatrist which offers a wide range of brief to long-term psychological and counselling services for people infected with or affected by HIV/AIDS, or with other sexual health concerns. These include:

- Emotional & social adjustment to HIV diagnosis
- Coping with HIV infection and illness
- Anxiety, stress and depression
- Issues with treatment compliance
- Grief and loss
- Counselling for partners, family, significant others and carers of persons with HIV
- Mental health and neuropsychological assessments for persons with HIV infection
- Other sexuality issues including sexual identity & orientation; "coming out" issues (for individuals, partners and family); relationships; transgender; sexual assault (for men and women)
- Training and in-service education for health workers including general practitioners and other professionals
- Health promotion programs for interested community groups.

Indigenous Sexual Health Program

This is a health promotion team of two indigenous health workers which offer a wide range of educational, preventative, training, care and support services for individuals and communities affected by sexually transmissible infections (including HIV/AIDS) and other sexual health concerns. The services provided by this team include:

- Emotional & social support for persons infected and affected by HIV, other sexually transmissible infections and Hepatitis C
- Information, advice and referral for individuals and groups re sexual health issues
- Development of resource materials for communities
- Education and training for health professionals including general practitioners
- Education and health promotion activities for individuals, community groups, councils, organisations and schools re sexual health issues
- Development of clinical outreach screening programs to indigenous communities to ensure better access to basic primary health care
- Contact tracing for other medical services.

Ethnic Communities Council of Queensland

The Ethnic Communities Council of Queensland (ECCQ) is a peak-body origination that advocates on behalf of people from culturally and linguistically diverse (CALD) backgrounds. Its state-wide HIV/AIDS, Hepatitis & Sexual Health program seeks to actively educate and inform people from CALD backgrounds on HIV, hepatitis and sexually transmissible infections. The program ensures that people from overseas are not disadvantaged in accessing health information and in their awareness of health risk behaviours.

The Multicultural Youth Health Program that is an important part of HIV/AIDS, Hepatitis & Sexual Health Program works closely with CALD young people including international students. The Youth Program holds health promotion activities for CALD young people at various venues

ECCQ also provides training for people from CALD communities on HIV/AIDS, hepatitis and sexually transmissible infections. It develops, translates and distributes multilingual resources on relevant health issues. ECCQ supports and assists in health researches that can reduce barriers of people accessing information and services.

Resource Contribution from Partners

Investment of time and expertise from permanent staff of the Alcohol and Drug Service, Sexual and HIV Services and the Ethnic Communities Council of Queensland equating to approximately 1 full-time equivalent on this project (minimum estimated value $50,000).

Alcohol and Drug Service support includes:

- Project Coordination in kind from the Program Coordinator, Centre for Drug and Alcohol Studies (CDAS)
- Business Administration support from the Alcohol and Drug Service
- The use of a motor vehicle
- Secured storage and maintenance of project records
- Physical resources such as office space, SPSS data analysis program, photocopying and telephones
- Alcohol and Drug Information Service provision of selected alcohol, alcohol and young women, don't lose your standards promotional materials

Sexual and HIV Services support includes:

- Supply of 110 Chlamydia self collection testing kits
- Pathology testing for Chlamydia trachomatis in 110 participants, including follow up management
- Advice and guidance on those elements concerning sexual health
- Recruitment, interview and data collection support

Ethnic Communities Council of Queensland support includes:

- Provision of health information in different languages
- Recruitment, interview and data collection support.

APPENDIX 7
February Interim Report

Queensland Government
Queensland Health

February 2010

SEX, DRUGS AND BACKPACKING PROJECT

KEY PROGRESS/MILESTONES ACHIEVED

- Study measures have been identified which can be administered across language groups.
- Ethical clearances (initial and amendments) have been submitted and received form The Prince Charles Hospital Human Research Ethics Committee (Appendix One: ethics clearance).
- Collaboration between key agencies has been instigated and good working relations continue.
- Evaluators from the School of Medicine, University of Queensland, are appointed and have commenced
- The contract between Queensland Health and the AER Foundation Ltd has been signed.
- Focus Groups have been conducted to pilot test the survey and obtain feedback from backpackers on the study methodology. (Appendix Two: Snapshot of Survey Results; Appendix three: Masters Thesis (Anthony Peet) a literature review and study based on the focus groups).
- Promotions:
    - "Sex, Drugs and Backpacking: Your Passport" Presentation: Allied Health Research Showcase, Wednesday 23rd November 2009. 200 health practitioners present and a further four sites linked by video conference
    - Abstract to Winter School in the Sun "Sex, Drugs and Backpacking: Implications for health promotion with young transient populations". June 2010. Status: awaiting acceptance
    - Abstract submitted, but unsuccessful to the Australian Drug Strategy Conference "Alcohol Consumption and Driving Behaviour by international backpackers". March 2010
    - Queensland Health Media and Public Relations Unit provided a media response to "XandYMagazine", an Internet magazine targeted at "generation y'.

OVERALL PROJECT HEALTH

The project remains in good health. Focus groups were held with 30 participants (Appendix Two: Snapshot of Focus Group Findings). Findings from the focus groups reveals there may be some significant risk behaviours of backpackers around alcohol consumption but also that there is some potential to reduce the harm associated with alcohol consumption amongst this group.

PRIMARY OBJECTIVES

- Backpacker recruitment, enrolment completion of the baseline survey and urine testing is schedule to commence 22nd February 2010.
- To increase the initial sample size form 110 to a minimum of 150 participants.
- The online survey tool, "Survey Monkey" has been approved and will be ready for administration for follow-up, expected to commence in the last week of March 2010.
- Data entry and analysis is scheduled for April 2010.
- Final Report is expected to be completed end of June 2010.

KEY PROJECT METRICS

Project Management Functions	On-track[1]	Significant variation from plan	Comments
Time		X	There has been delay in project activities. However there is some indication from the early work in the project of the need for health promotion activities with this transient population. The baseline recruitment is due to commence 22nd February 2010.
Quality			
a) objectives	X		The objectives of this pilot project continue to be met.
b) partner/client satisfaction	X		There has been some initial difficulty obtaining support form backpacking hostels. However with assistance of supportive hostels and word of mouth, it is anticipated, as was experienced with the focus groups that recruitment targets will be met
c) other			Not Applicable
Cost	X		Project expenses remain within Budget
Risk			The major risk at this point in time remains participant response rates at the follow-up. To address this issue a feature of "survey monkey" to monitor responses and to contact participants will be utilised.
Communication	X		Communication amongst collaborating agencies and with the evaluators remains good. The evaluators have been in regular attendance team meetings and project events to observe activities
Team dynamics	X		The collaborative approach to this project is working very well, with all partners remaining enthusiastic and supportive of the project.

SIGNIFICANT ISSUES TO BE RESOLVED/DECISIONS REQUIRED?

Yes x No

Attached (cover letter) is a request to extend the project completion time to 30th June 2010

Sign off

Submitted by:		**Cleared by** *(if relevant)*
Name:	Jane Fischer	Name:
Unit/Network:	CDAS, Alcohol and Drug Service Primary & Community Health Services Metro North Health Service District	Position: Signed:
Ph:	3837 5715	Date
Date:	15th February 2010.	

[1] Tick either 'on track' or 'significant variation from plan' column for each metric.

Queensland Government

Office of the Human Research Ethics Committee

Queensland **Health**
Enquiries to: Philip Lee
Phone: 3139 4500
Fax: 3359 5759
Our Ref: HREC/09/QPCH/144
E-mail Philip_Lee@health.qld.gov.au

14 December 2009

Ms Jane Fischer
"Biala"
270 Roma Street
Brisbane Qld 4000

Dear Ms Fischer

HREC Reference number: HREC/09/QPCH/144
Project title: HREC/09/QPCH/144: Sex, Drugs and Backpacking: Alcohol Intoxication and Sexually transmitted Infections amongst International Backpackers travelling through Queensland.J.Dean, K.Allen, S.Rostami, J.Debattista, A.Peet, J.Fischer
Amendment number: HREC/09/QPCH/144/AM01
Amendment Date: 25 November 2009

The above amendment was reviewed at the meeting of the Human Research & Ethics Committee held on 10 December 2009.

I am pleased to advise that the amended documents reviewed and approved at the meeting were:

Document	Version	Date
Questionnaire: Behavioural Survey	2	25 November 2009
Protocol	2	24 November 2009
Patient/Participant Information Sheet and Consent Form	3	24 November 2009
Email Contact Form		

The Metro North - The Prince Charles Hospital HREC is constituted and operates in accordance with the National Health and Medical Research Council's *"National Statement on Ethical Conduct in Human Research (2007), NHMRC and Universities Australia Australian Code for the Responsible Conduct of Research (2007)* and the *"CPMP/ICH Note for Guidance on Good Clinical Practice"*.

It should be noted that all requirements of the original approval still apply.

Yours faithfully

Philip Lee, MBA (UQ), BAppSc (QUT), FRCNA, AFAIM
Executive Officer – Research, Ethics & Governance Unit

Table 1: Backpackers demographic characteristics

Demographic Characteristics	N=30
Gender (%)	
Male	50
Female	46.7
Age Mean	23.14
Median	22.50
Geographic Region of Origin (%)	
North America	13.3
Europe	36.6
Britain or Ireland	36.6
Asia	3.3
Africa	3.3

Table 2: Australian "standard drink' knowledge

'Standard Drink" Knowledge	N=30 %
Heard of a 'standard' drink – yes	53.3
Know what a 'standard' drink is – yes	30.0
BAC in Australia for driving	
.0	13.3
.05	43.3
Don't Know	40.0

Table 3: Consumption and attitudes towards drinking

Consumption & Attitudes	N=30 %
Current alcohol consumption vs home	
Much less and less often	20.0
The same	40.0
Much more and more often	36.7
Attitude towards consumption vs home	
Never think about drinking	53.3
I have decided to drink less	33.3
I now drink less than before	6.7

Table 4: Australian locations where alcohol has been consumed

Consumption Locations	Always/Mostly %	Some Times %	Rarely/Never %
Raves	16.7	20.0	50.0
Restaurants/Cafes	6.7	10.0	70.0
Licensed Premises	40.0	43.3	10.0
Public Places	33.4	13.3	40.0
Car or Vehicle	0	20.0	63.3
Hostel Accommodation	46.7	30.0	20.0

Table 5: Harm reduction practices implemented in Australia

Harm Reduction Practices	Always/Mostly %	Some Times %	Rarely/Never %
Count Drinks	16.7	10.0	63.3
Alternate between alcohol and non-alcohol drinks	6.6	33.3	53.3
Consume food	20.0	33.3	33.3
Quench first with non-alcohol	33.3	23.3	36.6
Drink low alcoholic drinks	16.7	20.0	53.3
Limit number of drinks	20.0	26.7	46.6
Refuse drinks	16.7	33.3	43.3

Table 6: Risk behaviours under the influence of alcohol in Australia

Activities under the influence of alcohol	N=30 %
Went swimming	40.0
Drove a boat	6.9
Drove a car	10.7
Passenger in a Car	60.0
Created a public disturbance	23.3
Damaged Property	6.7
Abused Someone - Verbally - Physically	16.7 3.3
Had Sex - Unprotected Protected	40.0 56.7

APPENDIX 8
Evaluation Outline

EVALUATION OUTLINE

OBJECTIVES

The objectives of the evaluation are as follows:

- To audit the processes used to conduct the sex, drugs and backpacking study.
- To evaluate the impact the study has had on its target population.
- To assess the quality of the pilot study and its implications for improving our knowledge of reducing harm associated with unsafe sex practices associated with alcohol intoxication

METHOD

- Application of a triangulation method consisting of a) project documentation, b) information collected as part of the project, c) qualitative interviews with stakeholders
    - It is anticipated that much of the data required will be collected as part of the study.
    - Qualitative data will be obtained from identified stakeholders on I) project processes and II) perceived impact of the project on the target population and the backpacker industry.
- It is recognised that one purpose of the study is to assess i) the potential public health risk, ii) feasibility for expanding the project State-wide, iii) to develop the knowledge base for improving responsible drinking and safe sex practices within this population. Hence the evaluation would focus upon how well the project has achieved these objectives.

MEASURES

The evaluation is to be based on project objectives and proposed outcomes, examining both the process and impact of the study.

Project Processes

Did the project:	Questions	Data	Data Collection Responsibility
Receive Ethical clearance	Yes/No	Ethical Clearance Documentation	Project
Obtain in-principle support by backpacking operators for recruiting participants on location at hostel/backpacking accommodation	• Has the selection of backpacking operators been clearly documented? • Was in principle support obtained, and from how many? • What were the experiences of backpacking operators and project staff of recruiting?	Project Documentation	Project
		Qualitative	Evaluator
Recruit 110 participants and followed up at least 50% of participants 28 days later	• Has recruitment and follow-up methods been clearly documented?	Flow diagram to clarify participation in observation longitudinal research Tooth et al 2005) or similar will be used to document recruitment and follow-up	Project
Developed and submitted a drafted paper for peer review	Yes/No	Draft of paper	Project
Collaboration between key agencies	Project management • Project Team Stability • Project Governance • Risk Management	Project Documentation -Minutes -Records	Project

	• Communication • Quality Management		

Study Impact

What influence did the project have on:	Questions	Data	Data Collection Responsibility
Promoting a positive image of the Australian community	• Limitations/Strengths of the study • Ways forward	Feedback from Stakeholders	Evaluator
Promoting responsible alcohol consumption within the context of the target group.	• Limitations/Strengths of the study • Ways forward	Feedback from Stakeholders	Evaluator
Reduce binge drinking and unsafe sexual practices in this group through the provision of a knowledge based intervention supported by the supply of 'prevention packs'	• Limitations/Strengths of the study • Ways forward	Feedback from Stakeholders	Evaluator

Study Quality Assessment

Study quality influences the validity and reliability of its results and to what population the results can be inferred. In this project there is a particular interest in how the following was conducted:

- Assessing alcohol consumption and sexual practices by participants
- Identifying risk and protective factors
- Identifying opportunities for reducing harm
- Assessing the feasibility of applying the methodology to a Queensland-wide study
- Assessing the public health risk posed.

Assessing study quality can also assist in evaluating to what extent quality its implications for improving our knowledge of reducing harm associated with unsafe sex practices associated with alcohol intoxication. Assessing the quality of studies will cover the following themes:

Study Design	What study design has been used? If the study design is not ideal, can it provide any useful results at all/ What are the strengths and weaknesses of the study design chosen for providing an evaluation of association and causality?
Sampling	Have sampling procedures been documented Who is the sample supposed to represent? How good was the follow-up rate? Will any potential sampling biases affect study validity?
Measures	What measures were used? Where they the "Gold Standard"? Has the outcome factor(s) or effect being studied been clearly defined and measured? Have all relevant outcomes been included? What are the exposures of interest, were they clearly defined and measured? What likely effect could this have had on the study results
Confounding	Have all important confounders been considered? Have potential confounders been controlled for? Is confounding likely to be an important source of distortion of the measures of association?
Ethics	Have all ethical issues been discussed? How were ethical issues accounted for?
Statistical Analysis	Have the methods of analysis been clearly reported? Have confidence intervals been reported for the estimates? If associations have been seen, what is the probability that there is a real effect but that the study was simply to small to detect it? Was this study useful or are the results inconclusive?

Validity	What is the overall judgement of internal validity Have the limitations of the study been documented? Are the conclusions made by the researchers justifiable? Can the results be generalised from the study population to the target population?

FUNDING

Funding available is $5,000

TIMEFRAME

The evaluation is expected to be completed within the 2009-2010 financial year and the majority of the work will occur simultaneously to the pilot study.

SUBMISSION REQUIREMENTS

The following is required for submission to the AER Foundation:

- A formal quotation from an authorised institution and/or qualified person to conduct the evaluation
- A copy of the evaluators curriculum vitae
- A draft framework for the evaluation based on the project objectives and proposed outcomes.

Thankyou for participating in the study. This next section will take only 2 minutes to complete and it provides the evaluators with some extra information on the overall process that you have just completed.

Question	Yes/No	Comments
1. How did you hear about the study? (flyer, poster, word of mouth, personal approach)		
2. Did the Researcher clearly explain to you the purpose of the study?		
3. Did the Researcher clearly explain to you the purpose of the urine specimen?		
4. Was there opportunity for you to ask questions?		
5. Did you find the survey questions clear and easy to understand		
6. Did you answer all of the questions on the survey?		If No, Why Not?
7. Did you find the setting comfortable for doing this survey?		If No, Why Not?

Thinking about your total involvement in the study, was there any part of the process (including the recruitment stage) that you were unhappy with?

Yes/No (please circle) If you answered yes, please comment

_____

_____

_____

_____

General Comments

_____

_____

_____

Thank you for your time and enjoy the rest of your holiday!

Evaluation: The next six questions will ask about your overall participation in the survey process.

Question	Yes/No	Comments
Overall, considering the initial recruitment into this study, the need to give a urine specimen and the follow up 28 days later, would you participate in a study like this again?		
Did the reimbursement make a difference to your involvement?		
Was waiting 28 days to contact you again too early, too late, or just right? Why		
Was email the best way to contact you and remind you to complete this follow up survey?		
Were you comfortable with the amount of personal information that was asked of you?		
Did you answer all of the questions on the 28 day follow up survey?		

APPENDIX 9
Initial Survey

Q1. **Date:** Q2. **Gender:** Q3. **Age:**

Q4. **Country of origin**

Q5. **List the countries you visited on your way to Australia**

Q6. **How long have you been in Australia?**

Q7. **How long do you intend to stay in Australia?**

Q8. **How long have you been in Brisbane?**

Q9. **How long do you intend to stay in Brisbane?**

Q10. **Where have you visited (in Australia) before coming to Brisbane?**

Q11. **Where do you intend to visit after Brisbane?**

Q12. **Will you be in Australia 28 days from now?**

Q13. **Which statement best describes who arrived with you into Australia…**	
mark <u>one</u> response	
I arrived alone[1]	
I arrived with my boyfriend/girlfriend[2]	
I arrived with a group[3]	

mark <u>one</u> response for <u>each</u> row below	Always[1]	Most of the Time[2]	Sometimes[3]	Rarely [4]	Never[5]
Q14. At home, how often did you drink alcohol?					
Q15. Since arriving in Australia, how often do you drink alcohol?					

If you mark 'never' in Q15, please go to Q.49

Q16. On the ruler below, please circle the number that best describes your current consumption of alcohol compared to at home*:*

0----------1----------2----------3----------4----------5----------6----------7----------8----------9----------10

My drinking has changed - I drink much less and less often than before | Sometimes I drinking less and less often | My drinking has remained the same | Sometimes I drink more and I drink more often than before | My drinking has changed. I drink much more and more often

Q17. On the ruler below, please circle the number that best describes how you feel *right now:*

0----------1----------2----------3----------4----------5----------6----------7----------8----------9----------10

Never think about my drinking | Sometimes I think about drinking less | I have decided to drink less | I am already trying to cut back on my drinking | My drinking has changed. I now drink less than

When have you drunk alcohol in the last seven days…	
Q18. On how many days did you drink alcohol?	**Days**
Q19. On average how many alcoholic drinks do you have when you were drinking?	**Drinks**
Q20. How many alcoholic drinks did you have yesterday?	**Drinks**

Q21. Since arriving in Australia, how often have you been unable to remember what happened the night before because you had been drinking …				
Never[1]	Less than Monthly[2]	Monthly[3]	Weekly[4]	Daily or Less than Daily[5]

Q22. **Since arriving in Australia who do you drink with…**	
mark one response only	
Drink alone most or all of the time[1]	
Drink with same person/group for all or most of the time[2]	
Drink with different people/groups for all or most of the time[3]	

Since arriving in Australia where have you drunk alcohol…					
mark one response for each row below	Always[1]	Most of the time[2]	Sometimes[3]	Rarely[4]	Never[5]
Q23. Raves/Dance parties					
Q24. Restaurants/Cafes					
Q25. Licensed Premises (pubs, hotels, bars)					
Q26. Public places (parks, beaches, camp sites)					
Q27. In a Car or other Vehicle					
Q28. In your Hostel Accommodation					
Q29. Somewhere Else					

Since arriving in Australia when you drink, how often do you …					
mark one response for each row below	Always[1]	Most of the Time[2]	Sometimes[3]	Rarely [4]	Never[5]
Q30. Count the number of drinks you have					
Q31. Deliberately alternate between alcohol and non-alcoholic drinks					
Q32. Make a point of eating while consuming alcohol					
Q33. Reduce your thirst by having a non-alcoholic drink before consuming alcohol					
Q34. Only drink low alcohol drinks					
Q35. Limit the number of drinks you have					
Q36. Refuse an alcoholic drink you are offered because you really don't want it					

Since arriving in Australia have you undertaken any of the following activities while under the influence of alcohol…			
mark one response for each row below	Yes[1]		No[2]
Q37. Went swimming			
Q38. Operated a boat			
Q39. Drove a motor vehicle			
Q40. Been a passenger in a vehicle where the driver had recently consumed			
Q41. Been involved in an accident in which the driver (another person or you) had recently consumed alcohol			
Q42. Created a public disturbance or nuisance			
Q43. Caused damage to property			
Q44. Stole money, goods or property			
Q45. Verbally abused someone			
Q46. Physically abused someone			
Q47. Had unprotected sex (sex not using a condom)			
Q48. If you answered yes to Q45, with what type of partner?	Regular[1]	Casual[2]	Other[3]:

Since arriving in Australia did any person affected by alcohol…		
mark <u>one</u> response for <u>each</u> row below	Yes[1]	No[2]
Q49. Verbally abuse you		
Q50. Physically abuse you		
Q51. Put you in fear		
Q52. Sexually abuse you		

Q53. Before today had you ever heard of a 'standard' drink of alcohol?	Yes[1]	No[2]
Q54. Do you know what a 'standard' drink of alcohol is?	Yes[1]	No[2]

Q55. Which answer below best describes the legal Blood Alcohol Concentration for driving in Australia…				
.0	.05	.08	.10	Don't Know

Q56. On the ruler below, please circle the number that best describes how you feel *right now* about condom use*:*

0----------1----------2----------3----------4----------5----------6----------7----------8----------9----------10

Never think about safe sex | Sometimes I think about using condoms more | I have decided to use condoms more often | I am already trying to use condoms more during sex | My condom use has changed to using condoms always

Q57. On the ruler below, please circle the number that best describes your sex life now compared to at home*:*

0----------1----------2----------3----------4----------5----------6----------7----------8----------9----------10

The sex life has changed. I have sex much less and less often than before | I have a bit less sex now than when at home | The amount of sex has remained the same | I have a bit more sex now than when at home | My sex life has changed. I have sex much more and more often than at home

Q58. On the ruler below, please circle the number that best describes how at risk you think you are due to your sex life now:

0----------1----------2----------3----------4----------5----------6----------7----------8----------9----------10

I think that I am at NO risk now. | I think I am at LESS risk now than when I am at home | I think I am at the SAME level of risk as at home | I think my level of risk has increased a bit | I think I am at HIGH risk due to my sex life now

Since arriving in Australia …..

mark <u>one</u> response for <u>each</u> row below

Q59. How often have you had sex (anal or vaginal)	Daily[1]	Weekly[2]	Fortnightly[3]	Monthly[4]	No sex[5]	
Q60. How many different people have you had sex			**_____ People**		No sex[0]	
Q61. How many of your sexual partners were Australians?			**_____ People**		No sex[0]	
Q62. How often have you used a condom?	Always[1]	Most of the Time[2]	Sometimes[3]	Rarely	Never[5]	No sex[6]
Q63. How often have you drunk alcohol just before	Always[1]	Most of the Time[2]	Sometimes[3]	Rarely	Never[5]	No sex[6]
Q64. How often have you used drugs just before	Always[1]	Most of the Time[2]	Sometimes[3]	Rarely	Never[5]	No sex[6]
Q65. Have you been forced to have sex when you didn't want		Yes[1]	No[2]		Don't Know[3]	

Thinking about the last time you had sex in Australia…..	If you have not had sex in Australia, please go to		
mark <u>one</u> response for <u>each</u> row below			
Q66. Was your last sexual partner a	Male[1]		Female[2]
Q67. Was the last sex you had	Oral[1]	Anal[2]	Vaginal[3]
Q68. Did you use condoms the last time you had sex?	Yes[1]		No[2]
Q69. Was the last time you had sex with:	**Regular Partner[1]**		**Casual Partner[2]**
Q70. Had you drunk alcohol the last time you had sex?	Yes[1]		No[2]
Q71. Had you used drugs the last time you had sex?	Yes[1]		No[2]
Q72. Where did you meet your last sexual partner?			
Q73. What country was your last partner from?			

Have you had any of the following symptoms in the last 12 months?		
mark <u>one</u> response for <u>each</u> row below		
Q74. Pain (like a stinging or burning) when passing urine	Yes[1]	No[2]
Q75. A discharge of pus or smelly fluid from your penis or vagina	Yes[1]	No[2]
Q76. A painful blister or lesion around your genitals	Yes[1]	No[2]
Q77. A lump like a wart around your genitals	Yes[1]	No[2]

Sexually Transmitted Infections screening history	
mark <u>one</u> response for <u>each</u> row below	
Q78. When did you last have a test for Sexually Transmitted Infections?	
Q79. When did you last have a HIV test?	

In the last four weeks have you sought health/medical advice from about…		
mark <u>one</u> response for <u>each</u> row below	**Yes[1]**	**No[2]**
Q80. Hostel		
Q81. Pharmacist/Chemist		
Q82. Doctor		
Q83. Emergency Dept.		
Q84. Sexual Health Service		

Have you taken antibiotics …..		
mark <u>one</u> response for <u>each</u> row below	**Yes[1]**	**No[2]**
Q85. In the last 4 weeks?		
Q86. In the last 3 months?		

Please Turn Over….

These last few question are designed to evaluate the overall process that you have just completed. It will take only 2 minutes to complete			
Question			
1. Tick (√) how you heard about the study?	□ flyer □ hostel staff □ poster □ I was told about by another backpacker □ I was approached by someone at the venue □ other _____		
			Comments
8. Did the Researcher clearly explain to you the purpose of the study?	**Yes**	**No**	
9. Was there opportunity for you to ask questions?	**Yes**	**No**	
10. Did the Researcher clearly explain to you the purpose of the urine specimen?	**Yes**	**No**	
11. Did you fee OK about providing a urine sample?	**Yes**	**No**	If No, Why Not?
12. Did you find the survey questions clear and easy to understand	**Yes**	**No**	
13. Did you answer all of the questions on the survey?	**Yes**	**No**	If No, Why Not?
14. Did you find the setting comfortable for doing this survey?	**Yes**	**No**	If No, Why Not?
15. Thinking about your total involvement in the study, was there any part of the process (including the recruitment stage) that you were unhappy with?	**Yes**	**No**	If YES, Why?

GeneralComments_____
_____

Thankyou for your time and enjoy the rest of your holiday!
Please return the surveys in the attached envelope.
Safe and Happy Travels

APPENDIX 10
Follow Up Survey

Sex, Drugs and Backpacking Followup Survey

1. Default Section

1. What are the first two letters of your first name?
e.g. Jane is JA

2. What are the first two letters of your family/surname?
e.g. Smith is SM

3. What town are you currently visiting?

4. How long have you been at this location?

5. How long do you intend to remain at this location?

6. Where do you intend to visit after this location?

7. Which statement best describes who you are currently travelling with...

- ◯ I am travelling alone
- ◯ I am travelling with my boy/girl friend
- ◯ I am travelling with a group
- ◯ I am no longer travelling, I have returned home

Page 1

Sex, Drugs and Backpacking Followup Survey

2. Alcohol Use

We would now like to know about your patterns of alcohol use in the last four weeks.

Remember, all the information your provide remains confidential and de-identified.

1. Please tick the number that best describes your current consumption of alcohol compared to four weeks ago.

	My drinking has changed. I drink MUCH LESS and LESS often		Sometimes I drink LESS and LESS often		My drinking has remained the same		Sometimes I drink MORE and MORE often		My drinking has changed. I drink MUCH MORE and MORE often
Compared to four weeks ago...	○	○	○	○	○	○	○	○	○	○	○

2. Please tick the number that best describes how you feel right now:

	I NEVER think about my drinking		Sometimes I think about drinking less		I have decided to drink less		I am already trying to cut back on my drinking		My drinking has changed. I now drink less than before
Right now ...	○	○	○	○	○	○	○	○	○	○	○

*** 3. In the last seven days on how many did you drink alcohol?**

- ○ No Days
- ○ One
- ○ Two
- ○ Three
- ○ Four
- ○ Five
- ○ Six
- ○ Seven

4. In the last seven days, on average how many alcoholic drinks did you have when you were drinking?

Page 2

Sex, Drugs and Backpacking Followup Survey

5. Yesterday, how many alcoholic drinks did you drink?

Page 3

Sex, Drugs and Backpacking Followup Survey

3. Alcohol Use Continued

1. Thinking back over the last four weeks, how often have you been unable to remember what happened the night before because you had been drinking?

- ◯ Never
- ◯ Once
- ◯ Fortnightly
- ◯ Weekly
- ◯ Daily or Less than Daily

2. Over the last four weeks who have you mainly consumed alcohol with?

- ◯ Drink alone most or all of the time
- ◯ Drink with the same person/group for all or most of the time
- ◯ Drink with different people/groups for all or most of the time

3. Over the last four weeks where have you drunk alcohol?

	Always	Most of the time	Some times	Rarely	Never
Raves/Dance parties	◯	◯	◯	◯	◯
Restaurants/Cafes	◯	◯	◯	◯	◯
Licensed Premises (pubs, hotels, bars)	◯	◯	◯	◯	◯
Public Places (parks, beaches, camp sites)	◯	◯	◯	◯	◯
In a car or other ehicle	◯	◯	◯	◯	◯
In your Hostel Accommodation	◯	◯	◯	◯	◯
Somewhere Else	◯	◯	◯	◯	◯

Sex, Drugs and Backpacking Followup Survey

4. Over the last four weeks how often have you...

	Always	Most of the time	Some times	Rarely	Never
Counted the number of drinks you had	◯	◯	◯	◯	◯
Deliberately alternated between alcohol and non-alcoholic drinks	◯	◯	◯	◯	◯
Made a point of eating while consuming alcohol	◯	◯	◯	◯	◯
Reduced your thirst first by having a non-alcoholic drink before consuming alcohol	◯	◯	◯	◯	◯
Only drunk low alcohol drinks	◯	◯	◯	◯	◯
Limited the number of drinks you had	◯	◯	◯	◯	◯
Refused an alcoholic drink you were offered because you really didn't want it	◯	◯	◯	◯	◯

5. Over the last four weeks, have you undertaken any of the following activities while under the influence of alcohol?

	Yes	No
Went swimming	◯	◯
Operated a boat	◯	◯
Drove a motor vehicle	◯	◯
Been a passenger in a vehicle where the driver had recently consumed alcohol	◯	◯
Been involved in an accident where the driver (another person or you) had recently consumed alcohol	◯	◯
Created a public disturbance or nuisance	◯	◯
Caused damed to property	◯	◯
Stole money, goods or property	◯	◯
Verbally bused someone	◯	◯
Physically abused someone	◯	◯
Had unprotected sex (sex not using a condom)	◯	◯

Sex, Drugs and Backpacking Followup Survey

6. If you answered 'yes' to having unprotected sex (sex not using a condom), what type was your partner?

- ◯ Regular partner
- ◯ Casual partner

7. Over the last four weeks, has any person affected by alcohol...

	Yes	No
Verbally abused you	◯	◯
Physically abused you	◯	◯
Put you in fear	◯	◯
Sexually abused you	◯	◯

8. Before today had you ever heard of a 'standard' drink of alcohol?

- ◯ Yes
- ◯ No

9. Do you know what a 'standard' drink of alcohol is?

- ◯ Yes
- ◯ No

*** 10. Which answer below best describes the legal blood alcohol concentration for driving in Australia?**

- ◯ .0
- ◯ .05
- ◯ .08
- ◯ .10
- ◯ Don't Know

Sex, Drugs and Backpacking Followup Survey

4. Safe Sex

1. Please tick the number that best describes how you feel right now about condom use:

	I NEVER think about safe sex		I sometimes I think about using condoms more		I have decided to use condoms more often			I am already trying to use condoms more during sex		My condom use has changed to using condoms always
Right now:	○	○	○	○	○	○	○	○	○	○

2. Please tick the number that best describes your sex life now compared to four weeks ago:

	My sex life has changed. I have sex MUCH LESS and LESS often		I have a bit less sex now		The amount of sex has remained the same			I have a bit more sex now		I have sex MUCH MORE and MORE OFTEN
Compared to four weeks ago:	○	○	○	○	○	○	○	○	○	○

3. Please tick the number that best describes how at risk you think you are due to your sex life now:

	I think that I am at NO risk		I think I am at LESS risk now than four weeks ago		I think I am at the SAME leve of risk as four weeks ago			I think my level of risk has INCREASED a bit now		I think I am at HIGH risk due to my sex life now
Risk NOW:	○	○	○	○	○	○	○	○	○	○

4. Thinking back over the last four weeks, how often have you had sex (anal or vaginal)?

- ○ Daily
- ○ Weekly
- ○ Fortnightly
- ○ Once
- ○ No Sex

Sex, Drugs and Backpacking Followup Survey

5. Thinking back over the last four weeks, how many different people have you had sex with (if no sex, write '0')?

6. Thinking back over the last four weeks, how many of your sexual partners were Australians (if no sex, write '0')?

7. Over the last four weeks, how often have you:

	Always	Most of the time	Sometimes	Rarely	Never	No Sex
Used a condom	◯	◯	◯	◯	◯	◯
Drunk alcohol just before sex	◯	◯	◯	◯	◯	◯
Used drugs just before sex	◯	◯	◯	◯	◯	◯

8. Over the last four weeks, have you been forced to have sex when you didn't want it?

◯ Yes

◯ No

◯ Don't Know

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Sex, Drugs and Backpacking Followup Survey

5. Sex questions continued

1. Thinking about the LAST time you had sex, was your last partner:

- ◯ Male
- ◯ Female

2. The LAST time you had sex was the sex you had:

	Yes	No
Oral	◯	◯
Anal	◯	◯
Vaginal	◯	◯

3. The LAST time you had sex:

	Yes	No
Did you use condoms?	◯	◯
Had you drunk alcohol?	◯	◯
Had you used drugs?	◯	◯

4. The LAST time you had sex, what type of partner was it?

- ◯ Regular
- ◯ Casual

5. Where did you meet your last sexual partner?

6. What country was your last sexual partner from?

7. In the last four weeks have you had any of the following symptoms?

	Yes	No
Pain (like a stinging or burning) when passing urine	◯	◯
A discharge or pus or smelly fluid from your penis or vagina	◯	◯
A painful blister or lesion around your genitals	◯	◯
A lump like a wart around your genitals?	◯	◯

Sex, Drugs and Backpacking Followup Survey

8. In the last four weeks have you:

	Yes	No
Had a test for a sexually transmitted infections?	○	○
Have you had a HIV test?	○	○

Sex, Drugs and Backpacking Followup Survey

6. Health Care Use

We would now like to know about the types of health care advice and assistance you may have sought.

1. During your current backpacking holiday have you EVER been admitted to hospital due to a alcohol related behaviour or injury?

- ◯ Yes
- ◯ No

2. In the last four weeks have you sought health/medical advice from...

	Yes	No
Hostel	◯	◯
Pharmacist/Chemist	◯	◯
Doctor	◯	◯
Emergency Department	◯	◯
Sexual Health Service	◯	◯

3. In the last four weeks have you taken antibiotics?

- ◯ Yes
- ◯ No

4. If yes, what was the name of the antibiotic?

5. Has participating in this sturdy affected your alcohol intake or sexual behaviour while travelling?

- ◯ It made me think about my behaviour
- ◯ It had NO effect on changing my behaviour
- ◯ It had SOME effect on changing my behaviour
- ◯ It had a SIGNIFICANT effect on changing my behaviour
- ◯ I think my risk taking has INCREASED

Sex, Drugs and Backpacking Followup Survey

7.

These last six questions are about your overall participation in this study.

1. Overall, considering the initial recruitment into this study, the need to give a urine speciman and the followup, would you participant in a study like this again?

- ◯ Yes
- ◯ No

Please Comment:

2. Did the $20 reimbursement make a difference to your involvement?

- ◯ Yes
- ◯ No

Please Comment:

3. Was waiting four weeks to contact you for the followup survey

- ◯ Too early
- ◯ Too late
- ◯ Just Right

Other (please specify)

4. Was email the best way to contact you and remind you to complete this followup survey?

- ◯ Yes
- ◯ No

Please Comment:

5. Were you comfortable with the amount of personal information that was asked of you?

- ◯ Yes
- ◯ No

Please Comment:

Sex, Drugs and Backpacking Followup Survey

6. Did you answer all of the questions on this followup survey?

◯ Yes

◯ No

Please Comment:

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