

# Sex on Campus

## Investigating Sexual Health Promotion in Australian Universities

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## Declaration

This thesis is an original work and has not been previously submitted to obtain a degree or diploma in any university. To the best of my knowledge it does not contain material previously published by another person, except where due reference is made in the text.

Matthew Edward Dunn

Date:

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## Abstract

**Background:** Sexual health is a state of being that goes far beyond the absence of sexually transmissible infections, encompassing the absence of coercion and the possibility of pleasure among other factors. Young Australians in general have been identified as a priority population in terms of sexual health, with a dramatic rise in the rate of notifications of sexually transmissible infections (STIs) among those aged 16 - 30, higher partner numbers, higher rates of sexual assault and less access to sexual health services and information. Besides the fact that many Australians from this age bracket are university students, university environments are important venues for sexual health promotion due to the high proportion of LGBTI and international students. This thesis aimed to determine the current state of sexual health promotion in Australian universities, how these events can better reach different groups of students and whether a peer-led, socially focused event can change attitudes towards sexual health testing.

**Methods:** Interviews were conducted with university peer educators and professionals who had a role related to sexual health in the Australian Capital Territory (ACT). These interviews focused on the nature and challenges of the role, previous successful sexual health promotions and ideas for future improvement. Results from these interviews were used to design two anonymous cross-sectional surveys. The Promotion Survey was completed by student leaders in 23 universities across Australia allowing investigation of peer educator roles and current sexual health promotion events. The Student Survey was completed by randomly selected students at a university in the ACT and focused on previous sexual health learning, sexual experiences and preferences relating to sexual health promotion events at university. Results from interviews and surveys were used to inform the design of a peer-led, socially focused sexual health promotion event, Sexy Trivia. This event was run by peer educators at two university organisations, and participants were randomly assigned to either Sexy Trivia, or a sexual health talk from a local sexual health and family planning centre for comparison.

**Results:** Peer educators were often not given sufficient support in their roles, leading to certain groups, such as international and LGBTI students missing out on relevant sexual health promotion opportunities. Students from these groups, along with higher-risk

students, showed marked differences in preferences for sexual health promotion events, however common features included the presence of friends as a motivator to attend and low self-perception of risk, even amongst higher-risk students. Sexy Trivia was successful in attracting attendees and was significantly more effective than a sexual health talk at increasing subjective norm scores about sexual health testing.

**Conclusion:** While current university sexual health events include some features that align with student group priorities, elements beyond sexual health information, such as social activity, alcohol incentives and on-site sexual health testing, can be helpful tools to attract students not currently engaged with sexual health messages. This research will help to empower peer educators to more effectively engage different groups of university students and change attitudes towards sexual health.



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# Chapter 1: Introduction

## 1.1 The importance of sexual health

Sexual health is a state of being that goes beyond the mere absence of sexually transmissible infections (STIs). It is a term that encompasses not only a lack of STIs, but also a positive outlook on sexuality, the possibility of pleasure and the absence of violence and coercion (World Health Organisation, 2006). As such, this topic has been described as “an important and integral aspect of human development” (World Health Organisation, 2006, p. 2). The overlap of scientific, medical and societal issues inherent in sexual health make it ideal for study through both a science communication and a health promotion lens. This thesis will draw on both domains to examine university-based sexual health promotions in Australia.

## 1.2 Sexual health and young Australians

Worldwide, sexual health issues can have enormous impacts on both the afflicted individual and their community. While often conceptualised as the easily observable symptoms of infection, such as sores or painful discharge, these cases only represent a fraction of the whole, with the majority of sexually transmissible infections going unnoticed due to their lack of obvious symptoms (Gottlieb *et al.*, 2014). Unfortunately the absence of clear outward symptoms does not mean that these infections are harmless, with many linked to future health impacts (Oakeshott *et al.*, 2010; Newman *et al.*, 2013; Gottlieb *et al.*, 2014).

In Australia, young people are disproportionately affected by sexual health issues, with the Australian Department of Health identifying young people (under 30) as a priority population based on STI epidemiology, sexual behaviour and factors impacting access to health services (Australian Government Department of Health, 2014). Australians aged under 30 are the group most likely to report multiple partners in the previous year (Rissel *et al.*, 2014) and those aged 20-29 are the most likely to self-report an STI diagnosis in the

same period (Grulich *et al.*, 2014b). In 2015, 77% of chlamydia notifications were from 15-29 year olds (The Kirby Institute, 2016) and recent prevalence estimates for young Australians attending general practices are between 6.2% and 4.6% of the population (Lewis *et al.*, 2012; Yeung *et al.*, 2014). This considered, it is clear that the university age group should be undergoing more frequent STI testing. To a certain extent, this is reflected in current testing patterns, with the youth demographic reporting higher rates of testing than the general population (Grulich *et al.*, 2014b). Approximately 27% of men and 39% women aged 20-29 reported having had an STI test in the previous year and 34% of women aged 16-19 did the same (Grulich *et al.*, 2014b). However, young Australian males are considerably less likely to want to test (Lau *et al.*, 2016). Amongst males aged 16-19 a mere 19% reported testing despite their higher numbers of sexual partners (Grulich *et al.*, 2014b; Rissel *et al.*, 2014).

In Australia, 4% of men and 22% of women reported having ever been forced or frightened into some type of sexual activity (de Visser *et al.*, 2014a). While over half of these cases happened before the age of 16, approximately 28% of males and 30% of females reported first being sexually coerced between the ages of 17 and 20 (de Visser *et al.*, 2014a). As people who are subject to sexual coercion experience both direct and indirect effects on their physical and psychological health (Brown *et al.*, 2009; Jozkowski and Sanders, 2012; de Visser *et al.*, 2014a), this demonstrates that sexual assault is a pressing topic for university-aged Australians.

### 1.3 University students and sexual health

Higher education students make up 6% of the Australian population and while not all of these students fit the youth demographic, the majority of university students are aged between 15 and 24 (Australian Bureau of Statistics, 2013). Many higher education students will change households to be closer to their educational institution (Australian Bureau of Statistics, 2013), and for many this will correspond with a period of greatly increased independence that can have a substantial impact on health outcomes (de Visser *et al.*, 2006).

These students do not enter university with a uniform level of sex education. Educating young people about sex and sexuality remains a contentious issue, with some Australian schools refusing to teach students about sexuality despite expert medical opinion of a crisis in this area (Wiltshire and Donnelly, 2014). Even when it is taught, teachers often lack training for effective sex education (Carman *et al.*, 2011), resulting in students feeling underprepared, especially with regard to sexuality, sex and pleasure, accessing youth health services, healthy relationships and HIV/AIDS (Giordano and Ross, 2012).

International students studying in Australia make up 25% of all higher education enrolments (Australian Government Department of Education and Training, 2014), and these students experience additional challenges due to their shift away from their home culture (Rosenthal *et al.*, 2008). Previous studies have found that international students may have lower sexual health literacy and higher notification levels of chlamydia than their Australian counterparts (Rosenthal *et al.*, 2008; Simpson *et al.*, 2015).

Universities are also an important setting for sexual health promotion given that homosexual identity is more common amongst those with a tertiary education (Richters *et al.*, 2014) and same sex-attraction is becoming more common, especially amongst millennials (Gallup, 2017). LGBTI students face different and often more challenging sexual health issues, including verbal and physical abuse due to homophobia (Hillier *et al.*, 2010; Robinson *et al.*, 2014) as well as higher partner numbers and STI diagnoses among men who have sex with men (Grulich *et al.*, 2014a; Rissel *et al.*, 2014). Given that the majority of Australian LGBTI students felt excluded by their high school's approach to sex education (Giordano and Ross, 2012), it is clear that universities could play an important role in LGBTI sexual health promotion.

## 1.4 Previous university sexual health research

In Australia comparatively little research has been done that specifically looks at the promotion of sexual health to university student audiences. Many of the studies that have been done focus on whether or not students have “deficiencies in knowledge” of sexual health issues (Calabretto, 2009; Mohoric-Stare and De Costa, 2009; Phillips *et al.*, 2012, p. 301). This approach implies that negative sexual health outcomes are solely the

consequence of an uninformed public, echoing the deficit model of science communication. While this model has been repeatedly called into question at an academic level (Sturgis and Allum, 2004; Trench and Bucchi, 2010; Pouliot and Godbout, 2014), it remains a dominant approach for many policy makers and researchers (Bubela *et al.*, 2009). However, this is not the only approach to university sexual health that can be employed, with methods that encourage a dialogue with students about their needs also possible. Such dialogue-based studies have already discussed what students want and currently have access to in terms of sexual health resources and education on university campuses in the United States (Eisenberg *et al.*, 2012; Lechner *et al.*, 2013). This thesis will follow similar aims, with the interviews and surveys intending to learn from students rather than assess what they have or have not learnt. As such, this thesis focuses largely on examining the experiences of student leaders who play a role in supporting sexual health promotion (peer educators) and the needs and preferences of different groups of university students, in line with calls for innovative peer-led approaches to sexual health issues in Australia (Commonwealth Youth Programme, 2016).

## 1.5 The original contribution of this research

This thesis examines perspectives of peer educators and other students with regard to the sexual health promotions already taking place in their communities, and how these events could be improved. While there has been some previous Australian research that looks at what young people want from sexual health promotion, this has largely focused on high school sex education (Hillier and Mitchell, 2008; Giordano and Ross, 2012). Given the challenges described above and the growing number of Australians undertaking university education (Norton and Cakitaki, 2016), it is clear that this research is increasingly relevant. If current strategies are not effective at attracting their target audience or are ineffective at conveying their message this represents not only a loss of time and resources, but also a lost opportunity to access a large proportion of this priority population. By comparing the needs of different groups of students with current sexual health promotions (as reported by student leaders) this research will assist in the creation of more effective sexual health promotions aimed at Australian university students. Based on the unmet needs identified by this approach, this thesis presents and evaluates a novel sexual health promotion event aimed specifically at higher-risk students.

## 1.6 Research questions

The overarching question at the centre of this thesis is “How can sexual health promotion in Australian universities be improved?” To answer this question, three research questions were devised as follows:

- 1) What is the current state of sexual health promotion in Australian universities?
- 2) How can university sexual health promotion events better reach different groups of students?
- 3) Can a peer-led, socially focused event change attitudes towards sexual health testing?

The majority of these questions were addressed across multiple stages of the method to refine the understanding gained and address new sub-questions.

## 1.7 Thesis structure

This thesis comprises seven chapters. After this initial introductory chapter, the second chapter introduces the background relevant to the research, drawing from sexual health, health promotion and science communication literature. The third chapter explains the rationale for the mixed methods approach taken and presents the research methods used throughout the study; semi-structured interviews of peer educators and sexual health professionals, surveys of university students and student leaders and a trial of a new sexual health promotion event. The next three chapters describe the results of those methods, with each results chapter focusing on one of the research questions listed in section 1.6. Chapter four presents the current state of sexual health promotion in Australian universities, drawing on the results of interviews with Australian Capital Territory (ACT) based peer educators and sexual health professionals and the nationally distributed survey for peer educators and other student leaders. Chapter five compares the results of this survey with the ACT based survey of student experience and preferences to examine how university sexual health promotion events can better reach different groups of students, with a focus on higher risk students, LGBTI groups, international students and gender based differences. Chapter six presents the results of a trial of a peer-led, socially focused event based on the data gathered in the previous two chapters, and shows how this approach could be used to change attitudes towards sexual health testing. In the seventh

and final chapter, these results are discussed with reference to the research questions and existing literature. Then the limitations of the work and future research stemming from this thesis are presented before the final conclusion.

## Chapter 2: Literature Review

### 2.1 Introduction

This literature review chapter first examines the definition of sexual health before exploring the science communication and health promotion theories relevant to this thesis. It then explains the physical and social consequences of sexually transmissible infections (STIs) and describes the different types of strategies that can be used to reduce their impact, based on the theory of STI control. The next section discusses the importance of sexual health promotion for a youth and university audience, with particular focus on key relevant issues including STIs, sexual health testing, sex and satisfaction, sexual assault, LGBTI issues and previous sexual health education. Finally this chapter provides background for predominant approaches in sexual health promotion used throughout the thesis with a focus on previous university promotions, peer educators and positive, in-person events.

### 2.2 What is sexual health?

This thesis is specifically focused on the promotion of sexual health. While perhaps most commonly associated with messages of condom use and pregnancy prevention, sexual health is a much broader topic. The World Health Organisation defines sexual health as:

a state of physical, emotional, mental, and social well-being related to sexuality; it is not merely the absence of disease, dysfunction, or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected, and fulfilled. (World Health Organisation, 2006, p. 5)

In view of this, sexual health promotion is not merely advocating the use of condoms or encouraging testing for sexually transmitted diseases. Instead it is a holistic enterprise aimed at increasing a person's control over their own sexual health (World Health Organisation, 1986), encompassing a broad range of scientific, medical and social issues. Given this intersection of scientific and social issues, and the significance of the topic, which has been described as “an important and integral aspect of human development” (World Health

Organisation, 2006, p. 2), this area seems perfect for investigation using theories from both science communication and health promotion.

### 2.3 Science communication, the deficit model and dialogues

Science communication as a research field is still a relatively recent development, with the discipline only beginning to differentiate itself from science journalism around the 1990s (Gilbert and Stocklmayer, 2013). While much remains to be defined regarding the boundaries of science communication, it is already accepted that medical and health professionals are highly relevant to the discipline (Stocklmayer, 2013). By drawing on psychology, sociology and other approaches to investigate the impact of science on individuals and communities, the discipline is well placed to understand and further the improvement of issues such as health (Gilbert and Stocklmayer, 2013).

In science communication the deficit model remains a dominant approach for many policy makers and scientists (Bubela *et al.*, 2009). The deficit model describes a certain mode of thinking where one conceptualises resistance to scientific progress or issues as being caused by the public not having enough information (Bubela *et al.*, 2009; Pouliot and Godbout, 2014). Under this model, if enough information is successfully disseminated, then the problem will be fixed (Bubela *et al.*, 2009). A general, homogenised, non-expert audience is conceived as an empty vessel, waiting to be filled.

This perceived causal link between a lack of knowledge on the part of the public and less favourable attitudes towards science was a formative element in the Public Understanding of Science movement, as evidenced by the approach of the former Committee for Public Understanding of Science (COPUS) in the United Kingdom (Sturgis and Allum, 2004). As such, the concept of “scientific literacy” among the general public was of utmost importance. In this environment there was considerable anguish when surveys of the general public reported results such as “only 34% of Britons and 46% of Americans appeared to know that the Earth goes around the sun once a year” (Durant *et al.*, 1989, p. 11). For an approach based on the idea that the more one knows about science, the more favourable one’s view on it will be, these results are depressingly low.



However despite the prevalence of the deficit model in practical applications, it has been repeatedly called into question at an academic level (Sturgis and Allum, 2004; Trench and Bucchi, 2010; Pouliot and Godbout, 2014). “The public” is not one homogenous mass, nor are individuals “empty” until filled with knowledge. No one is a blank slate waiting for a good scientific theory to fill them up. Every one of us has pre-existing attitudes, cultural values and ethical standpoints that may influence our views on scientific issues and shape the way that we process information about them (Sturgis and Allum, 2004; Kahan *et al.*, 2010). This is not to say that understanding science does not have any link with positive attitudes towards science, indeed, the opposite has been found (Sturgis and Allum, 2004). However that is not proof of causality, with a clear possibility that positive attitudes towards science may predispose one to learning more about it. This seems more likely given that learning more information about controversial scientific issues has even been shown to further polarise individuals; heightening the fears of those already wary and reassuring those already trusting (Kahan, 2010).

However, whilst dominant, the deficit model is not inevitable. More recently the dialogue model has been supported as providing a more productive means of approaching science communication. Rather than the one-way transmission of information envisaged in the deficit model, dialogue understands science communication to be a two-way process where both parties can benefit from the contributions of the other (Burns *et al.*, 2003). With both entities exchanging information, a dialogue requires the negotiation of meaning and at its base it “is not about winning or convincing, but about informing the other or oneself about facts, concepts, notions, feelings, emotions and fears” (van der Sanden and Meijman, 2008, p. 91). Such an approach is useful in both science communication and health promotion due to the many theoretical commonalities between the two fields (van der Sanden and Meijman, 2008). This PhD is an attempt to construct a dialogue between experts and the target audience, seeing what sexual health promotions young people actually want. Rather than testing young people on how much knowledge they have “absorbed” this study invites students to participate in shaping sexual health that is meaningful to them, in line with calls for youth involvement to be a priority (Villa-Torres and Svanemyr, 2015).

## 2.4 Health promotion and models for understanding health behaviours

Health education can be defined as “any combination of planned learning experiences using evidence based practices and/or sound theories that provide the opportunity to acquire knowledge, attitudes, and skills needed to adopt and maintain healthy behaviors” (American Association for Health Education, 2012, p. 12). Through this emphasis on evidence-based practice and the ability to engage with the public around science and medicine related topics, there is a clear overlap with science communication. Health promotion takes the concepts of health education one step further. Rather than simply providing planned learning experiences in an effort to support healthy behaviours, health promotion also incorporates “...political, environmental, regulatory or organizational mechanisms that support actions and conditions of living conducive to the health of individuals, groups and communities” (American Association for Health Education, 2012, p. 14).

In an attempt to better understand our health choices and create more effective health promotions, a number of theories have been proposed, ranging from a focus on the individual to looking at entire communities. This section charts the progression of ideas in understanding health behaviours and highlights approaches that will be used in this thesis. Since its beginnings in the US public health service in the 1950s, the Health Belief Model has been used by many researchers to help explain preventative health behaviours (Rosenstock, 1974). The model uses three different factors, as perceived by the subject, to try to predict health behaviours: perceived susceptibility, perceived seriousness and perceived benefits and disadvantages (Rosenstock, 1974). From this approach, a hypothetical sexual health promotion looking at increasing chlamydia testing could seek to explain the prevalence and means of transmission of the STI (susceptibility), the consequences of infection such as higher chances of becoming infertile (seriousness) and emphasise the benefits like peace of mind while suggesting ways to minimise disadvantages such as the cost and distance from testing services (benefits and disadvantages). However, despite being one of the most well-known models for conceptualising health related behaviour, the Health Belief Model is also criticised for its emphasis on the individual and its disregard for the impact of social influences (Green and Murphy, 2014). These criticisms

align with science communication studies pointing to the influences beyond simple information, such as cultural attitudes that may influence our understanding of an issue (Sturgis and Allum, 2004; Kahan *et al.*, 2010).

One approach that takes social influences into account is the Theory of Reasoned Action (Fishbein and Ajzen, 1975). This theory is based on the premise that one's intention to perform in a certain way is the best predictor of whether it will happen, and that this intention is based on a combination of attitudes and subjective norms (LaCaille, 2013). While the attitudes component of the model deals with similar factors as the Health Belief Model, focusing on the individual's perception of possible outcomes, it is in the subjective norm that we see the inclusion of factors outside the individual (LaCaille, 2013). A subjective norm refers to how a person perceives the attitudes of others who are important to them towards a behaviour (Fishbein and Ajzen, 1975). To use the chlamydia testing health promotion example from above, with the Theory of Reasoned Action it becomes clear that not only will the individual's perception of testing matter, but also their perception of whether the people who are important to them such as friends, partners and family would approve. The Theory of Reasoned Action was later modified to include perceived behavioural control, with this new approach called the Theory of Planned Behaviour (Ajzen, 1985). Perceived behavioural control was added in order to account for the impact of an individual's perception of how easy or difficult it would be to perform a certain action, including both self-efficacy and the role of external factors such as resources and time (LaCaille, 2013).

The fact that it is the individual's perception of these norms is particularly important when it comes to the subject of sexual health promotion. As sex is a subject that is often still shrouded in secrecy, it can be difficult to accurately guess what's going on in other's private lives and as a result, the perceived norms can be drastically different to reality. One study clearly demonstrated this difficulty when it surveyed students from universities in the United States, asking respondents both about their own sexual practices and their perceptions of their peers practices (Scholly *et al.*, 2005). When reporting on their own sexual practices, 80% of the students said they had either 0 or 1 sexual partner in the previous year, however they estimated that only 22% of their peers had done the same (Scholly *et al.*, 2005). Similar research looking at Australian young people reinforces these

findings, reporting that 16-29 year olds were likely to overestimate the number of sexual partners their peers had, with females aged 16-19 most affected (Lim *et al.*, 2009).

This gap between the perception of peer behaviour and actual behaviour has led to the development of social-norms campaigns (Schultz *et al.*, 2007). Based on the premise that people consistently overestimate the prevalence of many negative behaviours amongst their peers and that we use our peers' behaviour to judge our own actions (Schultz *et al.*, 2007), social-norms campaigns aim to dispel these misunderstandings by providing accurate information. Such interventions have been widely used in university settings, with one prominent example being attempts to moderate the consumption of alcohol (Scott-Sheldon *et al.*, 2014). In a recent review of interventions aimed at reducing alcohol use of first year university students, 84% of the studies found used normative comparisons as a component of the intervention (Scott-Sheldon *et al.*, 2014). However this popularity does not seem to reflect efficacy, with a meta-review focused specifically on the impact of using social norms information to change alcohol consumption finding no substantive effect of the technique over longer time periods (Foxcroft *et al.*, 2015). Findings such as this suggest that additional factors need to be taken into account to fully explain actions relating to health.

Beyond immediate peers, ecological models take an even broader approach, believing that in order to alter individuals' behaviours relating to health, changes need to be made at organisational, community and public policy levels as well (McLeroy *et al.*, 1988). This perspective distances itself from highly individualistic approaches that can often be seen as unfairly apportioning blame to the individual (McLeroy *et al.*, 1988). Instead, it acknowledges the importance of social and environmental influences in shaping our health, and as such has become a more popular method of conceptualising the complexities of health promotion (Richard *et al.*, 2011). Despite this, such approaches remain underutilised, due to a range of historical, ideological and practical constraints, as well as the influence of corporations in shaping health policy (Baum and Fisher, 2014). This is of particular concern as a failure to look beyond individualism is likely to result in ineffective programs, greater inequity and increased stigmatisation of the disadvantaged (Goldberg, 2012).

This thesis draws on both the ecological model and the Theory of Planned Behaviour, aiming to use the strengths of each along with the science communication dialogue model described in section 2.3. First the ecological perspective allows the exploration of the facilitators and barriers to sexual health promotion in university contexts to provide a greater understanding of the underlying issues. Then Theory of Planned Behaviour allows us to test whether interventions aimed at addressing these issues, such as the negative perception of testing for sexually transmissible infections, are effective at an individual level. More detail on the methodological approach is provided in the next chapter.

## 2.5 Why are sexually transmissible infections a problem?

While only one component of the holistic definition of sexual health as described previously, sexually transmissible infections (STIs) are an important issue as they can have a wide range of negative repercussions, both individually and on a community level. This section first describes the physical health consequences of STIs before examining the social and psychological impacts of infection.

STIs are often conceptualised in terms of observable symptoms such as genital discharge, painful ulcers and warts, however the grand majority of sexually transmissible infections are thought to go unnoticed due to their lack of symptoms (Gottlieb *et al.*, 2014). Unfortunately, even in cases where clear symptoms are absent, there can be substantial health impacts, including many reproductive issues.

Chlamydia and gonorrhoea have been associated with complications such as low birth weight and pre-term births (Johnson *et al.*, 2011). Untreated chlamydia has also been associated with an increased chance of developing pelvic inflammatory disease, which can lead to infertility, chronic pain and ectopic pregnancy (Oakeshott *et al.*, 2010). Meanwhile, syphilis has a large impact on pregnancy, with 1.36 million pregnant women estimated to have had active syphilis worldwide in 2008 (Newman *et al.*, 2013). From these cases of maternal syphilis, over 500,000 adverse pregnancy outcomes were expected, including stillbirth, early foetal death, neonatal death, low birth weight, pre-term birth and infected newborns (Newman *et al.*, 2013).

Outside of pregnancy related issues, sexually transmissible infections such as the human papilloma virus and hepatitis B virus can also be partly responsible for the development of certain cancers (Gottlieb *et al.*, 2014). Certain strains of the human papilloma virus or HPV have been identified as a necessary factor for the development of cervical cancer in women (Bosch and de Sanjosé, 2007). While not as clear an association, HPV has also been associated with 36-40% of vulvar cancers and approximately 90% of vaginal cancers (Giuliano *et al.*, 2008). Meanwhile in men, 80-85% of anal cancers and nearly 50% of penile cancers have been linked to HPV (Giuliano *et al.*, 2008). In terms of hepatitis B virus or HBV, it is estimated to account for 30% of cirrhosis cases and 53% of hepatocellular carcinoma (Perz *et al.*, 2006).

A number of STIs have also been found to increase the risk of HIV infection (Gottlieb *et al.*, 2014). However while modelling studies have suggested that chlamydia, syphilis and other curable STIs have played a large role in establishing HIV infections, it seems that over time their role is lessening when compared to the impact of genital herpes (Hayes *et al.*, 2010).

As of the end of 2014 it was estimated that there were approximately 36.9 million people living with HIV worldwide (UNAIDS, 2015b). In that year alone, approximately 1.2 million people died from illnesses brought on by AIDS (UNAIDS, 2015b). However it is important to consider these numbers in context. While the Joint United Nations Programme on HIV/AIDS position is that “there is still an unacceptably high number of new HIV infections and AIDS-related deaths occurring each year” (UNAIDS, 2015a, p. 3), they also recognise the enormous amount of progress that has been made in halting its spread. Through a global effort, there has been a 35% decrease in new infections since 2000 and a 42% decrease in deaths by AIDS related causes since the height of the epidemic in 2004 (UNAIDS, 2015a). Similarly, the number of people with access to antiretroviral therapy to prevent the onset of AIDS has also shown significant progress. To go from “fewer than 1% of people living with HIV in low- and middle-income nations” having access to treatment in 2000 to 40% of all people living with HIV worldwide in 2014 is a remarkable achievement (UNAIDS, 2015a, p. 3). With the tremendous impact that increasing access to antiretroviral therapy can make in halting the spread of the virus, the United Nation’s goal has now shifted to “ending the AIDS epidemic by 2030” (UNAIDS, 2015a, p. 3).

While a great deal of attention is often paid to physical impacts on health, there is also evidence that STIs can have a range of other negative consequences. Despite being relatively common and often conceived as non-serious, sufferers of genital warts caused by HPV infection report a perceived lowering in their quality of life (Mortensen and Larsen, 2010). This is caused by a number of negative social and psychological impacts in both men and women, with the effect on the romantic and sexual aspects of their lives particularly prominent (Mortensen and Larsen, 2010). Similarly, despite being an easily treatable infection, women who tested positive for chlamydia were significantly more likely to report an increased level of anxiety about sex one month after being diagnosed (Gottlieb *et al.*, 2011). Though the women were not significantly more likely to report anxiety or depression post-diagnosis, testing positive was also found to make it more likely that the women would report breaking up with a main sexual partner (Gottlieb *et al.*, 2011). For infections with the potential for more serious health implications such as HIV, the associated personal impact can be even greater. A meta-analysis of studies focusing on the effects of HIV found that when stigma levels were high, both physical and mental health were consistently found to be significantly affected (Logie and Gadalla, 2009).

Given the large impact that STIs have for both individuals and the community, it is clear that control measures must be taken. In section 2.6 the theory underlying these control measures is explained in order to highlight the variety of different approaches currently used for sexual health promotion.

## 2.6 The theory of sexually transmissible infection control

For effective control of sexually transmissible infections, a basic understanding of the spread of such diseases is necessary. The factors that determine the effective reproductive rate (or how fast the infection is spreading) in a behaviourally homogenous group are:

- the probability of transmission per sexual partnership
- the rate of partner change in the community
- the average duration of the infectious period
- the proportion of the group susceptible to the infection

(Anderson and May, 1991) summarised by Schneeberger *et al.* (2004)

Health promotion efforts to decrease the transmission of STIs focus on one or more of the above factors. The following subsections 2.6.1, 2.6.2, 2.6.3 and 2.6.4 explain some of the dominant approaches to sexual health promotion based on these factors, as well as justifying why these approaches were or were not a major focus during this thesis.

### 2.6.1 Reducing transmission – condoms

Condom use (especially when combined with water based lubricant) is regarded as “the primary tool for preventing transmission of STI” (Australian Government Department of Health, 2014, p. 16). While not 100% effective at preventing all types of sexually transmissible infections, condoms have been shown to provide statistically significant protection against HIV, gonorrhoea, chlamydia, herpes simplex virus type 2 and syphilis (Holmes *et al.*, 2004). Aside from being widely available and inexpensive, they are also very familiar to the Australian audience with 90% of the population having used them at least once previously (de Visser *et al.*, 2014b). As such it can come as a surprise that usage rates are low, especially in the heterosexual community, with only 39% of male and 33% of female sexually active Australians reporting condom use in the past year (de Visser *et al.*, 2014b). While the percentage leaps to approximately 80% for both genders when looking solely at those who have had two or more sexual partners, the frequency of condom use remains low (de Visser *et al.*, 2014b). Only 49% of those who had had casual heterosexual sex in the previous six months reported always using condoms (de Visser *et al.*, 2014b).

However this low usage becomes clearer when taking a qualitative look at people’s understanding of sex and condoms (Braun, 2013). In general, most people view condom use in a negative light (Braun, 2013; Fennell, 2014). This can be due to a number of reasons, including reduced physical sensation, a perception that use reduces feelings of intimacy and connection, and a sense that it interrupts the spontaneity of sex (Braun, 2013). For some condom users they can cause difficulty maintaining an erection (Sanders *et al.*, 2012), which would obviously have a drastic, negative impact on a man’s willingness to use one (Sanders *et al.*, 2014).

Whilst acknowledging the incredibly important role that using condoms has for reducing STI transmission, this thesis does not focus on examining condom use, given the already



high levels of familiarity that the Australian public has with this method of contraception (de Visser *et al.*, 2014b) and the large number of studies already devoted to this topic (Sanders *et al.*, 2012; Cai *et al.*, 2013; French and Holland, 2013; Newby *et al.*, 2013; Walsh *et al.*, 2013; Emetu *et al.*, 2014).

### 2.6.2 Reducing partner change – abstinence only

The most prominent and controversial examples of programs aiming to reduce the amount of partner change are no doubt those seeking to ensure abstinence until marriage. In recent years in the United States, abstinence only education has been the only type of sexual health promotion eligible for federal funding (Social Security Administration, 2010). According to this law, a program would only be considered eligible if it followed a number of key principles including that it:

- has as its exclusive purpose, teaching the social, psychological, and health gains to be realized by abstaining from sexual activity;
- teaches abstinence from sexual activity outside marriage as the expected standard for all school age children;
- teaches that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases, and other associated health problems;
- teaches that a mutually faithful monogamous relationship in context of marriage is the expected standard of human sexual activity;
- teaches that sexual activity outside of the context of marriage is likely to have harmful psychological and physical effects;
- teaches that bearing children out-of-wedlock is likely to have harmful consequences for the child, the child's parents, and society;

(Social Security Administration, 2010, sec. 510)

It could be argued that a program fitting all the criteria on this restrictive list would hardly be sexual health promotion at all. Far from taking “a positive and respectful approach to sexuality and sexual relationships” as described in the World Health Organisation's description of sexual health (World Health Organisation, 2006, p. 5), these programs seem

to be attempting to frighten young people out of having sex. However on this front they have not shown real success in epidemiologic evaluations when compared to comprehensive education that incorporates contraceptive information. While American adolescents who accessed comprehensive sexual health education were found to have a significantly lower likelihood of becoming pregnant, those who received abstinence only education showed no significant difference from adolescents with no formal sexual health education (Kohler *et al.*, 2008). In addition, abstinence only education was not found to significantly decrease the likelihood of having vaginal intercourse (Kohler *et al.*, 2008).

Due to the incongruity between the abstinence only approach and the definition of sexual health this thesis is based upon, as well as the absence of evidence as to its efficacy, this thesis will not examine this approach further.

### 2.6.3 Reducing susceptibility – vaccination

Reducing the proportion of susceptible individuals in the population is the key focus of vaccination. At present the majority of sexually transmissible infections are not able to be prevented through vaccination (Gottlieb *et al.*, 2014), however the HPV vaccine provides a compelling case study into the efficacy of functional STI vaccines. Targeting four strains of the human papillomavirus (HPV) known to cause cervical cancer, genital warts and other cancers, the use of this vaccine in Australia has led to a more than 90% reduction in genital warts and a 77% fall in HPV related infections in females within the vaccine age range (Garland, 2014).

While STI vaccines may be a vital part of future sexual health promotion (Gottlieb *et al.*, 2014), the successful deployment of the HPV vaccine in schools across Australia and the current absence of vaccines to prevent other STIs mean that vaccination is not presently a highly relevant topic for Australian university students, and as such is not a central focus of this thesis.

#### 2.6.4 Reducing infection duration – testing and treating

Combining sexual health testing with antibiotics for curable infections such as chlamydia and gonorrhoea can reduce the duration of infection. If untreated, conditions such as chlamydia can remain infectious for months, however antibiotics can clear the bacteria in a matter of days (Lau and Qureshi, 2002). This drastically reduces the period in which the infection could be passed on to another person, however while this is an important secondary aim, the primary benefit of this approach is reducing future health repercussions for the infected individual (Regan *et al.*, 2008). Given the higher burden of curable STIs such as chlamydia and gonorrhoea among young Australians (as will be discussed in section 2.7.1) and the unexplored potential for testing in the university demographic (MacPhail *et al.*, 2017), strategies for increasing testing are a focus of this thesis.

### 2.7 Why focus on young university students?

The following sections explain why young people are often exposed to greater sexual health issues and why university students represent a worthwhile group for sexual health promotions, with a particular focus on the contemporary Australian situation. Section 2.7.1 explores the high prevalence of many sexually transmissible infections among young Australians and section 2.7.2 discusses sexual health testing in the Australian context. Section 2.7.3 deals with issues relating to sex and satisfaction and 2.7.4 discusses sexual assault, with a particular focus on universities. Section 2.7.5 explains the differing needs of LGBTI students. The final section, 2.7.6, examines the increased level of independence frequently associated with beginning university and the previous sexual health education that students received at high school.

#### 2.7.1 Sexually transmitted infections

Young people are often identified as a group whose sexual health could be improved. In the Third National Sexually Transmissible Infections Strategy, the Australian Department of Health identified young people (under 30) as a priority population based on STI epidemiology, sexual behaviour and factors impacting access to health services (Australian Government Department of Health, 2014). In terms of sexual behaviour, 16-19 year olds

are the most likely age group to report multiple partners, with 43% of male and 33% of females of the sexually active members of this age bracket having more than one partner in the previous twelve months (Rissel *et al.*, 2014). The next most likely age group was 20-29 year olds, with 31% of male and 19% of females who were sexually active having had more than one partner (Rissel *et al.*, 2014). The 20-29 year old age group is also the most likely to report having had a sexually transmissible infection (STI) in the previous year, with 2.4% of males and 4.7% of females self-reporting an STI (Grulich *et al.*, 2014b). This is backed up by reports of STI diagnoses, with chlamydia and gonorrhoea being those most likely to affect the youth demographic (Family Planning NSW, 2013).

Notifications of Australia's most common STI, chlamydia, increased dramatically between 2002 and 2011, with the notification rate (diagnoses per 100,000 population) nearly tripling from 122 to 358 (Family Planning NSW, 2013). Of these notifications the greatest increase came from younger age groups, with 1,455 per 100,000 population for 15-19 years and 1,796 per 100,000 population for 20-24 years in 2011 (Australian Government Department of Health, 2015). It is important to note when considering these statistics, that chlamydia is largely asymptomatic with over 80% of those infected unaware of their condition (Detels *et al.*, 2011) and that during this period there was also a steep increase in testing rates (Ali *et al.*, 2012). As such, the increase in prevalence (as opposed to notification rates) is thought to be more moderate (Ali *et al.*, 2012). Since 2011 the notification rate has stabilised, but the burden on the youth demographic remains high (The Kirby Institute, 2016). In 2015, 77% of chlamydia notifications were from 15 - 29 year olds (The Kirby Institute, 2016) and recent prevalence estimates for young Australians attending general practices are between 6.2% and 4.6% of the population (Lewis *et al.*, 2012; Yeung *et al.*, 2014).

Gonorrhoea notification rates saw similar increases between 2002 and 2011, from 33 per 100,000 population in 2002 to 54 per 100,000 in 2011 (Australian Government Department of Health, 2015). Unlike chlamydia, gonorrhoea notifications have continued to increase since 2011, with 117 notifications per 100,000 population reported in 2015 (The Kirby Institute, 2016). Again, young people are disproportionately affected, with the highest notification rates in 2015 coming from 25 - 29 year old males (357 notifications

per 100,000 population) and 20 – 24 year old males (334 per 100,000 population) (The Kirby Institute, 2016).

While other sexually transmissible infections such as hepatitis B, syphilis and HIV still present health risks for the youth demographic, these diseases are more commonly associated with older members of the population (Family Planning NSW, 2013).

In contrast with the rising rates of chlamydia and gonorrhoea, the recent introduction of the human papillomavirus (HPV) vaccine has seen great success. Since the beginning of the vaccination plan, there has been a more than 90% reduction in genital warts, a 77% fall in HPV related infections in females within the vaccine age range (Garland, 2014) and a very low prevalence of the genotypes of HPV for which the vaccine provides protection (Osborne *et al.*, 2015). With the free vaccination program for those aged 12-13 now extended to males as well as females (Immunise Australia Program, 2015), it is expected that Australia will continue to see fewer cases of HPV in the future.

From the above it is clear that bacterial infections such as chlamydia and gonorrhoea are among the chief concerns for STIs in the youth demographic and as such they are a focus of this thesis. The following section describes current testing patterns in Australia as well as the barriers young people face regarding sexual health testing.

### 2.7.2 Sexual health testing in Australia

Despite its often asymptomatic nature, untreated chlamydia can lead to many negative health outcomes, with chlamydial pelvic inflammatory disease considered “the most important preventable cause of infertility and adverse pregnancy outcome” (Paavonen and Eggert-Kruse, 1999, p. 433). As such, health promotions targeting screening of those with no symptoms is particularly important, with increased testing in the 15-24 years age group predicted to rapidly reduce the prevalence of this disease (Regan *et al.*, 2008; Grulich *et al.*, 2014b).

In the Australian population in general STI testing is not a commonplace occurrence, with only an estimated 17% of women and 13% of men aged 16-69 years having had an STI test

in the previous year (Grulich *et al.*, 2014b). However it is important to take into account that amongst Australia's predominantly heterosexual population (Richters *et al.*, 2014), approximately 87% of men and 94% of women had one or fewer sexual partners in the past year, reducing the likelihood of STI spread (Rissel *et al.*, 2014).

However this statistic does not give the full story, as the number of sexual partners that members of a population has is generally represented by a power law (Barabási, 2002). What this means is that although the large majority of people present in a population will have a very small number of sexual partners, a small percentage of the population will have a very large number of partners (Barabási, 2002). We can see this trend clearly in the Australian data where, although there are a great majority of the population with only one or zero partners in the previous year, 1.3% of heterosexual men surveyed reported each having sex with 10-49 women in the previous year (Rissel *et al.*, 2014). Given that having sex with more than one partner in a year significantly increases the chances of contracting an STI (Grulich *et al.*, 2014b) and is the most important risk factor for young Australians in terms of chlamydia infection (Yeung *et al.*, 2014), this higher risk group is a particular focus of this thesis.

Given that young Australians are the most likely to have had multiple partners in the previous year (Rissel *et al.*, 2014), it is clear that the university age group should be undergoing more frequent STI testing. To a certain extent, this is reflected in current testing patterns, with the youth demographic reporting higher rates of testing than the general population (Grulich *et al.*, 2014b). Approximately 27% of men and 39% women aged 20-29 reported having had an STI test in the previous year and 34% of women aged 16-19 did the same (Grulich *et al.*, 2014b). However, young Australian males are considerably less likely to want to test (Lau *et al.*, 2016). Amongst males aged 16-19 a mere 19% reported testing despite their higher numbers of sexual partners (Grulich *et al.*, 2014b; Rissel *et al.*, 2014). This lack of testing mirrors a reluctance by young Australian men to access sexual health information caused by pressures of masculinity and a sense of embarrassment (Ewert *et al.*, 2015; Litras *et al.*, 2015).

There are a number of factors that can make sexual health testing less likely to occur amongst women, as summarised by Pavlin *et al.* (2006); a lack of accurate information (for

example, not knowing that chlamydia can impact fertility), denial that one's behaviour is risky, the stigma and negative emotions associated with infection, fear and anxiety and practical concerns, such as a lack of accessibility, comfort and confidentiality. The emotional aspects can be particularly powerful motivators for a lack of action around chlamydia testing, with 64% of women in an Australian chlamydia incidence study saying they were worried people would treat them differently if they had a positive result and 85% selecting "I would feel or did feel anxious about testing positive" (Walker *et al.*, 2013, p. 41). Factors impacting men's access to chlamydia testing are largely similar to those for women, however additional factors such as perceived invulnerability may be more prevalent, with traditional notions of masculinity implicated in this trend (Balfe *et al.*, 2012).

As in women, stigma and shame were a large component of the difficulty in convincing men to screen for chlamydia (Morris *et al.*, 2014). Importantly, the stigma and shame were not necessarily related to a positive diagnosis for chlamydia (Balfe *et al.*, 2012). Merely seeking a sexual health test could elicit the same damage to their identity:

Respondents felt that it would be possible to slip between categories, the consequences of which could be damaging. A normal identity could become a 'dirty' identity. Slippage could occur by engaging in the constitutive identity practices of the Other category, which *included* going for a Chlamydia test.  
(Balfe *et al.*, 2010, p. 139, emphasis in the original)

To understand how testing for the presence of an infection, which might prevent future harm to oneself and others, could be conceptualised as a degrading act, attention must be paid to the image of a hypothetical person infected with chlamydia. Looking at who young people think is likely to catch chlamydia can also help to understand why people are unlikely to think of themselves as being at risk of infection:

The principle reason, however, why respondents did not feel that they were at risk for acquiring Chlamydia was that they felt that it was mainly 'other' people who contracted STIs... 'Others' were seen as being highly sexual and as being willing to have sex with multiple partners in a short space of time. They were needlessly risky, in that they were willing to have unprotected sex with strangers. They showed consistently poor judgment with regards to sexual partners... Individuals with STIs were viewed as being members of a tainted and inferior category (all the worse

because those who acquired an STI were often seen to have voluntarily placed themselves in this category through their own careless, risky actions).  
(Balfe *et al.*, 2010, p. 137)

Despite the fact that many of the participants in the research had themselves undertaken sexual practices considered by the researchers to be higher risk, they were unlikely to consider themselves at risk of infection (Balfe *et al.*, 2010). Instead of the recklessness of the imagined chlamydia sufferer described above, participants framed their own experiences “as momentary aberrations rather than symptoms of a defective character” (Balfe *et al.*, 2010, p. 138). This lack of self-perceived risk combines with social norms, stigma and the aforementioned barriers to reduce the likelihood of testing (de Visser and O’Neill, 2013).

As past testing has been associated with lower levels of STI shame and more positive subjective norms (perceived social pressure to undergo testing) (de Visser and O’Neill, 2013), reducing the stigma surrounding sexual health issues shows promise as a sexual health promotion goal. However as noted by Pavlin and colleagues:

...the challenge remains to devise creative approaches to the way knowledge is presented which not only inform but simultaneously normalise and destigmatise the subject-matter, allowing it to become personally relevant to those whose tendency may have been to shrug it off.  
(Pavlin *et al.*, 2006, p. 7)

One possible avenue to achieve such aims is through the creation of socially oriented events aimed at reducing the stigma around sexual health testing. Such an approach could make use of the fact that 87% of women said they would recommend their friends get tested, despite the high levels of anxiety they reported at the idea of testing positive themselves (Walker *et al.*, 2013). By creating an environment supportive of testing, the change in social norms may reduce stigma and encourage testing. This idea forms the basis of the in-person intervention trialled in this project, ‘Sexy Trivia’, which is further described in section 3.4.3.



### 2.7.3 Sex and satisfaction

As discussed previously, sexual health is not limited to the presence or absence of sexually transmissible infections, with other factors such as their sex life satisfaction, likelihood of orgasm and sex outside regular relationships also helping to complete the picture of the sexual health of Australians.

The majority of sexually active Australians are in ongoing heterosexual relationships and in this demographic average frequency of sexual activity was reported at 1.4 times per week (Badcock *et al.*, 2014). While most men and women reported desiring more sex than they were currently having, they also reported being very satisfied with the sex they had (Badcock *et al.*, 2014). This was both in terms of emotional satisfaction and physical pleasure, with 86% of men and 84% of women reporting very high levels of emotional satisfaction, and 88% of men and 76% of women reporting very high levels of physical pleasure (Badcock *et al.*, 2014). However whilst these levels are high overall, there remains a noticeable gap between men and women in terms of physical satisfaction. This disparity in sexual pleasure may be linked to the differences reported by men and women in their last occurrence of heterosexual intercourse. While the majority (92%) of Australian men reported achieving an orgasm during their most recent heterosexual encounter, only two thirds of women (66%) reported likewise (Badcock *et al.*, 2014). This difference is not limited to Australia, with another representative survey from the United States of America also showing a similar gender divide with 91% of males achieving orgasm compared to only 64% of females (Herbenick *et al.*, 2010). However these statistics are far from proving a biological difference in the ability of men and women to achieve orgasm. Rather it seems likely that the dominant sexual 'script' in these countries is affecting these outcomes. The term sexual 'script' is used to refer to the expectations, scenarios and actions that, through cultural influence and individual experience come to determine sexual behaviour and thoughts (Simon and Gagnon, 1986). When viewed through this lens it becomes less a question of whether men or women are biologically more likely to achieve orgasm than whether the behaviours that would facilitate orgasm are likely to occur. In the Australian survey mentioned earlier in this paragraph, penile-vaginal intercourse was the most commonly listed sexual act in both men's and women's most recent heterosexual encounters (at 95% and 92% respectively), whereas only 23% of women reported receiving oral sex (Badcock

*et al.*, 2014). As women are more likely to orgasm when a variety of practices are used, with cunnilingus being especially useful (Richters *et al.*, 2006), this skew towards penile-vaginal intercourse as the main focus of a sexual experience lessens the probability of female orgasm (Conley *et al.*, 2011; Badcock *et al.*, 2014).

Amongst women in heterosexual partnerships, the highest levels of physical and emotional satisfaction were most likely to be expressed by the 16-19 year old age bracket and the 20-29 year old age bracket (40 and 41% respectively) (Badcock *et al.*, 2014). This is contrast with the male results, where though 20-29 year olds reported similar levels of satisfaction (44%), the 16-19 year old age bracket had the lowest proportion of respondents who endorsed feeling extremely satisfied at 27% (Badcock *et al.*, 2014).

Young people were also significantly more likely to report having a sexual partner outside their regular relationship (Badcock *et al.*, 2014). Males aged 16-19 were the most likely to be involved in such activity with 24% of males compared to 5% of females reporting sexual activity outside their regular relationship (Badcock *et al.*, 2014). While the disparity between genders decreased in the 20-29 years age bracket, males still outstripped females with 8% and 4% respectively (Badcock *et al.*, 2014).

Due to the impact that the aforementioned topics have on the lives of young Australians, this thesis will not limit itself to the medicalised side of sexual health in its exploration of how promotions could better suit university students. In order to meet the World Health Organisation's definition of sexual health as discussed in section 2.2, it is necessary not only to address issues such as STIs, but also to promote actions that fosters "a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence." (World Health Organisation, 2006, p. 5)

#### 2.7.4 Sexual assault

In Australia, 4% of men and 22% of women reported having ever been forced or frightened into some type of sexual activity (de Visser *et al.*, 2014a) and people who are subject to sexual coercion experience both direct and indirect effects on their physical and

psychological health (Brown *et al.*, 2009; Jozkowski and Sanders, 2012; de Visser *et al.*, 2014a). While over half of these cases happened before the age of 16, approximately 28% of males and 30% of females reported first being sexually coerced between the ages of 17 and 20, showing the importance of the university-age demographic (de Visser *et al.*, 2014a). Attitudes surrounding consent have also been cause for public concern. In a recent survey 21% of young Australian men and 15% of young women agreed that “If a women is raped while drunk/affected by drugs she is at least partly responsible” (Harris *et al.*, 2015, p. 42). Similarly, 22% of young men and 17% of young women held the belief that “women often say ‘no’ when they mean ‘yes’” (Harris *et al.*, 2015, p. 42). Even more young Australians (46% of males and 33% of females) thought that “A lot of times women who say they were raped led the man on and later had regrets” (Harris *et al.*, 2015, p. 42). From the prevalence of coercion and these underlying attitudes, the need for greater emphasis on consent in sexuality education is clear.

In recent years sexual assault at universities has become a particular focus of media reporting and the wider conversation about sexual assault. This has been especially apparent in the United States context, where a White House led task force was created with the aim of protecting students from sexual assault (The White House, 2014). It has been estimated that in the United States approximately one in five female university students had experienced some form of sexual assault, with the newest students most at risk (Krebs *et al.*, 2009).

In Australia, a National Union of Students survey prompted alarming headlines such as “Civilian universities have higher rate of sexual harassment, sex attacks than the Australian Defence Force Academy” (McPhedran, 2013). Some of the key findings of the survey were that 67% of the 1549 female respondents had an unwanted sexual experience, 31% had had sex when they believed themselves unable to consent and 17% had experienced rape (Sloane and Fitzpatrick, 2011). These results were similar to those from a university in the state of Victoria in Australia, where 67% of the 465 female respondents reported receiving unwanted sexual attention and 13% reported unwanted sexual intercourse (Hayden *et al.*, 2016).

While these are concerning statistics, it is important to note the limits of the methodology employed by the surveys. The use of convenience sampling and the absence of information about the total number of students that could have participated in the National Union of Students survey (Sloane and Fitzpatrick, 2011) and the low response rate in the Victorian example (Hayden *et al.*, 2016), make it difficult to determine how well those statistics reflect reality. For instance, individuals who have experienced sexual assault or harassment may feel more motivated to complete the survey than those who have not, leading to an over representation of cases. In addition, both these surveys asked about occurrences of sexual harassment and assault throughout the respondent's lifetime, which makes it difficult to assess the extent to which attending university may influence these statistics.

More recently, the Australian Human Rights Commission conducted an independent survey of all 39 Australian universities (Gebicki *et al.*, 2017). This survey, which was completed by over 30,000 students of all genders, looked specifically at instances of sexual harassment and assault occurring in the period 2015-2016. It found that in this period 6.9% of students had been sexually assaulted, with 1.6% being assaulted in a university setting and that women were more than three times more likely to be assaulted than men (Gebicki *et al.*, 2017). These findings are not necessarily surprising, as the report notes:

Although no directly comparable data is available, the prevalence and nature of sexual assault and sexual harassment in a university setting largely corresponds with what is already known about the prevalence and nature of sexual violence in the broader Australian community. (Gebicki *et al.*, 2017, p. 4)

Of course, the fact that young Australian women in general are disproportionately affected by sexual harassment and sexual assault (Cox, 2015) does not mean that universities can ignore the issue. Rather, as institutions where many students fall into this category, there is a clear need for effective education programs developed in consultation with students, as recommended in the report (Gebicki *et al.*, 2017).

### 2.7.5 LGBTI issues

Within the university setting the lesbian, gay, bisexual, transgender and intersex (LGBTI) community is an important audience to reach in terms of sexual health promotion. While

97% of men and 96% of women in Australia think of themselves as heterosexual, homosexual identity is more common amongst those with a tertiary education and same sex attraction is becoming more common in the general population (Richters *et al.*, 2014). This is consistent with other developed countries such as the USA, where self-identification as LGBT is increasing, especially amongst millennials (Gallup, 2017). One possible explanation for these reported increases is more favourable social climates than in previous generations, making it more likely for people to disclose a non-heterosexual identity (de Visser *et al.*, 2014c; Gallup, 2017).

In an online survey on sex education in Australia, 69% of those who identified as LGBTI felt excluded by their high school's approach and 57% thought it was not personally relevant (Giordano and Ross, 2012). This lack of relevant information was also confirmed by the 2013 National Survey of Australian Secondary Students and Sexual Health, in which LGBTI related information was the topic most frequently reported to be lacking in a student's sexual health education (Mitchell *et al.*, 2014). This is unsurprising, given that student teachers, regardless of sexual orientation or gender, feel unprepared to deal with the complexity of diverse sexualities in their teaching career (Lee and Carpenter, 2015). The difficulty of providing sex and sexuality-related information for school-aged students has recently come to prominence in Australia with the introduction of the Safe Schools program. The Safe Schools Coalition describes itself as "the first national program funded by the Australian Government aimed at creating safe and supportive school environments for same sex attracted, intersex and gender diverse people by reducing homophobic and transphobic bullying and discrimination in schools" (Australian Government Department of Education and Training, 2016b, para. 1). While a program designed to reduce bullying in schools would not normally be considered controversial, the LGBTI element present provoked a critical response from the Australian Christian Lobby, conservative politicians and *The Australian* newspaper (Parkinson, 2016). This pressure led to a review of the appropriateness and efficacy of the program (Louden, 2016) and the subsequent amendment and restriction of a number of components of the program (Birmingham, 2016). Given that the program is not mandatory in Australian schools and that parents can refuse for their child to participate (Birmingham, 2016) it is likely that many Australian students, especially those who identify as LGBTI, will finish their schooling without

comprehensive sex and sexuality education. Such conflicts highlight the need for university based sexual health promotions for LGBTI students.

LGTBI individuals, especially men who have sex with men, face different and often more challenging sexual health issues. Partner numbers among men who have sex with men are far higher in comparison to men who exclusively have sex with women (Grulich *et al.*, 2014a). While the mean number of partners for heterosexual men during the previous year was 1.4 (Rissel *et al.*, 2014), homosexual men had an average of 6.8 partners (Grulich *et al.*, 2014a). Along with these much higher partner numbers comes a high level of partner concurrency amongst gay men (Lyons and Hosking, 2014), which is thought to be an major factor in how fast STIs can spread (Smith, 2012).

This is backed by the Australian data, where 45% of homosexual men reported ever having had an STI, in comparison with only 15% of heterosexual men (Grulich *et al.*, 2014b). In addition, from 2009 to 2013, 85% of newly acquired HIV infections in Australia were amongst men who have sex with men (The Kirby Institute, 2014).

It must be noted that Australian men who identify as homosexual already have significantly higher STI and blood borne virus knowledge, compared to their heterosexual counterparts, as well as being significantly more likely to have been tested for both STIs and HIV (Grulich *et al.*, 2014b). That said, the fact that homosexual men continue to be vastly overrepresented in STI and HIV cases shows that further action is necessary.

LGBTI youth in Australia are also likely to suffer from verbal or physical abuse (Robinson *et al.*, 2014), with 61% of respondents to an online survey reporting verbal abuse and 18% reporting physical abuse due to homophobia (Hillier *et al.*, 2010). Such attacks have impacts beyond their immediate repercussions. They are believed to contribute to an elevated risk of suicide among LGBTI youth (Skerrett *et al.*, 2015), with transgender and intersex individuals particularly at risk (Jones and Hillier, 2013). LGBTI victimisation is also strongly linked with mental health during young adulthood and an increased risk for STIs (Russell *et al.*, 2011). For the above reasons the LGBTI community is a specific interest group within this thesis.

### 2.7.6 Independence and prior sex education

It is not only the above factors that make young university students an important target for sexual health messages. Higher education students make up 6% of the Australian population and while not all of these students fit the youth demographic, the majority of university students are aged between 15 and 24 (Australian Bureau of Statistics, 2013). Many higher education students will change households to be closer to their educational institution (Australian Bureau of Statistics, 2013), and for many this will correspond with a period of greatly increased independence that can have a substantial impact on health outcomes (de Visser *et al.*, 2006).

These students do not enter university with a uniform level of sex education. Educating young people about sex and sexuality remains a contentious issue, with some Australian schools refusing to teach students about sexuality despite expert medical opinion of a crisis in this area (Wiltshire and Donnelly, 2014). Perhaps as a result, in Australia one in ten students from a 2013 online survey reported receiving no sex education at their high school (Mitchell *et al.*, 2014). Even when these topics are taught, there remain substantial problems. These topics are often taught by teachers with little to no university training in sex education (Carman *et al.*, 2011; Wiltshire and Donnelly, 2014) and many young Australians feel that they receive insufficient sex education on specific topics, especially those relating to sexuality, sex and pleasure, accessing youth health services, healthy relationships and HIV/AIDS (Giordano and Ross, 2012).

However it is not only Australian citizens who attend university in Australia, with 25% of those enrolled in Australian higher education institutions coming from overseas (Australian Government Department of Education and Training, 2014). These students experience additional challenges when beginning university, with the increased freedom associated with university in general amplified by their shift away from their home culture (Rosenthal *et al.*, 2008). In the general Australian population those who speak a language other than English at home are likely to score significantly lower than English speakers on knowledge of sexual health issues (Grulich *et al.*, 2014b). International students at the University of Tasmania were found to have significantly lower sexual health literacy than their Australian or New Zealand born peers (Simpson *et al.*, 2015). From these two studies

it seems probable that there will be highly variable levels of sexual health knowledge amongst international students at universities across Australia. In addition, a previous Australian study found that international students' reports of chlamydia diagnoses were higher than notifications of young Australians (Rosenthal *et al.*, 2008). As such, international students are a specific interest group for this thesis.

Once at university, there are simultaneously new challenges and new opportunities for sexual health promotion. In one sense it can be more challenging to gain access to an audience. Unlike high schools where relationships and sexuality are included in the health curriculum (ACARA, 2017), universities offer highly specialised courses of which relatively few could conceivably promote sexual health. However it must also be noted that university also represents a period of great opportunity for students to learn more about sex and sexuality. Despite the lack of formal education experiences related to sexual health, university based student groups such as women's and queer departments can play a major role in facilitating the promotion of students' sexual health (Gordon, 2012). This can be through the provision of safe sex supplies and advertising or organisation of sexual health related events (Gordon, 2012). In line with the emphasis on dialogue previously discussed, this thesis will focus on these groups and their current and potential impact on sexual health promotion in university communities as peer educators.

## **2.8 Relevant health promotion research**

The following sections draw on health promotion literature to elaborate the concepts underpinning this thesis's approach. In section 2.8.1, previous university-based sexual health promotion research from Australia and abroad is examined, with a particular focus on the deficit model approach underpinning these methods. Then in section 2.8.2 the benefits and limitations of using peer educators for health promotion are explored. In section 2.8.3 the rationale for a focus on in-person events, rather than online approaches is discussed. And finally in section 2.8.4 the literature surrounding fear-based sexual health promotion is discussed, with a focus on the detrimental impact that this approach to risk communication can have on behaviour.



### 2.8.1 Previous university-based sexual health promotion research

In Australia comparatively little research has been done that specifically looks at the promotion of sexual health to university student audiences. More often the focus is on young people more generally, aligning with the Third National Sexually Transmissible Infections Strategy's classification of Australians under the age of 30 as a priority population (Australian Government Department of Health, 2014). Some of the studies that have focused on Australian university students point out that tertiary educated young people were not their chosen demographic and that the difficulty of recruiting young people from lower socio-economic backgrounds was the main reason for their high proportion of university students (Smith *et al.*, 2012). However, as noted by Phillips *et al.* (2012), the presumption that university students will be more aware of sexual health resources or issues does not necessarily translate into an informed student population. Though admitting that the "deficiencies in knowledge" (Phillips *et al.*, 2012, p. 301) identified would possibly be greater in the general population, this study expressed concern at only 54% of the tertiary student participants knowing that abortions were available in their city. Similar gaps in students' knowledge have been reported regarding the use of emergency contraception (Calabretto, 2009; Mohoric-Stare and De Costa, 2009), with many misunderstanding how it worked and when and how it could be accessed. However, even perfect knowledge of a particular aspect of sexual health is not a guarantee of changed behaviour. Whilst knowledge of condoms amongst Australian university students is high, their use is far from consistent (MacPhail *et al.*, 2017). Although understanding that condoms can prevent STIs, negative associations with condom use - such as the reported reduction in sexual pleasure and associations with promiscuity - make it less likely that Australian university students will use them (Newton *et al.*, 2012). Besides these issues, young Australian males also report not using condoms as a rational choice, spurred by perceptions of STIs as non-serious and condomless sex as being a sign of trust and intimacy in a relationship (Smith *et al.*, 2012). This research suggests that attempting to position intercourse as a risky act is unlikely to improve health outcomes in a population where non-medical concerns dominate the decision making and alcohol can heighten impulsivity (Smith *et al.*, 2012).

One of the most comprehensive and recent studies into university-based sexual health promotion in Australia is that of MacPhail *et al.* (2017). This study focused on a regional university in New South Wales and measured access to sexual health care and knowledge of sexual health issues as well as assessing the impact of a sexual health campaign that had been run on campus (MacPhail *et al.*, 2017). The campaign consisted of posters, a website and condom vending machines, and was deemed to have low impact on students, with 28% unaware of any element of the campaign and fewer than 2% of students studied knowing about all three components (MacPhail *et al.*, 2017). Regardless, students in general had acceptable levels of sexual health knowledge and positive attitudes towards sexual health (MacPhail *et al.*, 2017). However this knowledge and positive attitude did not translate into the consistent and effective use of condoms (MacPhail *et al.*, 2017). One of the key recommendations of the study was making STI screening more accessible, with this method of STI control deemed a promising approach for university populations (MacPhail *et al.*, 2017). As such a central focus of this thesis is to examine the barriers to STI screening in the Australian university population and trial means to improve attitudes towards testing.

Looking internationally we see a similar interest in assessing sexual health knowledge levels, attitudes and perceptions of risk of university students from a diverse range of countries including the United States (Weinstein *et al.*, 2008; Licht *et al.*, 2010; Moore and Smith, 2012), China (Zhang *et al.*, 2010), Nigeria (Ijadunola *et al.*, 2009) and Yemen (Al-Rabeei *et al.*, 2012). Implicit in these studies is the idea that negative sexual health outcomes are a consequence of an uninformed public, echoing the deficit model previously discussed in section 2.3. However, this is not the only approach to university sexual health that can be employed, with methods that encourage a dialogue with students about their needs also possible. Such dialogue-based studies have already discussed what students want and currently have access to in terms of sexual health resources and education on university campuses in the United States (Eisenberg *et al.*, 2012; Lechner *et al.*, 2013). This thesis will follow similar aims, with the interviews and surveys intending to learn from students rather than assess what they have or have not learnt.

### 2.8.2 Why focus on peer educators?

While there is no universally accepted definition of peer education (Southgate and Aggleton, 2016), definitions often centre around the act of participants from within the same or a similar societal group sharing information and values about a particular issue with other members of their group (Parkin and McKeganey, 2000). This can take a number of forms, including counselling and leading interventions (Southgate and Aggleton, 2016). Besides fitting with the dialogue approach previously discussed, there have recently been calls for “research that can establish the framework for an innovative peer led program” to address Australia’s youth sexual health issues (Commonwealth Youth Programme, 2016, p. 29). The peer educator approach can be particularly appropriate with a young university audience for four main reasons.

First, using peer educators is often considered to be an useful approach when working with tightly knit or hard to access groups including young people and has already been used for youth sexual health promotions (Kim and Free, 2008). Second, unlike earlier stages of education, Australian university students lack common health related subjects where such promotions could otherwise occur. Third, peer educators rank highly on the preference list of people from whom young people would like to receive sexual health information. In an online survey of Australian high school students, 68% agreed or strongly agreed they would prefer sexual health peer educators to provide them with information, tying with sexual health organisers from community organisations for the most preferred provider (Giordano and Ross, 2012). And finally, universities can have a range of student positions or organisations that either already take part in sexual health promotion activities or have the potential to do so (Gordon, 2012).

However, the use of peer educators also has several problems in terms of practicality and effectiveness. In terms of practical restrictions, the time and resources necessary to train and support these community members to provide high quality sexual health promotion can be a limiting factor (Harden *et al.*, 1999). This is especially the case when referring to young peer educators who are likely to have a shorter term as an educator due to changing life circumstances, resulting in a higher level of turnover and therefore a higher cost of training for new educators. In addition, there are also concerns about the effectiveness of

peer-led sexual health promotions for adolescents. A number of recent reviews examining peer-led sexual health promotion for a youth audience have suggested that despite the popularity of peer education, there is limited evidence to support its effectiveness (Kim and Free, 2008; Tolli, 2012; Chandra-mouli and Lane, 2015). The 2008 study failed to find convincing evidence of an overall effect in terms of condom use or a reduction in either the likelihood of pregnancy or a new partner across the studies, however the authors noted that the interventions were highly variable, with one successful example boasting a significant reduction in chlamydia incidence (Kim and Free, 2008). Despite the absence of clear and consistent success, the authors concluded that the use of peer educators for health promotion “should not be abandoned but rather fine-tuned” (Kim and Free, 2008, p. 150), urging researchers to focus more on the details of interventions. The second review, focusing on European studies exclusively, found a similar outcome with no convincing evidence of a positive impact on HIV prevention, teenage pregnancy prevention or the general category of ‘sexual health promotion’ (Tolli, 2012). Similarly, the author did not dismiss peer education as a potentially useful tool for health promotion, instead focusing on the number of additional factors such as the theoretical framework used, training of teachers and outside social and media influences that could affect the outcome of a promotion beyond the simple inclusion of peer educators (Tolli, 2012). This thesis will explore issues that impact the efficacy of sexual health promotions featuring peer education beyond the simple presence or absence of peer educators.

It is possible that rather than abandoning the peer educator approach, we need to refocus our attention on what it can be expected to achieve, the outcomes we use to measure success and how peer educators should be used. Most interventions have been shown to increase knowledge and improve attitudes and intentions (Kim and Free, 2008) and it has been suggested that other measures which have not shown success, such as condom use at last sex, are ignoring the context of the relationship in which it takes place (Michielsen *et al.*, 2012). This information may be vital in interpreting the success of a program, as people with a single partner are less likely to use condoms (de Visser *et al.*, 2014b) and the likelihood of acquiring an STI is lower among men and women with lower numbers of sexual partners (Grulich *et al.*, 2014b). Rather than viewing peer educators as a stand-alone intervention, it has been suggested that they should be acting as a part of a larger effort, with one of their main roles being to refer others on to appropriate services (Michielsen *et*

*al.*, 2012). Finally, instead of expecting sexual health peer education to suddenly and conclusively change sexual behaviour, decreasing the stigma that currently surrounds sexual health issues has been shown to be an achievable, yet still valuable, goal (Michielsen *et al.*, 2012). This aim is one of the foundational aspects of the intervention explored in this thesis, as described in the next chapter, with a particular focus on sexual health testing.

### 2.8.3 Online approaches to sexual health

Much of the recent sexual health research in Australia has focused on the use of sms and online methods of providing sexual health information (Gold *et al.*, 2010; Evers *et al.*, 2013; Minichiello *et al.*, 2013), with this area being one of the most common topics explored by users online. Both in Australia (Bourne *et al.*, 2011; Pedrana *et al.*, 2012; Guy *et al.*, 2013; Zou *et al.*, 2013; Mortimer *et al.*, 2015) and internationally (Swanton *et al.*, 2015; Burns *et al.*, 2016) there has been success in using new media and mobile technologies to promote the use of sexual health services. While cost effectiveness and the ability to engage on a large scale are key advantages of such approaches, there are three main ways in which online tools do not fully address sexual health issues.

Firstly, most young Australians will only seek out online information related to sexual health after recently engaging in risky sexual activity (Keys *et al.*, 2008). While it is beneficial to have online information available at such times, there are many facets of sexual health that are of more use beforehand. Learning about the best ways of preventing STI transmission is clearly far more effective when done before exposure, and some forms of treatment, such as emergency contraception or post exposure prophylaxis need to be sought within a short timeframe of the risky sexual activity (Sexual Health and Family Planning ACT, 2011; Canberra Sexual Health Centre, 2015). In contrast, in-person approaches not only allow for learning about these aspects, but also discussion on topics that are less likely to be sought online, such as the development of healthy relationships (Magee *et al.*, 2012).

Secondly, online information can be hard for users to find, assess and interpret. There is certainly no lack of information related to sexual health concerns on the internet, however as a large proportion of this content is created by non-professionals, there is a high likelihood of finding misleading or inaccurate information (Minichiello *et al.*, 2013).

Finally, social stigma associated with seeking sexual health information is often only avoided, rather than actively challenged, by online means of engagement. While many users appreciate the anonymity of online information sources (Minichiello *et al.*, 2013), unless the topics are raised within a peer group, it is highly unlikely that the current, negative perception of seeking sexual health information or testing will change. With stigma cited as one of the key reasons for Australian youth to avoid seeking this information (Keys *et al.*, 2008), it is vital that these attitudes are confronted.

Due to the above limitations, the focus of the intervention trialled in this thesis is solely on in-person events. However far from promoting in-person events as the only way to conduct sexual health promotions, this thesis views online and in-person methods as complementary approaches, with each offering advantages the other cannot provide.

#### **2.8.4 Fear based health promotion and risk perception**

In Australia it could be argued that the most memorable sexual health mass media promotion is the Grim Reaper campaign of the 1980s. In this television advertisement, a hooded figure carrying a scythe strikes down set after set of ordinary Australians while a voiceover warns that if left unchecked AIDS “could kill more Australians than World War II” (NACAIDS, 1987). It seems that in the minds of many politicians and members of the general public the relatively low infection rates in Australia can be directly attributed to the shocking nature of the advertisement, however this is far from the whole truth (Stylianou, 2010). It was not that the advertisement itself singlehandedly changed people’s health behaviours through fear, rather it can be argued that the campaign was “a necessary political vehicle, promoting changes in public attitude that subsequently allowed for increases in HIV/AIDS funding” (Stylianou, 2010, p. 13). This public support and funding, when combined with delayed onset of the epidemic in Australia and the ability for officials to learn from overseas responses, allowed for a range of measures such as school-based HIV education, syringe exchange outlets and targeted safe-sex promotions to reduce the impact of the disease (Sendziuk, 2003).

Existing research shows that people frequently underestimate their own risk levels in terms of the likelihood of STI transmission (Downing-Matibag and Geisinger, 2009; Balfe *et al.*,

2010; Licht *et al.*, 2010; Hickey and Cleland, 2013). This considered, an approach espousing an individual focused frame such as the Health Belief Model, discussed in section 2.4, would likely support a fear-based campaign. Surely emphasising an individual's risk, through emphasis on their susceptibility and the seriousness of the disease, should change their behaviour?

However fear based approaches have been shown to have little effect in a sexual health context, only successfully convincing those who are not actually at risk and sometimes actively discouraging those at risk from taking action. In a Canadian study of young women from disadvantaged areas, focus groups found that rather than encouraging them to get tested, fear-based messages combined with sexual stigma to reduce the likelihood of the women accessing sexual health services (Wong *et al.*, 2012). In addition, the framing of the health promotion message can have a substantial impact on which groups are most likely to alter their behaviours or attitudes. Although highly threatening framing approaches may be more effective at convincing neutral observers, those whose actions are most at odds with the promoted message do not find high threat messages as convincing, suggesting such approaches may be preaching to the converted (Van't Riet *et al.*, 2012). This is congruent with risk analysis research that suggests that in general people base risk judgments on what they feel, not just what they think (Slovic *et al.*, 2004). As activities that are marked by a positive emotion or affect (such as sex) are more likely to be deemed less risky and more beneficial (Slovic *et al.*, 2004) efforts to reposition the concept of sex as inherently risky are likely to be difficult.

For the above reasons, the intervention trialled in this thesis, 'Sexy Trivia', aimed to engage higher-risk students by avoiding the use of fear as a motivator for behavioural change related to sexual health.

## 2.9 Summary

This chapter explored the relevant literature surrounding sexual health promotion for Australian university students. First it elaborated on the definition of sexual health as a holistic concept encompassing the possibility of safe and pleasurable sexual experiences and the absence of disease and coercion. Then it described the relevant theories of science

communication and health promotion necessary to provide context for the work. This chapter then examined the impacts of sexually transmissible infections and the dominant approaches to preventing them, and explained the rationale behind the focus on sexual health testing. Section 2.7 focused on why young university students are a worthwhile target audience, looking both at medical issues such as high rates of STIs and insufficient testing as well as issues such as disparities in pleasure, high levels of sexual assault, LGBTI issues and a lack of prior sex education. The final component of this chapter looked at previous health promotion research relevant to the thesis. It examined university-based sexual health approaches in Australia and internationally, exposing a lack of research that focused on assessing the needs of students from their own perspectives, and determined the need for more nuanced approach to research on peer education. Then it explained the limitations of online promotions and how strategies aimed to highlight risk may miss their target audience or indeed backfire.

Together, this review of the literature has highlighted the need for research that actively engages with Australian university students in order to explore their diverse needs and preferences in relation to sexual health promotion. This thesis will do precisely that, using the methods described in the next chapter in order to determine how sexual health promotion in Australian universities could be improved.



## Chapter 3: Methods

This chapter discusses the variety of methods that were needed for the project to investigate sexual health promotion in Australian universities. It first describes the theoretical approach taken, before giving an overview of the mixed methods used and the research questions this method sought to answer. Finally it explains the procedures of data collection and analysis for the three different stages of the project, interviews, surveys and the final trial.

### 3.1 Theoretical approach

This project draws on the approach of Adaptive Theory, as proposed by Derek Layder (1998c). The focus of this approach is to use both pre-existing theory and theory generated from the researcher's findings to continually refine the research process (Layder, 1998a). This is clear in the multi-stage method described below, where the results of previous stages are combined with existing theory to shape subsequent stages. However Adaptive Theory also allows for the incorporation of new theory mid-stage. This theoretical approach is appropriate as it highlights the usefulness of both deductive (theory-testing) and inductive (theory-creating) methods for successful sociological study (Layder, 1998c). This is particularly important for the current project as while there is an abundance of literature on sexual health promotion in general, this literature is overwhelmingly focused on the effectiveness of promotions. As such, there has been comparatively little research done which focuses on the social structures and other features that support or stifle the promotion of sexual health within communities. Adaptive Theory allows the relevant, pre-existing theory to be tested against the target study of health promotion in Australian universities with the theory and subsequent methodological approach evolving as more information is gathered, creating new theories throughout the project. Another advantage of Adaptive Theory is its dual focus on both subjectivism and objectivism (Layder, 1998c). While it is vital to take a subjective approach to understand university student behaviour on an individual level, it cannot be forgotten that these individuals also exist in an objective reality, interacting with other members of their student groups and subject to policy decisions of the university and other organisations. Taking both subjective and objective lenses into account, Adaptive Theory is well suited to the study of this interface between

the systemic and interpersonal elements of social life (Layder, 1998c). As this project is focused on how sexual health promotions can shape university groups (systems) in order to change (interpersonal) behaviour, this aligns well with Adaptive Theory's problem-focus of how activities can mould social environments to alter social behaviour (Layder, 1998c).

### 3.2 Methods overview

From this theoretical foundation, a mixed methods approach was chosen to allow for qualitative exploration as well as quantitative enquiry. The primary reasoning for this choice was a worldview heavily influenced by the pragmatic approach. This philosophy, as one would expect, is centred on the idea of utility (Padgett, 2012). Rather than debating whether we should view the world through a positivist lens where there is only one external, objective reality or through a constructivist lens where all human activity can be considered socially constructed, pragmatism acknowledges the shortcomings of both viewpoints and accepts that the need may arise to lean towards one approach or the other (Padgett, 2012). Through a pragmatic viewpoint:

...one can be comfortable with the notion that there are occasions when reality claims can and should be made ("genocide in Rwanda"), when a presumed reality practically cries out to be deconstructed ("deviant behavior"), and when multiple subjective meanings can produce a broader understanding of something ("post-traumatic suffering"). Put another way, all concepts are human inventions, but some are more socially contrived and consequential than others. (Padgett, 2012, p. 8)

In terms of the present project, this is a useful standpoint as sexual health and sexual health promotion can be viewed from two distinctly different perspectives. The first is strongly positivist and medicalised, focusing on issues such as transmission, infection, partner numbers and symptoms. While this is a useful, and indeed necessary component of any comprehensive study of sexual health, it cannot tell the whole story (Ratzan, 2001). Through such a lens, it would be baffling to see increasing rates of infections that can be prevented by a device as simple, cheap and easily available as a condom. Through a constructivist approach, however, we can begin to see a series of subjective obstacles that can help to explain the under-utilisation (at least from a medical standpoint) of condoms. A potential condom user may view protected intercourse as an unnatural distraction, as showing a lack of trust in their partner, or even as defeating the very purpose of sex

(according to their opinion) by reducing pleasure (Braun, 2013). Without examining underlying issues such as the stigma of condom usage or how people think about pleasure, it would be hard to understand the rise in infections and harder still to try and stop it. As such, this project makes use of a mixed methods approach using both qualitative techniques, such as interviews, as well as analysing more quantitative information through closed answer multiple choice surveys. Beyond being seen as a good fit for pragmatism, mixed methods are regarded as being a more robust approach than either quantitative or qualitative methods individually (Cresswell and Plano Clark, 2007). In addition, adopting both methods has been considered the most appropriate tactic for studying the impact of peer led sexual health promotions (Harden *et al.*, 1999).

This study was formulated as a three-stage method. First, a series of semi-structured interviews were conducted with informants with a role relevant to the promotion of sexual health in university settings. These informants included both student leaders with a role related to sexual health (hereafter peer educators) and professional sexual health workers who had experience with outreach to a university audience (hereafter professionals). Second, the results from the interviews were used to design two different surveys aimed at peer educators and university students in general. Finally, this data was used to create and trial a peer led sexual health promotion called Sexy Trivia for use in university campus communities. All stages were given ethics approval by the ANU Human Research Ethics Committee (protocol numbers 2014/353, 2015/028 and 2015/515) and further detail on each stage is provided in the data collection and analysis section.

### 3.3 Research questions

The multi-stage method was chosen to help answer the following questions, with questions being refined, expanded upon and added throughout the course of the project as per Layder's Adaptive Theory (Layder, 1998c). The overarching question at the centre of this thesis is "How can sexual health promotion in Australian universities be improved?" To answer this question, three research questions were devised as follows:

- 1) What is the current state of sexual health promotion in Australian universities?
- 2) How can university sexual health promotion events better reach different groups of students?

3) Can a peer-led, socially focused event change attitudes towards sexual health testing?

The majority of these questions were addressed across multiple stages to refine the understanding gained and address new sub-questions.

## 3.4 Data collection and analysis

### 3.4.1 Stage 1 – Interviews

The Australian Capital Territory region was chosen for interviews due to the high number of university students and pre-established networks which facilitated finding relevant contacts as starting points. As per Newton et al.'s (2013) exploration of Australian health promotion programs, a combination of purposeful sampling and snowball sampling of key informants was used in an attempt to capture the variety of sexual health related roles relevant to a university setting. Purposeful sampling is based on selecting key informants who have a great depth of understanding about the subject in question to facilitate the research process (Patton, 2002; Palinkas *et al.*, 2013). For my project this involved contacting university residences, women's departments and queer departments via email to ask if they had any student positions related to sexual health such as women's and men's officers, sexuality officers or queer officers (peer educators). These emails were passed on to the relevant position holders by the group or in certain cases contact details were provided directly. University residences and potentially relevant groups from the two largest universities in the ACT were contacted, however positive responses were only received from Australian National University residences and groups. Similarly, professional sexual health care providers within the ACT were contacted to ask whether they had any staff involved in sexual health promotion to university students in particular (professionals). All interviewees (both peer educator and professional) were then used as a starting point for snowball sampling. Snowball sampling involves asking interview participants whether they can put the researcher in contact with other potential participants and can be particularly useful in situations where stigma could hinder recruitment (Noy, 2008). As sexual health issues are a stigmatised subject (Balfe *et al.*, 2010, 2012), using this approach with both peer and professional participants was considered appropriate to attempt to ensure representatives from all relevant organisations were contacted.

Nine peer educators, six professionals and one university residence staff member agreed to take part in the interviews. These face to face interviews were held either at the Australian National Centre for the Public Awareness of Science or in a mutually convenient, private space.

Before starting the interview, all participants read a short definition of sexual health and were asked whether that aligned with their understanding of the topic. This was done in an attempt to ensure that interviewees were answering questions from the perspective of a broader, encompassing definition of sexual health. The definition (included below) was adapted from the World Health Organisation's definition (World Health Organisation, 2006, p. 5).

While preventing and treating sexually transmitted infections like chlamydia, gonorrhoea and HIV is a major part of sexual health, it is by no means all of it. To draw from the World Health Organisation's definition, sexual health is a state of physical, emotional, mental, and social well-being related to sexuality; it is not merely the absence of disease. As such it's not just about condoms, it's about striving for positive relationships and respectful approaches to sexuality. It's being free of sexual coercion, discrimination and violence. And it's about supporting the possibility of safe and pleasurable sexual experiences.

Interviews were semi-structured with a series of initial questions, however the order of the questions varied depending on the conversation and some questions were skipped or expanded on based on previous responses (Appendix A). As per Layder's Adaptive Theory (Layder, 1998b), a series of orienting concepts were used in the development of the questions and subsequent analysis. These concepts were drawn both from the relevant literature and from previous experiences in the field. These orienting concepts included sexual health, stigma, normalising testing, participation, challenges and facilitators. Questions were based around the participants' experiences within their role, the specifics of previously held promotions and their suggestions for future promotions. The length of interviews ranged from 13 to 73 minutes, though most were around 25 minutes. Interviews were recorded, transcribed and coded with the assistance of NVivo software. The data was first coded according to the question or questions that were most relevant, regardless of whether the comment came as a direct response to that particular question. Then the responses related to each question were thematically analysed using the technique described by Attride-Stirling (2001) and drawing on the previously mentioned orienting

concepts as described by Layder (1998b). This involved identifying basic themes within the responses before categorising them within larger, overarching organising themes and then collecting these within global themes (Attride-Stirling, 2001). For example, funding constraints would be a basic theme that falls within the practical constraints organising theme and the challenges to provision global theme.

### 3.4.2 Stage 2 – Surveys

Based on analysis of the interview data and relevant background literature, two surveys were constructed. The Promotion Survey focused on student leaders who either currently, or potentially could, play a role in sexual health promotion in Australian universities. The Student Survey investigated current university students' experiences with sex and sexual health promotion, using the Australian National University as a case study.

#### 3.4.2.1 *The Promotion Survey*

The Promotion Survey (distributed as the University Sexual Health Promotion Survey) targeted peer educators and other student leaders from universities across Australia. While the interview stage was a productive means of establishing the topics and issues that were most relevant to investigate for peer educators, its impact was limited by its geographic specificity. As all those peer educators who chose to participate came from a single university in the ACT, there was the potential that these participants would not fully reflect the diversity of sexual health promotion in Australian universities. While there were considerable differences between the interview participants, their proximity and shared university guidelines made it far more likely that they would face similar issues and adopt similar approaches.

In order to rectify this issue and ensure that responses were truly representative of peer educators from a range of Australian universities, a survey was developed based on preliminary analysis of the interview responses and relevant literature. The orienting concepts, as per Layder's (1998b) approach, included university groups, student leaders, sexual health, collaboration and training, success and failure and participation. This survey was then piloted with five students and colleagues for clarity and to ensure the survey fit

within the twenty minutes described in the participant information. To distribute the Promotion Survey, a list of 304 potentially relevant campus groups across Australia was compiled by searching for accommodation, student associations/unions and queer groups for each Australian university. Notable exclusions were Ally programs (which generally include a majority of heterosexual and cisgender “allies” rather than self-identified LGBTI students), accommodation that wasn’t solely student focused and accommodation that only had a number for leasing enquiries and no other contact information.

Initially, these organisations were called rather than emailed in an attempt to facilitate finding relevant peer educators to contact. However, as the contact details provided for accommodation were most commonly for administrative staff rather than student services, this approach was unsuccessful. Some university accommodation services had a blanket policy against outside surveys, resulting in the exclusion of University of Technology Sydney and Monash University students. In the other universities, staff seemed hesitant to forward on a survey that was related to sex and this concern was no doubt exacerbated by the fact that initially the survey would disqualify anyone who said they weren’t a student with a role related to sexual health. This resulted in four of the first six responses being disqualified, and without being able to see the survey themselves, it is understandable that staff would be unwilling to pass it on. It was also difficult to explain the number of roles that could be relevant to the survey, given the different position titles that are used across Australian universities.

To remedy these issues, a new approach was devised with emails that stressed that the survey did not ask any questions about the sexual behaviour of the participants and was focused on how student leaders (not necessarily those in roles solely focussed on sexual health) could teach other students about sexual health. The email was also designed to be appropriate for both staff members wanting information and students wanting to participate, in order to facilitate dispersal by making it as simple as forwarding the initial email. While the majority of cases were first contacted by email, some instances (such as only having one general contact listed for multiple residences) were still contacted by phone to find out the most appropriate email contact.

Alongside these changes to the contact method, the survey was also altered slightly so that instead of disqualifying staff members and students who did not have a role in sexual health promotion, it simply split them into different categories. This resulted in a much more positive response rate, with 100 submissions collected, and allowed staff members' results to be excluded from the analysis in order to focus on the experiences of students. The survey was open from Wednesday 29/10/2014 and closed on Friday 28/11/2014 and the final version is included in Appendix B.

#### *3.4.2.2 The Student Survey*

The Student Survey (circulated as the Sex and Health Survey) was distributed to a random stratified sample of 2998 students from the Australian National University as an approved, non-core survey via email from the Planning and Performance Measurement Division. Although the Promotion Survey drew from many universities across Australia, the Student Survey was only distributed at the Australian National University, which has a single main campus. This approach was taken in order to make use of randomised email deployment and avoid the selection bias of user-shared surveys. An illustration of the impact of the latter dispersal method can be seen in two recent Australian studies. In these surveys 30% of respondents identified as LGBTI despite 97% of men and 96% of women in Australia considering themselves to be heterosexual in a nationally representative survey (Adam *et al.*, 2011; Giordano and Ross, 2012; Richters *et al.*, 2014). While men who have sex with men have indeed been identified as a priority population in need of special attention in the context of sexual health (Australian Government Department of Health, 2014), the Student Survey was focussed on finding the most accurate representation of university students as a whole. For the same reason, the email invitation and the survey both made it clear that prior sexual experience was not necessary to take part in the survey. The Student Survey was open from the 26/03/2015 and closed on 30/04/2015. The initial invitation to participate was sent on 26/03/2015 and one reminder was sent on 23/04/2015.

Prior to sending, the survey was piloted with five students and colleagues for clarity and to ensure the survey fit within the five to ten minute timeframe described in the participant information. This short time frame was chosen to try and maximise the number of responses to the survey, and was considered especially important given that there was no



incentive associated with completion. Partly for this reason, and partly to minimise potential discomfort regarding sexual content, the survey made extensive use of skip logic to pass over irrelevant questions. For instance, respondents who said they had never had sexual experiences were not asked any of the questions relating to sexual acts. The survey included four main types of questions based on a series of orienting concepts as described by Layder (1998b). These orienting concepts were based on the results from previous interviews with peer educators and professionals and from the relevant literature. The concepts included sexual health education experiences, barriers to and incentives for participating, sexual behaviour and STI testing. In the survey students first answered basic demographic information such as age, gender, sexual orientation and whether they were a domestic or international student. The second section of the survey investigated their previous sexual experiences, including numbers of previous sexual partners and use of contraception. The third section asked about the student's experiences with sexual health testing and facilitators and barriers to access. The fourth looked at sexual health promotions, including preferences, previous exposure to high school sexual health education and participation in university programs.

Many of the questions in the survey were based on those used in the Australian Study of Health and Relationships (de Visser *et al.*, 2003). While not targeted specifically towards university aged students, these methods were appropriate to draw on as they allowed for comparison between Australian university students and the broader Australian population. For instance, the two timeframes chosen for the number of sexual partners (lifetime and within the past 12 months) were used in order to make this data easily comparable with the relevant age groups from the recent second Australian Study of Health and Relationships (Grulich *et al.*, 2014a; Rissel *et al.*, 2014).

For a number of questions the survey asked what happened at the last instance of an event rather than what "usually" happened. For example, instead of asking how frequently participants used condoms during intercourse, the survey asked "did you use a condom the last time you had sex...?" In this particular case the use of "condom use at last sex" is widely accepted within sexual health research and has been found to be a suitable proxy for use over longer periods (Younge *et al.*, 2008). Additionally, using the "at last instance" approach allows a good representation of usual sexual behaviour with less impact from faulty

memory, provided a large enough sample is used (Rissel *et al.*, 2014). The complete list of questions is included in Appendix C.

One of the complicating factors in designing the survey was attempting to create options that were relevant to a broad variety of sexual orientations and practices without overwhelming respondents with unnecessary detail. While 'having sex' may seem like a simple term, it is well established within sex research that different individuals will have different personal definitions of what sex entails (Schick *et al.*, 2015). For example, while over 94.8% of respondents to an American survey considered penile-vaginal intercourse as sex, 72.9% of the respondents also considered receiving oral sex as having sex (Sanders *et al.*, 2010). Similarly in Australia, 65.7% of respondents to the second Australian Study of Health and Relationships agreed that they would describe two people who had oral sex as having had sex (de Visser *et al.*, 2014c). Finding an agreed upon definition for sex is even more complicated when trying to accommodate multiple different sexual orientations within the same survey. To take just one example, women are likely to define a broader range of behaviours as constituting sex when performed with another woman than with a man (Schick *et al.*, 2015). As the Student Survey asked about sex and oral sex as distinct categories, this may have been a point of confusion for women who have sex with women. This could be avoided in future surveys through more extensive use of skip logic. However it is unlikely to have impacted outcomes within this thesis as the main measure of partner numbers (denoting higher or lower risk respondents) was based on a minimum of partners for either intercourse or oral sex rather than using only one of those categories.

As the diverse nature of university student groups creates different needs, the results were analysed in four sections, to align with research question two: "How can university sexual health promotion events better reach different groups of students?" Each section focused on a demographic that was found to have notably different needs according to interview respondents and the literature. These sections were focused around the following comparisons: higher and lower risk status (based on number of sexual partners), international and domestic students, LGBTI and heterosexual cisgender respondents, and female and male students. Statistical analysis was performed using SPSS software. Chi square tests were used to determine statistically significant differences ( $p < 0.05$ ) between groups. For responses where there were matching data sets showing what students wanted

compared to what was being offered, each student sub-group was individually compared with the event responses from the Promotion Survey. For questions where event responses were not available (such as student motivations to attend events), comparisons were made directly between the student sub-groups.

### 3.4.3 Stage 3 – The Sexy Trivia trial

#### 3.4.3.1 *Purpose and content*

Based on results from previous surveys and interviews, a peer-led sexual health promotion called Sexy Trivia was developed in line with a dialogue approach to science communication. This promotion was specifically designed to be fun and attractive to a university audience not interested in sexual health, easy for peer educators to run and low cost. The event was based on a trivia night format with four rounds of questions and four games for breaks between rounds. The majority of questions had a thematic link to sex or sexuality, but were related to the round themes of films, music, science and literature rather than sexual health specifically. This was done to provide incentive for students who were not already knowledgeable or enthusiastic about sexual health to attend. Three questions per round of ten were didactic, targeted at relevant concepts for university students as identified in the surveys and literature. These topics included contraception, chlamydia, access to testing, the HPV vaccine, sexuality and pleasure. A full list of the trivia questions used is provided in Appendix D. Sexy Trivia was piloted with a university group and at an adults-only night at a science centre before evaluation. These pilot events were run by the author rather than peer educators from the groups, to test whether activities ran as expected and were enjoyable for the audience.

The four games between rounds were also a source of sexual health information, but served the dual purpose of icebreakers to make participants more comfortable with each other and the topic (Cooper and Dickinson, 2013).

Anonymous Questions provided participants with an opportunity to ask anonymous questions that were answered later in the event by the professional.

The Condom Challenge was a time trial of teams of two working together to place a condom on a banana whilst wearing beer goggles and using only one hand each. Through

the game important lessons about the correct application of condoms and issues such as expiry dates were explored.

Chocolate and Consent brought up the importance of consent and clear communication by challenging participants to rank chocolates in order of preference using only facial expressions. This game was first developed as part of the Great Sex Roundtable programme. Exchanging Fluids modelled the spread of an often symptomless disease such as chlamydia through a population with the help of cups of water, citric acid and pH indicator, and showed the impact of testing and partner numbers on the likelihood of infection.

### *3.4.3.2 Trial format*

To evaluate the effectiveness of the program, it was trialled in comparison with a sexual health promotion talk from Sexual Health and Family Planning ACT. A talk was chosen for the comparison as it was the most common type of event taking place within university groups in the ACT according to professionals interviewed in section 4.3.1. The talk lasted approximately an hour, included the use of PowerPoint and audience-appropriate humour, and was performed by a professional sexual health promoter with experience in university student groups. Topics covered included contraception, STI testing and sexual assault. All student residences at the Australian National University were contacted via their deputy heads and invited to participate in the trial. Interested student leaders were then introduced to the trial and presented with a peer educator guide. The guide gave students a description of the roles and limits of a peer educator, a brief introduction to the sexual health issues common to university students, instructions on how to run a variety of events (including Sexy Trivia) and contact information for support and further information. This guide was developed with feedback from Sexual Health and Family Planning ACT and a copy is provided in Appendix E. Peer educators also met with the author and a Sexual Health and Family Planning ACT outreach worker prior to the event to discuss any questions they had about the role, the event or sexual health.

Two trials took place on 12/05/2016 and 28/07/2016, with both sessions (talk and trivia) occurring at the residence in question. Both residences were predominantly undergraduate self-catered accommodation. Thursday nights were specifically chosen for the trials to enhance the social appeal of the event, with this day of the week commonly known as

student night for the pubs and night clubs of the area. In order to reduce self-selection bias, participants were randomly allocated to one of the two sessions and presented with a physical token specific to that session to exchange for the incentive after they had completed the survey. The incentive provided was a \$10 voucher for the residence canteen, which offered alcoholic and non-alcoholic drinks and snacks. In order to be eligible to participate, students had to be 18 or older and currently living at the residence. While the peer educator ran Sexy Trivia, they did not lead recruitment, survey administration or the distribution of incentives. All materials for the running of the event were provided by the project.

#### *3.4.3.3 Evaluation and analysis*

Both events were evaluated through an anonymous online survey, 'Testing Attitudes about Sexual Health'. The majority of this survey was developed using Francis *et al.*'s (2004) manual for constructing theory of planned behaviour questionnaires, with additional guidance for making it specific to chlamydia testing attitudes from Booth *et al.* (2014). The theory of planned behaviour was chosen as the framework for the survey in order to examine the effect that a social, peer led program could have on the attitudes and subjective norms surrounding an often highly stigmatised topic such as sexual health testing (Balfe *et al.*, 2010, 2012; Morris *et al.*, 2014). Chlamydia testing was chosen as the topic as it is the most commonly notified STI in Australia and young people experience the highest notification rates of this infection (Australian Government Department of Health, 2014; The Kirby Institute, 2016). The target behaviour was defined using the Target, Action, Context and Time (TACT) approach (Francis *et al.*, 2004) as 'getting tested for chlamydia every time you have a new sexual partner'. This definition of the target behaviour was chosen to make it more applicable to those who have not had recent sexual activity without excluding those with more sexual partners. While current Australian guidelines recommend yearly screening for sexually active 15-29 year olds without additional risk factors (RACGP, 2012), previous work has shown no significant differences between the chosen phrasing and "getting tested for chlamydia every 12 months" (Booth *et al.*, 2014, p. 105).

Four different averages were calculated as part of the theory of planned behaviour approach, with each achieving an acceptable score of internal reliability using Cronbach's alpha (Francis *et al.*, 2004). Attitudes towards chlamydia screening were assessed using a common stem and four pairs of adjectives on a five point scale (e.g. 'For me, getting tested for chlamydia every time I have a new sexual partner is: Shameful - Admirable';  $\alpha = .72$ ). Subjective norm was measured through four items (e.g. 'When it comes to getting tested for chlamydia every time I have a new sexual partner most people who are important to me think: I should - I should not';  $\alpha = .61$ ). Perceived behavioural control was measured using four items ('Whether I get tested is entirely up to me: Strongly disagree - strongly agree';  $\alpha = .62$ ). Behavioural intentions were measured using three items (e.g. 'I expect myself to get tested for chlamydia every time I have a new sexual partner: strongly disagree - strongly agree';  $\alpha = .83$ ).

Generalized linear models in SPSS were used to establish whether differences in estimated marginal means were statistically significant at  $p < 0.05$ . As sessions were statistically different in terms of gender composition, gender was used as a predictor alongside session to account for these differences.

In addition to the questions based on the theory of planned behaviour, the survey also included an evaluation of the sessions, demographics and an abbreviated sexual experience section drawing on the Student Survey questions. The full list of questions is available in Appendix F. While a print version was available, the survey was designed to be used on smart phones, with pilot testing including compatibility checking for Android and iOS systems.

Shortly after each trial, peer educators were interviewed using a semi structured format. Questions focused on their role as a peer educator within their group, previous health promotions that had been run and on Sexy Trivia, with an emphasis on turnout, highlights and possible improvements. Interviews were recorded, transcribed and coded with the assistance of NVivo software. Responses were thematically analysed using the technique described by Attride-Stirling (Attride-Stirling, 2001) and drawing on the previously mentioned orienting concepts as described by Layder (Layder, 1998b).

### 3.5 Chapter summary

This chapter presented the methods used in this thesis to investigate sexual health promotion in Australian universities. It described the Adaptive Theory approach taken and justified the use of a mixed methods approach for investigating this topic. It then introduced the research questions and described the three stage approach used to answer these questions. The three stages were:

- Interviews with nine peer educators, a university staff member and six professional sexual health promoters conducted in the Australian Capital Territory. Interviews were semi-structured with questions based around the participants' experiences within their role, the specifics of previously held events and their suggestions for future events.
- Two anonymous surveys. The Promotion Survey investigated current university sexual health promotion events through the perspectives of student leaders nationwide. The Student Survey asked general students about their sexual experiences and preferences regarding sexual health promotion events, using the Australian National University as a case study.
- Trialling a new peer-led sexual health promotion called Sexy Trivia and assessing results using a theory of planned behaviour framework. Two university groups at the Australian National University participated with roughly half of participants randomly allocated to a professionally run sexual health talk for comparison.

The following three chapters present the results gained from these methods, with each based on a research question as described in section 3.3. The first presents results from the interviews and the Promotion Survey to explore current sexual health promotion in Australian universities. The second looks at the data from the Student Survey and the Promotion Survey to examine how sexual health promotions could better reach different groups within Australian universities. And the final section presents results from a trial designed to determine whether a peer-led, socially focused event can change attitudes towards sexual health testing.





## Chapter 4: Results – Current sexual health promotion in Australian universities

### 4.1 Introduction

This results chapter draws on data from both the interviews and the Promotion Survey. In the interview stage, nine peer educators, a university staff member and six professional sexual health promoters from the Australian Capital Territory participated in interviews centred on their role and previous sexual health promotions they had run or participated in during university. While the focus of this thesis is on university students' engagement with sexual health promotion, results from the professionals interviewed are presented to give the necessary context in a largely collaborative arena. In the survey stage, 92 complete responses were obtained from student leaders representing 23 Australian universities. As only one university staff member participated in interviews, and their responses focused on peer educator experience, they are included in the following section as a peer educator to ensure their privacy. In addition, pseudonyms are used throughout the results chapter to protect the identities of all participants. This chapter draws on these sources in order to answer the following research question and sub-questions:

- 1) What is the current state of sexual health promotion in Australian universities?
  - a. Who is promoting sexual health in Australian universities?
  - b. How is sexual health being promoted?
  - c. What are the challenges and opportunities?

Respondents from the Promotion Survey are discussed in terms of three different groups: student leaders, peer educators and event holding respondents. Here, 'student leaders' is the term used to denote all respondents of the survey, regardless of whether their role was directly related to sexual health promotion or not. Those 36 respondents that did identify a role relating to sexual health are referred to as 'peer educators'. A third descriptor, 'event holding respondents' refers to peer educators and other student leaders who reported their group having one or more sexual health promotion events. The demographics of these categories are listed in Table 4.1.

Table 4.1 – Demographics of Promotion Survey respondents

	Student leaders (All respondents) n = 92	Event holding respondents n = 62	Peer educators n = 36
Under 30 years old	95.7%	98.4%	97.2%
Male	31.5%	32.3%	36.1%
Female	65.2%	64.5%	61.1%
Other	3.3%	3.2%	2.8%
Heterosexual	71.7%	66.1%	58.3%
Homosexual	13.0%	16.1%	22.2%
Bisexual	6.5%	9.7%	8.3%
Other	8.7%	8.1%	11.1%
Domestic	94.6%	96.8%	94.4%
International	5.4%	3.2%	5.6%

## 4.2 Who is promoting sexual health in Australian universities?

This section addresses sub-question a: “Who is promoting sexual health in Australian universities?” To do this, the information is divided into three parts focusing on the role of the sexual health promoter, collaborations and training.

### 4.2.1 The roles of peer educators and professional sexual health promoters

The majority (64%) of peer educators in the online survey belonged to a university residence, and smaller proportions were from university student unions or similar (25%) or LGBTI groups (11%). None of the peer educators identified their role as mainly focusing on sexual health (Table 4.2). Instead the most common roles were to do with general health and wellbeing (67%) and sexuality including LGBTI issues (17%).

Table 4.2 – Main focus of peer educator roles by percentage of peer educators

Focus	Percentage
	n = 36
General health and wellbeing	67%
Sexuality including LGBTI issues	17%
Other (please specify)	8%
Sexual assault prevention	6%
Gender	3%
Sexual health in particular	0%

In the interview sample with peer educators, a number of different roles were identified, including women’s officers, men’s officers and queer officers. The majority of peer educators had a role that was associated with a university residence, with half of these peer educators in roles such as Senior Resident or Resident Assistant. These roles are generally performed by later year students who act as the first point of contact and support for residents. Often these roles will have an additional portfolio aspect, with each Senior resident allocated a specific focus. None of the Senior Residents in the interview group had an exclusive focus on sexual health promotion, with it generally being one part of a broader portfolio such as health or wellbeing:

I’m an SR, senior resident, of pastoral care at [Organisation 10]. And as part of, there’s a team of fourteen of us... um and there’s four, like portfolios within that team. And I’m part of the wellbeing portfolio. And then part of that, there’s sort of a whole bunch of different aspects in wellbeing, one of them is sexual health.  
Amelia, Peer

This was common across the peer educators, with none of those interviewed focusing solely on sexual health. For the Senior Residents, pastoral care is a large part of their overall role, however many other positions also identified such an element in their position with regard to sexual health.

Basically what we do is we sort of have a pastoral role in the sense that students can come and talk to us in confidence and we will keep that confidence and we’ll sort of... we get some of the same training as SRs so we know how to refer on if necessary

and all of that. But in regards to sexual health specifically we do a lot in terms of just promotion of general awareness of sexual health.

Harry, Peer

Amongst interviewed professionals there was an even split between those with a medical role and those based solely in community engagement. In the medical roles there were two registered nurses and a doctor, all with a role in sexual health outreach. The non-medical professionals were focused on community engagement. Five organisations were represented, three of which had a clinical section, and two of these were specifically focused on sexual health issues.

#### **4.2.2 Collaboration in university sexual health promotion**

In the online survey, 78% of peer educators had sought advice, support or speakers from a sexual health related organisation or individual (Table 4.3). The most commonly reported collaboration partners were sexual health/family planning clinics (50%), followed by sexual health researcher/ advocate/ speakers (39%) and university students' association/ representative council/ union or similar (33%). University health centres were the least common collaboration, with 14% of peer educators selecting this option.

Table 4.3 – Reported collaboration partners by percentage of peer educators

Collaboration partner	Percentage
	n = 36
Sexual health/family planning clinic	50%
Sexual health researcher/advocate/speaker	39%
University students' association/representative council/union or similar	33%
General medical/health centre	28%
Domestic violence/rape crisis support centre	28%
University women's department	28%
Non-university related LGBTI group	28%
University LGBTI group	25%
I did not seek any external advice, support or speakers	22%
University health centre	14%
Other	3%

All of the interviewed peer educators had collaborated with other groups beyond the provision of materials such as brochures and posters. This collaboration mostly took place between peer educators and professionals, however this was not always the case. Peer educators also identified collaboration amongst other peer educators. For some, this meant seeking the specialist knowledge that a different group could provide and for others it meant looking for pre-existing communities to facilitate the dissemination of information. Outside of university collaborations, the peer educators identified a wide range of different sexual health related organisations they had worked with. One key point identified by peer educator Nicholas on the topic of collaborations was that collaborations were not fixed arrangements, saying: “It varies from year to year depending on the leadership [of the student organisation]...”

### 4.2.3 Preparedness, training and payment

In the online survey, the majority of peer educators did not believe they had received sufficient training, with only 33% of peer educator respondents saying that they received enough or more than enough training in relation to the sexual health aspects of their role (Figure 4.1). In addition, 17% of peer educators reported receiving no training at all on

these topics. Despite this, opinion was nearly evenly split between peer educators feeling well to very well prepared (49%) or somewhat to not at all prepared (51%) for the sexual health aspects of their role (Figure 4.2). Nearly all (92%) of the peer educators reported that a how-to-guide to being a peer educator would have been helpful when starting out in their role.

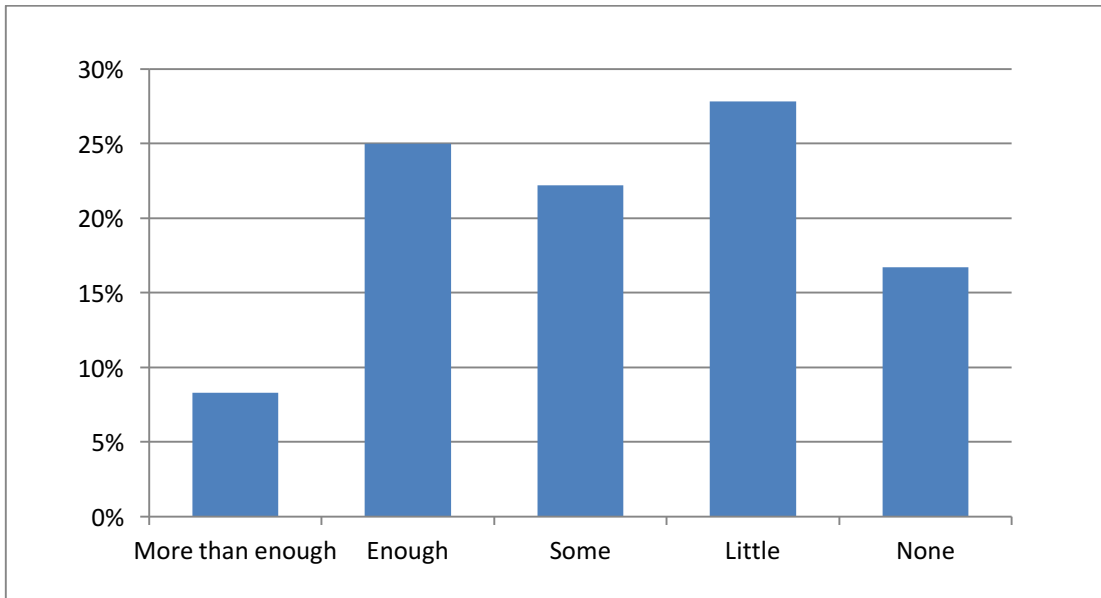


Figure 4.1 – Peer educator online survey responses to “How much sexual health training did you receive for this role?” (n=36)

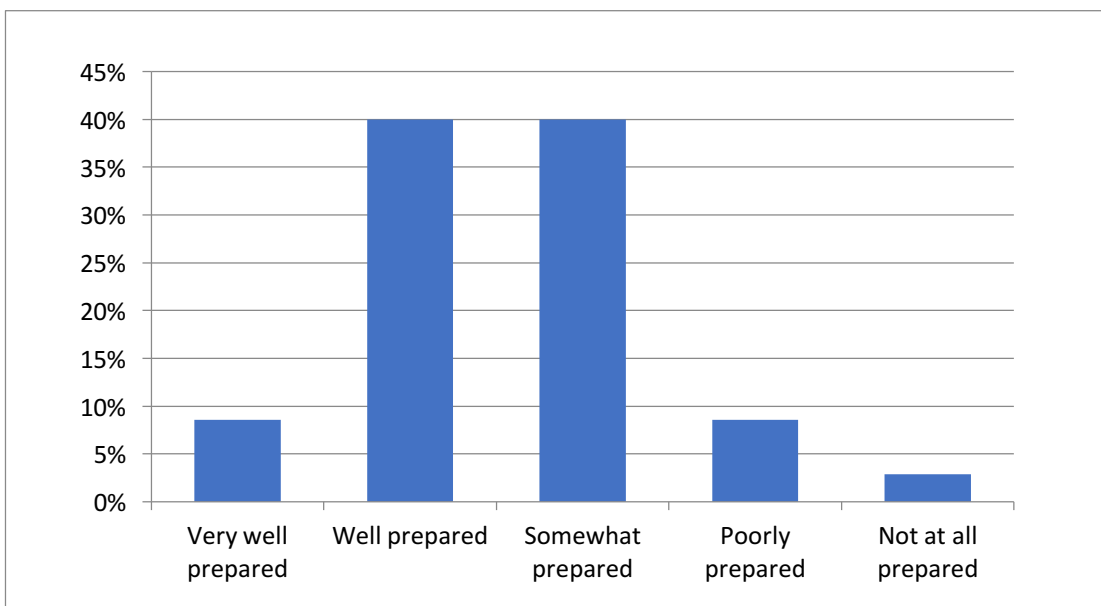


Figure 4.2 – Peer educator online survey responses to “After your training (if any), how well prepared did you feel to approach the sexual health aspects of your role?” (n=36)

While the interviewees were not specifically asked about their training for the sexual health aspects of their role, a number of relevant points on this topic still emerged from discussions on the challenges of the roles and suggestions for improvement. The key points focused on how peer educators were often not adequately prepared for their role by their organisation. One of the peer educators spoke of the lack of training provided, especially regarding newly created positions:

For example, [a residence] this year implemented two new positions... basically to do with sexuality, gender, diversity, kind of all those things. From my impression, they seemed to be implemented because other halls and colleges had them and they weren't necessarily given any skills or guidance as to what that role encountered.

Nicholas, Peer

Other peer educators identified gaps in their own knowledge in regard to specific topics such as LGBTI issues or sexually transmissible infections. When asked what she would suggest to help other peer educators, one participant highlighted the potential for a crash course on STIs to ease the unfamiliar into the role:

Second thing I had to do was really know some of the basics in terms of going to [a clinic] and knowing what the difference is between gonorrhoea and chlamydia, because I've just never had to deal with that... It's not like something we talk about a lot. So if you could just keep a crash course 101 on STIs and STDs or relevant issues [that would be useful]...

Natalie, Peer

The main discussion of existing training for peer educators emerged in the interviews with professionals. Here one professional discussed their role in providing support and training for student leaders with regard to sexual assault prevention. This professional highlighted the importance of professional support to ensure the quality and longevity of a program in a university:

I think that one thing that needs to be really clear is that, what it means to be a peer and what support they get and in terms of what training they get. Who's the person on the area that actually does the peer training so that they're not perpetuating bad information, they're actually coming at it with more information than what's written in the pack?

Valerie, Professional

One form of useful experience that fell outside the realms of formal training was having had a sexual health test. Amongst interviewed peer educators, the majority had been tested, either specifically for the role or for their own health. In both of these situations, peer educators identified having been tested as a useful experience for their position, to increase their knowledge about how it worked and to help in encouraging other students to do the same:

I thought I should practise what I preach and I was like “uh, I’ve got to go get a pap smear”. So I went, I actually went to go see [a provider] and I got myself tested and—just so I could experience it and be like “this is a really great doctor”... It’s sort of encouraged other groups of friends to go. So I do know a couple of groups of friends have gone in a three or four, being like “we’re going to go get tested on Friday!”

Yvette, Peer

Survey participants showed similar responses, with 69% of peer educators having had a sexual health test either for their own health or specifically for their role. Amongst those who had not been tested (N = 11), 85% said they would be willing to do so in order to facilitate their sexual health promotion aims.

### 4.3 How is sexual health being promoted?

This section addresses sub-question b: “How is sexual health being promoted?” To do this, the information is divided into seven parts with the first two focusing on promotion types and the provision of safe sex supplies. The next five parts examine sexual health promotion events in particular, looking at topics, timing, incentives, gender segregation and content aimed at minority groups.

#### 4.3.1 Types of sexual health promotions

In the online survey 67% of all student leaders had held a sexual health promotion event, and 18% reported a compulsory sexual health event. Those who held events were asked what types of promotions they had used in the year. The most common type of sexual health promotion was the distribution of safe sex supplies such as condoms, with 79% of event holding respondents reporting this (Table 4.4). The use of pamphlets and posters to disseminate sexual health messages was also very high, at 73%. When looking specifically



at events, social events with a sexual health message (73%) and guest speaker events (56%) were the most likely to take place. The least common event was sexual health testing, with only 6% of event-holding respondents reporting this type of promotion.

**Table 4.4 – Promotion types used by percentage of event holding respondents**

Event	Percentage
	n = 62
Safe sex supplies (e.g. condoms)	79%
Pamphlets and posters	73%
Social event with a sexual health message	73%
Guest speaker	56%
One on one support and referral to other services	44%
Workshop	35%
Question & answer panel	35%
Relevant movie	8%
Sexual health testing	6%
Other	2%

Interviewed peers identified a broad variety of approaches to promoting sexual health. These included everything from low-intensity approaches such as the provision of pamphlets and condoms, through guest speakers, social events with a sexual health message and workshops, all the way to advocacy work aimed at changing university practices, as Donna describes:

And then the other thing that I would do is speak directly to people like [Organisation 24] and [Peter], about university, and sit on the [Organisation 25] committee and talk about university policy and working with other people to include prevention strategies and prevention education in the colleges and in the broader university community.

Donna, Peer

One of the most common types was in the form of inductions to residences, which often included an element of sexual health information. While these types of promotions would reach a high number of people, the proportion of it devoted to sexual health related topics was usually small:

In the beginning of every year our pastoral care team, which includes the Senior Residents as well as [our] Coordinator, promotes awareness with regards to practices for safe sex as well as preventing diseases and also with regards to consent. So at the moment the programs would be aimed at educating first year students who come to [us] with regards to appropriate behaviours that would not necessarily involve only sexual health and wellbeing but also related to other parts of living in a community.  
Andy, Peer

Amongst professionals the most common approach was talks or lectures, sometimes combined with other elements such as sexual health testing. As opposed to the inductions, these sessions would be longer and focused entirely on sexual health related topics:

We've had a men's sexual health night and this year the women organised one as well. And usually that involves a powerpoint presentation by one of the educators or myself or one of the nurses. And that usually goes for about thirty, forty minutes with opportunity to ask questions.  
Erica, Professional

#### 4.3.2 Provision of safe sex supplies

The online survey showed the majority of respondents reporting their organisation providing safe sex supplies, reflecting its position as the most common type of sexual health promotion. Of all student leaders 73% reported condom provision, 36% lubricant and 16% supplied dams. Of those who provided safe sex supplies, the most common means of dispersal were accessing them in a public place such as reception (51%) or placing them in a welcome pack (43%).

All interviewed peer educators reported their organisation providing condoms to group members. Methods of dispersal included inclusion in showbags or welcome packs, free and paid dispensers in areas such as reception or communal bathrooms and via student leaders such as Senior Residents. While this suggests a high acceptance of condom acceptability from their organisations, two peer educators discussed having difficulty sourcing condoms from community organisations.

...it used to be that the wellbeing portfolio would get a whole bunch of the condoms and sort of hand them out. But we've found, from last year they found that there was

no one was willing to give them, sort of enough for the whole college. So it's now up to each floor SR to get them for their own floor.

Amelia, Peer

And for another peer educator, there was a perceived level of secrecy required due to the religious influence of management:

...we're not allowed to advertise the contraceptive methods but it's implicitly known as the men's and women's officer that we both have condoms in our room if they need them and it's totally anonymous...

Steven, Peer

Similarly, all professionals reported that their organisations provided safe sex supplies such as condoms and lubricant. While this was the default configuration, other options were provided by a small number of professionals, however they were not necessarily seen as being a significant draw card.

In terms of dams or other prophylaxis we have some queer friendly packs where you get a glove, a latex glove, and a dam and a couple of condoms and some more lube, rather than just two lube, some more. But they seem to not be very popular?

Stella, Professional

Like the peer educators, some professionals also acknowledged the difficulty of providing free safe sex supplies to university students. One described how given limited resources, they were compelled to limit access to free materials to higher risk groups, and charge a cost price for others.

And for us, because of our funding we have, we break it down into who are at risk groups— well not risk groups, but who are priority populations and who aren't. So priority populations include the LGBTI community, international students. So when those departments have gotten into contact with us saying can we get some condom packs, which have condoms and lube and some safe sex information, we give those for free.

Richard, Professional

### 4.3.3 Focus of sexual health promotion events

Topics of focus of sexual health promotion events, as reported in the Promotion Survey, are shown in Table 4.5. Among respondents who had ever held a sexual health promotion event, safe sex was the most frequently reported topic (79%), followed by condoms (77%) and consent (71%). The least likely topics for discussion were dating and hookup apps such as Tinder and Grindr (7%), pornography (5%) and anatomy (5%).

Table 4.5 – Topics of focus reported by percentage of event holding respondents

Topic	Percentage n = 62
Safe sex	79%
Condoms	77%
Consent	71%
Respectful relationships	63%
Who to contact for sexual health support	58%
Sexual harassment and sexual assault prevention	53%
Gay, lesbian and bisexuality issues	53%
Alcohol and sex	48%
STI impacts/symptoms	42%
HIV/AIDS	40%
STI testing	39%
Alternative barrier methods (e.g. dams, female condoms)	37%
STI statistics	36%
Women's health issues (e.g. cervical cancer)	32%
Domestic violence prevention	29%
Transgender and intersex issues	27%
Emergency contraception (e.g. the morning after pill)	26%
The pill	26%
Men's health issues (e.g. testicular cancer)	24%
Pleasure	21%
Different cultural expectations about sex	19%
Long acting reversible contraception (e.g. implanon, IUDs)	16%
Sexting and digital privacy	13%
Abortion	10%
Sex work	8%
Abstinence	8%
Dating and hook up apps/websites (e.g. Tinder and Grindr)	7%
Pornography	5%
Anatomy	5%

Amongst interviewed peer educators and professionals, the most commonly mentioned topics featuring in sexual health promotions were similar to survey responses, focusing around sexually transmissible infections and consent. For sexually transmissible infections the main areas of interest were general information about symptoms (or lack thereof), how to seek treatment and what was involved in a sexual health test.

They talked about the main sexual diseases that you could possibly get, how to look out for them, how to treat them. Who to talk to, the numbers you can call. And just provided a whole lot of information on a powerpoint while also talking about that really, I think it interested the boys.

Steven, Peer

Issues surrounding consent such as responding to incidents of sexual assault, how to be an ethical bystander and alcohol and sex were also frequently discussed. Some positions were focused almost exclusively around issues of consent and sexual assault, with a focus on improving university responses and increasing disclosure.

Sexual assault has been the primary focus for [Organisation 6] for a few years. And that's been both as I said, working on prevention work within the university and also working on improving the way primarily women are dealt with by the university when they report. Even trying to increase reporting.

Donna, Peer

Another common topic was LGBTI issues. Again, some peer educators' roles were focused solely on this area, aiming to make these members of the university community feel comfortable and welcome within their organisation.

When it comes to my portfolio, comfort with sexuality is the main thing, just because we also have mental health and physical health and sexual health and wellbeing SRs, which cater more specifically to the physical aspect of sexual health, whereas my portfolio deals more directly with, I suppose, the mental aspect or the sexuality aspect of sexual health...

Marcus, Peer

The professionals discussed a broad range of topics, including all the above issues. Some highlighted the need to approach the organisation itself and discuss what concerns or areas of interest they had in the community.

From the onset, so when we first get approached I will go and talk to whoever has approached me and say okay “do you recognise any needs that need to be addressed?”. If they say “yeah, okay, we’ve got... I’m really not happy about the way—”... Those sorts of things. So we do tailor the package to what people need, and if there’s an existing problem.

Stella, Professional

#### 4.3.4 Timing of sexual health events

In the online survey, event-holding respondents listed orientation week as the most common time for event-based promotions to take place with 61% selecting this option. Events were slightly more likely to take place in first semester (50%) than second semester (42%), and mid year orientation was an unlikely option, selected by only 16% of those who held events. The rationale for these choices (Table 4.6) closely matched the ideas discussed by peer educators in interviews. The three most common reasons given by online peer educators as to why times were chosen were to ‘to set community standards as new students arrive’ (26%), ‘to avoid clashes with other events’ (23%) and ‘to coincide with a major event’ (23%).

Table 4.6 – Reasons for event timing by percentage of peer educators

Reason	(%)
	n = 36
To set community standards as new students arrive	26%
To avoid clashes with other events	23%
To coincide with a major event	23%
It was early to educate students before they've established relationships	19%
To avoid periods with many assessments	16%
It was when event attendance is highest	13%
It was when other information was being disseminated	11%
It was the earliest it could be arranged	11%
It was when funding/resources were available	8%
Other	2%

All peer educator interviewees discussed hosting or wanting to host sexual health events in orientation week or early on in the academic year. One reason for this preference was wanting to maximise turnout by avoiding assessment heavy periods.

But also the timing of such promotion is crucial as well... towards the start of the semesters means you're going to get, again, higher intake, people paying more attention... that's already the period where it's like learning new things, new students have come in... towards the end where it's there's exams and assessments and things like that. It's just harder to get attendance or a focus when there's just so much other things.

Marcus, Peer

Another rationale was the desire to set standards early. This was described as both to avoid later problems and to celebrate the positive culture already existing within the community.

...I'm very happy with the culture at [our organisation] and I think that our approach has always been show the first years this is what we're about and then just kind of, just kept going. So it's not so much damage control, it's just really celebrating what we have. Like we put together a video at the beginning of this year, just really good, it's a feel good culture, it sounds cheesy, but it's really positive when it comes to sexual health.

Natalie, Peer

Despite this strong preference for events early in the year many peer educators expressed a desire to have run their event earlier than they were able to. Common problems included late start dates for the role or not being adequately prepared.

And that was basically the earliest we could do it because this was the first year that myself and [Julia], the other SR in this portfolio, it was the earliest we could get everything together to actually put it on. But in the future we'd prefer to actually have to have it much earlier because we think it makes it more valuable to the community as a whole if it's presented more as a part of that O-Week kind of initial information.

Marcus, Peer

Most professionals interviewed also expressed a preference for events early in the academic year. For some, a key reason was wanting to be known as a source of information and support to new university students who are experiencing a period of newfound freedom.

O-Week, we think works well for a couple of reasons. Everybody's new to the scene. So you're getting kids that have just left home for the first time, they're moving to a



residential hall, new city, new world, new friendships. A lot of drinking, a lot of drugs, a lot of fun being had. So we like to make ourselves visible so if the shit hits the fan they know where they can come. So we like to be visible and approachable.  
Stella, Professional

In addition, the mid-year orientation week was also identified as a potentially productive time for events based on the likelihood of infection. Rather than testing as new students arrived, this professional expressed a desire from communities to test once when screening was more likely to discover an issue.

Then sort of come June or July, probably Bush week time. That's when a lot of the colleges want testing. Because the kids have had six months of relative freedom and exploring new things and doing heaps of stuff. So we then come in and do testing.  
Stella, Professional

However just as with the peer educators, practical considerations were also highlighted. Working with university students meant that attractive times were limited by assessment-heavy periods and the organisational abilities of the peer educators.

It varies. We've had stuff early in the year but often I think we've been approached by the sort of- most colleges seem to have a sexual health officer or a relationships officer, counsellor, I don't know how you frame it- And it really depends when they get their act together sometimes.  
Erica, Professional

#### 4.3.5 Incentives for sexual health events

Event holding respondents in the online survey identified food as being the most frequently used method to increase attendance at 66% (Table 4.7). Combination with a social event was also a popular option, selected by 45% of respondents, but alcohol was not frequently used. Amongst those who held events it was more likely that no incentive would be offered (16%) than alcohol provided (15%). The 'other' option was selected by 19% and mostly involved the event being compulsory or well-advertised rather than offering tangible incentives.

Table 4.7 – Incentives offered by percentage of event holding respondents

Incentive	Percentage
	n = 62
Free food and/or non-alcoholic drinks	66%
Combined with social activity (e.g. party, movie night)	45%
Other	19%
None of the above	16%
Free alcohol	15%

All interviewed peer educators identified food as a way to encourage participation in sexual health related events. While some downplayed the importance of food in attracting residents to their promotions, for others it was seen as a key strategy to ensure attendance:

...we're given a budget at the beginning of the year and I'd say 90% of the budget, it's not a massive budget, but 90% of that budget would go to Turkish food for these events. And it's just the reality, at a college environment, as you would know, there's fifty events on in any week and when the food isn't that great it's a real incentive to be like "Oh, there'll be some bread!" It sounds like we're in a war zone...

Natalie, Peer

One important aspect of this approach was that providing food was not enough. For food to be effectively used as an attendance-increasing strategy, it had to be highlighted in the advertising, as summarised by peer educator Yvette: "We had lots of food and people were made aware that there was going to be lots of food."

For one peer educator, food was used not just as a lure for hungry students, but as a learning tool as well. In his event gingerbread was used as the basis of an exercise to help explain the difference between concepts such as sexuality and gender identity.

We had sort of genderbread people. I don't know if you've seen that really famous post of the gingerbread man... gingerbread person I guess, and he's got the yellow icing around him which is sort of his gender expression and then he's got his heart which is his sexuality and his brain which is his gender identity and then his genitals which is his or her sex, I mean biological sex.

Harry, Peer

Several peer educators also discussed social events as a way of encouraging students to attend promotions. Beyond simply being a fun thing to do, these events were seen as helping to break the stigma that can surround issues like sexual health and remove negative associations that students may have with the topic from previous learning experiences such as high school Physical Education (PE).

I don't want people to sort of, get caught up in the fact that it's only to be tested and to do a PE class. Because it really wasn't... the sexual health night was so successful I think, in part, due to the fact that the stigma was reduced because we watched a movie after.

Yvette, Peer

Some of the peer educators with socially focused events also described the presence of alcohol as an incentive for attendance. One peer educator whose event provided free alcohol to participants thought the approach was effective, not just because it resulted in a high number of students attending, but because those who did were more likely to be at higher risk of negative sexual health outcomes:

...the boys that are there are the ones [that] are probably, are a bit more social and would go out a bit more, so it's probably targeting the boys that are most likely to see these issues...

Steven, Peer

However alcohol was not seen in an entirely positive light by all sexual health peer educators. One peer educator who had held a large bar party with a sexual health message highlighted both the desirability of the incentives and perceived downsides, with alcohol seen to reduce the seriousness of the event:

[Our party with a sexual health message] was also pretty good. I mean it was mostly for promoting awareness of our role and just sexual health as well when we gave out the showbags. And we ended up getting people come to us with questions which is really great but I felt like maybe it was just a bit of a piss up so I feel that maybe it wasn't as successful as the other one. At least the other one felt more serious and maybe it was just because people were sober.

Harry, Peer

### 4.3.6 Gender segregation in sexual health events

In the online survey a slight majority (53%) of respondents who held events reported them being aimed at all genders. Those who made use of split events reported using either a mixture of split and joint events (23%), targeting both genders exclusively through split events (13%) or targeting women exclusively (7%). When online peer educators were asked why they had chosen their approach, the two key responses reflected the attitudes of interviewed peer educators (Table 4.8). The two most commonly selected responses were ‘to reinforce that it is a whole community issue’ (56%) and ‘to make participants feel more comfortable talking about sex’ (50%).

Table 4.8 – Reasons for stance on gender segregation by percentage of peer educators

Reason	Percentage
	n = 36
To reinforce that it is a whole community issue	56%
To make participants feel more comfortable talking about sex	50%
To address gendered issues (e.g. sexual assault)	39%
To cover biological issues that specifically relate to either men or women	28%
To prevent the exclusion of transgender and intersex participants	25%
To cover gender specific contraception options	14%
My group is limited to one gender only	6%
Other	6%

Whether or not to separate different genders for sexual health promotion events was a decision that divided the peer educator interview group. For some the idea of having split events was viewed as being highly beneficial to promoting a supportive environment and enabling participation that would not otherwise be possible. This point of view was particularly expressed in regard to women:

I think personally that you need to have it separate, because I know from my friends and myself, that the way I would share, open up, interact with my fellow students would be different if it were a mixed guy-girl set up. Especially when you're

considering the nature of some of the things you're speaking about, it is quite private for most people.

Natalie, Peer

In contrast, those who supported the idea of mixed gender events were likely to focus on the inclusive, community aspect of this approach. This was primarily discussed along two lines, with the first looking at LGBTI inclusion. For one peer educator, the idea of splitting events would result in the exclusion of some of the very people he was trying to involve:

Gendering any kind of event would have been, I think, kind of inappropriate for our portfolio because one of our main things is breaking down the gender binary within the hall so it's saying well, for a start, that nobody has to subscribe to being either male or female, they can be transitioning or intersex or any number of things. So really a big part of our portfolio is making sure we're not limiting people's ability to attend or be comfortable attending the event.

Marcus, Peer

However it was not only in the context of transgender and intersex individuals that mixed gender events were promoted. For another peer educator, the benefit was mainly seen in the way that it promoted the idea of a united front in heterosexual partnerships:

I think sexual health promotion is something that should be done as a community because you know, you have hetero relationships, a lot of hetero relationships at college, that I think there needs to be more unity on the idea of sexual health.

Yvette, Peer

Not all of the peer educators were entirely espoused to the one philosophy on gender segregation. Some expressed the idea that the desirability of gender segregation was context specific. These peer educators argued that for certain topics such as HIV prevention, approaches specific to gay men or groups such as international students, sexual health promotion was far more effective when split into different genders.

Professionals mostly reported working with mixed gender groups, however many indicated that this was dependent on the preferences of the group in question. Younger groups and those predominantly based on international students were the most likely to request split gender events. Similar to the peer educators, one professional highlighted the cultural clash present in trying to hold mixed gender events for international students:

Because if you've got international students in there's no way they'd want to be talking about sex if they're from cultures where they don't talk about sex. So I wouldn't want to have a room full of mixed gender and be talking about things because of the embarrassment. It's not really appropriate.

Bianca, Professional

However another professional respondent focused on the way that mixed gender events can be used to promote a sense of joint responsibility.

I think it's better to have everyone in together. Especially when you're adults. Because these are decisions that you make as a partnership. Well they should be decisions that you make as a partnership. You don't have to be in a relationship to be having sex, that's fine. But if you are there and you've got a boyfriend or girlfriend, you should be hearing the same material and then being able to go away and talk about it.

Stella, Professional

#### **4.3.7 Minority groups in sexual health promotion**

In the online survey, peer educators were asked whether the sexual health promotions their group provided included information tailored to minority group needs. The LGBTI topic was split into lesbian, gay and bisexuality issues and transgender and intersex issues to explore the different likelihood of approaching diverse sexualities as distinct to gender diversity.

In the survey, nearly three quarters of peer educators (72%) reported tailoring aspects of their promotions to the needs of lesbian, gay and bisexual group members. This was substantially higher than the other minority groups mentioned, with 44% of peers reporting promotions tailored to transgender and intersex students and only 22% doing likewise for the needs of international students.

Among those who had not included such aspects in their sexual health promotions, the most common reason why was 'it didn't occur to me' (Table 4.9). This was the same across all three of the minority groups discussed. However at the second most likely response, results diverged. For those who had not included lesbian, gay and bisexuality information in their promotions, the second most likely reason was 'another person in my organisation is in charge of these aspects of sexual health'. For transgender and intersex issues it was

'no/few students in the group identify with those categories'. And for international student tailoring it was 'I don't know enough about relevant issues'.

**Table 4.9 – Reasons for not including material targeted towards minority groups by response frequency rank and percentage of peer educators who didn't include such material**

Reason	Lesbian, gay and bisexual rank (%) n = 9	Transgender and intersex rank (%) n = 19	International rank (%) n = 27
It didn't occur to me	1 (67%)	1 (42%)	1 (52%)
Another person in my organisation is in charge of these aspects of sexual health	2 (44%)	3 (26%)	4 (19%)
Don't know enough about relevant issues	3 (33%)	4 (21%)	2 (30%)
Not enough interest from community	4 (11%)	4 (21%)	6 (7%)
Other	4 (11%)	6 (11%)	4 (19%)
No/few students in the group identify with those categories	6 (0%)	2 (37%)	3 (26%)
Don't feel comfortable with the topic	6 (0%)	7 (5%)	7 (0%)
Considered culturally inappropriate	6 (0%)	8 (0%)	7 (0%)

The majority of interviewed peer educators either included LGBTI-related content in their promotions or reported having another position within their organisation that specifically focused on these aspects of sexual health. Some peer educators seemed unfamiliar or not at ease with the topic, either reporting this as a self-identified weakness or getting flustered with terminology.

...we did touch on HIV and AIDS however that's not just a gay- homo- Uh yeah, you get what I mean...  
Tara, Peer

However even the peer educators who had earlier struggled with the terminology still seemed to hold a positive stance on eliminating sexuality related discrimination within their community:

...looking at stuff like calling, using the negative connotation of gay or faggot and just anything that can slide past and thinking it's funny. It's just not on. I've really stressed that this year that you can't be dropping words like that around because it creates a bad culture within the college and throughout uni...

Steven, Peer

But this participation had its limits. While three of the peer educators focused specifically on LGBTI issues, another peer educator spoke of the difficulties of immersing herself in the topic, even after attending relevant training, due to not identifying as LGBTI herself.

I don't know, it's tough when— to be honest our sexuality officer hasn't done much this year... so I help advertise Queer Prom or their speed dating events. But it's just me posting something on Facebook, you know. Just not really a community I'm actually a part of, so I feel a bit artificial.

Natalie, Peer

Another peer educator, whose role focused on LGBTI issues, highlighted the importance of incorporating this information into existing events rather than creating new, separate ones, in order to facilitate the inclusion of the demographic.

...they had like “men's nights” and “girl's nights” in which they talk about men having sex with women, women having sex with men. And [the other peer educators] were like “oh we should just have a separate one”. I was I guess advocating for more like “no, it's important you include it in the men's night and the women's night”... men who have sex with men are still men.

Nicholas, Peer

Amongst the interviewed professionals all but one reported having LGBTI content or specifically tailoring promotions to this demographic, with one respondent's role focused mainly on this group. One professional stressed the importance of allowing for students who are not comfortable revealing their sexuality to others to still have an opportunity to access information about the topic confidentially:

...it's about diversity and giving people the opportunity to speak and I say to people “If you don't feel comfortable talking in a group, here are my details or come and speak to me afterwards”. Because some people aren't comfortable talking in those arenas. They're struggling within themselves, let alone other people.

Bianca, Professional



International students were not directly asked about in the interview questions, however they emerged as a group requiring greater attention from the perspective of two peer educators and a number of professionals. One peer educator identified the stigma attached to sexual health promotions to be an exceptionally powerful challenge for international students, greatly reducing the likelihood of them seeking information or assistance:

...probably just the stigma involved with it. Because we have such a large international student base, a lot of them feel really uncomfortable talking about these kinds of issues. So they'll be very reluctant to show up to these events or to discuss it with their senior resident...

Tara, Peer

In contrast, another peer educator highlighted the challenges that a community of students from a diverse range of backgrounds can bring. Often growing up in an environment far removed from Australian culture, these students have entirely different understandings of a number of different issues related to sexual health. While this can manifest as hesitancy or awkwardness towards sexual topics, other more immediately troubling outcomes can also occur. With different countries having different expectations on the role of women and different legal systems to enforce those expectations, international students may have drastically different understanding of issues such as sexual harassment or assault:

...we have such a diverse background and expectations from those different cultural backgrounds related to sex is quite different... Especially dealing with incidents of alleged sexual assault. Sometimes when you talk to students you realise that something that we in Australia or with Australian law that is considered not okay would be completely acceptable from their understanding because of the prior knowledge that they have been exposed to.

Andy, Peer

These sentiments, both from the cultural and legal standpoints, were echoed by the professionals, many of whom identified international students as a challenging demographic for sexual health promotion.

...a lot of them come from Asian countries where it's not talked about. We don't talk about how to prevent pregnancy because you don't have sex until you're married... sex isn't for pleasure. Sex isn't for fun.

Stella, Professional

...because it had been brought up by a number of sexual violence situations that had occurred... there seem to be a couple of assumptions being made, one was that you come to Australia, it's a sexual free for all, and for some people it is, it's a sexual free for all and particularly if the girls dress in a way that is considered more scandalous than how the girls dress back at home, that that's an invitation to sex. Or if getting the girls drunk is acceptable... we want everyone to have a good time when they're here in Australia but we want to make sure that everyone understands what the local rules are...

Richard, Professional

Even more complex was the intersection of LGBTI issues and international students, as discussed by professional respondent Richard. A minority within a minority, international students who experience same sex attraction might encounter intense stigma or not even identify as being attracted to men. This makes targeting promotions specific to groups such as men who have sex with men exceedingly difficult in such situations:

Thinking of guys from the Middle East where they will quite happily have sex with each other, but they won't talk about being gay... So kind of, how do you leave the door open to discuss guys safely having sex with other guys and the importance of getting tested, particularly if you're going to have sex with your girlfriend or your wife and not have to have the label of gay?

Richard, Professional

## 4.4 What are the challenges and opportunities?

This section addresses sub-question c: "What are the challenges and opportunities?" To do this, the information is divided into three parts. The first looks at challenges restricting or preventing sexual health promotion in universities, the second looks at previous successful promotions and the final section describes what respondents would want in a sexual health program designed for student leaders.

### 4.4.1 Challenges to sexual health promotion in universities

In the online survey, student leaders were asked to identify which challenges were most problematic in their organisation providing sexual health promotion. The top three most chosen issues were 'engaging the community/getting people to attend events' (56.5%), 'getting members to feel comfortable approaching you' (47.8%) and 'convincing members that sexual health is relevant to them' 44.6% (Table 4.10).

Table 4.10 – Challenges to sexual health promotion identified by percentage of student leaders

Challenges	Percentage
	n = 92
Engaging the community/getting people to attend events	56.5%
Getting members to feel comfortable approaching you	47.8%
Convincing members that sexual health is relevant to them	44.6%
Coming up with promotions	38.0%
Overcoming the awkwardness and stigma related to sexual health	35.9%
Managing different cultural expectations regarding sex	35.9%
Knowing whether a promotion has been successful	29.3%
Cost	25.0%
Not knowing enough about LGBTI issues	20.7%
Supporting group members with sexual health concerns	17.4%
Getting up to speed on sexual health knowledge	17.4%
Religious objections	17.4%
Resistance from organisation	12.0%
Hard to find local support related to sexual health	5.4%
Other	3.3%

In addition to the challenges question, student leaders who didn't have sexual health promotion events were asked why they thought that was the case. Many of the respondents here focused on diversity in terms of age, religion and cultural background as the chief complication. However one pointed out that this in itself should not be a reason to avoid sexual health promotion altogether:

[Our residents] come from different cultural backgrounds, and different parts of the world. So I think, in part it's about trying to respect everyone's beliefs, and to give them a comfortable environment to live in. With that being said, instead of having passive promotions, the organisation has decided to completely disregard it.  
Holly, Student Leader, Online

For many, practical concerns such as a lack of time, money and organisation were the primary reason why no events had taken place. However for others the main concern was that university students would not want to turn up to or engage with a sexual health focused event:

Not exactly a thing a student committee would get a large amount of attendance from.

Edward, Student Leader, Online

It's an uncomfortable topic to preach/ engage 19 or 20 something [year olds] in.

Heidi, Student Leader, Online

Finally, some respondents did not identify sexual health promotion as being part of their organisation's purpose. In line with this response, some identified other groups as being responsible for sexual health while others identified competing priorities, such as alcohol and drug problems, that were more pressing within their communities.

I think that they believe drugs and alcohol to be a more serious issue, so sexual health is lacking as a result of the emphasis on that.

Gwyn, Student Leader, Online

Of the 26 respondents without sexual health promotion events who answered the question, 77% said they would like to have them happen in their group in the future.

Stigma and awkwardness were two of the main topics that emerged from many of the challenges that peer educators discussed. This could manifest in different ways, including the difficulty of making sexual health seem relevant to group members.

Biggest challenge has been getting across to the female residents that they too need to be checked and STIs are not just for, like, junkies that you see on the street. Like a lot of people get chlamydia, a lot of people get other STIs, and you know, even if you've only ever slept with one person and that's your boyfriend, they may have slept with someone before and that's it, you can get chlamydia first time...

Yvette, Peer

From the above quote it is clear that for many people at university, the stereotype of sexual health being only an issue for deviants remains. Even when the stigma is not so clear, the taboos around sex and sexual health can slow help seeking behaviours and make even peer educators resort to euphemisms:

But I think that's the biggest challenge when it comes to sexual health, because people just find it so awkward. To talk about, you know, their parts down there, and if there's a problem then I think there's really the challenge that people will just let it simmer...  
Marcus, Peer

These issues can then be seen in the resulting difficulties of trying to attract attendance to what is often viewed as a highly-stigmatised subject. Even when a great event is run, if the majority of group members don't attend it is unlikely that large changes in behaviour or attitudes will be possible. One peer educator highlighted this contrast, emphasising the difference between the number of people accessing sexual health promotions and the number having sex:

...we have things in place, but the reach is very limited. So for example the last workshop that we had we had about forty people turn up... I'm pretty sure that more than forty people have sex in the hall.  
Andy, Peer

As mentioned in section 4.3.7, the stigma associated with sex could be especially problematic with regard to international students.

...there was once this international student, it's a female, who started going out with a domestic student and he kissed her. That's it. I mean, I can't give you any more details, but that was quite a downhill trigger for this student because she thought that was the end of her. And this is not even having sex, this is just having a kiss.  
Andy, Peer

Peer educators also identified a range of practical considerations that made their role as promoters of sexual health more challenging. For some, this was related to the steep learning curve inherent to taking on a specialised role for a relatively short period of time. This was highlighted through different peer educators identifying different aspects of sexual health that they personally felt they would have benefited from additional help with.

I think for me it's sort of been that whole LGBTI aspect of it, because I haven't really had much experience, haven't had much knowledge about that before this year. So it's sort of, making sure that the sexual health needs of those groups are met as well. That's sort of been the hardest thing for me I think.  
Amelia, Peer

Time restraints were another practical consideration. While the students performing these roles were often chosen at least in part due to their high levels of participation within their community, this could be a double edged sword once they began their role, as explained by peer Natalie:

...all this is kind of like a catch 22 with taking on positions. Last year I was around all of the time at college. So people knew I was really approachable and friendly. And I think that's part of the reason why I was given the position. But when you take on too much, you tend to run around from one place to the next... But it was just that need to be someone that is around and is seen to be around so people don't feel like you're busy. Because if they think you're busy they're like "oh she's busy I won't-"... That was a real issue, convincing people that I wasn't busy when we all knew I was.  
Natalie, Peer

Far from helping her to achieve her sexual health promotion goals, Natalie's high level of involvement in university life added yet another complication to giving group members the impression that they could confide in her.

Another challenge came in the form of a lack of direction or support for the roles peer educators had been allocated. A number of the positions described by the peer educators were new or substantially altered from previous ones in the same community, making it more difficult for them to know the expectations of their role. This lack of support was directly identified as the main challenge by one peer educator:

I think mostly just coming up with stuff to do to be honest. Because we were just plunged into the role and we're all second years and none of us have really done any event organisation or anything like this at all... we weren't like the other organisations at [Organisation 4], like academic team or our residents committee or whatever, in the sense that they had somebody on their backs and they had a well-defined role of what they had to do throughout the year.  
Harry, Peer

This lack of previous experience with the role could also result in confusion over budgeting, leaving peer educators unsure who was responsible for the expenses incurred in the role.

Whilst we didn't really have anybody on our backs, we had to look for people who'd give us money and things like that just so we could organise events. It was just difficult in that sense, I think.

Harry, Peer

Finally, the stress of the role was described as a major challenge. This was especially the case when group members approached peer educators with issues that were complicated medically or socially. These disclosures could trigger overwhelming feelings and were heightened by the level of confidentiality necessary in the role.

Probably the most difficult issue I've had would have been a boy that came to me with a sexual disease and he didn't know when he'd got it or how he'd got it. So I talked to him about it and I asked how many sexual partners he'd had at college. At that point he'd had six and it was only in week eight. And I kind of just realised that this thing could have- in seven weeks this thing could have spread quite far through college... So I almost felt overloaded, thinking about quarantining this thing, plus the issue of confronting females about a disease, a disease they may have that a boy's obviously told me about creates this huge confidentiality and trust issue.

Steven, Peer

Similar to the peer educators, the majority of professionals identified stigma and awkwardness as key challenges to the provision of sexual health promotion to a university audience. This was especially the case when talking about minority groups such as LGBTI students, with one professional describing how discrimination and fear can still persist.

...they're not likely to ask a question if they don't feel comfortable about it. Especially if it, they might want to know about being gay and things like that. If they're a bit confused about their sexuality or something- Because discrimination happens, no matter where it is. So you don't want people feeling like they're exposing themselves.

Bianca, Professional

While high levels of stigma were identified as key issues for international audiences, professionals identified other challenges to this audience. These included concerns about terminology, not just in the context of non-English speakers, but also in terms of sexual acts that may not be common or well known in different cultures.

Like if I say "if you're having a blow job, if you're receiving a blow job, this is what you really should think about" or "if you're going to go down on someone, la la la" that sort of stuff. What is "going down"? What is "blow job"? Or what is "rimming"? Or what is "fist fuck"? ...and they just sort of sit there like "what? Do what with the

what?” Because their scope of sex is often very (pause) narrow as well. Or what sex is, is very narrow.  
Stella, Professional

Relevance was another frequently discussed issue, with professionals feeling it was difficult to convey the importance of using condoms to a youth audience. This was especially the case with infections such as HIV.

...now a lot of young people don't even think that HIV is around let alone that people are still contracting it. And because we've had an increase in HIV over the last three years we're really having this big push about how important it is to practise safe sex.  
Bianca, Professional

Like the peer educators, professionals identified a range of practical considerations that made their role more challenging. Funding was a key concern, with many of the organisations reliant on external, non-ongoing funding.

...it's really hard to do really good honest health promotion work because of very limited to no funding. The sustainability of it isn't there. We can go and run a poster campaign at [an organisation] about sexual violence but we may not have the money next year to run another poster campaign or we may be able to run posters but they can't give us the time to do presentations about it.  
Valerie, Professional

As mentioned in the quote above, it was not only money that was a limited resource in these organisations, but also hours available for outreach work. Even when both time and staff were available, health promotion in universities was still seen as being entirely at the mercy of those in charge of university groups and university policy:

Look I think the real key areas are the buy in. So it's about access to the time in the university environment. It's bridging the gap between what we see as best practice and what a university can actually afford in terms of time and airplay. So most universities that we encounter like the posters, like that kind of stuff, like the participation in O-Week. We don't see that as best practice. We see that as information sharing, not health promotion or primary prevention work.  
Valerie, Professional

Sexual health promotion could also highlight the taboos still existing relating to sex when harm minimisation strategies were being used. One professional described the censoring of a health promotion booklet based on the sexual activities described within.



...we had a resource that came from our peak body we wanted to put it in the youth centre for the young gay guys. And it had fisting in it. And originally we were told no, we can't have that. It was only a mention, it was a health promotion booklet, no people, no images other than some dolls in strategic positions, it was very cute. But they were like "these are young people, we can't have them seeing this. Our people don't do fisting" and it was like "well, how do you know?"

Richard, Professional

Finally, one professional highlighted the challenge in attracting not just sheer numbers, but the right target audience. While an event may attract a handful of students already engaged in sexual health concepts, this would do nothing to change the attitudes and behaviours of those who wouldn't show up in the first place:

I think the biggest challenge when working with a university audience is always... because it's elective, I'm choosing to participate. So you don't worry about the people that are there. You're like okay, cool, you're here... you might take away one piece of information, you might take away twenty. Great. But the ones that are like "nah, couldn't be bothered" [are the challenge]...

Stella, Professional

#### 4.4.2 Previous successful sexual health promotion

Student leaders (both online and in interviews) were asked to describe the best sexual health promotion that they or their organisation had arranged. One key point in interpreting this information was to remember that asking student leaders to describe their best promotion could well be the same as asking them to describe the only promotion held. This was highlighted by a number of responses in the online cohort that stressed either that they had only had one event or even that the event they had had was not very good in their opinion.

The only event we had was A [sic] speaker came in and spoke about sexual health and various options for people to have safe sex and support networks such as sexual health clinics etc

Aoife, Student Leader, Online

When discussing what their most successful promotion was and why, there were multiple different ways that they would classify a promotion as successful. The four main ways that respondents discussed success were 1) people reached, 2) knowledge transferred, 3) attitudes and/or 4) behaviours changed. While most respondents referenced one or more

measures of success without necessarily pinpointing that these were the measures they were using, others were very aware of the different perspectives. One interviewed peer educator, Natalie, highlighted how determining which promotion was the most successful was dependent on the different measures of success. If looking solely at the number of people interacted with, then providing free condoms was the biggest success. But for her, attitudinal change was seen as the more important measure:

... what's your measure for success? In terms of like frequency of being used, [condom distribution] is very successful, you know. That is used. We run out... But if you were going to ask me what is something that I've really been proud or excited about, not necessarily in terms of numbers for rating that success, I think I would go back to that sort of broader definition of sexual health and say that we've had a few, a few like wider college events that have been mixed, not just girls night in, guys night in, where you just sort of sense, I don't know, I haven't been like phone tapping people or anything- But you just sense that the message got through in terms of like respecting each other.

Natalie, Peer

Also prominent in this quote was the idea that some measures of success are easier to recognise than others. Counting the number of people present at an event or the number of condoms distributed is a much simpler task than evaluating knowledge retained or attitudes changed. Without opportunities for more official evaluation of these measures, peer educators are largely left to assess the outcomes of their approaches based on informal discussions.

The respondents identified a variety of factors that could help achieve the different measures of success. The main types of factors identified were event type, event attributes, facilitator attributes and incentives/motivations, each of which are described in more detail below.

### ***Event types***

A number of specific event types were described as the best sexual health promotion respondents had experienced. These included onsite sexual health testing, compulsory talks, social events with a sexual health message, discussion panels and workshops.

Onsite sexual health testing was particularly popular amongst the interviewed professionals. This type of event is an inversion of the dominant model of access to medical care. Instead of the onus being on the individual to seek out testing, health professionals go to places such as music festivals, university residences and trades colleges to seek out higher-risk demographics. The most commonly reported type of test amongst respondents was a self-collected urine sample used for chlamydia screening. This type of approach was discussed by several professionals as the best sexual health promotion they had been involved in, with one explaining how it achieved success on all of the measures listed above:

So the idea was that you would go where young men were... And we would pay people an incentive to test for chlamydia. So we would give them \$10 cash and they would go pee in a cup... And if they were positive there was follow up and contact tracing provided. What that also did was give an opportunity with a captive audience to talk about what chlamydia was and why it was important for STI screening and what STI screening looked like. And we provided posters and information brochures and that kind of stuff. So it provided that kind of immediate behavioural change in terms of getting someone to test for an STI but it provided the opportunity for longer-term attitudinal change as well. And kind of some learning along the way... [It] had a really nice kind of encompassing, holistic approach to health promotion.  
Valerie, Professional

While the longer-term changes in attitude were not formally evaluated, behavioural change could be seen simply in the men getting tested for the first time. Valerie and a number of other professionals reported that it was important to combine this opportunity for testing and discussion about sexual health with an attractive incentive in order to reach a larger audience and have a more successful event.

You'd pay them \$10 dollars to wee in a cup, we'd get huge amounts of chlamydia numbers coming back, and give them really good opportunity to give some education as well. So that's a really good idea. Money for wee works as well. Works really well.  
Chloe, Professional

Social events with a sexual health message were described as playing a similar role to the financial incentive. Here, rather than using money to draw an audience, the aim was to attract participants through the activity itself, with sexual health themed trivia nights being a common example among respondents. In many responses the fun, social elements were emphasised, with this being linked to reaching a larger number of people by Alison (Student Leader, Online): “[It] was a social event so more people were inclined to attend”.

On the opposite end of the spectrum were compulsory talks, which were often focused on issues such as consent and sexual assault prevention. In contrast with incentivised and socially oriented events, these events aimed to maximise the number of people reached by making attendance mandatory. Many respondents listed the compulsory nature of the event as the key reason for its success, however sometimes this was tempered with the idea that it was successful despite it being compulsory:

It was extremely successful because it was compulsory for memebers [sic]. Although it was compulsory everyone really found it informative and challenging and I heard lots of good things from the students as the guest speaker was very effective.  
Hugo, Student Leader, Online

Implicit in this response is the idea that while compulsory events are good at maximising the number of people reached, they may have a negative impact on student impressions of the event or affect other measures of success such as knowledge transfer.

Other frequently discussed event types included discussion panels and workshops which were praised for their interactivity.

...late last year, early this year we organised a safe sex workshop about how to make safe sex sexy... We had about 20, 25 people... We did role plays, we looked at sex toys, where you can get them or how they can be used in your sexual experiences. And I think people who were generally there, still to this day are a lot more comfortable talking about those things. Because I guess, condoms are generally not seen as something like that. So I think normalising that was quite important to people.  
Nicholas, Peer

While these events catered for a much smaller number of people than a compulsory talk or a large scale social event, for this peer educator the high levels of interactivity involved in the workshop allowed for greater success in terms of attitudinal change.

### ***Event attributes***

Respondents also identified a range of attributes beyond the type of event that aided in making it successful, many of which were discussed in previous sections. These event attributes included good timing and providing separate events for different genders. Other attributes included discussion of topics rarely covered in sexual health such as pleasure,

events being designed to facilitate discussion, not requiring a lot of time or effort to organise and being attention grabbing:

[Our best event was] ...giving out free lunch in combination with information about health services, sexual health info and support. This event was backed onto another University expo to gain the advantage of the foot traffic. A Collective member manning the stall was also wearing [a] Vagina costume... to raise awareness and gain attention (this worked)

Sarah, Student Leader, Online

### *Facilitator attributes*

Similarly, a number of attributes were identified amongst event facilitators that respondents saw as increasing the effectiveness of promotions. In these responses two key roles were identified, those of the professional and the peer. The expert was valued for their depth of knowledge and ability to tailor this to their specific audience:

The people coming into campus where [sic] educated more than myself in the topics discussed. It was effective because the information was correct and factual and appropriate for the Queer Collective.

Delphine, Student Leader, Online

However other respondents identified the appeal of peer involvement, whether it be by making an event seem more informal and approachable or providing a point of contact for help in the future.

...that more one on one with the SR and the resident. I've sort of found it's been the most effective 'cause we can find out exactly what their issue is and we can refer them on to other services and that kind of thing.

Amelia, Peer

Beyond knowledge and connection to community, respondents also identified being non-judgmental, direct, empowering and an engaging or entertaining speaker as key attributes facilitating success.

### *Incentives and motivations*

As previously mentioned, incentives were a key factor for success in terms of reaching a greater number of people. Besides the financial incentives for testing discussed in the event types section, other incentives or motivations such as raffles and the incorporation of social

activity were also identified. In particular, free food was very commonly reported as a reason for success. For one professional, the free food and alcohol provided at an event was not just a good way to encourage attendance, but also to help change attitudes towards sexual health testing:

And having the testing come to them, having the testing done so it's completely normalised, like they just do it there, in a toilet they go to all the time, and then get pizza and beer, like it's great. Just sort of like "cool, okay, no worries". We didn't provide the beer, the college did, I'd just like to say that. We don't ply people with food and alcohol. But I think that really worked for them because they're comfortable and it's familiar, it's safe and everybody's doing it.

Stella, Professional

### 4.4.3 Program suggestions

To gain an insight into what would help promote sexual health in university communities interviewed peer educators and professionals were asked what content and features they would want in a sexual health program. These responses were then combined with those of student leaders who did not identify as peer educators, who were asked what features would make a ready-made, student-led program attractive for their organisation.

Many of the respondents discussed variations upon the different measures of success addressed in section 4.4.2: people reached, knowledge transferred and attitudes or behaviours changed. However a number of other goals were also identified, including enabling discussion and self-reflection, and being inclusive for a range of different audiences. This included considering not just aspects such as a student's nationality or sexuality, but also differences in age and religious belief.

Respondents also discussed practical considerations, including a broad range of different recommendations. Being easy to organise was one of the key considerations. This included not only having set roles for student leader involvement, but also requiring little training and budget.

Some of the practical considerations looked specifically at ways to maximise attendance at events. These responses focused on the appeal of combining sexual health information with

fun activities or other events and the benefits of incentives, as previously discussed. Other aspects that have been raised in previous sections included the importance of timing, advertising, having a relatable presenter and the benefits of expert involvement and support for peer educators.

Others focused on less tangible qualities that they would want such a program to have. These respondents often discussed the need to avoid a lecture-like environment and instead use a fun, engaging approach:

Interactive. Although some interactive games etc can be awkward they also break the barrier, putting everyone on the same level and make it more fun. Facts and minimal lecturing is important.

Cosima, Student Leader, Online

Rather than another talk, these respondents wanted something novel and interactive. Other respondents focused on the need for events that were direct, and could engage the whole community with a holistic approach to sexual health promotion.

## 4.5 Chapter summary

This chapter presented the responses from interviews with peer educators and professional sexual health workers as well as results from student leaders in the Promotion Survey. These sections together show the important role that peer educators and professional sexual health promoters play in providing this health promotion in Australian Universities. A summary of key points is provided below:

- In contrast to the professionals, peer roles often were only tangentially related to sexual health.
- Training provided to peer educators was variable and often insufficient, however the high level of collaborations between peers and professionals could help to offset negative effects.
- The main timing preference for events tended towards earlier in the year, however this was not always possible given the context of the peer educator role.

- Free food was the incentive most likely to be provided at sexual health promotion events
- Gender segregation was a divisive issue, with those against it focused on LGBTI inclusion and shared responsibility and those for segregation looking at cultural sensitivity, gender based issues and participant comfort.
- The likelihood of content tailored to the needs of minority groups varied greatly. Lesbian, gay and bisexuality related issues were more likely to be discussed than trans or intersex issues.
- Few event holders tailored their approach for the differing needs of international students and many weren't familiar with how this should be approached.
- Student leaders identified ensuring attendance/engagement, rapport building and establishing relevance as key challenges in their role, with the stigma and shame associated with sex and sexual health playing a large role.
- Key measures of success for events included number of people reached, knowledge transferred and attitudes and behaviours changed, however all but the first were hard to quantify.
- To promote sexual health in universities, promotions suitable for a range of audiences must be used, and the financial and time burden must not be high.

The following chapter also makes use of the Promotion Survey data, this time to compare current university sexual health promotion events with the needs and preferences of different groups of university students.



## Chapter 5: Results – Reaching different groups of students

This chapter presents results drawn from the Promotion Survey and the Student Survey to answer research question two: “How can university sexual health promotion events better reach different groups of students?” As the diverse nature of university student groups creates different needs, the results are analysed in four sections. Each focuses on a demographic that was found to have notably different needs according to interview respondents and the literature, with basic demographic information for all respondents provided in section 5.1. Section 5.2 examines the respondents based on risk status, as measured by the number of sexual partners in the past year. Section 5.3 looks at the nationality of respondents, comparing the results of international and domestic students. In section 5.4 the heterosexual, cisgender respondents (those whose identify as heterosexual and whose gender corresponds with the sex they were assigned at birth) are contrasted with the LGBTI participants. The final section observes the differences between males and females. These comparisons highlight the differences between groups in terms of sexual histories, testing and learning experiences as well as determining where current events do or do not match with preferences in terms of event types, topics covered and incentives provided.

### 5.1 Demographics

In the Promotion Survey, 92 complete responses were received from student leaders at 23 different universities across Australia. Of the student leaders, 62 responses from 16 universities reported having had sexual health promotion events in their student organisation and were included in this chapter. Respondents ranged from 18 to 31 years of age, with an average age of 21.5 years and with 98.4% of respondents under the age of 30. Females made up 64.5% of the respondents, males 32.3% and other 3.2%. The majority (66.1%) of participants identified as heterosexual, with 16.1% selecting homosexual, 9.7% bisexual and 8.1% other (predominantly listing queer or pansexual). In terms of student status, 96.8% identified as domestic Australian students and 3.2% identified as international students.

For the Student Survey, out of 2998 students invited to participate, 520 complete responses were received. After screening to exclude internally inconsistent responses and those missing essential data, 502 participants were included in the final analysis. Participants ranged from 16 to 65 years of age, with an average of 24 years and with 85.1% of respondents under 30 years of age. Females made up 59.2% of the respondents, males 40.0% and other 0.8% (Table 5.1). The majority (83.7%) of participants identified as heterosexual, with 3.6% selecting homosexual, 10.2% bisexual and 2.6% other. Other responses included queer, pansexual, heteroflexible and asexual. In terms of student status, 80.5% identified as domestic Australian students and 19.5% identified as international students.

**Table 5.1 – Demographic comparison of the Promotion Survey and Student Survey**

	Promotion Survey (%) n = 92	Student Survey (%) n = 502
Females	64.5	59.2
Males	32.3	40.0
Other	3.2	0.8
Heterosexual	66.1	83.7
Homosexual	16.1	3.6
Bisexual	9.7	10.2
Other	8.1	2.6
Domestic	96.8	80.5
International	3.2	19.5

When analysing testing behaviour and reasons for not testing, respondents who reported no experience of sexual intercourse or oral sex were excluded from analysis to provide a more accurate comparison of the sexually active population.

## 5.2 Higher versus lower-risk comparisons

### *Sexual experience*

In the Student Survey 114 respondents (22.7%) had two or more partners for either oral sex or intercourse in the past year and were classed as the higher-risk group. This measure of risk was chosen based on Australian research which shows that having sex with more than one partner in a year significantly increases the chances of contracting an STI (Grulich *et al.*, 2014b) and that it is the most important risk factor for young Australians in terms of chlamydia infection (Yeung *et al.*, 2014). The remaining 388 respondents (77.3%), who reported previous sexual activity but had either one or zero partners in the previous year, comprised the lower-risk group. Collectively, the 114 higher-risk students reported 464 sexual intercourse partners in the previous year, accounting for 69.8% of the total number of sexual intercourse partners had by all students in that period.

The higher-risk and lower-risk groups showed no statistically significant differences in terms of sexual orientation or gender. In contrast international students were significantly less likely to be part of the higher-risk group (11.2%) than domestic students (25.5%,  $\chi^2 (1, N = 502) = 9.15, p = .002$ ).

### *Testing*

Sexual health testing was more common among the higher-risk group (62.3%) than the lower-risk group (51.4%). This difference became statistically significant when looking at tests only occurring in the past twelve months, with 18.9% of lower-risk students tested and 44.7% of higher-risk students tested ( $\chi^2 (3, N = 357) = 27.35, p < .001$ ).

Among higher-risk respondents who had never been tested the most commonly reported reason was 'I haven't had many sexual partners' (53.5%) followed by 'My behaviours aren't risky' (51.2%) and 'I always use protection' (32.6%) (Table 5.2). Lower-risk responses were very similar, with 'I haven't had many sexual partners' and 'my behaviours aren't risky' in equal first place (64.4%) and 'I always use protection' following (31.4%). The only statistically significant difference between responses was 'I don't have the time' which was chosen significantly more frequently by the higher-risk group ( $\chi^2 (1, N = 161) = 4.58, p =$

.032). The main responses from the higher-risk 'other' category were that they were planning to test soon or that they trusted their partner/knew their partner had been tested.

Table 5.2 – Main reason/s for having never received a sexual health test by response frequency rank and percentage of risk group

Reason	Higher-risk rank and (%) n = 43	Lower-risk rank and (%) n = 118
I haven't had many sexual partners	1 (53.5%)	1 (64.4%)
My behaviours aren't risky	2 (51.2%)	1 (64.4%)
I always use protection	3 (32.6%)	3 (31.4%)
It's embarrassing	4 (30.2%)	4 (20.3%)
Other	5 (23.3%)	6 (10.2%)
I don't have the time	6 (23.3%)*	7 (10.2%)
I don't know where to get tested	7 (20.9%)	5 (17.8%)
I can't afford it	8 (7.0%)	10 (3.4%)
It's far away / difficult to get to	8 (7.0%)	10 (3.4%)
I'm afraid of doctors	10 (4.7%)	9 (5.1%)
I haven't had sex	11 (0.0%)	8 (7.6%)

Significantly higher than the other group at: \*p < 0.05, \*\*p < 0.01

### *Previous sexual health learning experiences*

In the higher-risk group 93.0% (n = 106) of respondents had received sex education in their high school, compared to 83.8% (n = 325) of lower-risk respondents (Figure 1). This difference was statistically significant ( $\chi^2 (2, N = 502) = 6.41, p = .041$ ). Of those who had received sex education at high school, 38.6% of the higher-risk group said it was relevant or very relevant, compared to 43.1% of the lower-risk group.

Higher-risk respondents were significantly more likely to have attended a university sexual health promotion than lower-risk respondents (21.1% versus 7.7%), ( $\chi^2 (2, N = 502) = 16.88, p < .001$ ). Of those who had attended a sexual health promotion event at university, 70.8% of higher-risk students said it was relevant or very relevant, compared to 63.3% of lower-risk students.

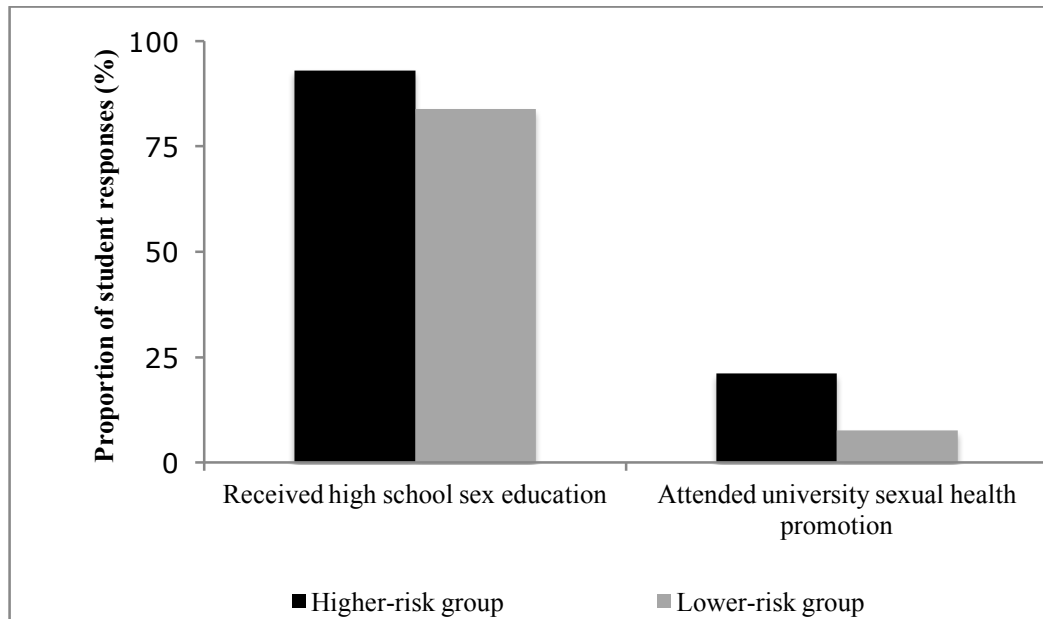


Figure 5.1 – Comparison of previous sexual health learning experiences by risk status (n=502)

Those respondents who had not attended any university sexual health promotion events were asked to select all the factors that most discouraged them from attending. Among the higher-risk group the most commonly selected responses were ‘I haven’t seen any advertised’ (46.7%), ‘I already know enough about sexual health’ (40.0%) and ‘I don’t have the time’ (35.6%) (Table 5.3). Lower-risk responses mirrored the first two options (at 45.0% and 36.3% respectively), but ‘my behaviours aren’t risky’ was the third most commonly selected option (34.4%). Two comparisons between higher-risk and lower-risk groups yielded statistically significant differences. These were ‘I always use protection’, ( $\chi^2 (1, N = 448) = 8.29, p = .004$ ), chosen more frequently by the higher-risk group and ‘I haven’t had sex’, ( $\chi^2 (1, N = 448) = 35.60, p < .001$ ), chosen more frequently by the lower-risk group.

Table 5.3 – Main reason/s for having never attended a university sexual health promotion by response frequency rank and percentage of risk group respondents

Reason	Higher-risk rank and (%) n = 90	Lower-risk rank and (%) n = 358
I haven't seen any advertised	1 (46.7%)	1 (45.0%)
I already know enough about sexual health	2 (40.0%)	2 (36.3%)
I don't have the time	3 (35.6%)	5 (28.8%)
My behaviours aren't risky	4 (27.8%)	3 (34.4%)
It's embarrassing	5 (25.6%)	6 (28.2%)
It would be boring	6 (22.2%)	8 (14.2%)
I always use protection	7 (20.0%)**	9 (9.2%)
I haven't had many sexual partners	8 (15.6%)	7 (19.8%)
They are far away / difficult to get to	9 (6.7%)	10 (6.7%)
Other	10 (3.3%)	10 (6.7%)
I haven't had sex	11 (1.1%)	4 (31.8%)**

Significantly higher than the other group at: \*p < 0.05, \*\*p < 0.01

### *Sexual health promotion preferences and provision*

From the six event options presented, a social event with a sexual health message was the first preference of both the higher-risk group and the lower-risk group (Table 5.4). This was also the most frequently reported type of event held in the Promotion Survey. However at second preference, the higher-risk group and lower-risk group diverged. Lower-risk respondents listed guest speakers as their second preference, matching the kind of events run as identified in the Promotion Survey. In contrast, the higher-risk group's second preference, sexual health testing, was the least likely event to take place out of the options given, being run in only 6.5% of the Promotion Survey event responses. While there was a large difference between the proportion of each group who would want sexual health testing, with higher-risk students at 50.0% and lower-risk students at 32.0%, testing remained the third most selected option among lower-risk respondents. The most common 'other' response was that they would not attend a sexual health promotion.

Table 5.4 – Event preferences by response frequency rank and percentage of respondents for higher-risk and lower-risk groups compared with events run

Event type	Student Survey		Promotion Survey
	Higher-risk rank and (%) n = 114	Lower-risk rank and (%) n = 388	Event rank and (%) n = 62
Social event with a sexual health message	1 (51.8%) <sup>LL</sup>	1 (43.8%) <sup>LL</sup>	1 (72.6%)
Sexual health testing	2 (50.0%) <sup>HH</sup>	3 (32.0%) <sup>HH</sup>	6 (6.5%)
Guest speaker	3 (42.1%)	2 (42.0%) <sup>L</sup>	2 (56.5%)
Relevant movie	4 (27.2%) <sup>HH</sup>	4 (29.9%) <sup>HH</sup>	5 (8.1%)
Question & answer panel	5 (24.6%)	5 (25.3%)	3 (35.5%)
Workshop	6 (15.8%) <sup>LL</sup>	6 (18.8%) <sup>LL</sup>	3 (35.5%)
Other	7 (3.5%)	7 (1.5%)	7 (1.6%)

Student interest was significantly higher than event provision at: <sup>H</sup>  $p < 0.05$ , <sup>HH</sup>  $p < 0.01$

Student interest was significantly lower than event provision at: <sup>L</sup>  $p < 0.05$ , <sup>LL</sup>  $p < 0.01$

Interest for sexual health testing was significantly higher in both higher-risk ( $\chi^2 (1, N = 176) = 33.63, p < .001$ ) and lower-risk groups ( $\chi^2 (1, N = 450) = 17.09, p < .001$ ) when compared to the likelihood of these events occurring as reported in the Promotion Survey. Similarly, the interest in attending a relevant movie from higher ( $\chi^2 (1, N = 176) = 9.03, p = .003$ ) and lower risk ( $\chi^2 (1, N = 450) = 12.96, p < .001$ ) groups was significantly greater than the likelihood of these events occurring as reported in the Promotion Survey.

### *Sexual health topics*

Out of 30 listed topics, 17 showed a statistically significant difference between higher-risk group selection and the topics currently featuring in university sexual health events (Table 5.5). In 11 of these topics higher-risk student interest was significantly greater than event provision. These topics include pleasure (ranked 1<sup>st</sup> preference,  $\chi^2 (1, N = 176) = 12.60, p < .001$ ), emergency contraception (ranked 2<sup>nd</sup>,  $\chi^2 (1, N = 176) = 1.36, p = .007$ ) and abortion (ranked equal 6<sup>th</sup>,  $\chi^2 (1, N = 176) = 20.73, p < .001$ ). The higher-risk group also prioritised relationships, alcohol issues and STI testing and symptoms.

For the lower-risk group 17 topics showed a statistically significant difference between their selections and the topics currently featuring in university sexual health events (Table 5.5). In seven of these topics lower-risk student interest was significantly greater than event provision. These topics include women's health issues (ranked 1<sup>st</sup> preference,  $\chi^2 (1, N = 450) = 5.64, p = .018$ ), pleasure (ranked 5<sup>th</sup>,  $\chi^2 (1, N = 450) = 8.23, p = .004$ ) and different cultural expectations around sex (ranked 6<sup>th</sup>,  $\chi^2 (1, N = 450) = 8.44, p = .004$ ). The lower-risk group prioritised topics pertaining to women's health, relationships and personal safety. Current sexual health promotion events prioritised topics about safe and consensual sex.



Table 5.5 – Topic preferences by response frequency rank and percentage of respondents for higher-risk and lower-risk groups compared with events run

Topic	Student Survey		Promotion Survey
	Higher-risk rank and (%) n = 114	Lower-risk rank and (%) n = 388	Event rank and (%) n = 62
Pleasure	1 (48.2%) <sup>HH</sup>	5 (39.9%) <sup>HH</sup>	20 (21.0%)
Emergency contraception (e.g. the morning after pill)	2 (46.5%) <sup>HH</sup>	12 (33.2%)	17 (25.8%)
Respectful relationships	3 (44.7%) <sup>L</sup>	2 (44.6%) <sup>LL</sup>	4 (62.9%)
STI impacts/symptoms	4 (43.9%)	13 (31.2%)	9 (41.9%)
STI testing	4 (43.9%)	15 (28.1%)	11 (38.7%)
Abortion	6 (43.0%) <sup>HH</sup>	14 (30.4%) <sup>HH</sup>	24 (9.7%)
Alcohol and sex	6 (43.0%)	18 (26.3%) <sup>LL</sup>	8 (48.4%)
Consent	8 (42.1%) <sup>LL</sup>	8 (36.3%) <sup>LL</sup>	3 (71.0%)
Men's health issues (e.g. testicular cancer)	9 (41.2%) <sup>H</sup>	9 (35.6%)	19 (24.2%)
Sexual harassment and sexual assault prevention	9 (41.2%)	3 (43.6%)	6 (53.2%)
STI statistics	9 (41.2%)	23 (22.9%) <sup>L</sup>	13 (35.5%)
Domestic violence prevention	12 (40.4%)	11 (33.8%)	15 (29.0%)
Different cultural expectations about sex	13 (39.5%) <sup>HH</sup>	6 (38.4%) <sup>HH</sup>	21 (19.4%)
Safe sex	14 (38.6%) <sup>LL</sup>	4 (42.5%) <sup>LL</sup>	1 (79.0%)
Women's health issues (e.g. cervical cancer)	14 (38.6%)	1 (48.5%) <sup>H</sup>	14 (32.3%)
Who to contact for sexual health support	16 (36.8%) <sup>LL</sup>	7 (36.6%) <sup>LL</sup>	5 (58.1%)
Dating and hook up apps/websites (e.g. Tinder and Grindr)	17 (35.1%) <sup>HH</sup>	26 (18.6%) <sup>H</sup>	27 (6.5%)
Long acting reversible contraception (e.g. implanon, IUDs)	17 (35.1%) <sup>HH</sup>	17 (26.5%)	22 (16.1%)
Sex work	19 (33.3%) <sup>HH</sup>	27 (15.2%)	25 (8.1%)
Sexting and digital privacy	19 (33.3%) <sup>HH</sup>	21 (23.2%)	23 (12.9%)
Pornography	21 (31.6%) <sup>HH</sup>	24 (22.4%) <sup>HH</sup>	28 (4.8%)
The pill	21 (31.6%)	10 (34.8%)	17 (25.8%)
HIV/AIDS	23 (29.8%)	19 (26.0%) <sup>L</sup>	10 (40.3%)
Gay, lesbian and bisexuality issues	24 (27.2%) <sup>LL</sup>	15 (28.1%) <sup>LL</sup>	6 (53.2%)
Condoms	25 (26.3%) <sup>LL</sup>	25 (21.4%) <sup>LL</sup>	2 (77.4%)
Alternative barrier methods (e.g. dams, female condoms)	26 (25.4%)	20 (24.0%) <sup>L</sup>	12 (37.1%)
Transgender and intersex issues	27 (21.1%)	21 (23.2%)	16 (27.4%)
Anatomy	28 (19.3%) <sup>HH</sup>	27 (15.2%) <sup>H</sup>	28 (4.8%)
Abstinence	29 (5.3%)	29 (13.7%)	25 (8.1%)
Other	30 (2.6%)	30 (2.3%)	30 (0.0%)

Student interest was significantly higher than event provision at: <sup>H</sup> p < 0.05, <sup>HH</sup> p < 0.01

Student interest was significantly lower than event provision at: <sup>L</sup> p < 0.05, <sup>LL</sup> p < 0.01

### *Incentives and motivating factors to attend*

The higher-risk group's most frequently chosen incentive was free alcohol, with 58.8% selecting this option (Table 5.6). This was the only statistically significant difference ( $\chi^2$  (1, N = 176) = 32.06,  $p < .001$ ) when comparing higher-risk group preferences and event provision, with alcohol being the least likely type of incentive to be provided at existing university sexual health promotion events. The lower-risk group's incentive preferences more closely aligned with those provided at existing events, with food and/or non-alcoholic drinks first, followed by social activity and finally free alcohol. Free alcohol was the only incentive that was significantly different from events run and chosen more frequently by lower-risk students than event-hosting respondents, ( $\chi^2$  (1, N = 450) = 4.61,  $p = .032$ ).

**Table 5.6 – Incentive preferences by response frequency rank and percentage of respondents for higher-risk and lower-risk groups compared with events run**

Incentive	Student Survey		Promotion Survey
	Higher-risk rank and (%) n = 114	Lower-risk rank and (%) n = 388	Event rank and (%) n = 62
Free alcohol	1 (58.8%) <sup>HH</sup>	3 (27.3%) <sup>H</sup>	5 (14.5%)
Free food and/or non-alcoholic drinks	2 (57.9%)	1 (51.5%) <sup>L</sup>	1 (66.1%)
Combined with social activity (e.g. party, movie night)	2 (57.9%)	2 (39.4%)	2 (45.2%)
Other	4 (5.3%)	4 (5.4%)	3 (19.4%)
None of the above	N/A	N/A	4 (16.1%)

Student interest was significantly higher than event provision at: <sup>H</sup>  $p < 0.05$ , <sup>HH</sup>  $p < 0.01$

Student interest was significantly lower than event provision at: <sup>L</sup>  $p < 0.05$ , <sup>LL</sup>  $p < 0.01$

The main motivating factors for the higher-risk and lower-risk groups were similar. In both groups 'knowing a friend who was going' was the most common factor and free food and social activity were in the top four preferences (Table 5.7). However higher-risk respondents were significantly more likely to select free alcohol ( $\chi^2$  (1, N = 502) = 38.59,  $p < .001$ ), combined with social activity ( $\chi^2$  (1, N = 502) = 12.21,  $p < .001$ ), free sexual health testing ( $\chi^2$  (1, N = 502) = 13.27,  $p < .001$ ), free safe sex supplies ( $\chi^2$  (1, N = 502) = 4.18,  $p = .041$ ).

and the opportunity to meet new people ( $\chi^2 (1, N = 502) = 5.10, p = .024$ ). Lower-risk respondents were significantly more likely to select games ( $\chi^2 (1, N = 502) = 5.00, p = .025$ ) and sensitivity to their culture ( $\chi^2 (1, N = 502) = 6.24, p = .013$ ). Free alcohol was the factor with the greatest difference between groups, ranking 2<sup>nd</sup> for the higher-risk group (58.8%) and 7<sup>th</sup> for the lower-risk group (27.3%).

Table 5.7 – Motivating factors to attend events by response frequency rank and percentage of respondents for higher-risk and lower-risk groups

Motivation	Higher-risk rank and (%) n = 114	Lower-risk rank and (%) n = 388
Knowing a friend who was going	1 (65.8%)	1 (58.5%)
Free alcohol	2 (58.8%)**	7 (27.3%)
Free food and/or non-alcoholic drinks	3 (57.9%)	2 (51.5%)
Combined with social activity (e.g. party, movie night)	3 (57.9%)**	3 (39.4%)
Free sexual health testing	5 (51.8%)**	4 (33.0%)
Free safe sex supplies	6 (40.4%)*	5 (30.2%)
Free giveaways/prizes	7 (33.3%)	6 (29.9%)
The opportunity to meet new people	8 (29.8%)*	9 (19.8%)
Relevant to my sexual orientation	9 (26.3%)	8 (22.2%)
Games	10 (10.5%)	10 (19.6%)*
Other	11 (5.3%)	12 (5.4%)
Sensitive to my culture	12 (4.4%)	11 (12.6%)*
Presented in my first language (if other than English)	13 (0.9%)	13 (4.6%)

Significantly higher than the other group at: \*p < 0.05, \*\*p < 0.01

### 5.3 International versus domestic comparisons

Of the 502 complete responses to the Student Survey, 404 respondents identified as domestic students and 98 identified as international students.

#### *Sexual experience*

In the Student Survey 25.5% of domestic respondents and 11.2% of international students had had sexual intercourse with two or more partners or oral sex with two or more partners in the past year and were classed as the higher-risk group. This difference between these two distributions was statistically significant ( $\chi^2 (1, N = 502) = 9.15, p = .002$ ).

#### *Testing*

International students were significantly less likely to be tested than domestic students ( $\chi^2 (1, N = 357) = 8.93, p = .012$ ). While 58.1% of domestic students had ever been tested, only 37.0% of international students reported testing. This pattern continued when looking only at tests occurring in the past twelve months, with 29.0% of domestic students tested and only 16.7% of internationals ( $\chi^2 (1, N = 357) = 8.73, p = .033$ ).

When analysing why students had not been tested, 'my behaviours aren't risky' and 'I haven't had many sexual partners' were the most commonly selected options for both international and domestic students (Table 5.8). Amongst international students 'my behaviours aren't risky' (64.7%) was the most common response, followed by 'I haven't had many sexual partners' (58.8%) and in third place 'it's embarrassing' (35.3%). Among domestic students 'I haven't had many sexual partners' (62.2%) was the most common response, followed by 'my behaviours aren't risky' (59.8%) and 'I always use protection' (31.5%). No comparisons yielded statistically significant differences.

**Table 5.8 – Reasons for having never received a sexual health test by response frequency rank and percentage of nationality**

Reason	International rank and (%) n = 34	Domestic rank and (%) n = 127
My behaviours aren't risky	1 (64.7%)	2 (59.8%)
I haven't had many sexual partners	2 (58.8%)	1 (62.2%)
It's embarrassing	3 (35.3%)	4 (19.7%)
I always use protection	4 (32.4%)	3 (31.5%)
I don't know where to get tested	5 (20.6%)	5 (18.1%)
I don't have the time	6 (17.6%)	7 (12.6%)
I'm afraid of doctors	7 (8.8%)	10 (3.9%)
I haven't had sex	8 (5.9%)	8 (5.5%)
It's far away / difficult to get to	8 (5.9%)	10 (3.9%)
I can't afford it	10 (2.9%)	9 (4.7%)
Other	11 (0.0%)	6 (17.3%)

### *Previous sexual health learning experiences*

Amongst domestic students 92.8% of respondents had received sex education in their high school, compared to only 57.1% of international students (Figure 5.2). This difference was statistically significant, ( $\chi^2$  (2, N = 502) = 85.49,  $p = < .001$ ). Of those who had received sex education, 41.9% of domestic students felt it was relevant or very relevant, compared to 42.9% of international students.

Domestic students were more likely to have attended a university sexual health promotion than international students (11.9% versus 6.1%). Of those who had attended a sexual health promotion event at university, 68.8% of domestic students said it was relevant or very relevant, compared to 50% of international students.

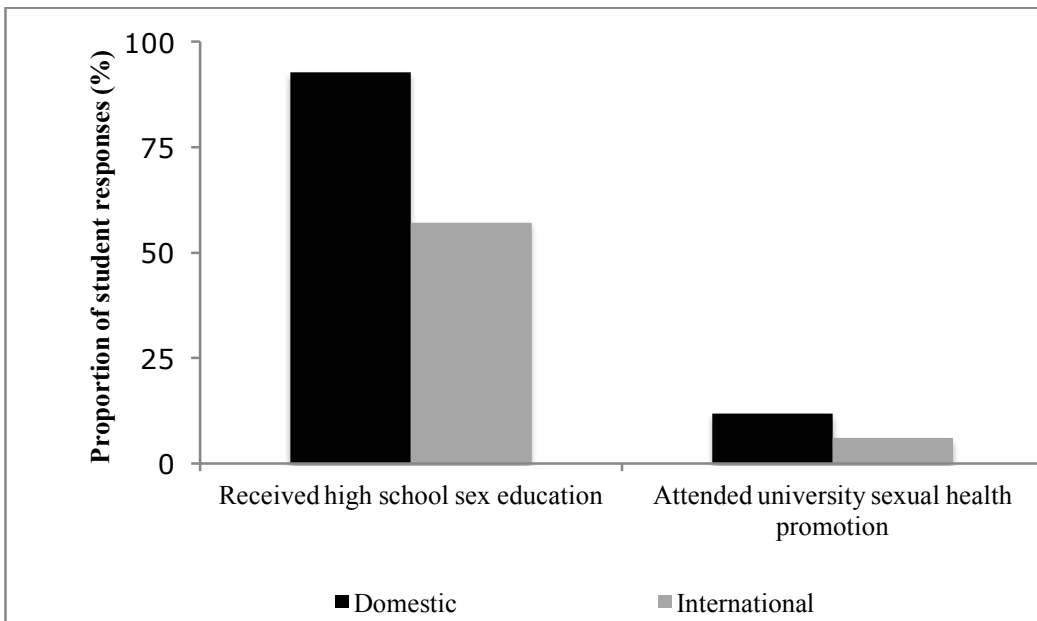


Figure 5.2 - Comparison of previous sexual health learning experiences by nationality (n=502)

Those respondents who had not attended any university sexual health promotions were asked to select all the factors that most discouraged them from attending. Among international students the most commonly selected responses were ‘I haven’t seen any advertised’ (40.2%), ‘I don’t have the time’ (31.5%) and ‘I haven’t had sex’ (31.5%) (Table 5.9). Among domestic students the most commonly selected responses were ‘I haven’t seen any advertised’ (46.6%) and ‘I already know enough about sexual health’ (41.6%). This reason was the only one to show a significant difference between the groups ( $\chi^2 (1, N = 448) = 15.18, p < .001$ ), with international students choosing ‘I already know enough about sexual health’ less than half as often as domestic students.

Table 5.9 – Reasons for having never attended university sexual health promotions by response frequency rank and percentage of nationality

Reason	International rank and (%) n = 92	Domestic rank and (%) n = 356
I haven't seen any advertised	1 (40.2%)	1 (46.6%)
I don't have the time	2 (31.5%)	4 (29.8%)
I haven't had sex	2 (31.5%)	6 (24.2%)
My behaviours aren't risky	4 (27.2%)	3 (34.6%)
It's embarrassing	4 (27.2%)	5 (27.8%)
It would be boring	6 (19.6%)	8 (14.9%)
I already know enough about sexual health	6 (19.6%)	2 (41.6%)**
I haven't had many sexual partners	8 (18.5%)	7 (19.1%)
I always use protection	9 (9.8%)	9 (11.8%)
They are far away / difficult to get to	10 (7.6%)	11 (6.5%)
Other	11 (3.3%)	10 (6.7%)

Significantly higher than the other group at: \*p < 0.05, \*\*p < 0.01

### *Sexual health promotion preferences and provision*

International and domestic students displayed different preferences in terms of event type (Table 5.10). For domestic students social events with a sexual health message (1<sup>st</sup>) and guest speakers (2<sup>nd</sup>) were the most popular event types. These were also the most frequently reported type of event held in the Promotion Survey. In contrast, the top two choices of international students were the least likely events to have taken place. These options, sexual health testing ( $\chi^2$  (1, N = 160) = 22.49, p < .001) and relevant movies ( $\chi^2$  (1, N = 160) = 20.15, p < .001) were in significantly higher demand than supply. Despite ranking third and fourth respectively, demand from domestic students for sexual health testing ( $\chi^2$  (1, N = 466) = 20.29, p < .001) and relevant movies ( $\chi^2$  (1, N = 466) = 9.99, p = .002) was also significantly higher than the supply of these events.

Table 5.10 – Event preferences by response frequency rank and percentage of respondents for international and domestic groups compared with events run

Event type	International rank and (%) n = 98	Domestic rank and (%) n = 404	Event rank and (%) n = 62
Sexual health testing	1 (40.8%) <sup>HH</sup>	3 (34.9%) <sup>HH</sup>	6 (6.5%)
Relevant movie	1 (40.8%) <sup>HH</sup>	4 (26.5%) <sup>HH</sup>	5 (8.1%)
Guest speaker	3 (35.7%) <sup>LL</sup>	2 (43.6%)	2 (56.5%)
Social event with a sexual health message	4 (32.7%) <sup>LL</sup>	1 (48.8%) <sup>LL</sup>	1 (72.6%)
Workshop	5 (30.6%)	6 (15.1%) <sup>LL</sup>	3 (35.5%)
Question & answer panel	6 (22.4%)	5 (25.7%)	3 (35.5%)
Other	7 (1.0%)	7 (2.2%)	7 (1.6%)

Student interest was significantly higher than event provision at: <sup>H</sup> p < 0.05, <sup>HH</sup> p < 0.01

Student interest was significantly lower than event provision at: <sup>L</sup> p < 0.05, <sup>LL</sup> p < 0.01

### *Sexual health topics*

Out of 30 listed topics, 13 showed a statistically significant difference between international student selection and the topics currently featuring in university sexual health events (Table 5.11). Among these topics only two showed significantly higher international student demand than event supply. These were abortion (ranked 13<sup>th</sup>,  $\chi^2$  (1, N = 160) = 6.09, p = .014) and pornography (ranked 23<sup>rd</sup>,  $\chi^2$  (1, N = 160) = 4.17, p = .041). The top three topics for international students were safe sex (1<sup>st</sup>), women’s health (2<sup>nd</sup>) and sexual harassment and sexual assault prevention (3<sup>rd</sup>).

For domestic students, 19 topics showed a statistically significant difference between domestic selection and the topics currently featuring in university sexual health events. In 10 of these topics domestic demand was significantly higher than event supply. These topics include women’s health (ranked 2<sup>nd</sup>,  $\chi^2$  (1, N = 466) = 5.05, p = .025), pleasure (4<sup>th</sup>,  $\chi^2$  (1, N = 466) = 11.38, p < .001) and different cultural expectations around sex (6<sup>th</sup>,  $\chi^2$  (1, N = 466) = 10.10, p = .001). The top three topics for domestic students were respectful relationships (1<sup>st</sup>), women’s health (2<sup>nd</sup>) and sexual harassment and sexual assault prevention (3<sup>rd</sup>).



Table 5.11 – Topic preferences by response frequency rank and percentage of international and domestic groups compared with events run

Topics	International rank and (%) n = 98	Domestic rank and (%) n = 404	Event rank and (%) n = 62
Safe sex	1 (60.2%) <sup>L</sup>	12 (37.1%) <sup>LL</sup>	1 (79.0%)
Women's health issues (e.g. cervical cancer)	2 (40.8%)	2 (47.5%) <sup>H</sup>	14 (32.3%)
Sexual harassment and sexual assault prevention	3 (37.8%)	3 (44.3%)	6 (53.2%)
HIV/AIDS	4 (35.7%)	23 (24.8%) <sup>LL</sup>	10 (40.3%)
Pleasure	5 (34.7%)	4 (43.6%) <sup>HH</sup>	20 (21.0%)
Different cultural expectations about sex	6 (31.6%)	6 (40.3%) <sup>HH</sup>	21 (19.4%)
Respectful relationships	6 (31.6%) <sup>LL</sup>	1 (47.8%) <sup>L</sup>	4 (62.9%)
Who to contact for sexual health support	6 (31.6%) <sup>LL</sup>	9 (37.9%) <sup>LL</sup>	5 (58.1%)
Emergency contraception (e.g. the morning after pill)	9 (30.6%)	11 (37.6%)	17 (25.8%)
Men's health issues (e.g. testicular cancer)	9 (30.6%)	7 (38.4%) <sup>H</sup>	19 (24.2%)
Condoms	11 (28.6%) <sup>LL</sup>	27 (21.0%) <sup>LL</sup>	2 (77.4%)
The pill	11 (28.6%)	13 (35.4%)	17 (25.8%)
Abortion	13 (25.5%) <sup>H</sup>	14 (35.1%) <sup>HH</sup>	24 (9.7%)
Domestic violence prevention	14 (24.5%)	9 (37.9%)	15 (29.0%)
Alternative barrier methods (e.g. dams, female condoms)	15 (22.4%) <sup>L</sup>	23 (24.8%) <sup>L</sup>	12 (37.1%)
Alcohol and sex	16 (21.4%) <sup>LL</sup>	16 (32.2%) <sup>L</sup>	8 (48.4%)
Consent	16 (21.4%) <sup>LL</sup>	5 (41.6%) <sup>LL</sup>	3 (71.0%)
Gay, lesbian and bisexuality issues	16 (21.4%) <sup>LL</sup>	18 (29.5%) <sup>LL</sup>	6 (53.2%)
STI statistics	19 (20.4%) <sup>L</sup>	19 (28.7%)	13 (35.5%)
STI testing	19 (20.4%) <sup>L</sup>	15 (34.4%)	11 (38.7%)
STI impacts/symptoms	21 (17.3%) <sup>LL</sup>	8 (38.1%)	9 (41.9%)
Sexting and digital privacy	22 (16.3%)	20 (27.7%) <sup>H</sup>	23 (12.9%)
Dating and hook up apps/websites (e.g. Tinder and Grindr)	23 (15.3%)	25 (24.0%) <sup>HH</sup>	27 (6.5%)
Pornography	23 (15.3%) <sup>H</sup>	21 (26.7%) <sup>HH</sup>	28 (4.8%)
Long acting reversible contraception (e.g. implanon, IUDs)	25 (14.3%)	17 (31.9%) <sup>H</sup>	22 (16.1%)
Transgender and intersex issues	26 (13.3%) <sup>L</sup>	22 (25.0%)	16 (27.4%)
Anatomy	27 (10.2%)	28 (17.6%) <sup>H</sup>	28 (4.8%)
Abstinence	28 (9.2%)	29 (12.4%)	25 (8.1%)
Sex work	28 (9.2%)	26 (21.8%) <sup>H</sup>	25 (8.1%)
Other	30 (0.0%)	30 (3.0%)	30 (0.0%)

Student interest was significantly higher than event provision at: <sup>H</sup> p < 0.05, <sup>HH</sup> p < 0.01

Student interest was significantly lower than event provision at: <sup>L</sup> p < 0.05, <sup>LL</sup> p < 0.01

### *Incentives and motivating factors to attend*

The incentive preferences of both international and domestic students generally matched those provided at events. For both international student and domestic students the most frequently chosen incentive was free food and/or non-alcoholic drinks, with 46.9% and 54.5% of the respective groups selecting this option (Table 5.12). There were no incentives where international demand was statistically greater than event supply. Free alcohol was the only incentive where domestic student demand was significantly higher than event supply (37.4%,  $\chi^2(1, N = 466) = 12.46, p < .001$ ).

**Table 5.12 – Incentive preferences by response frequency rank and percentage of international and domestic groups compared with events run**

	International rank and (%) n = 98	Domestic rank and (%) n = 404	Event rank and (%) n = 62
Free food and/or non-alcoholic drinks	1 (46.9%) <sup>L</sup>	1 (54.5%)	1 (66.1%)
Combined with social activity (e.g. party, movie night)	2 (34.7%)	2 (45.8%)	2 (45.2%)
Free alcohol	3 (22.4%)	3 (37.4%) <sup>HH</sup>	4 (14.5%)
Other	4 (3.1%)	4 (5.9%)	3 (19.4%)

Student interest was significantly higher than event provision at: <sup>H</sup>  $p < 0.05$ , <sup>HH</sup>  $p < 0.01$

Student interest was significantly lower than event provision at: <sup>L</sup>  $p < 0.05$ , <sup>LL</sup>  $p < 0.01$

The main motivating factors for international and domestic students were similar. In both groups ‘knowing a friend who was going’ was the most common factor and free food and social activity were in the top four preferences (Table 5.13). However domestic students were statistically more likely to select free alcohol ( $\chi^2(1, N = 502) = 7.78, p = .005$ ), combined with social activity ( $\chi^2(1, N = 502) = 3.95, p = .047$ ), free giveaways ( $\chi^2(1, N = 502) = 7.30, p = .007$ ) and knowing a friend who was going ( $\chi^2(1, N = 502) = 4.24, p = .039$ ). International students were significantly more likely to select ‘presented in my first language’ ( $\chi^2(1, N = 502) = 18.51, p < .001$ ) and ‘sensitive to my culture’ ( $\chi^2(1, N = 502) = 35.78, p < .001$ ). This element was the factor with the greatest difference between groups, ranking 5<sup>th</sup> for international students (27.6%) and 11<sup>th</sup> for domestic students (6.7%).

Table 5.13 – Motivating factors to attend events by response frequency rank and percentage of international and domestic groups

Motivation	International rank and (%) n = 98	Domestic rank and (%) n = 404
Knowing a friend who was going	1 (51.0%)	1 (62.4%) *
Free food and/or non-alcoholic drinks	2 (46.9%)	2 (54.5%)
Free sexual health testing	3 (44.9%)	5 (35.4%)
Combined with social activity (e.g. party, movie night)	4 (34.7%)	3 (45.8%) *
Sensitive to my culture	5 (27.6%) **	11 (6.7%)
The opportunity to meet new people	5 (27.6%)	9 (20.8%)
Free safe sex supplies	5 (27.6%)	6 (33.7%)
Relevant to my sexual orientation	8 (25.5%)	8 (22.5%)
Free alcohol	9 (22.4%)	4 (37.4%)**
Free giveaways/prizes	10 (19.4%)	7 (33.4%) **
Games	11 (14.3%)	10 (18.3%)
Presented in my first language (if other than English)	12 (11.2%) **	13 (2.0%)
Other	13 (3.1%)	12 (5.9%)

Significantly higher than the other group at: \*p < 0.05, \*\*p < 0.01

## 5.4 Heterosexual cisgender versus LGBTI comparisons

Of the 502 complete responses to the Student Survey, 419 respondents were heterosexual and cisgender and 83 were LGBTI students.

### *Sexual experience*

In the Student Survey 28.9% of LGBTI respondents reported sexual intercourse with two or more partners or oral sex with two or more partners in the past year and were classed as higher-risk. In comparison, 21.5% of heterosexual cisgender respondents were classified as higher-risk, however this difference was not statistically significant. The proportion of higher-risk respondents was higher among male-identifying LGBTI students (40.0%) than female-identifying LGBTI students (25.9%).

### *Testing*

Rates of ever having received sexual health testing were approximately equal between the two groups, with 55.2% of LGBTI students and 54.8% of heterosexual cisgender having received a test. In contrast, LGBTI students were slightly more likely to have been tested in the past twelve months, with 36.2% of LGBTI respondents and 25.4% of heterosexual cisgender respondents tested in this period. This variation between the two groups was not statistically significant.

When analysing why students had not been tested, LGBTI and heterosexual cisgender responses were very similar, with the top four reasons common to both. 'I haven't had many sexual partners' was the most common response for each (both 61.5%) followed by 'my behaviours aren't risky' and 'I always use protection' (Table 5.14). The only comparison between LGBTI and heterosexual cisgender groups that yielded a statistically significant difference was 'it's far away / difficult to get to' which was chosen more frequently by the LGBTI group ( $\chi^2 (1, N = 161) = 3.86, p = .050$ ).

Table 5.14 – Reasons for having never received a sexual health test by response frequency rank and percentage of LGBTI and heterosexual cisgender groups

Reason	LGBTI rank and (%) n = 26	Heterosexual rank and (%) n = 135
I haven't had many sexual partners	1 (61.5%)	1 (61.5%)
My behaviours aren't risky	2 (57.7%)	1 (61.5%)
I always use protection	3 (42.3%)	3 (29.6%)
It's embarrassing	4 (26.9%)	4 (22.2%)
I don't have the time	5 (23.1%)	7 (11.9%)
I don't know where to get tested	6 (19.2%)	5 (18.5%)
Other	7 (19.2%)	6 (12.6%)
I haven't had sex	8 (11.5%)	8 (4.4%)
It's far away / difficult to get to	8 (11.5%) *	11 (3.0%)
I'm afraid of doctors	8 (11.5%)	10 (3.7%)
I can't afford it	11 (3.8%)	8 (4.4%)

Significantly higher than the other group at: \*p < 0.05, \*\*p < 0.01

### *Previous sexual health learning experiences*

In the LGBTI group 92.8% of respondents had received sex education in their high school, compared to 84.5% of those in the heterosexual cisgender group (Figure 5.3). However despite more LGBTI students reporting receiving sex education in high school, a significantly lower proportion of this group found it personally relevant ( $\chi^2 (5, N = 431) = 21.4, p < .001$ ). Of those who had received sex education, 26.0% of LGBTI group members said it was relevant or very relevant, compared to 45.5% of heterosexual cisgender group members.

LGBTI group members were also more likely to have attended a university sexual health promotion than those in the heterosexual cisgender group (19.3% versus 9.1%, ( $\chi^2 (2, N = 502) = 7.71, p = .021$ ). Again, LGBTI students were significantly less likely to have found these promotions relevant ( $\chi^2 (3, N = 54) = 10.30, p = .016$ ). Of those who had attended a sexual health promotion event at university, only 43.8% of LGBTI group members said it was relevant or very relevant, compared to 76.3% of heterosexual cisgender respondents.

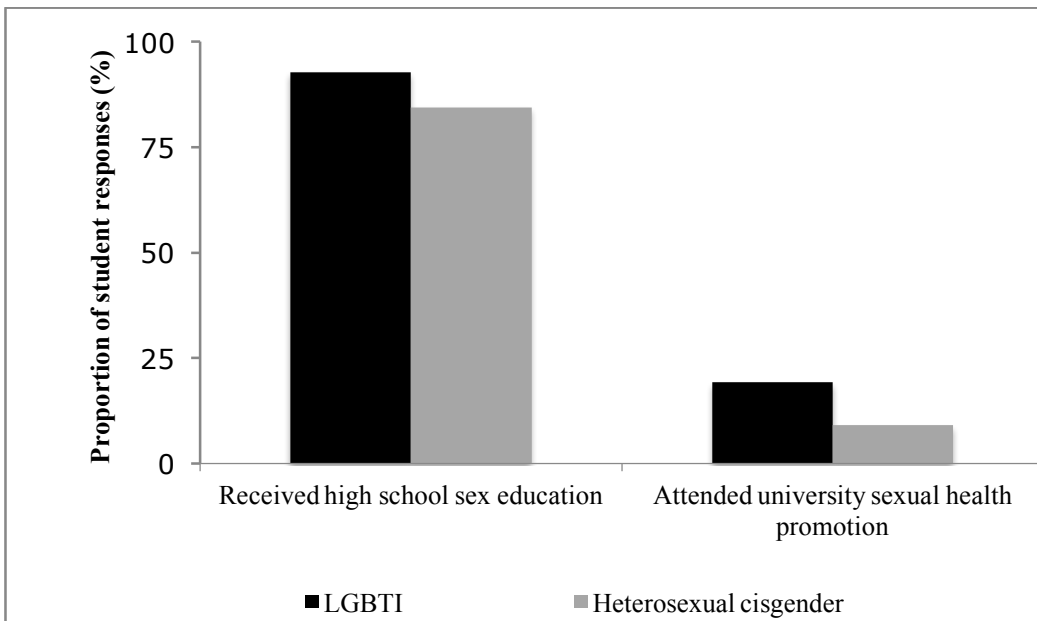


Figure 5.3 - Comparison of previous sexual health learning experiences by LGBTI status (n=502)

Those respondents who had not attended any university sexual health promotion events were asked to select all the factors that most discouraged them from attending. Among both LGBTI and heterosexual cisgender groups the two most commonly selected responses were ‘I haven’t seen any advertised’ (53.7% and 43.8% respectively) and ‘I already know enough about sexual health’ (38.8% and 36.7%, Table 5.15). At the third reason the two groups began to diverge, with LGBTI respondents choosing ‘It’s embarrassing’ (32.8%) and heterosexual cisgender respondents selecting ‘my behaviours aren’t risky’ (34.1%). None of the reasons listed yielded statistically significant differences between LGBTI and heterosexual cisgender groups except for the ‘other’ category. LGBTI students were twice as likely to select this option, with the issue of current promotions not being personally relevant a key theme.

Table 5.15 – Reasons for having never attended university sexual health promotions by response frequency rank and percentage of LGBTI and heterosexual groups

Reason	LGBTI rank and (%) n = 67	Heterosexual rank and (%) n = 381
I haven't seen any advertised	1 (53.7%)	1 (43.8%)
I already know enough about sexual health	2 (38.8%)	2 (36.7%)
It's embarrassing	3 (32.8%)	5 (26.8%)
I haven't had sex	4 (31.3%)	6 (24.7%)
I don't have the time	5 (29.9%)	4 (30.2%)
My behaviours aren't risky	6 (26.9%)	3 (34.1%)
It would be boring	7 (19.4%)	8 (15.2%)
I haven't had many sexual partners	7 (19.4%)	7 (18.9%)
I always use protection	9 (13.4%)	9 (11.0%)
Other	10 (10.4%)	11 (5.2%)
They are far away / difficult to get to	11 (9.0%)	10 (6.3%)

### *Sexual health promotion preferences and provision*

LGBTI and heterosexual cisgender respondents shared the same top three preferences for event type (Table 5.16). These were social events with a sexual health message (50.6% and 44.6% respectively), guest speakers (41.0% and 42.2%) and sexual health testing (38.6% and 35.6%). For the top two preferred event types, this matched with the events reported in the Promotion Survey, however at third preference this diverged. While workshops were the third most likely type of event to take place, they were the least preferred of the six options presented for both LGBTI and heterosexual cisgender groups. In contrast, both group's third preference, sexual health testing, was the least likely event to take place out of the options given, being run in only 6.5% of the Promotion Survey event responses.

In both LGBTI ( $\chi^2 (1, N = 145) = 19.60, p < .001$ ) and heterosexual cisgender ( $\chi^2 (1, N = 481) = 21.10, p < .001$ ) groups the demand for sexual health testing was significantly higher than the supply of these events as reported in the Promotion Survey. This was also the case

for relevant movies, for LGBTI ( $\chi^2 (1, N = 145) = 9.64, p = .002$ ) and heterosexual cisgender respondents ( $\chi^2 (1, N = 481) = 12.54, p < .001$ ).

Table 5.16 – Event preferences by response frequency rank and percentage of respondents for LGBTI and heterosexual groups compared with events run

Event type	LGBTI rank and (%) n = 83	Heterosexual rank and (%) n = 419	Event rank and (%) n = 62
Social event with a sexual health message	1 (50.6%) <sup>LL</sup>	1 (44.6%) <sup>LL</sup>	1 (72.6%)
Guest speaker	2 (41.0%)	2 (42.2%) <sup>L</sup>	2 (56.5%)
Sexual health testing	3 (38.6%) <sup>HH</sup>	3 (35.6%) <sup>HH</sup>	6 (6.5%)
Question & answer panel	4 (30.1%)	5 (24.1%)	3 (35.5%)
Relevant movie	5 (28.9%) <sup>HH</sup>	4 (29.4%) <sup>HH</sup>	5 (8.1%)
Workshop	6 (22.9%)	6 (17.2%) <sup>LL</sup>	3 (35.5%)
Other	7 (1.2%)	7 (2.1%)	7 (1.6%)

Student interest was significantly higher than event provision at: <sup>H</sup>  $p < 0.05$ , <sup>HH</sup>  $p < 0.01$

Student interest was significantly lower than event provision at: <sup>L</sup>  $p < 0.05$ , <sup>LL</sup>  $p < 0.01$

### *Sexual health topics*

Out of 30 listed topics, 15 showed a statistically significant difference between LGBTI group selection and the topics currently featuring in university sexual health events (Table 5.17). In ten of these topics LGBTI group demand was significantly higher than event supply. These topics include gay, lesbian and bisexuality issues (ranked 1<sup>st</sup>,  $\chi^2 (1, N = 145) = 7.24, p = .007$ ), transgender and intersex issues (ranked equal 4<sup>th</sup>,  $\chi^2 (1, N = 145) = 6.42, p = .011$ ) and pleasure (ranked equal 6<sup>th</sup>,  $\chi^2 (1, N = 145) = 10.45, p = .001$ ). The top three topics for LGBTI respondents were gay, lesbian and bisexuality issues (74.7%), sexual harassment and sexual assault prevention (51.8%) and consent (49.4%).

For the heterosexual cisgender group, 19 topics showed a statistically significant difference between heterosexual cisgender group selection and the topics currently featuring in university sexual health events. In ten of these topics heterosexual cisgender demand was significantly higher than event supply. These topics include women's health (ranked 1<sup>st</sup>,  $\chi^2$



(1, N = 481) = 4.03, p = .045), pleasure (4<sup>th</sup>,  $\chi^2$  (1, N = 481) = 9.00, p = .003) and men's health (6<sup>th</sup>,  $\chi^2$  (1, N = 481) = 4.14, p = .042). The top three topics for heterosexual cisgender respondents were women's health (45.8%), respectful relationships (44.4%) and sexual harassment and sexual assault prevention (41.3%).

Table 5.17 – Topic preferences by response frequency rank and percentage of respondents for LGBTI and heterosexual groups compared with events run

Topic	LGBTI rank and (%) n = 83	Heterosexual rank and (%) n = 419	Event rank and (%) n = 62
Gay, lesbian and bisexuality issues	1 (74.7%) <sup>HH</sup>	25 (18.6%) <sup>LL</sup>	6 (53.2%)
Sexual harassment and sexual assault prevention	2 (51.8%)	3 (41.3%)	6 (53.2%)
Consent	3 (49.4%) <sup>LL</sup>	9 (35.3%) <sup>LL</sup>	3 (71.0%)
Transgender and intersex issues	4 (48.2%) <sup>H</sup>	26 (17.7%)	16 (27.4%)
Women's health issues (e.g. cervical cancer)	4 (48.2%)	1 (45.8%) <sup>H</sup>	14 (32.3%)
Different cultural expectations about sex	6 (47.0%) <sup>HH</sup>	7 (37.0%) <sup>HH</sup>	21 (19.4%)
Pleasure	6 (47.0%) <sup>HH</sup>	4 (40.8%) <sup>HH</sup>	20 (21.0%)
Safe sex	6 (47.0%) <sup>LL</sup>	5 (40.6%) <sup>LL</sup>	1 (79.0%)
Respectful relationships	9 (45.8%) <sup>L</sup>	2 (44.4%) <sup>LL</sup>	4 (62.9%)
Who to contact for sexual health support	10 (44.6%)	10 (35.1%) <sup>LL</sup>	5 (58.1%)
Abortion	11 (42.2%) <sup>HH</sup>	14 (31.5%) <sup>HH</sup>	24 (9.7%)
Domestic violence prevention	12 (41.0%)	12 (34.1%)	15 (29.0%)
HIV/AIDS	13 (38.6%)	20 (24.6%) <sup>LL</sup>	10 (40.3%)
Pornography	14 (36.1%) <sup>HH</sup>	23 (22.2%) <sup>HH</sup>	28 (4.8%)
STI impacts/symptoms	14 (36.1%)	13 (33.7%)	9 (41.9%)
Men's health issues (e.g. testicular cancer)	16 (33.7%)	6 (37.5%) <sup>H</sup>	19 (24.2%)
STI testing	16 (33.7%)	15 (31.3%)	11 (38.7%)
Emergency contraception (e.g. the morning after pill)	18 (32.5%)	7 (37.0%)	17 (25.8%)
Sex work	18 (32.5%) <sup>HH</sup>	27 (16.7%)	25 (8.1%)
Alcohol and sex	20 (31.3%) <sup>L</sup>	16 (29.8%) <sup>LL</sup>	8 (48.4%)
Alternative barrier methods (e.g. dams, female condoms)	20 (31.3%)	22 (22.9%) <sup>L</sup>	12 (37.1%)
Long acting reversible contraception (e.g. implanon, IUDs)	20 (31.3%) <sup>H</sup>	17 (27.9%) <sup>H</sup>	22 (16.1%)
STI statistics	23 (30.1%)	18 (26.5%)	13 (35.5%)
The pill	24 (28.9%)	10 (35.1%)	17 (25.8%)
Dating and hook up apps/websites (e.g. Tinder and Grindr)	25 (26.5%) <sup>HH</sup>	24 (21.5%) <sup>HH</sup>	27 (6.5%)
Anatomy	26 (24.1%) <sup>HH</sup>	28 (14.6%) <sup>H</sup>	28 (4.8%)
Sexting and digital privacy	26 (24.1%)	19 (25.8%) <sup>H</sup>	23 (12.9%)
Condoms	28 (18.1%) <sup>LL</sup>	21 (23.4%) <sup>LL</sup>	2 (77.4%)
Abstinence	29 (12.0%)	29 (11.7%)	25 (8.1%)
Other	30 (3.6%)	30 (2.1%)	30 (0.0%)

Student interest was significantly higher than event provision at: <sup>H</sup> p < 0.05, <sup>HH</sup> p < 0.01

Student interest was significantly lower than event provision at: <sup>L</sup> p < 0.05, <sup>LL</sup> p < 0.01

### *Incentives and motivating factors to attend*

LGBTI and heterosexual cisgender group members shared the same ordering of preferred incentives. The most frequently chosen incentive was free food (51.8% and 53.2% respectively), followed by combination with a social event (45.8% and 43.2%) and free alcohol (37.3% and 33.9%) (Table 5.18). Free alcohol was the only statistically significant difference when comparing LGBTI ( $\chi^2 (1, N = 145) = 9.26, p = .002$ ) and heterosexual cisgender ( $\chi^2 (1, N = 481) = 9.41, p = .002$ ) demand with event supply. Alcohol was the least likely type of incentive to be provided at existing university sexual health promotion events.

**Table 5.18 – Incentive preferences by response frequency rank and percentage of respondents for LGBTI and heterosexual groups compared with events run**

Incentive	LGBTI rank and (%) n = 83	Heterosexual rank and (%) n = 419	Event rank and (%) n = 62
Free food and/or non-alcoholic drinks	1 (51.8%)	1 (53.2%)	1 (66.1%)
Combined with social activity (e.g. party, movie night)	2 (45.8%)	2 (43.2%)	2 (45.2%)
Free alcohol	3 (37.3%) <sup>HH</sup>	3 (33.9%) <sup>HH</sup>	4 (14.5%)
Other	4 (2.4%)	4 (6.0%)	3 (19.4%)

Student interest was significantly higher than event provision at: <sup>H</sup>p < 0.05, <sup>HH</sup>p < 0.01

Student interest was significantly lower than event provision at: <sup>L</sup>p < 0.05, <sup>LL</sup>p < 0.01

The most commonly chosen motivating factor for LGBTI and heterosexual cisgender groups was ‘knowing a friend who was going’ (Table 5.19). While this was the same for both groups, there was also a significant difference in the degree of selection ( $\chi^2 (1, N = 502) = 10.28, p < .001$ ) with 75.9% of LGBTI respondents selecting this option compared to 57.0% of heterosexual cisgender respondents. The only other significant difference ( $\chi^2 (1, N = 502) = 82.26, p < .001$ ) between the two groups was ‘relevant to my sexual orientation’, chosen by 61.4% of LGBTI respondents (2<sup>nd</sup>) and 15.5% of heterosexual cisgender respondents (10<sup>th</sup>). The second most common response among heterosexual cisgender respondents was free food and non-alcoholic drinks at 53.2%.

Table 5.19 - Motivating factors to attend by response frequency rank and percentage of respondents for LGBTI and heterosexual groups

Motivation	LGBTI rank and (%) n = 83	Heterosexual rank and (%) n = 419
Knowing a friend who was going	1 (75.9%) **	1 (57.0%)
Relevant to my sexual orientation	2 (61.4%) **	10 (15.5%)
Free food and/or non-alcoholic drinks	3 (51.8%)	2 (53.2%)
Combined with social activity (e.g. party, movie night)	4 (45.8%)	3 (43.2%)
Free sexual health testing	5 (39.8%)	4 (36.8%)
Free giveaways/prizes	6 (37.3%)	7 (29.4%)
Free safe sex supplies	6 (37.3%)	6 (31.5%)
Free alcohol	6 (37.3%)	5 (33.9%)
The opportunity to meet new people	9 (24.1%)	8 (21.7%)
Games	10 (21.7%)	9 (16.7%)
Sensitive to my culture	11 (15.7%)	11 (9.8%)
Presented in my first language (if other than English)	12 (2.4%)	13 (4.1%)
Other	13 (2.4%)	12 (6.0%)

Significantly higher than the other group at: \*p < 0.05, \*\*p < 0.01

## 5.5 Male versus female comparisons

Of the 502 complete responses to the Student Survey, 297 respondents identified as female and 201 identified as male. As only four respondents selected 'other' in terms of gender, statistical analysis for this group was not possible. As such for this section only 498 responses were considered for analysis.

### *Sexual experience*

In the Student Survey 26.9% of male respondents had had sexual intercourse with two or more partners or oral sex with two or more partners in the past year and were classed as higher-risk. Amongst females this proportion was slightly lower at 20.2%, however this difference was not statistically significant.

### *Testing*

Ever having had a sexual health test was more common among females (62.4%) than males (43.8%). This difference was statistically significant ( $\chi^2$  (2, N = 498) = 12.60, p = .002). This pattern continued when looking only at tests occurring in the past twelve months, with 30.5% of females tested compared to only 22.6% of males. Again, this difference was statistically significant ( $\chi^2$  (2, N = 498) = 13.80, p = .003).

When analysing why students had not been tested the three most commonly selected responses were shared between the two groups. Among females who had never been tested the most common reason why was 'I haven't had many sexual partners' (68.4%) followed by 'my behaviours aren't risky' (57.0%) and 'I always use protection' (31.6%) (Table 5.20). For males who had never been tested, the most common reason was 'my behaviours aren't risky' (64.6%), followed by 'I haven't had many sexual partners' (54.9%) and 'I always use protection' (31.7%). 'I can't afford it' was the only reason where responses were significantly different with more females than males selecting this option ( $\chi^2$  (1, N = 161) = 3.93, p = .047).

Table 5.20 - Reasons for having never received a sexual health test by response frequency rank and percentage of respondents by gender

Reason	Female rank and (%) n = 210	Male rank and (%) n = 146
I haven't had many sexual partners	1 (68.4%)	2 (54.9%)
My behaviours aren't risky	2 (57.0%)	1 (64.6%)
I always use protection	3 (31.6%)	3 (31.7%)
It's embarrassing	4 (26.6%)	5 (19.5%)
Other	5 (16.5%)	7 (11.0%)
I don't know where to get tested	6 (15.2%)	4 (22.0%)
I don't have the time	7 (11.4%)	6 (15.9%)
I can't afford it	8 (7.6%) *	11 (1.2%)
I haven't had sex	9 (6.3%)	8 (4.9%)
I'm afraid of doctors	9 (6.3%)	10 (3.7%)
It's far away / difficult to get to	11 (3.8%)	8 (4.9%)

Significantly higher than the other group at: \*p < 0.05, \*\*p < 0.01

### *Previous sexual health learning experiences*

Amongst females 86.9% (n = 258) of respondents had received sex education in their high school, compared to 84.1% (n = 169) of males (Figure 5.4). Of those who had received sex education, 41.1% of females said it was relevant or very relevant, compared to 43.8% of males.

Females (11.8%) and males (9.0%) were less likely to have attended a university sexual health promotion than to have attended high school sex education. Of those who had attended a sexual health promotion event at university, 68.6% of females said it was relevant or very relevant, compared to 66.7% of males.

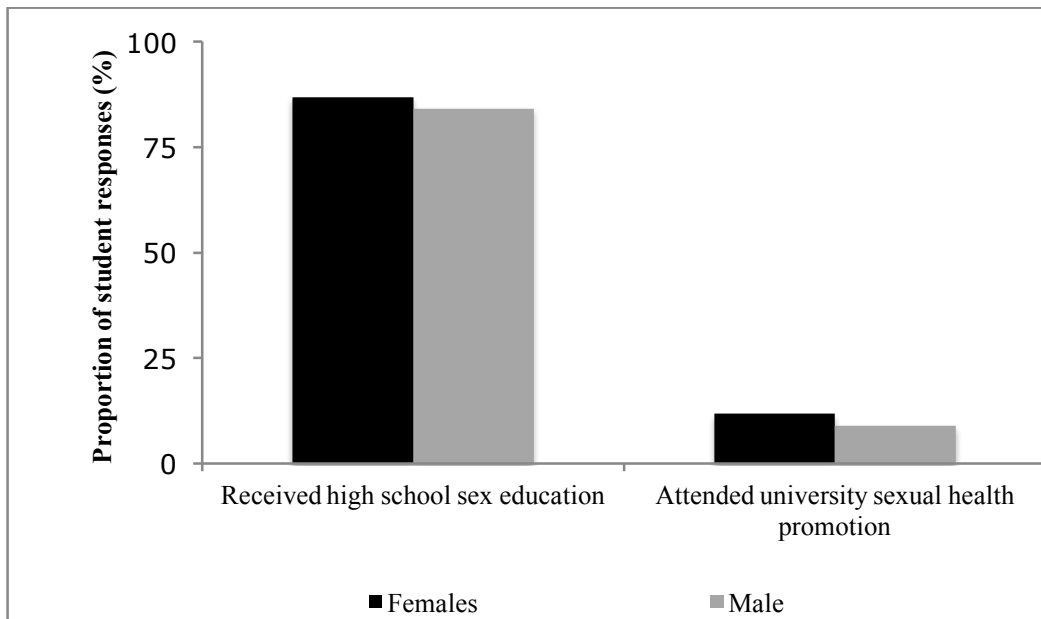


Figure 5.4 - Comparison of previous sexual health learning experiences by gender (n=498)

Those respondents who had not attended any university sexual health promotions were asked to select all the factors that most discouraged them from attending. The top three reasons were the same amongst both females and males (Table 5.21). The most commonly selected responses were 'I haven't seen any advertised' (49.2% and 39.9% respectively), 'I already know enough about sexual health' (37.4% and 37.2%) and 'my behaviours aren't risky' (30.5% and 36.6%). The only comparison between male and female groups to yield a statistically significant difference was 'I always use protection' which was more frequently selected by males ( $\chi^2 (1, N = 445) = 4.52, p = .034$ ).

Table 5.21 – Reasons for having never attended university sexual health promotions by response frequency rank and percentage of respondents by gender

Reason	Female rank and (%) n = 262	Male rank and (%) n = 183
I haven't seen any advertised	1 (49.2%)	1 (39.9%)
I already know enough about sexual health	2 (37.4%)	2 (37.2%)
My behaviours aren't risky	3 (30.5%)	3 (36.6%)
It's embarrassing	4 (30.2%)	5 (23.5%)
I don't have the time	5 (29.4%)	4 (31.7%)
I haven't had sex	6 (26.7%)	5 (23.5%)
I haven't had many sexual partners	7 (16.8%)	7 (21.9%)
It would be boring	8 (14.1%)	8 (18.6%)
I always use protection	9 (8.8%)	9 (15.3%)*
Other	10 (8.0%)	11 (3.3%)
They are far away / difficult to get to	11 (7.6%)	10 (5.5%)

Significantly higher than the other group at: \*p < 0.05, \*\*p < 0.01

### *Sexual health promotion preferences and provision*

Female and male rankings for event types aligned exactly across the six options presented (Table 5.22). The two most frequently chosen events were a social event with a sexual health message (48.1% and 40.8% respectively) and guest speakers (45.8% and 36.3%). These were also the most frequently reported types of events held in the Promotion Survey. However at third preference, male and female responses diverged from the events provided. Sexual health testing was the third most frequently chosen option for both female and male respondents, however it was the least likely event to take place out of the options given, being run in only 6.5% of the Promotion Survey event responses.

In both female ( $\chi^2 (1, N = 359) = 22.92, p < .001$ ) and male ( $\chi^2 (1, N = 263) = 17.87, p < .001$ ) groups the demand for sexual health testing was significantly higher than the supply of these events as reported in the Promotion Survey. This was also the case for relevant movie options, for both females ( $\chi^2 (1, N = 359) = 13.04, p < .001$ ) and males ( $\chi^2 (1, N = 263) = 9.63, p = .002$ ).



Table 5.22 – Event preferences by response frequency rank and percentage of respondents for female and male groups compared with events run

Event type	Female rank and (%) n = 297	Male rank and (%) n = 201	Event rank and (%) n = 62
Social event with a sexual health message	1 (48.1%) <sup>LL</sup>	1 (40.8%) <sup>LL</sup>	1 (72.6%)
Guest speaker	2 (45.8%)	2 (36.3%) <sup>LL</sup>	2 (56.5%)
Sexual health testing	3 (37.7%) <sup>HH</sup>	3 (33.8%) <sup>HH</sup>	6 (6.5%)
Relevant movie	4 (30.3%) <sup>HH</sup>	4 (26.9%) <sup>HH</sup>	5 (8.1%)
Question & answer panel	5 (29.0%)	5 (19.4%) <sup>LL</sup>	3 (35.5%)
Workshop	6 (18.5%) <sup>LL</sup>	6 (16.9%) <sup>LL</sup>	3 (35.5%)
Other	7 (2.7%)	7 (1.0%)	7 (1.6%)

Student interest was significantly higher than event provision at: <sup>H</sup> p < 0.05, <sup>HH</sup> p < 0.01

Student interest was significantly lower than event provision at: <sup>L</sup> p < 0.05, <sup>LL</sup> p < 0.01

### *Sexual health topics*

Out of 30 listed topics, 20 showed a statistically significant difference between female selection and the topics currently featuring in university sexual health events (Table 5.23). In twelve of these topics female demand was significantly higher than event supply. These topics include women’s health (ranked 1<sup>st</sup>,  $\chi^2(1, N = 359) = 22.77, p < .001$ ), pleasure (4<sup>th</sup>,  $\chi^2(1, N = 359) = 15.07, p < .001$ ) and different cultural expectations around sex (5<sup>th</sup>,  $\chi^2(1, N = 359) = 13.44, p < .001$ ). The top three topics for females were women’s health (65.0%), sexual harassment and sexual assault prevention (51.5%) and respectful relationships (50.8%).

Table 5.23 – Topic preferences by response frequency rank and percentage of respondents for female and male groups compared with events run

Topic	Female rank and (%) n = 297	Male rank and (%) n = 201	Event rank and (%) n = 62
Women's health issues (e.g. cervical cancer)	1 (65.0%) <sup>HH</sup>	23 (18.9%) <sup>L</sup>	14 (32.3%)
Sexual harassment and sexual assault prevention	2 (51.5%)	8 (29.9%) <sup>LL</sup>	6 (53.2%)
Respectful relationships	3 (50.8%)	3 (34.8%) <sup>LL</sup>	4 (62.9%)
Pleasure	4 (47.8%) <sup>HH</sup>	4 (32.3%)	20 (21.0%)
Different cultural expectations about sex	5 (44.4%) <sup>HH</sup>	9 (29.4%)	21 (19.4%)
Safe sex	6 (43.4%) <sup>LL</sup>	2 (38.3%) <sup>LL</sup>	1 (79.0%)
Emergency contraception (e.g. the morning after pill)	7 (42.4%) <sup>H</sup>	12 (27.4%)	17 (25.8%)
Who to contact for sexual health support	7 (42.4%) <sup>L</sup>	12 (27.4%) <sup>LL</sup>	5 (58.1%)
Domestic violence prevention	9 (42.1%)	16 (24.9%)	15 (29.0%)
Consent	10 (41.8%) <sup>LL</sup>	6 (31.3%) <sup>LL</sup>	3 (71.0%)
The pill	11 (40.7%) <sup>H</sup>	18 (23.9%)	17 (25.8%)
Abortion	12 (39.4%) <sup>HH</sup>	19 (23.4%) <sup>H</sup>	24 (9.7%)
Long acting reversible contraception (e.g. implanon, IUDs)	13 (36.0%) <sup>HH</sup>	24 (17.4%)	22 (16.1%)
STI impacts/symptoms	14 (35.4%)	4 (32.3%)	9 (41.9%)
STI testing	15 (34.0%)	11 (28.4%)	11 (38.7%)
Gay, lesbian and bisexuality issues	16 (31.3%) <sup>LL</sup>	21 (21.4%) <sup>LL</sup>	6 (53.2%)
Alternative barrier methods (e.g. dams, female condoms)	17 (29.6%)	25 (14.9%) <sup>LL</sup>	12 (37.1%)
Alcohol and sex	18 (29.3%) <sup>LL</sup>	7 (30.8%) <sup>L</sup>	8 (48.4%)
Transgender and intersex issues	19 (28.6%)	28 (12.4%) <sup>LL</sup>	16 (27.4%)
HIV/AIDS	20 (27.3%) <sup>L</sup>	15 (25.9%) <sup>L</sup>	10 (40.3%)
Sexting and digital privacy	20 (27.3%) <sup>H</sup>	19 (23.4%)	23 (12.9%)
Men's health issues (e.g. testicular cancer)	22 (26.3%)	1 (53.2%) <sup>HH</sup>	19 (24.2%)
STI statistics	23 (25.9%)	9 (29.4%)	13 (35.5%)
Dating and hook up apps/websites (e.g. Tinder and Grindr)	24 (23.2%) <sup>HH</sup>	22 (20.4%) <sup>H</sup>	27 (6.5%)
Pornography	24 (23.2%) <sup>HH</sup>	16 (24.9%) <sup>HH</sup>	28 (4.8%)
Sex work	26 (21.9%) <sup>H</sup>	25 (14.9%)	25 (8.1%)
Condoms	27 (19.5%) <sup>LL</sup>	14 (26.9%) <sup>LL</sup>	2 (77.4%)
Anatomy	28 (17.8%) <sup>H</sup>	27 (12.9%)	28 (4.8%)
Abstinence	29 (11.8%)	29 (11.4%)	25 (8.1%)
Other	30 (3.0%)	30 (1.5%)	30 (0.0%)

Student interest was significantly higher than event provision at: <sup>H</sup> p < 0.05, <sup>HH</sup> p < 0.01

Student interest was significantly lower than event provision at: <sup>L</sup> p < 0.05, <sup>LL</sup> p < 0.01

For the males, 16 topics showed a statistically significant difference between male group selection and the topics currently featuring in university sexual health events. In four of these topics male demand was significantly higher than event supply. These topics include men's health (ranked 1<sup>st</sup>,  $\chi^2$  (1, N = 263) = 16.07,  $p < .001$ ), pornography (16<sup>th</sup>,  $\chi^2$  (1, N = 263) = 11.82,  $p < .001$ ) and abortion (19<sup>th</sup>,  $\chi^2$  (1, N = 263) = 5.53,  $p = .019$ ). The top three topics for males were men's health (53.2%), safe sex (38.3%) and respectful relationships (34.8%).

### *Incentives and motivating factors to attend*

Female and male respondents shared the same ordering of preferred incentives (Table 5.24). The most frequently chosen incentive was free food (57.6% and 45.8% respectively), followed by combination with a social event (46.1% and 39.8%) and free alcohol (33.0% and 36.8%). Free alcohol was the only statistically significant difference where female ( $\chi^2$  (1, N = 359) = 8.37,  $p = .004$ ) and male ( $\chi^2$  (1, N = 263) = 10.91,  $p < .001$ ) demand was higher than event supply. Alcohol was the least likely type of incentive to be provided at existing university sexual health promotion events.

**Table 5.24 – Incentive preferences by response frequency rank and percentage of respondents for female and male groups compared with events run**

	Female rank and (%) n = 297	Male rank and (%) n = 201	Event rank and (%) n = 62
Free food and/or non-alcoholic drinks	1 (57.6%)	1 (45.8%) <sup>LL</sup>	1 (66.1%)
Combined with social activity (e.g. party, movie night)	2 (46.1%)	2 (39.8%)	2 (45.2%)
Free alcohol	3 (33.0%) <sup>HH</sup>	3 (36.8%) <sup>HH</sup>	4 (14.5%)
Other	4 (6.4%)	4 (4.0%)	3 (19.4%)

Student interest was significantly higher than event provision at: <sup>H</sup>  $p < 0.05$ , <sup>HH</sup>  $p < 0.01$

Student interest was significantly lower than event provision at: <sup>L</sup>  $p < 0.05$ , <sup>LL</sup>  $p < 0.01$

The main motivating factors for the female and male groups were similar, with the presence of friends, food and social activity the top three motivators for both (Table 5.25). However despite this similarity in terms of rankings, four motivations were significantly different

between males and females. These topics were 'knowing a friend who was going' ( $\chi^2$  (1, N = 498) = 6.12,  $p = .013$ ), 'free food and/or non-alcoholic drinks' ( $\chi^2$  (1, N = 498) = 6.70,  $p = .010$ ), 'free giveaways/prizes' ( $\chi^2$  (1, N = 498) = 8.10,  $p = .004$ ) and 'sensitive to my culture' ( $\chi^2$  (1, N = 498) = 6.18,  $p = .013$ ). In all cases where the results were significantly different, females were more likely than males to select the option. 'Free giveaways/prizes' was the factor with the greatest difference between groups, ranking 5<sup>th</sup> for females (35.4%) and 8<sup>th</sup> for males (23.4%).

**Table 5.25 – Motivating factors to attend events by response frequency rank and percentage of respondents for female and male groups**

Motivation	Female rank and (%) n = 297	Male rank and (%) n = 201
Knowing a friend who was going	1 (64.3%) *	1 (53.2%)
Free food and/or non-alcoholic drinks	2 (57.6%) **	2 (45.8%)
Combined with social activity (e.g. party, movie night)	3 (46.1%)	3 (39.8%)
Free sexual health testing	4 (40.7%)	5 (32.3%)
Free giveaways/prizes	5 (35.4%) **	8 (23.4%)
Free alcohol	6 (33.0%)	4 (36.8%)
Free safe sex supplies	7 (32.7%)	5 (32.3%)
Relevant to my sexual orientation	8 (22.6%)	9 (22.9%)
The opportunity to meet new people	9 (19.2%)	7 (26.4%)
Games	10 (17.8%)	10 (16.9%)
Sensitive to my culture	11 (13.5%) *	11 (6.5%)
Other	12 (6.4%)	13 (4.0%)
Presented in my first language (if other than English)	13 (3.4%)	12 (4.5%)

Significantly higher than the other group at: \* $p < 0.05$ , \*\* $p < 0.01$

## 5.6 Chapter summary

This chapter used data from the Student and Promotion Surveys to show how different groups of students could be better reached by sexual health promotions. Key points of interest are listed below.

### Higher versus lower risk comparisons

- There was no significant difference in reporting 'I haven't had many sexual partners' as a reason why respondents hadn't been tested, despite the higher-risk group being defined on their higher number of partners.
- The higher-risk respondents were significantly more likely to attend university promotions, however still less than a quarter of this group had done so.
- Sexual health testing was the second preference of the higher-risk group but it was the least likely type of event to happen.
- Free alcohol was the top incentive for higher-risk respondents.
- Higher-risk respondents were significantly more likely to be motivated to attend events by social factors, testing and safe sex supplies

### International versus domestic comparisons

- Embarrassment was one of the top three reasons why international students had not been tested.
- International students were significantly less likely to have received sex education at high school, and were less likely to find university events relevant.
- The preferred event types of international students (sexual health testing and relevant movies) were the least likely to take place.
- Domestic students were significantly more likely to want alcohol as an incentive.
- International students were more likely to select 'sensitive to my culture' as a motivating factor to attend an event.

### LGBTI versus heterosexual cisgender comparisons

- LGBTI respondents were more likely to have had sex education and to attend sexual health promotion events at university, but were significantly less likely to have found them relevant.
- LGBTI respondents listed embarrassment as the third most common reason for not attending university sexual health promotion events.
- LGBTI respondents wanted more LGBTI tailored content.
- 'Knowing a friend who was going' was significantly more likely to be reported as a motivation to attend events by LGBTI respondents even though it was the top rank for both groups.

### Female versus male comparisons

- Males were significantly less likely to have been tested (both ever and recently).
- Females and males were largely similar in terms of previous sexual health learning experiences and preferences for future events.
- Wanting to know more about 'pleasure' as a topic was highly gendered: demand was significantly greater than supply for women, but not for men.
- 'Knowing a friend who was going' and free food were more important for women than men (though still ranked first and second for both).

### Common features across all groups

- The majority of students have never attended a sexual health promotion at university.
- 'My behaviours aren't risky' and 'I haven't had many sexual partners' were the two most common reasons given by those who hadn't been tested.
- The demand for sexual health testing and relevant movies was significantly higher than current supply.
- 'Knowing a friend who was going' was the most commonly selected motivation to attend events.

## Chapter 6: Results – The Sexy Trivia trial

This chapter presents results from the Sexy Trivia trial, whose method is described in section 3.4.3. Sexy Trivia was designed to be a fun and interactive way to learn about sexual health messages, taking into account the key findings and implications from the surveys and interviews reported in sections 4.5 and 5.6. In the form of a peer-led trivia night, this program aimed to appeal to an audience beyond those already interested in sexual health by focusing on the social aspect first and foremost. This event was compared with a Sexual Health Talk from Sexual Health and Family Planning ACT (as described in section 3.4.3.2) on a number of measures of success that were identified by peer educators and professional sexual health workers in section 4.4.2: reaching people, transferring knowledge, and changing attitudes and behaviours. To compare these events participants from two organisations within a single university were randomly allocated to attend either the Sexual Health Talk or Sexy Trivia and then completed anonymous surveys about their experience. In addition, the two peer educators who ran a Sexy Trivia event within their university groups were interviewed about the event and their role. Pseudonyms are used throughout these results to protect the identity of participants.

### 6.1 Demographic information

Overall, the demographic composition of the two sessions was similar apart from gender composition. There were no significant differences found between the two groups in terms of age, sexual orientation or nationality. The Sexual Health Talk had an average participant age of 19.7 and Sexy Trivia had an average of 19.2 years (Table 6.1). Both the Sexual Health Talk and Sexy Trivia were predominantly heterosexual (67% and 71% respectively), but with high proportions of bisexual (24% and 15%) and homosexual (9% and 12%) respondents. Participants were also mainly domestic students, comprising 83% of the Sexual Health Talk and 79% of Sexy Trivia attendees. However despite random allocation to the different groups there was a significant difference in gender composition of the sessions ( $\chi^2(1, N = 80) = 4.33, p = .037$ ). The Sexual Health Talk was predominantly female (67%), while males made up a slight majority in Sexy Trivia (56%). To account for this imbalance gender was added as a predictor along with session type when calculating

estimated marginal means. No participants identified as 'other' in terms of gender in either session.

Table 6.1 – Demographic information of research participants by session and overall

	Sexual Health Talk n = 46	Sexy Trivia n = 34	Overall n = 80
Average age	19.7	19.2	19.5
Female	67%	44%	58%
Male	33%	56%	43%
Other	0%	0%	0%
Heterosexual	67%	71%	69%
Homosexual	9%	12%	10%
Bisexual	24%	15%	20%
Other	0%	3%	1%
Domestic	83%	79%	81%
International	17%	21%	19%

## 6.2 Reaching people

At both university groups where Sexy Trivia was held, group members were able to attend Sexy Trivia even if they did not wish to take part in the survey. At each Sexy Trivia event the total number of attendees was approximately double the number of survey respondents, resulting in approximately 80 attendees for Sexy Trivia overall. This was seen as a good outcome by peer educators in comparison with previous sexual health related events:

[Turnout] was a lot higher than all of our other events and people were definitely talking about it more.

Ankita, peer educator

However as mentioned in the description of the different measures of success reported by peer educators in section 4.4.2, it is not simply the overall number of people taking part in



a promotion, but whether the promotion is attracting your target audience. One measure of this is whether the event is attended by more sexually active or higher risk students.

In terms of survey respondents' sexual experience, there was no significant difference between sessions (Table 6.2). In both the Sexual Health Talk and Sexy Trivia, 74% of participants reported ever having vaginal or anal intercourse and 83% reported ever having oral sex or intercourse. The percentage of each group that was classified as higher-risk was also very similar, with 50% of the Sexual Health Talk group having two or more intercourse partners in the previous year and 52% of Sexy Trivia respondents reporting the same. This was considerably higher than the percentage of respondents from the Student Survey (22.7%) despite the Sexual Health Talk and Sexy Trivia respondents only being asked about intercourse partners as opposed to both intercourse and oral sex partners as in the Student Survey.

Having ever had a sexual health test was more common amongst the Sexual Health Talk participants however not significantly so. Of those who had ever had intercourse or oral sex, 47% of Sexual Health Talk respondents reported ever having tested, compared to 36% of Sexy Trivia respondents. Results were similar when looking only at those who had tested in the past 12 months, with 37% of Sexual Health Talk respondents and 25% of Sexy Trivia respondents in this category.

**Table 6.2 – Previous sexual experience of research participants by session**

	Sexual Health Talk n = 46	Sexy Trivia n = 34
Ever had intercourse (vaginal or anal sex)	74%	74%
Ever had oral sex or intercourse	83%	83%
Higher-risk (2+ intercourse partners)	50%	52%
Ever had sexual health test*	47%	36%
Sexual health test *	37%	25%

\* Only calculated for those who had experienced oral sex or intercourse (n = 38 for Sexual Health Talk and n = 28 for Sexy Trivia)

Both peer educators identified first year students in their organisations as an important target audience in the interviews. While participation from later year residents was

welcome, this was seen by one peer educator as more a show of support from friends rather than providing information for those who really needed it:

The [other sexual health] talk at the start of the year we had probably about twenty people come and that was in O-Week. Which was really disappointing... of the twenty people who came, 15 of them were second or third years who were my friends... And there were five first years who really needed to hear the information.

Ankita, peer educator

This information was also relevant as both the sexual health talk mentioned here and the comparison used in the trial were run by the same organisation. Despite a previous, very similar presentation having a much lower number of attendees, the Sexual Health Talk scored only slightly lower than Sexy Trivia in terms of fun. On a scale where 'boring' was 1 and 'fun' was 5, the Sexual Health Talk had an estimated marginal mean of 4.24 (95% CI 3.96 - 4.52) compared to Sexy Trivia's average of 4.29 (95% CI 3.98 - 4.60). In addition, approximately half of the Sexual Health Talk participants who commented on what they enjoyed most about the session discussed positive presenter attributes such as making it fun and engaging.

While both peer educators reported greater turnout from Sexy Trivia than from other sexual health related events, one still discussed encouraging people to attend as one of the most challenging parts of running Sexy Trivia:

I don't think there's anything I would say that I was like "oh that went really badly, could've done that better". Probably the only thing is, if we were to run it again I would love to get even more people involved.

Laura, peer educator

### 6.3 Transferring knowledge

Many participants referred to the knowledge gained from the experience as the aspect of the session they enjoyed most:

I come from QLD, not taught this stuff, was totally unaware.  
Max, Sexual Health Talk

[My favourite part was] learning new things.  
Jess, Sexy Trivia

This was similar between the two sessions, with approximately a third of the respondents of each session referencing either specific information or general knowledge gained as their most enjoyed aspect.

Results were also similar when participants were asked to rate the sessions in terms of interest and usefulness. On a scale where 1 was uninteresting and 5 was interesting Sexy Trivia scored an estimated marginal mean of 4.31 (95% CI 4.02 - 4.59) and the Sexual Health Talk scored 4.34 (95% CI 4.08 - 4.60). And where 1 was useless and 5 was useful Sexy Trivia had an estimated marginal mean of 4.16 (95% CI 3.91 - 4.41) compared to the Sexual Health Talk's score of 4.27 (95% CI 4.04 - 4.50). These differences were not found to be statistically significant. Despite the two sessions not being statistically different overall, there was a significant interaction between gender and session in terms of usefulness ( $P = 0.004$ ). Females were more likely to report the Sexual Health Talk as being more useful, whereas males were more likely to give a higher score for Sexy Trivia (Table 6.3).

Table 6.3 – Estimated marginal means of usefulness by gender and session

	Male	Female
Sexy Trivia	4.32 [3.98, 4.65]	4.00 [3.62, 4.38]
Sexual Health Talk	3.93 [3.56, 4.31]	4.61 [4.35, 4.88]

Brackets show 95% confidence interval.

Sexy Trivia included an opportunity for participants to ask questions anonymously, with responses provided by Siobhan, a professional sexual health promoter. This part of the event was highlighted by one of the peer educators as an effective way to make sure that attendees received accurate replies to their burning questions:

...what else worked well? I think the anonymous questions, having Siobhan there was really helpful... one of the questions [the students] gave was “what are the symptoms of chlamydia in the twenty per cent of cases [that show symptoms]?” That kind of

stuff I would have no idea. I mean I should know but I just have no idea. So it was really helpful to have Siobhan there.  
Ankita, peer educator

## 6.4 Changing attitudes

Whilst reaching people can be seen as a prerequisite to further successes such as changing attitudes, it is by no means sufficient. The peer educators who led the event highlighted this during their interviews, drawing favourable comparisons between Sexy Trivia and previous events that had been less successful as they were only able to appeal to those already interested in sexual health:

We've also run a discussion group, one was on online misogyny after 'Lemonade' came out... we had three people come and one of them was our head of hall [laughs]... So we had two residents come and both are already very engaged in that space.  
Ankita, peer educator

We ran a consent talk early this year... It was a very small event. We tried to get as many people there as possible but because it was a talk— We provided snacks, but that was really the only incentive for people to come. And so the people who turned up were mostly people who already knew a lot about consent.  
Laura, peer educator

If incentives were not appealing or the event itself was not seen as being sufficiently engaging then there was little chance of changing attitudes, as only people already espousing those ideas would be present. However the approach used in Sexy Trivia (increasing the appeal of the event through fun activities and desirable incentives) was not seen as the only option for one peer educator, with the idea of mandatory events a possibility:

...so now what we're trying to implement at [our organisation] is every O-Week and Bush Week you have a mandatory consent talk, that is given at the mandatory first year dinner.  
Laura, peer educator

But despite advocating for a mandatory talk on consent, this peer educator did not believe talks were the most effective means for promoting sexual health in general. This was especially the case with regard to changing people's attitudes about an often stigmatised subject:

...I think what worked really well was setting people up in groups to talk about this stuff together. So I think a talk— You know a talk by someone is great, but getting people to actually interact with each other and talk about things to do with sexual health together helped break down a lot of those barriers of taboo. So I think the whole idea of group trivia worked really well. As well as breaking it up with the fun games in the middle.

Laura, peer educator

While a change in attitude was not directly measurable due to the absence of a pre-test, in feedback from the sessions both the Sexual Health Talk and Sexy Trivia received one comment indicating attitude change:

The speaker made us feel that it is totally cool to talk about things like this!!!!!!

Stacy, Sexual Health Talk

FUN Made sex, safe sex seem fun and interesting

Adam, Sexy Trivia

Respondents also provided data on two relevant topics in the post-event surveys. In addition to a score out of 5 for their personal attitudes towards testing for chlamydia each time they have a new sexual partner, the survey also provided scores for subjective norms or how they think others view testing. Examples of the questions asked to elicit these scores are described in section 3.4.3.3. Estimated marginal means for the attitude scores were similar between the two sessions, with the Sexual Health Talk scoring 4.31 (95% CI 4.12 - 4.50) and Sexy Trivia scoring 4.40 (95% CI 4.19 - 4.61).

Sexy Trivia participants had significantly higher estimated marginal means for combined subjective norm scores than the Sexual Health Talk ( $P = 0.017$ ). Sexy Trivia's estimated marginal mean was 3.46 (95% CI 3.27 - 3.65) compared to the Sexual Health Talk's 3.15 (95% CI 2.98 - 3.32). There was also a significant interaction between gender and session attended ( $P = 0.008$ ). Female scores were very similar between sessions, whereas males who had attended Sexy Trivia reported higher subjective norm scores than those who attended the Sexual Health Talk (Table 6.4).

Table 6.4 – Estimated marginal means of subjective norm scores by gender and session

	Male	Female
Trivia	3.63 [3.38, 3.88]	3.29 [3.01, 3.57]
Talk	2.98 [2.70, 3.26]	3.33 [3.13, 3.52]

Brackets show 95% confidence interval.

## 6.5 Changing behaviours

Two measures relevant to behavioural change were assessed in the survey; perceived behavioural control and behavioural intentions. Perceived behavioural control relates to the level of autonomy participants feel they have over whether they complete the target action, in this case, testing for chlamydia every time they have a new sexual partner. Behavioural intentions relates to the participant’s desire or intention to test for chlamydia. Estimated marginal means for perceived behavioural control scores were significantly higher for attendees of the Sexual Health Talk ( $P = 0.048$ ). The estimated marginal mean for Sexy Trivia was 4.10 (95% CI 3.90 - 4.30) and for the Sexual Health Talk it was 4.38 (95% CI 4.19 - 4.56).

In terms of behavioural intentions there was no significant difference between the two sessions. Sexy Trivia had an estimated marginal mean of 3.44 (95% CI 3.20 - 3.68) compared to the Sexual Health Talk’s value of 3.51 (95% CI 3.29 - 3.73). While the interaction between gender and session was not statistically significant ( $P = 0.064$ ), males were more likely to report higher behavioural intentions scores if they attended trivia whereas females reported higher scores after attending the Sexual Health Talk (Table 6.5).

Table 6.5 – Estimated marginal means of behavioural intentions scores by gender and session

	Male	Female
Trivia	3.53 [3.21, 3.84]	3.36 [3.00, 3.71]
Talk	3.29 [2.93, 3.65]	3.73 [3.48, 3.98]

Brackets show 95% confidence interval.

## 6.6 Chapter summary

This chapter used a combination of quantitative and qualitative data to compare the efficacy of the Sexy Trivia event with a Sexual Health Talk. These two sessions were compared in terms of the measures of success identified by peer educators and professional sexual health promoters in section 4.4.2. The key points of interest are summarised below:

- Sexy Trivia had higher turn-out than other sexual health promotion events within the same university communities.
- A high proportion (~ 50%) of participants in the research were from the higher risk category.
- There was no significant difference found between the two sessions in terms of fun, usefulness or interest.
- Peer educators identified the need to reach those who are not already passionate about sexual health in order to facilitate attitudinal change.
- One peer educator highlighted the discussion-generating nature of a trivia format as helping to change attitudes within university groups.
- Participants from the Sexual Health Talk had significantly higher perceived behavioural control scores than Sexy Trivia participants.
- Sexy Trivia participants had significantly higher subjective norm scores than the Sexual Health Talk. This was particularly the case for men.





## Chapter 7: Discussion

This chapter discusses the results from the interviews, surveys and the Sexy Trivia trial as presented in the three previous chapters. Using the three research questions that were explained in section 3.3 as the framework, it draws on these results and from the existing literature to determine how sexual health promotion in Australian universities can be improved. The chapter then explores the limitations of the present study and further research opportunities to expand upon the findings of this project. Finally it draws together these discussions to form conclusions for the thesis overall.

### 7.1 Current peer educator sexual health promotion in Australian universities

This research project illuminated the strengths and challenges of providing peer educator led sexual health promotions in an Australian university context. The following sections describe these issues in turn, before suggesting possible avenues to improve these sexual health promotions.

#### 7.1.1 Strengths of a peer educator approach

One of the key strengths of a peer led approach is the access it can provide to a risky target population. While students from lower socio-economic backgrounds are less likely to attend university (Bradley *et al.*, 2008), and lower socio-economic groups are often at risk in terms of sexual health outcomes (Crichton *et al.*, 2015), existing literature and this research project show that university students are still at an elevated risk compared with the general population. Prior Australian research has shown that women who attended post-secondary education are more likely to have ever had a sexually transmissible infection and more likely to have one in the previous year (Grulich *et al.*, 2014b). In addition, the proportion of heterosexual respondents from the Student Survey with two or more partners in the previous year was considerably higher than numbers reported for the general population by Rissel and colleagues (2014). As such it is clear that university students represent a valuable audience for sexual health promotion efforts.

The importance of this access to a higher risk population was demonstrated through this project in a number of ways. Peer educators recognised the benefits of being part of the community that one is trying to communicate with, however there were limits to how broad a community this could be. Some peer educators discussed how their organisation would seek to collaborate with university residences in order to tap into the high level of community. Based on this, the number of peer educators describing lacklustre attendance at their events and the fact that the presence of a friend was the key motivating factor for attendance reported across all groups in the survey, it is clear that simply being a student at the university is not enough to allow peer led events to be effective at encouraging turnout. Using peer educators in groups with higher levels of social bonding will likely be more effective at increasing engagement, in line with previous findings that community and social venues are more effective than public areas in attracting participants for on-site testing (Hengel *et al.*, 2013). The results presented in this thesis also support a growing body of evidence that argues that beyond the negative influences often discussed as peer influence, young people's social bonds can also have healthy or prosocial outcomes (Brechtwald and Prinstein, 2011; van Hoorn *et al.*, 2016).

The use of peer educators is also an important approach to ensure the participation of the target demographic. Looking at the issue from a science communication point of view, this allows the process to be more closely aligned with dialogic or participatory models of engagement as the community is actively contributing to the communication (Burns *et al.*, 2003), rather than receiving a one-way transmission of information as espoused by the deficit model (Bubela *et al.*, 2009). Through peer led events young people can help to shape the world that they live in. This is reflected in the demographics of the peer educators, where, to take one example, homosexual, bisexual and other non-heterosexual sexualities were markedly higher than in the general population (Richters *et al.*, 2014). As members of the LGBTI community are often exposed to different and more complex sexual health issues, such as the higher rates of STIs among gay and bisexual men (Grulich *et al.*, 2014b), as well as additional dangers from homophobic and transphobic abuse (Hillier *et al.*, 2010), it is encouraging to see these groups taking leadership positions to tackle these issues. These findings support previous work which found high levels of activism among trans Australian youth (Jones and Hillier, 2013; Jones *et al.*, 2015).

### 7.1.2 The challenges of a peer educator approach

Peer educators and professionals identified a lack of training as a major challenge in effectively providing sexual health promotion through peer educators. This was no doubt linked to the small proportion of their role that was dedicated to sexual health. While many had a role focused on general health and wellbeing (of which sexual health was one part) or sexuality (which is one component of sexual health), none of the surveyed peer educators had a role based entirely on sexual health. From such a starting point it is unsurprising that peer educators identified gaps in their own understanding of the topic. Of the surveyed peer educators, 17% received no training at all and only a third believed they had received adequate training for the sexual health aspects of this role. Despite this, a larger proportion felt that they were well or very well prepared for the role. While this may seem inconsistent with the level of training provided, it likely reflects the valuable previous experience and background knowledge that individuals driven to participate as peer educators may possess. However not all peer educators share this confidence, with half of respondents feeling less than well prepared.

This lack of training may be a driving factor behind the lack of events tailored to the needs of priority populations within sexual health, such as students from LGBTI and international communities. Tailoring for the LGBTI community showed considerable disparities between its different components. Looking solely at sexuality, 72% of peer educators reported having aspects aimed at lesbian, gay and bisexual students. In comparison, the number tailoring content towards transgender and intersex students was much lower, at 44%. However both these groups were considerably more likely to be targeted in promotions than international students. This is surprising given that international students make up a significant portion of the overall university cohort. Indeed in the Student Survey international students outnumbered LGBTI responses and national figures show that international students represent over a quarter of the total higher education population (Australian Government Department of Education and Training, 2016c). In addition, culturally and linguistically diverse people (representing the majority of international students) are listed alongside men who have sex with men (from the LGBTI community) and youth as priority populations under Australia's most recent Sexually Transmissible Infections Strategy (Australian Government Department of Health, 2014).

From this and the qualitative data from peer educators and professionals in this study, it is clear that international students need to be a focus within sexual health, yet current promotions do not seem tailored to address this demographic. When asked why peer educators had not considered a given demographic, the most common response across all categories was simply that it did not occur to them. Referring specifically to the lack of promotions targeting international students the second most likely answer was that they didn't know enough about the relevant issues. These answers are unsurprising in the context of the very low proportion of student leader roles occupied by international students. Despite making up 25.8% of Australian university student enrolments in 2015 (Australian Government Department of Education and Training, 2016c), less than 6% of student leaders from the Promotion Survey were international students.

The under-representation of international students may stem from structural features of the types of student leader roles these peer educators are undertaking. When looking specifically at international students, the short duration of the role and the need to have been previously involved in the organisation may inhibit those on short term exchange from taking on a role. However it is also likely that racism, whether conscious or unconscious, could be influencing the likelihood of international students gaining the type of leadership positions that would be associated with being a peer educator. In a previous Australian study it was found that resumes submitted under names of non-Anglo-Saxon origin received fewer interview offers, with this effect particularly evident in roles with high levels of customer interaction (Booth *et al.*, 2012). Given the high level of interaction with other students involved in a peer educator role it is possible that international students are missing out on opportunities due to these biases.

In terms of the lack of training, peer educator roles are frequently of short duration, typically lasting a year or less, and as such the potential for, and desirability of, extensive training is greatly reduced compared to professional educators. This is congruent with reviews of peer educator programs focusing on sexual health, where training was generally of short duration (Kim and Free, 2008; Tulli, 2012). In addition, this research has shown that in the university sphere, a lack of understanding of the requirements of peer educator roles on behalf of the parent organisation (as distinct from sexual health focused organisations) may leave students with a lack of direction and appropriate training.

This in turn can have negative impacts on providing timely events and information for the student body. While many event-holding respondents reported having their sexual health promotion in orientation week to set community standards as a new cohort arrived, many other respondents were not able to achieve this. Despite realising the benefits of early events, some peer educators expressed disappointment in how late their events took place, due to a lack of preparation linked to the starting dates of the short term roles. This is especially important as orientation week and the first weeks of university often entail a significant number of social events, elevated levels of alcohol consumption and higher instances of unwanted sex (Kimble *et al.*, 2008). Combined with the higher likelihood of attracting students during less assessment intensive periods, it is likely that earlier events would be more beneficial than those only occurring later in the year.

Another key challenge in providing appropriate sexual health promotion to university students is the heterogeneity of needs. Despite sharing the student identity and a place of learning, university students can have a range of different needs and preferences. One key example of this was seen in discussions on whether mixed gender or single gender sessions were a better approach for university students. Peer educators and professionals identified advantages and drawbacks to either strategy, often related to the nature of the group being targeted. While transgender and intersex students may be excluded from a single sex event, this approach may be the only feasible one if working with international students from cultures where discussing sex is a greater taboo. From this and other examples we can see that there is not going to be one single method or event that can fulfil the needs of every student. As with all health promotions, it is vital to assess the needs of the community of interest and adapt the approach accordingly. Similar to the dialogue method in science communication (Burns *et al.*, 2003), it is only by engaging with these communities and sharing their knowledge and perspectives that we can hope to effect change.

Of course taking the time to engage with a group comes with its own set of challenges and costs. For the peer educators themselves investigating the needs of their organisation may happen on an anecdotal level, but it is unlikely that many students would have the training, time or resources to undergo large scale research on the topic. As such, this PhD has aimed to determine trends across specific groups of interest within universities in order to

facilitate action where it is most needed. These issues are addressed in research question two, with findings discussed in section 7.2 in this chapter.

Similar to the lack of resources and training necessary to evaluate the needs of their organisation, peer educators may also find it difficult to evaluate the success of completed events. Peer educators identified four key elements of success for a sexual health promotion: 1) the number of people reached, 2) transfer of knowledge, 3) attitudes changed and 4) behaviours changed. The transfer of knowledge measure has clear parallels with the deficit model thinking that has historically dominated science communication (Simis *et al.*, 2016). However the inclusion of factors such as attitudinal change indicate that at least some peer educators agree with previous research suggesting that while important, knowledge is not the only determinant of attitudinal change (Sturgis and Allum, 2004). Only one of the measures of success; attendance, could be easily measured by peer educators. This may help to explain the prominence of low attendance as an area of concern for student leaders. In the Promotion Survey, engaging the community or getting people to attend events was the most commonly selected challenge of those listed, chosen by more than half of the respondents. While overcoming the awkwardness and stigma related to sexual health was less commonly reported in the survey, it was clear from interview responses that shame and stigma had a key role to play in determining attendance and success for a sexual health event. The shame related to sex and sexual health prevents that first, easily measureable step of simply turning up, and by doing so greatly restricts the number of people who could have their attitudes or behaviours changed. This has clear links to previous research where interviews with young people showed that even the act of undertaking a chlamydia test (as distinct from testing positive) could risk damaging one's reputation and cause feelings of shame and stigma (Balfe *et al.*, 2010). From the respondents' data, and the available literature, it is likely that amongst the small number of people who do attend sexual health promotion events at universities a high proportion already have positive attitudes and high levels of knowledge about the topic. In this scenario, it is unlikely that events will help to change attitudes or behaviours among those most at risk unless modifications are made to render them more appealing to the target audience.

### 7.1.3 Suggestions for improving university sexual health promotion

Collaboration between student leaders and sexual health organisations has the potential to be an effective means of promoting sexual health for university students. The benefit of complementing formal education with informal learning opportunities for science communication has been previously proposed (Stockmayer *et al.*, 2010), and young Australians have identified learning about some sexual health topics outside of the formal school environment as advantageous (Giordano and Ross, 2012). The majority of current peer educators report collaborating with at least one sexual health related organisation in order to help them achieve their goals, with sexual health and family planning clinics being the most common collaborators. Such collaborations have previously been identified in the literature for their value in training and supporting peer educators (O’Grady *et al.*, 2009; Cupples *et al.*, 2010). From the peer educators’ perspective, these collaborations may assist by providing the required expertise and depth of knowledge to present accurate sexual health information. However the value of these collaborations is not solely reaped by the peer educators. In interviews, sexual health promotion professionals identified their collaboration with student leaders and peer educators as an opportunity to access a priority population, aligning with the common perception in the literature of peer education as being a powerful tool for reaching marginalised groups and discussing sensitive topics (Kim and Free, 2008; Southgate and Aggleton, 2016). Of course the potential of this approach is contingent on many factors, with the financial and staffing requirements of sexual health organisations a key constraint in their ability to deliver quality sexual health programs.

Increased collaboration could take a number of different forms, with training opportunities, event plans and expert advice. Training provided by sexual health professionals could help to address the gaps that many current peer educators identified in their knowledge. However for this to be successful, organisers would have to acknowledge the limitations of such short-lived, and sometimes voluntary roles. Training that requires large amounts of time is unlikely to be practical for either the peer educators or the providing organisation, and the length of training provided has been shown not to correlate with the effectiveness of promotions in previous research (Harden *et al.*, 1999). As such, brief training that focuses on how to refer students to relevant information and services, combined with how to plan and execute successful health promotion events, may be a

useful approach. One way that this could be delivered is through a peer educator guide, as was used in the Sexy Trivia trial method described in section 3.4.3. The positive results from this method, and the finding that nearly all peer educators surveyed reported that such a guide would have been useful for them in their role, indicate promise for the approach of combining a guide with support from professionals.

Another way that sexual health organisations could facilitate peer educators' involvement would be through the provision of planning materials for events. As previously mentioned in section 7.1.2, the large burden of research required to create and evaluate an effective sexual health event is far beyond the role of a peer educator. To ensure uptake, events would have to be easy to organise and not require large outlays in terms of budget or time, aligning with previous recommendations that promotions must be conscious of the resource limitations of peer educators (Harden *et al.*, 1999). Perhaps most importantly, for these events to be successful at attracting an audience that is not already engaged with sexual health issues, they will have to offer something beyond sexual health information. While previous science communication literature has discussed the need for more research into this challenge (Walker, 2012), these areas are equally important for health promotion research in order to create promotions that are appealing to those who need them most. In this thesis, the results indicate that incentives such as food or alcohol or events that include a fun, social element within pre-existing social groups are key factors for attracting university students in general. The following section 7.2 provides evidence as to how this can best be achieved for different groups of university audiences, and section 7.3 evaluates one attempt to specifically target higher risk students.

## 7.2 Reaching different groups of students

Following the recommendation of Harden *et al.* (1999) this thesis examined the preferences and needs of university students from a range of different groups, as young people are not homogenous. Comparisons were drawn in the results sections between the following groups:

- Higher risk and lower risk students
- International and domestic students
- LGBTI and heterosexual cisgender students



- Female and male students

### 7.2.1 The higher-risk group

While the higher-risk group made up only approximately 23% of the student population in this study, they represented nearly 70% of the total number of sexual intercourse partners in the previous year. As people who have multiple sexual partners in a year are more likely to report having had an STI, it is likely that this subgroup would be overrepresented in terms of negative sexual health outcomes (Grulich *et al.*, 2014b) and as such should be a focus for sexual health promotion. Thus far, however, the sexual health promotion needs of this population have not been fully explored in Australia. This thesis represents one of very few such attempts to address this lack of understanding.

Higher-risk respondents who had attended university sexual health promotion events were likely to consider them relevant or very relevant, however the proportion of this group attending sexual health events was low. As many university sexual health promotion events are optional rather than mandatory, this would allow for the possibility of a self-selecting sample already interested in sexual health, similar to the volunteer bias found in sexuality research (Wiederman, 1999). This suggests that the small proportion of higher-risk students currently reached by sexual health promotion events may be mostly those who are already engaged with sexual health issues. To more effectively promote sexual health issues, it is clear that different strategies need to be used in order to reach an audience beyond this highly engaged group.

Lack of advertising was the most commonly selected response as to why higher-risk respondents had not attended a university sexual health promotion. However as the respondents were not asked to rank the options they selected this does not imply that it was the most compelling reason, simply the most common. The next most likely response 'I already know enough about sexual health' suggests the possibility of a feedback loop. If high self-perception of sexual health knowledge makes a student less likely to attend an event, they have little chance of encountering new information to challenge this attitude. This suggests that simply offering the information is not enough. In order to attract those most at risk other elements appealing to the higher-risk group must be provided. While the

use of incentives has already been shown to be effective at increasing participation in sexual health testing (Currie *et al.*, 2010), it is not simply the higher numbers that are important, but the fact that the additional people gained were probably less likely to seek out information and testing on their own.

Higher-risk students were more than twice as likely to have had a sexual health test in the past 12 months when compared with the lower-risk, sexually active students, however over half of the higher-risk group had not been tested within the past year. While this shows considerable room for improvement, it remains comparable with Australian averages with 38.0% of men and 50.0% of women who had multiple partners in the previous year reporting testing in that period (Grulich *et al.*, 2014b). When higher risk respondents who had never been tested were asked what factors influenced their decision, the two most commonly selected responses from the higher-risk group were 'I haven't had many sexual partners' and 'my behaviours aren't risky', despite the group being defined on the risk factor of having more sexual partners. This disconnect between behaviour and risk perception that has also been identified in a number of other studies on sexual health in universities (Downing-Matibag and Geisinger, 2009; Hickey and Cleland, 2013). A risk analysis perspective suggests this perception will be hard to overcome, as in general people base risk judgments on what they feel, not just what they think (Slovic *et al.*, 2004). Activities marked by a positive emotion or affect are more likely to be deemed less risky and more beneficial, with factors such as sexual desire producing exceptionally powerful emotions (Slovic *et al.*, 2004). This indicates that trying to encourage testing by talking about the negative outcomes for higher-risk groups will likely be hampered by a low self-perception of risk. Instead, destigmatising testing and framing it as a proactive and responsible choice for all sexually active young people may be a more effective approach to increase participation.

For both higher-risk and lower-risk groups a social event with a sexual health message was the most preferred event, matching current sexual health promotion activities as reported by the Promotion Survey respondents. However despite sexual health testing placing a close second in terms of higher-risk group ranking it was the least likely type of event to be currently taking place in universities. Given the reported willingness of Australian university students to increase testing (MacPhail *et al.*, 2017) and success of previous

university trials of programs that combined sexual health screening with a modest incentive (Currie *et al.*, 2010), this suggests the possibility of effective expansion in this area.

Of all the suggested incentives, free alcohol was the least likely option to be present at university sexual health events, despite alcohol being the most selected tangible incentive for higher-risk students. While university groups may hesitate to use alcohol due to concurrent aims to reduce binge drinking or the relatively higher cost, the provision of refreshments has already been used as an incentive for participation in successful on-site STI testing programs in settings such as football clubs (Gold *et al.*, 2007). While more attractive incentives such as alcohol or money may be more expensive to provide, the increased uptake of testing can make it the more economical option once labour costs are included (Currie *et al.*, 2010).

Social factors were another key motivator for encouraging higher-risk respondents to attend promotions, as shown by the high rankings of 'knowing a friend who was going' and 'combined with social activity'. This is congruent with previous research which found that a student's social support can play a defining role in determining important choices such as whether to drop out of university (Wilcox *et al.*, 2005). This further suggests that focusing on campus groups with pre-existing social ties will be an effective means of maximising attendance at sexual health promotion events.

Pleasure, emergency contraception and abortion were topics where interest from the higher-risk group was significantly greater than coverage by existing events. The high ranking of pleasure on this list may reflect a widespread lack of discussion in existing sex education, with fewer than 7% of young Australian women having learnt about it at school (The Equality Rights Alliance's Young Women's Advisory Group (YWAG), 2015). As pleasure was the most frequently selected topic that young Australians reported preferring to learn outside of school (Giordano and Ross, 2012), socially oriented sexual health events at university may provide a good platform for this information. Aside from encouraging "the possibility of having pleasurable and safe sexual experiences" (World Health Organisation, 2006) as per the World Health Organisation's definition of sexual health, such an addition may help to attract audiences who would not otherwise attend.

### 7.2.2 International students

International students were found to be significantly less likely to have tested for STIs when compared to their domestic counterparts. This difference in testing may reflect higher levels of stigma surrounding sexual health in their home culture as well as lower levels of risk taking behaviour, as suggested in previous literature (Rosenthal *et al.*, 2008; Newton *et al.*, 2013; Botfield *et al.*, 2015). While embarrassment was listed by only one in five domestic students as a reason to not have been tested, over one third of international students selected this option. In the survey the proportion of international students who were classified as higher-risk was less than half that of domestic students. This does not, however, mean that international students are not in need of sexual health information, simply that their needs are substantially different from those of domestic students.

Highlighting the contrast between these two groups is the large divide between those who received sex education in their high school and those who did not. While the overwhelming majority of domestic students reported receiving sex education, over 40% of international students missed out on this information. These results are congruent with existing data that shows China and India as the two main sources of international students in Australia, representing 38% of Australia's non-domestic higher education students in 2015 (Australian Government Department of Education and Training, 2016a). As neither China nor India have comprehensive sexuality education that reflects international standards and programs are either not implemented or optional (UNESCO, 2015), it is likely that these two countries are major influences behind the lack of sexuality education amongst international students in Australia. While there will be considerable variation in previous sexual health learning experiences based on country of origin, the data shows that overall domestic and international students will enter university with drastically different understandings of sexual health issues.

This fundamental difference in previous sexual health learning experiences is likely to have played a major role in the determining the preferred topics for international students at university events. While safe sex and HIV/AIDS were among the most commonly selected topics for international students, they were rarely chosen by domestic students, ranking 12<sup>th</sup> and 23<sup>rd</sup> out of the 29 topics listed. In this regard, current university sexual health

promotions are better aligned with international student needs than those of domestic students, with a high focus on safe sex. However the lower rankings of topics such as safe sex by domestic students do not necessarily indicate that they believe this information to be useless. Given the historical origins of Australian sex education as focusing on how to prevent the transmission of HIV (Weaver *et al.*, 2005), it is unsurprising that domestic respondents instead chose to highlight areas less likely to have been already covered through their previous formal sex education. Meanwhile, for those who have had less opportunity to learn about these topics, and for whose home countries the burden of HIV may be significantly higher than in Australia, university sexual health promotions may represent a much needed source of this information. This is supported by the reasons provided by international students who had never attended a university sexual health promotion event. While domestic students cumulatively selected 'I already know enough about sexual health' as their second most common response, international students chose it significantly less often. The fact that this response was twice as likely to be chosen by domestic students suggests that international students are conscious of the gaps in their own education regarding sexual health.

However international students are even less likely to have attended a university based sexual health promotion event than their domestic counterparts, and those that did were less likely to find it relevant. From this, and the data on event type preferences, it is clear that current university sexual health promotions are not meeting the needs of international students. The top two preferences of domestic students were aligned with the event types currently on offer, whereas in contrast international students' top two preferences (sexual health testing and relevant movies) were the least likely option to occur.

The high level of support for sexual health testing may derive from cost or privacy concerns of international students. Although all international students are required to purchase overseas student health cover insurance (Australian Government Department of Health, 2017), students may be unsure what this covers or unwilling to claim for an expense that is still deeply stigmatised. In addition to the coverage provided by insurance, international students in the study (like all residents of the Australian Capital Territory) also had access to a free sexual health clinic, however the existence of such a service is meaningless if new

arrivals to the city are unaware of its services. Future promotions or induction processes aimed at international students should consider including such information.

International students also reported different incentives and motivations to attend sexual health promotion events. Although both international and domestic students showed support for combining sexual health events with a social element, international students were significantly less likely to select these options. This is possibly due to greater stigma surrounding the issues for culturally and linguistically diverse (CALD) youth populations in Australia (Newton *et al.*, 2013). The two motivations that were significantly more likely to be selected by international students were for events that were 'sensitive to my culture' and 'presented in my first language (if other than English)'. This aligns with previous research identifying these issues as barriers to the promotion of sexual health to CALD youth in Australia (Newton *et al.*, 2013). While language concerns were not present in a large proportion of international student responses, the university participating in the study requires a certain level of English proficiency for enrolment and the survey was available only in English. As such it is unlikely that this result is indicative of other CALD groups.

The need for culturally sensitive sexual health promotion has been discussed previously through key informant interviews in Australia's sexual health programs (Newton *et al.*, 2013). In universities it is no doubt linked to the current lack of international representation amongst both peer educators and student leaders in general. While it may not be feasible to provide professional educators from the range of different backgrounds necessary to address the needs of the diverse groups of international students, the inclusion of peer educators from different cultural backgrounds may be a way to provide culturally appropriate events. Choosing suitable incentives and motivational strategies may play a key role in attracting international students as a target audience, and these may be substantially different to those used for other groups. To take one example, free alcohol, whilst a promising option for attracting higher-risk students, showed a clear split between international and domestic students. This divide is likely explained by differing attitudes towards alcohol consumption based on cultural and religious reasons. The four most common countries of origin among Australian international students are China, India, Singapore and Malaysia, and together they represented over half of all international students in 2015 (Australian Government Department of Education and Training, 2016a).

In these countries, alcohol consumption per capita ranges from 1.2 litres of pure alcohol per year in Malaysia to 6.7 litres in China, all far less than the 12.2 litres in Australia (World Health Organisation, 2014). Considering these large differences, such an incentive may have little impact, or even a negative impact, on international student engagement.

### 7.2.3 LGBTI students

Amongst LGBTI respondents, belonging to the higher-risk group was slightly, but not significantly, more likely than among heterosexual, cisgender respondents. However it is likely that this grouping fails to give a complete picture of the differing risk profiles of the component groups of the LGBTI acronym. Gay and bisexual men in the survey were more likely to be classed as higher-risk than lesbian and bisexual women, reflecting national trends of higher numbers of sexual partners among men who have sex with men (Grulich *et al.*, 2014a). While combining these groups for analysis was necessary given their relative rarity in the sample population, this is not ideal. However, as LGBTI individuals are often grouped together in sexual health events at universities, such an analysis may help to provide guidance for sexual health promoters looking to address these audiences.

LGBTI students were only slightly more likely to have ever been tested for STIs than heterosexual, cisgender students, however this gap widened when looking solely at tests occurring in the previous 12 months. This increased likelihood of testing has also been shown in previous Australian wide studies, with gay and bisexual men particularly more likely to test (Grulich *et al.*, 2014b), and it suggests that LGBTI students at university recognise that they may be at higher risk for specific sexual health issues. While there was some difference in testing levels, LGBTI and heterosexual cisgender university students who had never been tested reported very similar reasons why. The only significant difference between the two groups was that LGBTI students were more likely to list difficulty getting to a testing location as a reason for not testing. Although this was not high on the list of reasons for LGBTI students, it may indicate that these students are less likely to feel comfortable asking for STI testing at the university health centre or their closest GP, resulting in missed testing opportunities. This is congruent with previous research that has underlined the often sub-optimal relationship between LGBTI people and general practitioners in Australia (Rosenstreich *et al.*, 2011) and shown that many general

practitioners are uncomfortable dealing with gay or lesbian patients in an STI care setting (Khan *et al.*, 2008). This highlights the need for programs specifically aimed at making priority populations feel safe and welcome when seeking testing.

The need for sexual health promotion events covering LGBTI topics is clear when examining the students' previous sexual health learning experiences. LGBTI students were more likely to have attended sex education in high school than their heterosexual, cisgender counterparts and were more than twice as likely to have attended a university based sexual health promotion. However despite this higher level of attendance, LGBTI students were significantly less likely to report feeling that these learning experiences were relevant to them. This problem was also seen in terms of topics presented at university sexual health promotions. LGBTI students, unsurprisingly, were much more likely to want to learn about sexuality and gender diversity topics than their heterosexual counterparts. Despite the well-known higher risks faced by LGBTI individuals in terms of sexual health, current university events are also not providing sufficient information for this demographic, with demand for both gay, lesbian and bisexuality issues and transgender and intersex issues significantly higher than event supply. These results mirror other surveys that have found that many LGBTI students in Australia feel excluded by their school sex education (Hillier and Mitchell, 2008; Giordano and Ross, 2012; Robinson *et al.*, 2014) and that LGBTI issues are rarely taught or absent in Australian schools (The Equality Rights Alliance's Young Women's Advisory Group (YWAG), 2015). This suggests that many LGBTI students, though motivated to learn more about sexual health, are currently unlikely to receive the information and support they need in either high school or university.

Although students in the LGBTI community were more likely than heterosexual, cisgender students to have attended a sexual health promotion event at university, over 80% of this group had not. While the first two most selected reasons why students had not attended a sexual health promotion event at university were similar for both LGBTI and heterosexual cisgender students, at the third option these groups diverged. For heterosexual cisgender students, 'my behaviours aren't risky' was the next most likely reason, however for LGBTI students it was instead embarrassment. This suggests that further efforts are needed to normalise and destigmatise LGBTI identities. Beyond inclusive sexual health promotion campaigns, progress may also be made towards this goal through legislative changes.



Research has shown a drop in teenage suicide attempts correlated with the introduction of same sex marriage legislation in the United States of America (Raifman *et al.*, 2017) and leading health bodies have previously urged the Australian government to legalise same sex marriage to reduce discrimination and negative health outcomes for LGBTI Australians (Kennett *et al.*, 2015; Australian Medical Association, 2017). As such, the recent passing of same sex marriage legislation in Australia may assist to destigmatise LGBTI identities.

LGBTI and heterosexual cisgender students for the most part showed very similar preferences in terms of incentives and motivations to attend sexual health events. The only significant differences between the two were that LGBTI students were more likely to be motivated to attend due to knowing that a friend was also attending or that it would be relevant to their sexual orientation. While both heterosexual cisgender students and LGBTI students were most likely to report being influenced by the presence of friends, LGBTI students still chose this option significantly more often. Taken together with the high importance of information that is relevant to their sexual orientation and the influence of embarrassment it is clear that providing safe and inclusive environments to learn about sexual health is vital for improving outcomes. This is especially important given previous research showing that those who suffer LGBTI victimization in school have a significantly increased chance of developing mental and sexual health risks (Hillier *et al.*, 2010; Russell *et al.*, 2011).

To successfully promote sexual health for LGBTI students it is likely that a combination of approaches will be needed. As LGBTI Australians are more likely to become sexually active at a younger age than their heterosexual, cisgender peers (Hillier *et al.*, 2010), it is clear that relevant and non-discriminatory sexual health promotion is necessary well before students reach university. However, this does not decrease the need for effective university-based promotions. Given the evidence from this thesis and previous works that demonstrate the lacklustre or absent nature of LGBTI-relevant sexual health education in Australian high schools (Giordano and Ross, 2012; Wiltshire and Donnelly, 2014) universities need to ensure they provide events that cater to this demographic. While events aimed only at LGBTI students may be valuable in providing a depth of relevant information, the results from this research project also support the inclusion of LGBTI content in other university promotions. Such an approach is not only likely to reach more

LGBTI students, including those not comfortable enough to attend a specifically LGBTI event, but also may help to destigmatise differences in sexuality and gender identity.

That so few of the heterosexual, cisgender respondents chose 'relevant to my sexual orientation' also speaks volumes about current promotions. It is evident that a predominantly heterosexual audience would not be satisfied if their sexual health promotions talked exclusively about homosexual concerns. However, as part of the majority sexual orientation, they do not have to worry about whether their needs will be addressed. While they do want promotions relevant to their sexual orientation, the fact that the needs of this demographic are always considered means that it is not perceived as a motivating factor for attendance.

#### 7.2.4 Gender based differences

Males and females displayed considerable differences in terms of higher-risk status and previous STI testing practices. Although male participants were slightly more likely to be classed as higher-risk based on their number of sexual partners, this did not equate to higher levels of testing. In contrast, males were significantly less likely than females to have been tested, both within the previous year and in their lifetime. These results mirror those found in nationally representative data (Grulich *et al.*, 2014b). In Australia young men are less likely to seek medical advice from a general practitioner than young women (Australian Institute of Health and Welfare, 2011), and it is unsurprising that especially in sexual health for the heterosexual community, where the majority of adverse outcomes fall on females, that male testing rates are lower (Grulich *et al.*, 2014b). Risk perception is based on both analytical and experiential factors, meaning that it is not just what we know that influences our perception of danger, but also what we feel (Slovic *et al.*, 2004). For males, both experiential and analytical factors hinder testing, with males sharing many negative perceptions of testing with females (Balfe *et al.*, 2012), without similarly compelling health reasons to act on an individual level.

Females and males were largely similar in terms of previous sexual health learning experiences, however they differed considerably in the topics they would want covered at a university sexual health promotion event. Beyond the obvious preferences of females

prioritising 'women's health' as a topic and males prioritising 'men's health', there were a number of additional results that indicated gender-based disparity in sexual health. The prevention of sexual harassment, sexual assault and domestic violence were clearly seen as more important topics by females than males, reflecting the fact that women are much more likely to be directly affected by these issues than men (Sloane and Fitzpatrick, 2011; de Visser *et al.*, 2014a). Pleasure was also a topic that showed a clear gender divide. Whilst demand from both males and females was higher than current provision of pleasure-related information in university sexual health promotion events, only amongst females was it significantly higher. Given that heterosexual Australian women were significantly less likely than men to report orgasming during their most recent sexual encounter (Rissel *et al.*, 2014), it is completely understandable that women in the study wanted to learn more about pleasure. However considering that the vast majority of women in Australia are heterosexual (Richters *et al.*, 2014) it is unlikely that teaching only women this information would cause the orgasm gap to disappear. Progress on this front is unlikely until a greater proportion of men understand how the predominant sexual script for heterosexual couples privileges male pleasure (Rissel *et al.*, 2014). Currently, men are unlikely to learn about pleasure in sexual health promotions. Instead their expectations of what causes pleasure will likely stem from alternate sources of information about sex, such as the internet, friends and pornography (Albury, 2014; Litras *et al.*, 2015). While studies have shown that using a range of sexual techniques is more likely to lead to female orgasm (Richters *et al.*, 2006; Herbenick *et al.*, 2010), most pornography still stresses the importance and primacy of the male orgasm (Fritz and Paul, 2017).

One of the unexpected findings of this survey was the many similarities between women and men in terms of sexual health promotion preferences. Dividing men and women into separate groups whilst learning about sexual health matters is a frequent occurrence, as demonstrated in the promotion survey results (see section 4.3.6). However in the Student Survey very few differences were seen between women and men in terms of reasons for not attending sexual health promotions and preferred event types and incentives. Although there was considerable difference in the types of topics wanted by the different genders, responses from peer educators suggest that cultural norms regarding who we can comfortably talk about sex with are the driving factor in creating separate events. As such, it is impossible to advocate for the sole use of either the split or combined approach, with

both options excluding certain demographics. Accessibility can only be assured through a variety of different approaches.

### 7.3 The Sexy Trivia trial

Ensuring high attendance levels was the primary concern of peer educators and was also a necessary first step in terms of achieving the other measures of success that they identified. The peer-led, socially focused event trialled, 'Sexy Trivia', performed well in this regard, with peer educators reporting attendance as notably higher than previous sexual health promotions. However sheer numbers were not the only factor of interest to peer educators, with a key priority being attracting those who were not already engaged with sexual health. In contrast to previous events where turnout had been both small and limited to those already playing a vocal role in sexual health promotion, the Sexy Trivia trial drew a larger and more diverse audience. When comparing the effectiveness of Sexy Trivia with previous sexual health promotion events it is important to remember that this trial involved payment of an incentive for attendance. While this may at first seem an unfair comparison, the presence of an incentive was a vital component of the approach. Incentives have been shown in previous studies to increase the effectiveness of sexual health promotion in terms of the cost necessary to reach each person (Currie *et al.*, 2010). However perhaps equally important is the type of person attending. While previous work has questioned whether the role of science communication is to further develop the interest of those already engaged in science or to pique the interest of those who are not engaged (Medvecky and Leach, 2013), in a sexual health promotion context it is clear that efforts must be made to avoid preaching solely to the converted. If the goal of a peer educator is to attract an audience that is not already engaged in sexual health issues, then it is clear that something beyond sexual health information will need to be provided in order to capture this demographic. With survey and interview results suggesting that alcohol would be an effective means of attracting a higher-risk audience, an incentive that could be used for alcohol (amongst other options) was likely a vital component of the trial's success. Among the trial participants approximately half were classified as higher-risk, indicating great success in attracting the audience most likely to benefit from messages about sexually transmissible infections.

Two factors were used to evaluate attitudes towards sexual health testing; personal attitudes and subjective norms. While there was no significant difference between Sexual Health Talk and Sexy Trivia participants in terms of personal attitudes towards testing for chlamydia each time they have a new sexual partner, subjective norms were significantly different. Subjective norms aim to measure how the participants perceive the attitudes of people who are important to them in terms of whether they would approve of testing. Sexy Trivia participants scored significantly higher on this measure and it is possible that the structural differences between a talk and an interactive, group based activity such as trivia could account for these differences. Rather than the one-way transmission of information that makes up the majority of a talk or lecture, experiences such as Sexy Trivia allow for interaction not just between the presenter and the participant, but between participants as well. As trivia is inherently designed to provoke discussion about the answer within each group, posing questions about sexual health issues to pre-existing social groups seems to be a useful means of gauging the attitude of one's friends on what is often a rarely discussed topic. Previous studies have shown that university students often overestimate the frequency of sexual activity amongst their peers (Scholly *et al.*, 2005) and that while close friends are often supportive of sexual health testing, most young people avoid telling others about testing, due to the perception of stigma and judgement (Theunissen *et al.*, 2015). This approach aligns with science communication research on the phenomenon of cultural cognition, where group values influence risk perceptions and other beliefs (Dimaggio, 1997). The success of Sexy Trivia at changing attitudes is consistent with this framework, as a core tenant is that "People feel that it is safe to consider evidence with an open mind when they know that a knowledgeable member of their cultural community accepts it" (Kahan, 2010). As this effect was found primarily amongst males participating in Sexy Trivia, this could be a useful strategy for engaging an audience that is often hesitant to approach sexual health issues. By providing an external prompt to begin the discussion, activities like these can help to align the expectations of participants with the reality of others' perspectives.

In terms of facilitating behavioural change, there were two measures on the survey that were relevant to evaluating success; perceived behavioural control and behavioural intentions. While perceived behavioural control is one factor of the likelihood of seeking a test, behavioural intentions are designed to be the overall determinant of whether testing

will occur. In the trial, participants who attended the Sexual Health Talk showed significantly higher results in terms of perceived behavioural control, however behavioural intentions showed no significant difference. As perceived behavioural control relates to the level of autonomy participants feel they have over whether they complete the target action (Fishbein and Ajzen, 1975), the higher scores for the Sexual Health Talk make sense, given that the talk was much more comprehensive in terms of explaining what a sexual health test involves and how to go about getting one. However while this is certainly an advantage, this must also be placed within the context of who would be attending the event. Sexy Trivia was more effective at attracting a larger audience, and this audience included a high proportion of higher-risk students. Given that there was no significant difference between the two events in terms of behavioural intentions (i.e. the likelihood of getting tested) and a significant increase in subjective norms (i.e. perception of other's approval of testing), it is clear that an event that reaches more people will be more effective at changing attitudes at a community level.

#### **7.4 Limitations of the present study and further research opportunities**

This study was focused exclusively on those studying at universities in Australia, with the Student Survey and Sexy Trivia trial taking place in a single university. This approach was chosen as it allowed the survey to be distributed to a random stratified sample of students through the university's official channels in order to limit the level of self-selection and to help obtain the most representative cross section of the student population within that university. While sharing the survey through social media would have allowed more universities to be represented, it was likely that responses would have been slanted towards those who were already most engaged with sexual health. This would increase the likelihood of volunteer bias already known to exist in sexuality research (Wiederman, 1999) resulting in an overrepresentation of certain demographics. The approach used was clearly valuable, given that a key component of the findings was the need to attract audiences that are not currently engaged in sexual health, however further study will be needed to ascertain whether different university populations exhibit markedly different needs and react to Sexy Trivia in different ways. Considering the substantial differences present between the responses of domestic and international students and the disparity in previous sexual

health learning opportunities, it is likely that universities outside Australia will require different approaches and that further study will be needed to best cater to international students in Australia.

While the number of respondents to the Promotion Survey was considerably lower than the number of organisations contacted, it is difficult to estimate overall response rate as many of the organisations contacted may not have had suitable student leaders to pass the survey on to. However a good sampling of different universities was attained, with responses from 23 of the 39 universities present in Australia.

This thesis also focused on university organisations where discussion of sexual health was not seen as taboo. As the key aim of the project was to find ways to improve sexual health promotion in Australian universities, evaluating the successes and challenges of current approaches and potential areas of growth was the logical starting point. However employing a method that relied heavily on the assistance of official intermediaries (such as the management of residential accommodation) in order to access student leader perspectives would likely have limited the range of respondents. While a small number of student leaders were critical of their organisation's approach to sexual health issues (or lack thereof), it is probable that the organisations with the most restrictive views on sexual health promotion were not represented in the results. As such, we must view with scepticism results such as the low percentage of student leaders listing "resistance from organisation" as a key challenge to the provision of sexual health promotion. Given the initial hesitancy to engage with a sex-related topic as described in section 3.4.2.1, further work on organisations where sexual health promotion is not welcome would require substantially different methods, but would be a valuable inclusion to the improvement of sexual health promotion in universities.

Another potential avenue for productive change in university sexual health promotion would be further research into how student leaders who are interested in sexual health issues can be best supported. These student leaders represent a significant opportunity to enhance the sexual health understanding of their peers, but currently lack the training and support necessary to run effective sexual health promotions.

There are obvious difficulties in asking a population what they would like to learn more about, given the possibility of a topic being unfamiliar yet highly relevant. As such, this study focused on topics where interest currently outstrips supply in order to demonstrate which topics could help to attract university students. Similarly, interest in a topic being significantly less than supply does not necessarily indicate that discussion of those topics should be reduced. For example, while event supply significantly exceeded higher-risk and lower-risk interest for the respectful relationships topic, it was still a high priority for these groups, being seen as one of the three most important topics for both. It is also possible that frequently covered topics such as condoms, consent and safe sex may be less likely to be chosen as respondents may assume any sexual health promotion would include them. Due to the fact that the peer educators who ran Sexy Trivia advertised it, but not the talk, as an event that could be attended without participating in the survey, direct comparisons of attendance between the two events in the trial were not possible. While turnout to Sexy Trivia was much higher than previous sexual health promotion events in those communities, further study is needed to confirm the attractiveness of Sexy Trivia compared with other options.

While this project was focused on promoting sexual health in universities, it is likely that the findings could be relevant to other highly stigmatised areas of health promotion, such as mental health issues. Further research on the effectiveness of socially focused events drawing on pre-existing social connections may be beneficial in examining these other areas.

## 7.5 Conclusion

The overarching aim of this thesis was to find out how to improve sexual health promotion in Australian universities. To do so, three key questions were investigated, focusing on the current form of promotions, how to better reach different groups of students, and whether peer led, socially focused events could change attitudes around sexual health testing.

The current, peer educator led approach to sexual health promotion has a number of strengths including easier access to risky target populations and the benefits of working with groups with pre-existing social connections. Besides these benefits for attendance, the



peer educator approach also empowers university students to help shape their promotions, mirroring the dialogue or participatory modes of science communication.

However peer educator promotions also face a number of challenges. Perhaps due to a lack of training or a lack of direction from their parent organisation, peer educators are often not prepared to deal with the needs of certain groups of university students, with international students being the chief example. Without specialist training and with limited time and resources it is beyond the scope of a peer educator to be able to identify the highly diverse range of needs present in a university population and avoid solely catering to those who are already motivated to learn about sexual health.

In order to minimise the effects of these challenges and to help to promote sexual health to Australian university students, collaborations between professional sexual health promoters and peer educators should be strengthened. While there are already considerable levels of collaborations between these groups, further partnerships, such as providing training focused on the needs of peer educators could increase the impact of their promotions. In addition, providing peer educators with plans for events that have already proven effective would lessen the burden on peer educators and result in more effective promotions.

When examining how university sexual health promotion events can better reach different groups of students, the data was analysed with respect to demographics of interest to sexual health promoters, namely higher risk students, international students, LGBTI students and gender based differences.

Higher risk students who had never attended a university sexual health promotion were likely to think they already knew enough about the topic, suggesting a feedback loop where they were unlikely to seek out information that could be relevant to them. This supports the idea that many promotions are currently only accessing students who already motivated and well informed about sexual health and missing those who could benefit the most. Higher risk students who hadn't been tested were also likely to think their behaviour wasn't risky and that they didn't have many partners, despite this being the basis of their classification as higher risk. In order to successfully promote sexual health messages to this

group it is likely that attractive incentives such as free alcohol, free testing and combination with social events will be necessary to avoid preaching to the converted.

International students were less likely to have received sex education in high school and, conscious of the gaps in their own education, were more likely to place high emphasis on topics such as safe sex and HIV/AIDS. Current promotions are not meeting the needs of international students, as reflected in their low attendance and low perceived relevance. In order to reach this audience more culturally sensitive promotions will be needed, with the use of international student peer educators likely to be the most effective way of tailoring these events to meet their community's needs.

LGBTI students are also likely to be missing out on the sexual health information that is most relevant to them. Despite being more likely to have attended sexual health promotions, LGBTI students were significantly less likely to have found them personally relevant. Their higher ranking of embarrassment as a reason not to attend promotions, combined with their very high preference for attending with friends, indicates that more needs to be done to provide safe and inclusive sexual health learning environments and destigmatise LGBTI identities. Incorporating LGBTI information into general promotions as well as specific LGBTI events may help to alleviate these concerns.

In terms of gender based differences, males were slightly more likely to be classed as higher risk yet were less likely to have ever been tested. Preferred topics to be covered in events was one of the few areas to show clear differences based on gender, with these divides mirroring established phenomenon such as the orgasm gap and women's higher rates of being the victim of sexual assault. Apart from topics to be covered, women and men showed relatively few differences in preferences relating to sexual health promotions, indicating that the preference for gender segregated events stems from cultural notions of with whom it is appropriate to talk about sex.

Through the comparison between Sexy Trivia and a sexual health talk, it was clear that peer led, socially focused events can change attitudes around sexual health testing. One of the key benefits of Sexy Trivia was its broad appeal. By providing an event that was socially focused and using incentives that were attractive to the target audience, Sexy Trivia

attracted an audience beyond those already engaged with sexual health promotion, as evidenced by the high turnout and high proportion of higher-risk attendees. With no significant difference between the two sexual health promotion events in terms of behavioural intentions to test, Sexy Trivia would likely provide a greater positive impact for university students by attracting a larger, unengaged audience.

The trivia-based structure of the event may also help to explain its effectiveness. Rather than the traditional one-way flow of information common to sexual health talks, trivia allowed participants to discuss rarely broached topics with their friends. This resulted in significantly higher subjective norm scores indicating a perception of greater acceptance for sexual health testing among one's peers.

It is clear that most current sexual health promotions in universities are not effectively targeting a range of key priority groups, with the needs of higher risk, LGBTI and international students largely left unmet. While the passion of peer educators and student leaders has great potential for overcoming these challenges, they will need to carefully consider how to encourage those not already engaged to attend. Through collaborations with established sexual health professionals and the targeted use of event types and incentives, peer educators can hopefully improve not only sexual health promotion in Australian universities, but the health and wellbeing of their fellow students.



## Bibliography

- ACARA (2017) *Health and Physical Education, Australian Curriculum*. Available at: <http://www.australiancurriculum.edu.au/health-and-physical-education/curriculum/f-10?layout=1#level9-10> (Accessed: 2 June 2017).
- Adam, P., de Wit, J., Story, L., Edwards, B., Murray, C. and Bourne, C. (2011) *Understanding Barriers to STI Testing Among Young People: Results from the Online Survey 'Getting Down To It'*. Sydney. Available at: [https://csr.h.arts.unsw.edu.au/media/CSRHFile/4\\_STI\\_testing\\_in\\_young\\_people\\_report.pdf](https://csr.h.arts.unsw.edu.au/media/CSRHFile/4_STI_testing_in_young_people_report.pdf) (Accessed: 18 June 2014).
- Ajzen, I. (1985) 'From intentions to actions: A theory of planned behaviour', in Kuhl, J. and Beckman, J. (eds) *Action-control: From cognition to behavior*. Heidelberg: Springer, pp. 11-39.
- Al-Rabeei, N. A., Dallak, A. M. and Al-Awadi, F. G. (2012) 'Knowledge, attitude and beliefs towards HIV / AIDS among students of health institutes in Sana'a city', *Eastern Mediterrean Health Journal*, 18(3), pp. 221-226.
- Albury, K. (2014) 'Porn and sex education, porn as sex education', *Porn Studies*, 1(1-2), pp. 172-181. doi: 10.1080/23268743.2013.863654.
- Ali, H., Guy, R. J., Fairley, C. K., Wand, H., Chen, M. Y., Dickson, B., O'Connor, C. C., Marshall, L., Grulich, A. E., Kaldor, J. M., Hellard, M. E. and Donovan, B. (2012) 'Understanding trends in genital Chlamydia trachomatis can benefit from enhanced surveillance: findings from Australia', *Sexually Transmitted Infections*, 88(7), pp. 552-557. doi: 10.1136/sextrans-2011-050423.
- American Association for Health Education (2012) 'Report of the 2011 Joint Committee on Health Education and Promotion Terminology', *American Journal of Health Education*, 43, pp. 1-19.
- Anderson, R. M. and May, R. M. (1991) *Infectious Diseases of Humans*. Oxford: Oxford University Press.
- Attride-Stirling, J. (2001) 'Thematic networks: an analytic tool for qualitative research', *Qualitative Research*, 1(3), pp. 385-405.
- Australian Bureau of Statistics (2013) *Hitting the books: Characteristics of higher education students*, *Australian Bureau of Statistics Website*. Available at: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Main+Features20July>

+2013# (Accessed: 20 September 2016).

Australian Government Department of Education and Training (2014) *Selected Higher Education Statistics - 2013 Student Data, 2013 Student Summary*. Available at: <http://www.education.gov.au/selected-higher-education-statistics-2013-student-data> (Accessed: 22 February 2015).

Australian Government Department of Education and Training (2016a) *2015 Overseas Students*. Available at: <https://docs.education.gov.au/node/41726> (Accessed: 12 October 2017).

Australian Government Department of Education and Training (2016b) *Safe Schools Coalition Australia*. Available at: <https://www.education.gov.au/safe-schools-coalition-australia> (Accessed: 8 February 2017).

Australian Government Department of Education and Training (2016c) *Summary of the 2015 full year higher education student statistics*. Available at: <https://docs.education.gov.au/node/41616> (Accessed: 12 February 2017).

Australian Government Department of Health (2014) *Third National Sexually Transmissible Infections Strategy 2014-2017*. Canberra.

Australian Government Department of Health (2015) *National Notifiable Diseases Surveillance System*. Available at: [http://www9.health.gov.au/cda/source/rpt\\_5\\_sel.cfm](http://www9.health.gov.au/cda/source/rpt_5_sel.cfm) (Accessed: 22 November 2016).

Australian Government Department of Health (2017) *Overseas Student Health Cover - Frequently Asked Questions*. Available at: <http://www.health.gov.au/internet/main/publishing.nsf/content/overseas+student+health+cover+faq-1> (Accessed: 25 April 2017).

Australian Institute of Health and Welfare (2011) *Young Australians: their health and wellbeing 2011*. Canberra. Available at: <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=10737419259> (Accessed: 6 July 2017).

Australian Medical Association (2017) *Position statement on marriage equality, Australian Medical Association website*. Available at: <https://ama.com.au/position-statement/marriage-equality-2017> (Accessed: 12 October 2017).

Badcock, P. B., Smith, A. M. A., Richters, J., Rissel, C., de Visser, R. O., Simpson, J. M. and Grulich, A. E. (2014) 'Characteristics of heterosexual regular relationships

- among a representative sample of adults: the Second Australian Study of Health and Relationships.’, *Sexual Health*, 11(5), pp. 427–38. doi: 10.1071/SH14114.
- Balfe, M., Brugha, R., O’Connell, E., McGee, H., O’Donovan, D. and Vaughan, D. (2010) ‘Why don’t young women go for Chlamydia testing? A qualitative study employing Goffman’s stigma framework’, *Health, Risk & Society*, 12(2), pp. 131–148. doi: 10.1080/13698571003632437.
- Balfe, M., Brugha, R., O’Connell, E., Vaughan, D. and O’Donovan, D. (2012) ‘Men’s attitudes towards chlamydia screening: A narrative review’, *Sexual Health*, 9(2), pp. 120–130. doi: 10.1071/SH10094.
- Barabási, A.-L. (2002) *Linked: the new science of networks*. Cambridge, Massachusetts: Perseus Publishing.
- Baum, F. and Fisher, M. (2014) ‘Why Behavioural Health Promotion Endures Despite Its Failure to Reduce Health Inequities’, *From Health Behaviours to Health Practices: Critical Perspectives*, 36(2), pp. 57–68. doi: 10.1002/9781118898345.ch6.
- Birmingham, S. (2016) *The Department of Education and Training Media Centre Statement on Safe Schools*, Australian Government Department of Education and Training Media Centre. Available at: <http://ministers.education.gov.au/birmingham/statement-safe-schools-coalition> (Accessed: 8 February 2017).
- Booth, A. L., Leigh, A. and Varganova, E. (2012) ‘Does Ethnic Discrimination Vary Across Minority Groups? Evidence from a Field Experiment’, *Oxford Bulletin of Economics and Statistics*, 4, pp. 547–573. doi: 10.1111/j.1468-0084.2011.00664.x.
- Booth, A. R., Norman, P., Harris, P. R. and Goyder, E. (2014) ‘Using the theory of planned behaviour and self-identity to explain chlamydia testing intentions in young people living in deprived areas’, *British Journal of Health Psychology*, 19(1), pp. 101–112. doi: 10.1111/bjhp.12036.
- Bosch, F. X. and de Sanjosé, S. (2007) ‘The epidemiology of human papillomavirus infection and cervical cancer.’, *Disease markers*, 23(4), pp. 213–227. doi: 10.1016/j.vaccine.2008.05.042.
- Botfield, J. R., Newman, C. E. and Zwi, A. B. (2015) ‘Young people from culturally diverse backgrounds and their use of services for sexual and reproductive health needs: a structured scoping review.’, *Sexual Health*, pp. 1–9. doi: 10.1071/SH15090.
- Bourne, C., Knight, V., Guy, R., Wand, H., Lu, H. and McNulty, A. (2011) ‘Short message service reminder intervention doubles sexually transmitted infection/HIV

- re-testing rates among men who have sex with men', *Sexually Transmitted Infections*, 87(3), pp. 229–31. doi: 10.1136/sti.2010.048397.
- Bradley, D., Noonan, P., Nugent, H. and Scales, B. (2008) *Review of Australian Higher Education, Final Report*.
- Braun, V. (2013) “Proper sex without annoying things”: Anti-condom discourse and the “nature” of (hetero)sex', *Sexualities*, 16(3–4), pp. 361–382. doi: 10.1177/1363460713479752.
- Brechwald, W. A. and Prinstein, M. J. (2011) 'Beyond homophily: A decade of advances in understanding peer influence processes', *Journal of Research on Adolescence*, 21(1), pp. 166–179. doi: 10.1111/j.1532-7795.2010.00721.x.
- Brown, A. L., Testa, M. and Messman-Moore, T. L. (2009) 'Psychological consequences of sexual victimization resulting from force, incapacitation, or verbal coercion.', *Violence Against Women*, 15(8), pp. 898–919. doi: 10.1177/1077801209335491.
- Bubela, T. et al. (2009) 'Science communication reconsidered', *Nature Biotechnology*, 27(6), pp. 514–518. doi: 10.1038/nbt0609-514.
- Burns, K., Keating, P. and Free, C. (2016) 'A systematic review of randomised control trials of sexual health interventions delivered by mobile technologies', *BMC Public Health*. BMC Public Health, pp. 1–13. doi: 10.1186/s12889-016-3408-z.
- Burns, T. W., O'Connor, D. J. and Stocklmayer, S. M. (2003) 'Science communication: A contemporary definition', *Public Understanding of Science*, 12(2), pp. 183–202. doi: 10.1177/09636625030122004.
- Cai, Y., Ye, X., Shi, R., Xu, G., Shen, L., Ren, J. and Huang, H. (2013) 'Predictors of consistent condom use based on the Information-Motivation-Behavior Skill (IMB) model among senior high school students in three coastal cities in China.', *BMC Infectious Diseases*, 13(1), p. 262. doi: 10.1186/1471-2334-13-262.
- Calabretto, H. (2009) 'Emergency contraception - knowledge and attitudes in a group of Australian university students', *Australian and New Zealand Journal of Public Health*, 33(3), pp. 234–239.
- Canberra Sexual Health Centre (2015) *PEP Brochure*. Available at: <http://health.act.gov.au/c/health?a=sp&did=10078309> (Accessed: 26 February 2015).
- Carman, M., Mitchell, A., Schlichthorst, M. and Smith, A. (2011) 'Teacher training in sexuality education in Australia: How well are teachers prepared for the job?', *Sexual*



- Health*, 8(3), pp. 269–271. doi: 10.1071/SH10126.
- Chandra-mouli, V. and Lane, C. (2015) ‘What Does Not Work in Adolescent Sexual and Reproductive Health: A Review of Evidence on Interventions Commonly Accepted as Best Practices’, *Global Health Science and Practice*, 3(3), pp. 333–340. doi: 10.9745/GHSP-D-15-00126.
- Commonwealth Youth Programme (2016) *Australian Youth Development Index: A Jurisdictional overview of Youth Development*. Available at: [http://www.youthaction.org.au/australian\\_ydi](http://www.youthaction.org.au/australian_ydi) (Accessed: 2 March 2017).
- Conley, T. D., Moors, A. C., Matsick, J. L., Ziegler, A. and Valentine, B. A. (2011) ‘Women, Men, and the Bedroom: Methodological and Conceptual Insights That Narrow, Reframe, and Eliminate Gender Differences in Sexuality’, *Current Directions in Psychological Science*, 20(5), pp. 296–300. doi: 10.1177/0963721411418467.
- Cooper, S. and Dickinson, D. (2013) ‘Just jokes! Icebreakers, innuendo, teasing and talking: The role of humour in HIV/AIDS peer education among university students’, *African Journal of AIDS Research*, 12(4), pp. 229–238.
- Cox, P. (2015) *Violence against women in Australia : Additional analysis of the Australian Bureau of Statistics’ Personal Safety Survey, 2012*. Sydney. Available at: [http://media.aomx.com/anrows.org.au/s3fs-public/151022\\_Horizons\\_1.1\\_PSS.pdf](http://media.aomx.com/anrows.org.au/s3fs-public/151022_Horizons_1.1_PSS.pdf) (Accessed: 16 February 2017).
- Cresswell, J. W. and Plano Clark, V. L. (2007) *Designing and Conducting Mixed Methods Research*. Thousand Oaks, California: SAGE Publications Ltd.
- Crichton, J., Hickman, M., Campbell, R., Batista-Ferrer, H. and Macleod, J. (2015) ‘Socioeconomic factors and other sources of variation in the prevalence of genital chlamydia infections: A systematic review and meta-analysis.’, *BMC Public Health*, 15, p. 729. doi: 10.1186/s12889-015-2069-7.
- Cupples, J. B., Zukoski, A. P. and Dierwechter, T. (2010) ‘Reaching Young Men: Lessons Learned in the Recruitment, Training, and Utilization of Male Peer Sexual Health Educators’, *Health Promotion Practice*, 11(3 Suppl), p. 19S–25S. doi: 10.1177/1524839909358847.
- Currie, M. J., Schmidt, M., Davis, B. K., Baynes, A. M., O’Keefe, E. J., Bavinton, T. P., McNiven, M., Martin, S. J. and Bowden, F. J. (2010) ‘“Show me the money”: financial incentives increase chlamydia screening rates among tertiary students: a pilot study’, *Sexual Health*, 7(1), pp. 60–5. doi: 10.1071/SH08091.

- Detels, R., Green, A. M., Klausner, J. D., Katzenstein, D., Gaydos, C., Handsfield, H. H., Pequegnat, W., Mayer, K., Hartwell, T. D. and Quinn, T. C. (2011) 'The Incidence and Correlates of Symptomatic and Asymptomatic Chlamydia Trachomatis and Neisseria Gonorrhoeae Infections in Selected Populations in Five Countries', *Sexually Transmitted Diseases*, 38(6), pp. 503–509. doi: 10.1097/OLQ.0b013e318206c288.
- Dimaggio, P. (1997) 'Culture and cognition', *Annual review of sociology*, 23, pp. 263–287.
- Downing-Matibag, T. M. and Geisinger, B. (2009) 'Hooking Up and Sexual Risk Taking Among College Students: A Health Belief Model Perspective', *Qualitative Health Research*, 19(9), pp. 1196–1209. doi: 10.1177/1049732309344206.
- Durant, J. R., Evans, G. A. and Thomas, G. P. (1989) 'The public understanding of science', *Nature*, 340(6228), pp. 11–14. doi: 10.1038/340011a0.
- Eisenberg, M. E., Garcia, C. M., Frerich, E. A., Lechner, K. E. and Lust, K. A. (2012) 'Through the eyes of the student: What college students look for, find, and think about sexual health resources on campus', *Sexuality Research and Social Policy*, 9(4), pp. 306–316. doi: 10.1007/s13178-012-0087-0.
- Emetu, R. E., Marshall, A., Sanders, S. A., Yarber, W. L., Milhausen, R. R., Crosby, R. A. and Graham, C. A. (2014) 'A Novel, Self-guided, Home-Based Intervention to Improve Condom Use Among Young Men Who Have Sex With Men', *Journal of American College Health*, 62(2), pp. 118–24. doi: 10.1080/07448481.2013.856914.
- Evers, C. W., Albury, K., Byron, P. and Crawford, K. (2013) 'Young People, Social Media, Social Network Sites and Sexual Health Communication in Australia: "This is Funny, You Should Watch It"', *International Journal of Communication*, 7, pp. 1–20.
- Ewert, C., Collyer, A. and Temple-Smith, M. (2015) "'Most young men think you have to be naked in front of the GP": a qualitative study of male university students' views on barriers to sexual health', *Sexual Health*, 13, pp. 124–130.
- Family Planning NSW (2013) *Reproductive and Sexual Health in Australia*. Sydney. Available at: [https://www.fpnsw.org.au/sites/default/files/assets/rshinaust\\_book\\_webedition\\_1.pdf](https://www.fpnsw.org.au/sites/default/files/assets/rshinaust_book_webedition_1.pdf) (Accessed: 13 June 2014).
- Fennell, J. (2014) "'And isn't that the point?": pleasure and contraceptive decisions', *Contraception*. Elsevier Inc., 89(4), pp. 264–70. doi: 10.1016/j.contraception.2013.11.012.

- Fishbein, M. and Ajzen, I. (1975) *Belief, Attitude, Intention, and Behaviour: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
- Foxcroft, D. R., Moreira, M. T., Almeida Santimano, N. M. L. and Smith, L. A. (2015) 'Social norms information for alcohol misuse in university and college students', *The Cochrane Database of Systematic Reviews*, 1(12), p. CD006748. doi: 10.1002/14651858.CD006748.pub3.
- Francis, A. J. J., Eccles, M. P., Johnston, M., Walker, A., Grimshaw, J., Foy, R., Kaner, E. F. S., Smith, L. and Bonetti, D. (2004) *Constructing questionnaires based on the Theory of Planned Behaviour: A manual for health services researchers*. Newcastle upon Tyne.
- French, S. E. and Holland, K. J. (2013) 'Condom negotiation strategies as a mediator of the relationship between self-efficacy and condom use', *Journal of Sex Research*, 50(1), pp. 48-59. doi: 10.1080/00224499.2011.626907.
- Fritz, N. and Paul, B. (2017) 'From Orgasms to Spanking: A Content Analysis of the Agentic and Objectifying Sexual Scripts in Feminist, for Women, and Mainstream Pornography', *Sex Roles*. doi: 10.1007/s11199-017-0759-6.
- Gallup (2017) *In US, More Adults Identifying as LGBT*. Available at: <http://www.gallup.com/poll/201731/lgbt-identification-rises.aspx> (Accessed: 9 February 2017).
- Garland, S. M. (2014) 'The Australian experience with the human papillomavirus vaccine', *Clinical Therapeutics*. Elsevier, 36(1), pp. 17-23. doi: 10.1016/j.clinthera.2013.12.005.
- Gebicki, C., Pomerin, R., Flynn, G., Grogan, N., Hunt, E., Bell, J., Napier Raman, K. and Meagher, A. (2017) *Change the course : National report on sexual assault and sexual harassment at Australian universities*. Sydney. Available at: <https://www.humanrights.gov.au/our-work/sex-discrimination/publications/change-course-national-report-sexual-assault-and-sexual> (Accessed: 3 March 2017).
- Gilbert, J. K. and Stockmayer, S. (2013) 'The Changing Face of Science Communication', in Gilbert, J. K. and Stockmayer, S. (eds) *Communication and engagement with science and technology: issues and dilemmas: a reader in science*. New York: Routledge, Taylor and Francis Group.
- Giordano, M. and Ross, A. (2012) *Let's talk about sex: Young people's views on sex and sexual health information in Australia*. Available at:

<http://www.ayac.org.au/news/158/81/Support-for-overhaul-of-sex-education-in-Australian-schools.html> (Accessed: 20 September 2016).

- Giuliano, A. R., Tortolero-Luna, G., Ferrer, E., Burchell, A. N., de Sanjose, S., Kjaer, S. K., Muñoz, N., Schiffman, M. and Bosch, F. X. (2008) 'Epidemiology of Human Papillomavirus Infection in Men, Cancers other than Cervical and Benign Conditions', *Vaccine*, 26, pp. K17-K28. doi: 10.1016/j.vaccine.2008.06.021.
- Gold, J., Hocking, J. and Hellard, M. (2007) 'The feasibility of recruiting young men in rural areas from community football clubs for STI screening', *Australian and New Zealand Journal of Public Health*, 31(3), pp. 243-246. doi: 10.1111/j.1467-842X.2007.00055.x.
- Gold, J., Lim, M. S. C., Hellard, M. E., Hocking, J. S. and Keogh, L. (2010) 'What's in a message? Delivering sexual health promotion to young people in Australia via text messaging', *BMC Public Health*, 10(1), p. 792. doi: 10.1186/1471-2458-10-792.
- Goldberg, D. S. (2012) 'Social justice, health inequalities and methodological individualism in us health promotion', *Public Health Ethics*, 5(2), pp. 104-115. doi: 10.1093/phe/phs013.
- Gordon, C. R. T. (2012) *Sexuality and Student Health: Access to Sexual and Reproductive Health Resources and Information at American University*. American University.
- Gottlieb, S. L., Low, N., Newman, L. M., Bolan, G., Kamb, M. and Broutet, N. (2014) 'Toward global prevention of sexually transmitted infections (STIs): The need for STI vaccines', *Vaccine*. Elsevier Ltd, 32(14), pp. 1527-1535. doi: 10.1016/j.vaccine.2013.07.087.
- Gottlieb, S. L., Stoner, B. P., Zaidi, A. A., Buckel, C., Tran, M., Leichliter, J. S., Berman, S. M. and Markowitz, L. E. (2011) 'A Prospective Study of the Psychosocial Impact of a Positive Chlamydia trachomatis Laboratory Test', *Sexually Transmitted Diseases*, 38(11), pp. 1004-1011. doi: 10.1097/OLQ.0b013e31822b0bed.
- Green, E. C. and Murphy, E. (2014) 'Health Belief Model', *The Wiley Blackwell Encyclopaedia of Health, Illness, Behaviour, and Society*.
- Grulich, A. E., de Visser, R. O., Badcock, P. B., Smith, A., Heywood, W., Richters, J., Rissel, C. and Simpson, J. M. (2014a) 'Homosexual experience and recent homosexual encounters: the Second Australian Study of Health and Relationships.', *Sexual Health*, 11(5), pp. 439-50. doi: 10.1071/SH14122.
- Grulich, A. E., de Visser, R. O., Badcock, P. B., Smith, A., Richters, J., Rissel, C. and

- Simpson, J. M. (2014b) 'Knowledge about and experience of sexually transmissible infections in a representative sample of adults: the Second Australian Study of Health and Relationships.', *Sexual Health*, 11(5), pp. 481-94. doi: 10.1071/SH14121.
- Guy, R., Wand, H., Knight, V., Kenigsberg, A., Read, P. and McNulty, A. M. (2013) 'SMS reminders improve re-screening in women and heterosexual men with chlamydia infection at Sydney Sexual Health Centre: a before-and-after study.', *Sexually Transmitted Infections*, 89(1), pp. 11-5. doi: 10.1136/sextrans-2011-050370.
- Harden, A., Weston, R. and Oakley, A. (1999) *A Review of the Effectiveness and Appropriateness of Peer-Delivered Health Promotion Interventions for Young People*. London.
- Harris, A., Honey, N., Webster, K., Diemer, K. and Politoff, V. (2015) *Young Australians' attitudes to violence against women: Findings from the 2013 National Community Attitudes towards Violence Against Women Survey for respondents 16-24 years*. Melbourne. Available at: <https://www.vichealth.vic.gov.au/media-and-resources/publications/2013-national-community-attitudes-towards-violence-against-women-survey> (Accessed: 28 November 2016).
- Hayden, K., Graham, M. and Lamaro, G. (2016) 'A cross-sectional study examining the extent of unwanted sexual attention and unhealthy intimate relationships among female university students', *Health Promotion Journal of Australia*, 27, pp. 134-139.
- Hayes, R., Watson-Jones, D., Celum, C., van de Wijgert, J. and Wasserheit, J. (2010) 'Treatment of sexually transmitted infections for HIV prevention: end of the road or new beginning?', *AIDS*, 24(4), pp. 15-26. doi: 10.1097/01.aids.0000390704.35642.47.
- Hengel, B., Jamil, M. S., Mein, J. K., Maher, L., Kaldor, J. M. and Guy, R. J. (2013) 'Outreach for chlamydia and gonorrhoea screening: a systematic review of strategies and outcomes', *BMC Public Health*, 13(1), p. 1040. doi: 10.1186/1471-2458-13-1040.
- Herbenick, D., Reece, M., Schick, V., Sanders, S. A., Dodge, B. and Fortenberry, J. D. (2010) 'An Event-Level Analysis of the Sexual Characteristics and Composition Among Adults Ages 18 to 59: Results from a National Probability Sample in the United States', *The Journal of Sexual Medicine*, 7, pp. 346-361. doi: 10.1111/j.1743-6109.2010.02020.x.

- Hickey, M. T. and Cleland, C. (2013) 'Sexually transmitted infection risk perception among female college students.', *Journal of the American Association of Nurse Practitioners*, 25(7), pp. 377–84. doi: 10.1111/j.1745-7599.2012.00791.x.
- Hillier, L., Jones, T., Monagle, M., Overton, N., Gahan, L., Blackman, J. and Mitchell, A. (2010) *Writing themselves in 3: The third national study on the sexual health and wellbeing of same sex attracted and gender questioning young people*, Australian Research Centre in Sex, Health and Society Monographs.
- Hillier, L. and Mitchell, A. (2008) "It was as useful as a chocolate kettle": sex education in the lives of same-sex-attracted young people in Australia', *Sex Education*, 8(2), pp. 211–224. doi: 10.1080/14681810801981258.
- Holmes, K. K., Levine, R. and Weaver, M. (2004) 'Effectiveness of condoms in preventing sexually transmitted infections', *Bulletin of the World Health Organization*, 82(6), pp. 454–461. doi: 10.1590/S0042-96862004000600012.
- van Hoorn, J., van Dijk, E., Meuwese, R., Rieffe, C. and Crone, E. A. (2016) 'Peer Influence on Prosocial Behavior in Adolescence', *Journal of Research on Adolescence*, 26(1), pp. 90–100. doi: 10.1111/jora.12173.
- Ijadunola, K. T., Abiona, T. C., Odu, O. O. and Macellina, Y. (2009) 'College students in Nigeria underestimate their risk of contracting HIV / AIDS infection', *European Journal of Contraception and Reproductive Health Care*, 12(2). doi: 10.1080/13625180601068461.
- Immunise Australia Program (2015) *The HPV Vaccine*. Available at: <http://hvp.health.gov.au/the-program/the-hpv-vaccine/> (Accessed: 15 June 2016).
- Johnson, H. L., Ghanem, K. G., Zenilman, J. M. and Erbelding, E. J. (2011) 'Sexually transmitted infections and adverse pregnancy outcomes among women attending inner city public sexually transmitted diseases clinics.', *Sexually Transmitted Diseases*, 38(3), pp. 167–171. doi: 10.1097/OLQ.0b013e3181f2e85f.
- Jones, T. and Hillier, L. (2013) 'Comparing trans-spectrum and same-sex-attracted youth in Australia: Increased risks, increased activism', *Journal of LGBT Youth*, 10(4), pp. 287–307. doi: 10.1080/19361653.2013.825197.
- Jones, T., Smith, E., Ward, R., Dixon, J., Hillier, L. and Mitchell, A. (2015) 'School experiences of transgender and gender diverse students in Australia', *Sex Education*. Routledge, 1811(January), pp. 1–16. doi: 10.1080/14681811.2015.1080678.
- Jozkowski, K. N. and Sanders, S. a. (2012) 'Health and Sexual Outcomes of Women Who

- Have Experienced Forced or Coercive Sex', *Women & Health*, 52(2), pp. 101–118. doi: 10.1080/03630242.2011.649397.
- Kahan, D. (2010) 'Fixing the communications failure', *Nature*, 463, pp. 296–297. doi: 10.1038/463296a.
- Kahan, D. M., Braman, D., Cohen, G. L., Gastil, J. and Slovic, P. (2010) 'Who fears the HPV vaccine, who doesn't, and why? An experimental study of the mechanisms of cultural cognition', *Law and Human Behavior*, 34(6), pp. 501–516. doi: 10.1007/s10979-009-9201-0.
- Kennett, J., Marney, T., Harman, G., Dean, J., Larkin, S., Haikerwal, M., Coote, F., Kidd, M., Griggs, J., Baigent, M., Howes, P., Gillard, J. and McDermott, B. (2015) *Statement From Beyondblue Board in Support of Marriage Equality*, *Beyondblue Website*. Available at: <https://www.beyondblue.org.au/connect-with-others/news/news/2015/08/31/statement-from-beyondblue-board-in-support-of-marriage-equality> (Accessed: 12 October 2017).
- Keys, D., Rosenthal, D., Williams, H., Mallett, S., Jordan, L. and Henning, D. (2008) *Making it Real: Sexual Health Communication for Young People Living with Disadvantage*. Melbourne. doi: 10.1016/S0968-8080(13)41719-6.
- Khan, A., Plummer, D., Hussain, R. and Minichiello, V. (2008) 'Does physician bias affect the quality of care they deliver? Evidence in the care of sexually transmitted infections', *Sexually Transmitted Infections*, 84(2), pp. 150–151. doi: 10.1136/sti.2007.028050.
- Kim, C. R. and Free, C. (2008) 'Recent evaluations of the peer-led approach in adolescent sexual health education: a systematic review', *Perspectives on Sexual and Reproductive Health*, 40(3), pp. 144–151. doi: 10.1363/4014408.
- Kimble, M., Neacsu, A. D., Flack, W. F. and Horner, J. (2008) 'Risk of Unwanted Sex for College Women: Evidence for a Red Zone', *Journal of American College Health*, 57(3), pp. 331–338. doi: 10.3200/JACH.57.3.331-338.
- Kohler, P. K., Manhart, L. E. and Lafferty, W. E. (2008) 'Abstinence-Only and Comprehensive Sex Education and the Initiation of Sexual Activity and Teen Pregnancy', *Journal of Adolescent Health*, 42(4), pp. 344–351. doi: 10.1016/j.jadohealth.2007.08.026.
- Krebs, C. P., Lindquist, C. H., Warner, T. D., Fisher, B. S. and Martin, S. L. (2009) 'College Women's Experiences with Physically Forced, Alcohol- or Other Drug-

- Enabled, and Drug-Facilitated Sexual Assault Before and Since Entering College', *Journal of American College Health*, 57(6), pp. 639–649. doi: 10.3200/JACH.57.6.639-649.
- LaCaille, L. (2013) 'Theory of Reasoned Action', in Gellman, M. D. and Turner, J. R. (eds) *Encyclopedia of Behavioral Medicine*. New York, NY: Springer New York, pp. 1964–1967. doi: 10.1007/978-1-4419-1005-9\_1619.
- Lau, A., Spark, S., Tomnay, J., Smith, M. T., Fairley, C. K., Guy, R. J., Donovan, B. and Hocking, J. S. (2016) 'Socio-demographic and structural barriers to being tested for chlamydia in general practise', *The Medical Journal of Australia*, 204(3), p. 112. doi: 10.5694/mja15.00933.
- Lau, C. and Qureshi, A. K. (2002) 'Azithromycin Versus Doxycycline for Genital Chlamydial Infections', *Sexually Transmitted Diseases*, 29(9), pp. 497–502.
- Layder, D. (1998a) 'Elements of the Research Process', in Layder, D. (ed.) *Sociological Practice*. SAGE Publications Ltd, pp. 28–51.
- Layder, D. (1998b) 'From Theory to Data: Starting to Theorize', in *Sociological Practice*. London: SAGE Publications Ltd, pp. 100–132.
- Layder, D. (1998c) 'Towards Adaptive Theory', in Layder, D. (ed.) *Sociological Practice*. SAGE Publications Ltd, pp. 132–173.
- Lechner, K. E., Garcia, C. M., Frerich, E. A., Lust, K. and Eisenberg, M. E. (2013) 'College students' sexual health: personal responsibility or the responsibility of the college?', *Journal of American College Health*, 61(1), pp. 28–35. doi: 10.1080/07448481.2012.750608.
- Lee, D. and Carpenter, V. M. (2015) "What would you like me to do? Lie to you?" Teacher education responsibilities to LGBTI students.', *Asia-Pacific Journal of Teacher Education*. Routledge, 43(2), pp. 169–180. doi: 10.1080/1359866X.2014.932331.
- Lewis, D., Newton, D. C., Guy, R. J., Ali, H., Chen, M. Y., Fairley, C. K. and Hocking, J. S. (2012) 'The prevalence of Chlamydia trachomatis infection in Australia: a systematic review and meta-analysis', *BMC Infectious Diseases*, 12(1), pp. 113–130. doi: 10.1186/1471-2334-12-113.
- Licht, A. S., Murphy, J. M., Hyland, A. J., Fix, B. V., Hawk, L. W. and Mahoney, M. C. (2010) 'Is use of the human papillomavirus vaccine among female college students related to human papillomavirus knowledge and risk perception?', *Sexually Transmitted Infections*, 86(1), pp. 74–78. doi: 10.1136/sti.2009.037705.



- Lim, M. S., Aitkin, C. K., Hocking, J. S. and Hellard, M. E. (2009) 'Discrepancies between young people's self-reported sexual experience and their perceptions of "normality"', *Sexual Health*, 6, pp. 171-172. doi: 10.1023/B.
- Litras, A., Latreille, S. and Temple-Smith, M. (2015) 'Dr Google, porn and friend-of-a-friend: Where are young men really getting their sexual health information?', *Sexual Health*, 12(6), pp. 488-494. doi: 10.1071/SH15055.
- Logie, C. and Gadalla, T. M. (2009) 'Meta-analysis of health and demographic correlates of stigma towards people living with HIV', *AIDS Care*, 21(6), pp. 742-53. doi: 10.1080/09540120802511877.
- Louden, W. (2016) *Review of Appropriateness and Efficacy of the Safe Schools Coalition Australia Program Resources*. Available at: <https://docs.education.gov.au/node/40001> (Accessed: 14 August 2016).
- Lyons, A. and Hosking, W. (2014) 'Prevalence and correlates of sexual partner concurrency among Australian gay men aged 18-39 years.', *AIDS and Behavior*, 18(4), pp. 801-9. doi: 10.1007/s10461-013-0613-y.
- MacPhail, C. L., Dune, T., Dillon, G., Rahman, S., Khanam, R., Jenkins, L., Britton, M., Green, B., Edwards, C. and Stevenson, A. (2017) 'Knowledge and attitudes to sexual health and STI testing for students at an Australian regional university : a cross-sectional study', *Journal of the Australian and New Zealand Student Services Association*, 49, pp. 36-48.
- Magee, J. C., Bigelow, L., DeHaan, S. and Mustanski, B. S. (2012) 'Sexual Health Information Seeking Online: A Mixed-Methods Study Among Lesbian, Gay, Bisexual, and Transgender Young People', *Health Education & Behavior*, 39, pp. 276-289. doi: 10.1177/1090198111401384.
- McLeroy, K. R., Bibeau, D., Steckler, A. and Glanz, K. (1988) 'Ecological Perspective on Promotion Programs', *Health Education Quarterly*, 15(4), pp. 351-377.
- McPhedran, I. (2013) 'Civilian universities have higher rate of sexual harassment , sex attacks than the Australian Defence Force Academy', *News Corp Australia Network*, 30 July.
- Medvecky, F. and Leach, J. (2013) 'The Ethics of Distributing Scientific Knowledge: Epistemic and Ethical Injustices in Context', in Goodwin, J., Dahlstrom, M. F., and Priest, S. (eds) *Ethical Issues in Science Communication: A Theory-Based Approach*. CreateSpace Independent Publishing Platform, p. 363.

- Michielsen, K., Beauclair, R., Delva, W., Roelens, K., Van Rossem, R. and Temmerman, M. (2012) 'Effectiveness of a peer-led HIV prevention intervention in secondary schools in Rwanda: results from a non-randomized controlled trial', *BMC Public Health*, 12, p. 729. doi: 10.1186/1471-2458-12-729.
- Minichiello, V., Rahman, S., Dune, T., Scott, J. and Dowsett, G. (2013) 'E-health: potential benefits and challenges in providing and accessing sexual health services', *BMC Public Health*, 13(1), p. 790. doi: 10.1186/1471-2458-13-790.
- Mitchell, A., Patrick, K., Heywood, W., Blackman, P. and Pitts, M. (2014) *5th National Survey of Australian Secondary Students and Sexual Health 2013*. Melbourne. Available at: [http://www.redaware.org.au/wp-content/uploads/2014/10/31631-ARCSHS\\_NSASSSH\\_FINAL-A-3.pdf](http://www.redaware.org.au/wp-content/uploads/2014/10/31631-ARCSHS_NSASSSH_FINAL-A-3.pdf) (Accessed: 24 September 2015).
- Mohoric-Stare, D. and De Costa, C. (2009) 'Knowledge of emergency contraception amongst tertiary students in far North Queensland', *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 49(3), pp. 307–311. doi: 10.1111/j.1479-828X.2009.01005.x.
- Moore, E. W. and Smith, W. E. (2012) 'What college students do not know: where are the gaps in sexual health knowledge?', *Journal of American College Health*, 60(6), pp. 436–42. doi: 10.1080/07448481.2012.673521.
- Morris, J. L., Lippman, S. A., Philip, S., Bernstein, K., Neilands, T. B. and Lightfoot, M. (2014) 'Sexually transmitted infection related stigma and shame among African American male youth: Implications for testing practices, partner notification, and treatment', *AIDS Patient Care and STDs*, 28(9), pp. 499–506. doi: 10.1089/apc.2013.0316.
- Mortensen, G. L. and Larsen, H. K. (2010) 'The quality of life of patients with genital warts: a qualitative study.', *BMC Public Health*, 10, p. 113. doi: 10.1186/1471-2458-10-113.
- Mortimer, N. J., Rhee, J., Guy, R., Hayen, A. and Lau, A. Y. S. (2015) 'A web-based personally controlled health management system increases sexually transmitted infection screening rates in young people: a randomized controlled trial', *Journal of the American Medical Informatics Association : JAMIA*, 22(4), pp. 805–814. doi: 10.1093/jamia/ocu052.
- NACAIDS (1987) *Grim Reaper Advertisement*, YouTube. Available at: <https://www.youtube.com/watch?v=U219eUIZ7Qo> (Accessed: 8 February 2017).

- Newby, K. V, Brown, K. E., French, D. P. and Wallace, L. M. (2013) 'Which outcome expectancies are important in determining young adults' intentions to use condoms with casual sexual partners?: a cross-sectional study.', *BMC Public Health*, 13(1), p. 133. doi: 10.1186/1471-2458-13-133.
- Newman, L., Kamb, M., Hawkes, S., Gomez, G., Say, L., Seuc, A. and Broutet, N. (2013) 'Global estimates of syphilis in pregnancy and associated adverse outcomes: analysis of multinational antenatal surveillance data.', *PLoS Medicine*, 10(2), p. e1001396. doi: 10.1371/journal.pmed.1001396.
- Newton, D., Keogh, L., Temple-Smith, M., Fairley, C. K., Chen, M., Bayly, C., Williams, H., McNamee, K., Henning, D., Hsueh, A., Fisher, J. and Hocking, J. (2013) 'Key informant perceptions of youth-focussed sexual health promotion programs in Australia.', *Sexual Health*, 10(1), pp. 47-56. doi: 10.1071/SH12046.
- Newton, F. J., Newton, J. D., Windisch, L. and Ewing, M. T. (2012) 'Gender differences in beliefs about condom use among young, heterosexual Australian adults', *Health Education Journal*, 72(4), pp. 443-449. doi: 10.1177/0017896912450240.
- Norton, A. and Cakitaki, B. (2016) *Mapping Australian higher education 2016*. Melbourne.
- Noy, C. (2008) 'Sampling Knowledge: The Hermeneutics of Snowball Sampling in Qualitative Research', *International Journal of Social Research Methodology*, 11(4), pp. 327-344. doi: 10.1080/13645570701401305.
- O'Grady, M. A., Wilson, K. and Harman, J. J. (2009) 'Preliminary findings from a brief, peer-led safer sex intervention for college students living in residence halls', *The Journal of Primary Prevention*, 30(6), pp. 716-31. doi: 10.1007/s10935-009-0195-7.
- Oakeshott, P., Kerry, S., Aghaizu, A., Atherton, H., Hay, S., Taylor-Robinson, D., Simms, I. and Hay, P. (2010) 'Randomised controlled trial of screening for Chlamydia trachomatis to prevent pelvic inflammatory disease: the POPI (prevention of pelvic infection) trial.', *BMJ*, 340, p. c1642. doi: 10.1136/bmj.c1642.
- Osborne, S. L., Tabrizi, S. N., Brotherton, J. M. L., Cornall, A. M., Wark, J. D., Wrede, C. D., Jayasinghe, Y., Gertig, D. M., Pitts, M. K. and Garland, S. M. (2015) 'Assessing genital human papillomavirus genoprevalence in young Australian women following the introduction of a national vaccination program', *Vaccine*, 33(1), pp. 201-208. doi: 10.1016/j.vaccine.2014.10.045.
- Paavonen, J. and Eggert-Kruse, W. (1999) 'Chlamydia trachomatis: Impact on human reproduction', *Human Reproduction Update*, 5(5), pp. 433-447. doi:

10.1093/humupd/5.5.433.

- Padgett, D. K. (Kay) (2012) *Qualitative and Mixed Methods in Public Health*, SAGE Publications, Inc.
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N. and Hoagwood, K. (2013) 'Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research', *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), pp. 533–544. doi: 10.1007/s10488-013-0528-y.
- Parkin, S. and McKeganey, N. (2000) 'The Rise and Rise of Peer Education Approaches', *Drugs: education, prevention and policy*, 7(3), pp. 292–310. doi: 10.1080/09687630050109961.
- Parkinson, P. (2016) *The Controversy over the Safe Schools Program - Finding the Sensible Centre*, Legal Studies Research Paper. 16/83.
- Patton, M. Q. (2002) *Qualitative Research and Evaluation Methods*. 3rd edn. Thousand Oaks, California: SAGE Publications Ltd.
- Pavlin, N. L., Gunn, J. M., Parker, R., Fairley, C. K. and Hocking, J. (2006) 'Implementing chlamydia screening: what do women think? A systematic review of the literature', *BMC Public Health*, 6, p. 221. doi: 10.1186/1471-2458-6-221.
- Pedrana, A., Hellard, M., Guy, R., El-Hayek, C., Gouillou, M., Asselin, J., Batrouney, C., Nguyen, P. and Stoové, M. (2012) 'Stop the Drama Downunder', *Sexually Transmitted Diseases*, 39(8), pp. 651–658. doi: 10.1097/OLQ.0b013e318255df06.
- Perz, J. F., Armstrong, G. L., Farrington, L. A., Hutin, Y. J. F. and Bell, B. P. (2006) 'The contributions of hepatitis B virus and hepatitis C virus infections to cirrhosis and primary liver cancer worldwide', *Journal of Hepatology*, 45(4), pp. 529–538. doi: 10.1016/j.jhep.2006.05.013.
- Phillips, T., Eltherington, J., De Costa, C. and Woods, C. (2012) 'Knowledge of abortion law and provision of abortion services amongst tertiary students in Far North Queensland', *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 52(3), pp. 299–301. doi: 10.1111/j.1479-828X.2012.01421.x.
- Pouliot, C. and Godbout, J. (2014) 'Thinking outside the “knowledge deficit” box', *EMBO Reports*, 15(8), pp. 833–835.
- RACGP (2012) *Guidelines for preventive activities in general practice*. 8th edn. Melbourne.
- Raifman, J., Moscoe, E., Austin, S. B. and McConnell, M. (2017) 'Difference-in-Differences Analysis of the Association Between State Same-Sex Marriage Policies

- and Adolescent Suicide Attempts', *JAMA Pediatrics*, 171(4), pp. 350–356. doi: 10.1001/jamapediatrics.2016.4529.
- Ratzan, S. C. (2001) 'Health literacy: communication for the public good.', *Health Promotion International*, 16(2), pp. 207–214. doi: 10.1093/heapro/16.2.207.
- Regan, D. G., Wilson, D. P. and Hocking, J. S. (2008) 'Coverage is the key for effective screening of Chlamydia trachomatis in Australia', *The Journal of Infectious Diseases*, 198(3), pp. 349–58. doi: 10.1086/589883.
- Richard, L., Gauvin, L. and Raine, K. (2011) 'Ecological models revisited: their uses and evolution in health promotion over two decades', *Annual Review of Public Health*, 32, pp. 307–326. doi: 10.1146/annurev-publhealth-031210-101141.
- Richters, J., Altman, D., Badcock, P. B., Smith, A. M. A., de Visser, R. O., Grulich, A. E., Rissel, C. and Simpson, J. M. (2014) 'Sexual identity, sexual attraction and sexual experience: the Second Australian Study of Health and Relationships.', *Sexual Health*, 11(5), pp. 451–60. doi: 10.1071/SH14117.
- Richters, J., Visser, R. De, Rissel, C. and Smith, A. (2006) 'Sexual practices at last heterosexual encounter and occurrence of orgasm in a national survey', *Journal of Sex Research*, 43(3), pp. 217–226. doi: 10.1080/00224490609552320.
- Rissel, C., Badcock, P. B., Smith, A. M. A., Richters, J., de Visser, R. O., Grulich, A. E. and Simpson, J. M. (2014) 'Heterosexual experience and recent heterosexual encounters among Australian adults: the Second Australian Study of Health and Relationships', *Sexual Health*, 11(5), pp. 416–26. doi: 10.1071/SH14105.
- Robinson, K. H., Bansel, P., Denson, N., Ovenden, G. and Davies, C. (2014) *Growing Up Queer*. Melbourne. Available at: [http://www.glhv.org.au/files/Growing\\_Up\\_Queer2014.pdf](http://www.glhv.org.au/files/Growing_Up_Queer2014.pdf) (Accessed: 12 January 2016).
- Rosenstock, I. M. (1974) 'Historical Origins of the Health Belief Model', *Health Education and Behavior*, 2(4), pp. 328–335. doi: 10.1177/109019817400200403.
- Rosenstreich, G., Comfort, J. and Martin, P. (2011) 'Primary health care and equity: The case of lesbian, gay, bisexual, trans and intersex Australians', *Australian Journal of Primary Health*, 17(4), pp. 302–308. doi: 10.1071/PY11036.
- Rosenthal, D. A., Russell, J. and Thomson, G. (2008) 'The health and wellbeing of international students at an Australian university', *Higher Education*, 55(1), pp. 51–67. doi: 10.1007/s10734-006-9037-1.

- Russell, S. T., Ryan, C., Toomey, R. B., Diaz, R. M. and Sanchez, J. (2011) 'Lesbian, Gay, Bisexual, and Transgender Adolescent School Victimization: Implications for Young Adult Health and Adjustment', *Journal of School Health*, 81(5), pp. 223–230. doi: 10.1111/j.1746-1561.2011.00583.x.
- van der Sanden, M. C. A. and Meijman, F. J. (2008) 'Dialogue guides awareness and understanding of science: an essay on different goals of dialogue leading to different science communication approaches', *Public Understanding of Science*, 17(1), pp. 89–103. doi: 10.1177/0963662506067376.
- Sanders, S. A., Hill, B. J., Crosby, R. A. and Janssen, E. (2014) 'Correlates of condom-associated erection problems in young, heterosexual men: Condom fit, self-efficacy, perceptions, and motivations', *AIDS and Behavior*, 18, pp. 128–134. doi: 10.1007/s10461-013-0422-3.
- Sanders, S. A., Hill, B. J., Yarber, W. L., Graham, C. A., Crosby, R. A. and Milhausen, R. R. (2010) 'Misclassification bias: Diversity in conceptualisations about having had sex', *Sexual Health*, 7(1), pp. 31–34. doi: 10.1071/SH09068.
- Sanders, S. A., Yarber, W. L., Kaufman, E. L., Crosby, R. A., Graham, C. A. and Milhausen, R. R. (2012) 'Condom use errors and problems: A global view', *Sexual Health*, 9, pp. 81–95. doi: 10.1071/SH11095.
- Schick, V. R., Rosenberger, J. G., Herbenick, D., Collazo, E., Sanders, S. A. and Reece, M. (2015) 'The Behavioral Definitions of "Having Sex With a Man" and "Having Sex With a Woman" Identified by Women Who Have Engaged in Sexual Activity With Both Men and Women', *The Journal of Sex Research*, 53(4–5), pp. 1–10. doi: 10.1080/00224499.2015.1061632.
- Schneeberger, A., Mercer, C. H., Gregson, S. A. J., Ferguson, N. M., Nyamukapa, C. A., Anderson, R. M., Johnson, A. M. and Garnett, G. P. (2004) 'Scale-free networks and sexually transmitted diseases: a description of observed patterns of sexual contacts in Britain and Zimbabwe', *Sexually Transmitted Diseases*, 31(6), pp. 380–7.
- Scholly, K., Katz, A. R., Gascoigne, J. and Holck, P. S. (2005) 'Using social norms theory to explain perceptions and sexual health behaviors of undergraduate college students: an exploratory study', *Journal of American College Health*, 53(4), pp. 159–166. doi: 10.3200/JACH.53.4.159-166.
- Schultz, P. W., Nolan, J. M., Cialdini, R. B., Goldstein, N. J. and Griskevicius, V. (2007) 'The Constructive, Destructive, and Reconstructive Power of Social Norms',

- Psychological Science*, 18(5), p. 429. doi: 10.1111/j.1467-9280.2007.01917.x.
- Scott-Sheldon, L. A. J., Carey, K. B., Elliott, J. C., Garey, L. and Carey, M. P. (2014) 'Efficacy of alcohol interventions for first-year college students: A meta-analytic review of randomized controlled trials', *Journal of Consulting and Clinical Psychology*, 82(2), pp. 177–88. doi: 10.1037/a0035192.
- Sendziuk, P. (2003) *Learning to Trust: Australian responses to AIDS*. Sydney: UNSW Press.
- Sexual Health and Family Planning ACT (2011) *Emergency Contraception Information Sheet*. Available at: <http://www.shfpact.org.au/index.php/information-resources/info-sheets/31-contraception/196-emergency-contraception> (Accessed: 26 February 2015).
- Simis, M. J., Madden, H., Cacciatore, M. A. and Yeo, S. K. (2016) 'The lure of rationality: Why does the deficit model persist in science communication?', *Public Understanding of Science*, 25(4), pp. 400–414. doi: 10.1177/0963662516629749.
- Simon, W. and Gagnon, J. H. (1986) 'Sexual scripts: permanence and change.', *Archives of Sexual Behavior*, 15(2), pp. 97–120. doi: 10.1007/bf01542219.
- Simpson, S., Clifford, C., Ross, K., Sefton, N., Owen, L., Blizzard, L. and Turner, R. (2015) 'Sexual health literacy of the student population of the University of Tasmania: results of the RUSSL Study', *Sexual Health*, 12, pp. 207–216. doi: 10.1071/SH14223.
- Skerrett, D. M., Kőlves, K. and De Leo, D. (2015) 'Are LGBT Populations at a Higher Risk for Suicidal Behaviors in Australia? Research Findings and Implications', *Journal of Homosexuality*, 62(7), pp. 883–901. doi: 10.1080/00918369.2014.1003009.
- Sloane, C. and Fitzpatrick, K. (2011) *Talk About It Survey Results & Recommendations*. Available at: <http://www.whiteribbon.org.au/uploads/media/talk-about-it-survey-results-and-recommendations.pdf> (Accessed: 23 March 2017).
- Slovic, P., Finucane, M. L., Peters, E. and MacGregor, D. G. (2004) 'Risk as analysis and risk as feelings', *Risk Analysis*, 24(2), pp. 311–322.
- Smith, A. (2012) 'Sexual concurrency: Driver or passenger in the spread of sexually transmissible infections?', *Sexual Health*, 9, pp. 203–204. doi: 10.1071/SH11106.
- Smith, J. L., Fenwick, J., Skinner, R., Hallet, J., Merriman, G. and Marshall, L. (2012) 'Sex, condoms and sexually transmissible infections: A qualitative study of sexual health in young Australian men', *Archives of Sexual Behavior*, 41(2), pp. 487–495. doi: 10.1007/s10508-010-9664-6.

- Social Security Administration (2010) *Separate Program for Abstinence Education*. Available at: [https://www.ssa.gov/OP\\_Home/ssact/title05/0510.htm](https://www.ssa.gov/OP_Home/ssact/title05/0510.htm) (Accessed: 21 January 2016).
- Southgate, E. and Aggleton, P. (2016) 'Peer education : From enduring problematics to pedagogical potential', *Health Education Journal*, 76(1), pp. 3–14. doi: 10.1177/0017896916641459.
- Stocklmayer, S. (2013) 'Engagement with Science', in Gilbert, J. K. and Stocklmayer, S. (eds) *Communication and engagement with science and technology: issues and dilemmas: a reader in science*. New York: Routledge, Taylor and Francis Group, pp. 19–38.
- Stocklmayer, S. M., Rennie, L. J. and Gilbert, J. K. (2010) 'Studies in Science Education The roles of the formal and informal sectors in the provision of effective science education', *Studies in Science Education*, 46(1), pp. 1–44. doi: 10.1080/03057260903562284.
- Sturgis, P. and Allum, N. (2004) 'Science in Society: Re-Evaluating the Deficit Model of Public Attitudes', *Public Understanding of Science*, 13(1), pp. 55–74. doi: 10.1177/0963662504042690.
- Stylianou, M. (2010) 'The return of the Grim Reaper', *History Australia*, 7(1), p. 10.1-10.18. doi: 10.2104/ha100010.
- Swanton, R., Allom, V. and Mullan, B. (2015) 'A meta-analysis of the effect of new-media interventions on sexual-health behaviours', *Sexually Transmitted Infections*, 91(1), pp. 14–20. doi: 10.1136/sextrans-2014-051743.
- The Equality Rights Alliance's Young Women's Advisory Group (YWAG) (2015) *Let's Talk: Young Women's Views on Sex Education*. Available at: <http://equalityrightsalliance.org.au/projects/lets-talk-young-womens-views-sex-education> (Accessed: 20 September 2016).
- The Kirby Institute (2014) *HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2014*. Sydney. Available at: <http://kirby.unsw.edu.au/sites/default/files/hiv/resources/ASR2014.pdf> (Accessed: 28 March 2016).
- The Kirby Institute (2016) *HIV, viral hepatitis and sexually transmissible infections in Australia. Annual Surveillance Report 2016*. Sydney. Available at: <http://www.kirby.unsw.edu.au/surveillance/Annual-Surveillance-Reports> (Accessed: 24 March 2016).



- The White House (2014) *Not Alone: The first report of the White House Task Force to Protect Students from Sexual Assault*. Washinton D.C. Available at:  
<https://www.notalone.gov/assets/report.pdf> (Accessed: 15 September 2017).
- Theunissen, K. A. T. M., Bos, A. E. R., Hoebe, C. J. P. A., Kok, G., Vluggen, S., Crutzen, R. and Dukers-Muijers, N. H. T. M. (2015) 'Chlamydia trachomatis testing among young people: what is the role of stigma?', *BMC Public Health*, 15(1), p. 651. doi: 10.1186/s12889-015-2020-y.
- Tolli, M. V. (2012) 'Effectiveness of peer education interventions for HIV prevention, adolescent pregnancy prevention and sexual health promotion for young people: A systematic review of European studies', *Health Education Research*, 27(5), pp. 904-913. doi: 10.1093/her/cys055.
- Trench, B. and Bucchi, M. (2010) 'Science communication, an emerging discipline', *Journal of Science Communication*, 9(3), pp. 1-5.
- UNAIDS (2015a) *AIDS by the numbers*. Available at:  
[http://www.unaids.org/sites/default/files/media\\_asset/AIDS\\_by\\_the\\_numbers\\_2015\\_en.pdf](http://www.unaids.org/sites/default/files/media_asset/AIDS_by_the_numbers_2015_en.pdf) (Accessed: 3 April 2017).
- UNAIDS (2015b) *Fact Sheet 2015*. Available at:  
[http://www.unaids.org/sites/default/files/media\\_asset/20150901\\_FactSheet\\_2015\\_en.pdf](http://www.unaids.org/sites/default/files/media_asset/20150901_FactSheet_2015_en.pdf) (Accessed: 3 April 2016).
- UNESCO (2015) *Comprehensive Sexuality Education: A Global Review 2015*. Paris.
- Van't Riet, J., Ruiter, R. and De Vries, H. (2012) 'Preaching to the choir? The influence of personal relevance on the effects of gain- and loss-framed health-promoting messages', *Journal of Health Psychology*, 17(5), pp. 712-723. doi: 10.1177/1359105311421047.
- Villa-Torres, L. and Svanemyr, J. (2015) 'Ensuring youth's right to participation and promotion of youth leadership in the development of sexual and reproductive health policies and programs', *Journal of Adolescent Health*. Elsevier Inc., 56(1), pp. S51-S57. doi: 10.1016/j.jadohealth.2014.07.022.
- de Visser, R. O., Badcock, P. B., Rissel, C., Richters, J., Smith, A., Grulich, A. E. and Simpson, J. M. (2014a) 'Experiences of sexual coercion in a representative sample of adults: the Second Australian Study of Health and Relationships', *Sexual Health*, 11(5), pp. 472-80. doi: 10.1071/SH14103.
- de Visser, R. O., Badcock, P. B., Rissel, C., Richters, J., Smith, A., Grulich, A. E. and

- Simpson, J. M. (2014b) 'Safer sex and condom use: findings from the Second Australian Study of Health and Relationships', *Sexual Health*, 11(5), pp. 495–504. doi: 10.1071/SH14102.
- de Visser, R. O., Badcock, P. B., Simpson, J. M., Grulich, A. E., Smith, A. M. A., Richters, J. and Rissel, C. (2014c) 'Attitudes toward sex and relationships: the Second Australian Study of Health and Relationships', *Sexual Health*, 11(5), pp. 397–405. doi: 10.1071/SH14099.
- de Visser, R. O. and O'Neill, N. (2013) 'Identifying and understanding barriers to sexually transmissible infection testing among young people', *Sexual Health*, 10(6), pp. 553–558. doi: 10.1071/SH13034.
- de Visser, R. O., Rissel, C. E., Smith, A. M. A. and Richters, J. (2006) 'Sociodemographic correlates of selected health risk behaviors in a representative sample of Australian young people', *International Journal of Behavioral Medicine*, 13(2), pp. 153–62. doi: 10.1207/s15327558ijbm1302\_7.
- de Visser, R. O., Smith, A. M. a, Rissel, C. E., Richters, J. and Grulich, A. E. (2003) 'Sex in Australia: heterosexual experience and recent heterosexual encounters among a representative sample of adults.', *Australian and New Zealand journal of public health*, 27(2), pp. 146–54.
- Walker, G. J. (2012) *Motivational features of science shows*. Australian National University.
- Walker, J., Walker, S., Fairley, C. K., Bilardi, J., Chen, M. Y., Bradshaw, C. S., Urban, E., Pirotta, M., Birden, H., Donovan, B., Kaldor, J. M., Gunn, J. and Hocking, J. S. (2013) 'What do young women think about having a chlamydia test? Views of women who tested positive compared with women who tested negative', *Sexual Health*, 10(1), pp. 39–42. doi: 10.1071/SH12019.
- Walsh, J. L., Fielder, R. L., Carey, K. B. and Carey, M. P. (2013) 'Changes in women's condom use over the first year of college.', *Journal of Sex Research*, 50(2), pp. 128–38. doi: 10.1080/00224499.2011.642024.
- Weaver, H., Smith, G. and Kippax, S. (2005) 'School-based sex education policies and indicators of sexual health among young people: a comparison of the Netherlands, France, Australia and the United States', *Sex Education*, 5(2), pp. 171–188. doi: 10.1080/14681810500038889.
- Weinstein, R. B., Walsh, J. L. and Ward, L. M. (2008) 'Testing a New Measure of Sexual Health Knowledge and Its Connections to Students' Sex Education,

- Communication, Confidence, and Condom Use', *International Journal of Sexual Health*, 20(3), pp. 212–221. doi: 10.1080/19317610802240279.
- Wiederman, M. W. (1999) 'Volunteer bias in sexuality research using college student participants', *Journal of Sex Research*, 36(1), pp. 59–66. doi: 10.1080/00224499909551968.
- Wilcox, P., Winn, S. and Fyvie-Gauld, M. (2005) "It was nothing to do with the university, it was just the people": the role of social support in the first-year experience of higher education', *Studies in Higher Education*, 30(6), pp. 707–722. doi: 10.1080/03075070500340036.
- Wiltshire, K. and Donnelly, K. (2014) *Review of the Australian Curriculum Final Report*. Available at: <http://docs.education.gov.au/node/36269> (Accessed: 6 May 2016).
- Wong, J. P.-H., Chan, K. B. K., Boi-Doku, R. and McWatt, S. (2012) 'Risk discourse and sexual stigma: Barriers to STI testing, treatment and care among young heterosexual women in disadvantaged neighbourhoods in Toronto', *Canadian Journal of Human Sexuality*, 21(2), pp. 75–89.
- World Health Organisation (1986) *The Ottawa Charter for Health Promotion*. Ottawa. Available at: <http://www.who.int/healthpromotion/conferences/previous/ottawa/en/> (Accessed: 3 April 2014).
- World Health Organisation (2006) *Defining sexual health: Report of a technical consultation on sexual health, 28-31 January 2002*. Geneva. Available at: [http://www.who.int/reproductivehealth/topics/gender\\_rights/defining\\_sexual\\_health.pdf](http://www.who.int/reproductivehealth/topics/gender_rights/defining_sexual_health.pdf) (Accessed: 7 April 2014).
- World Health Organisation (2014) *Global status report on alcohol and health 2014, Global status report on alcohol*. doi: [/entity/substance\\_abuse/publications/global\\_alcohol\\_report/en/index.html](http://www.who.int/entity/substance_abuse/publications/global_alcohol_report/en/index.html).
- Yeung, A. H., Temple-Smith, M., Fairley, C. K., Vaisey, A. M., Guy, R., Law, M. G., Low, N., Bingham, A. L., Gunn, J., Kaldor, J., Donovan, B. and Hocking, J. S. (2014) 'Chlamydia prevalence in young attenders of rural and regional primary care services in Australia: A cross-sectional survey', *Medical Journal of Australia*, 200(3), pp. 170–175. doi: 10.5694/mja13.10729.
- Younge, S., Salazar, L., Crosby, R., DiClemente, R., Wingwood, G. and Rose, E. (2008) 'Condom use at last sex as a proxy for other measures of condom use: is it good

enough?', *Adolescence*, 43(172), pp. 927–931.

Zhang, D., Bi, Y., Maddock, J. E. and Li, S. (2010) 'Sexual and Reproductive Health Knowledge Among Female College Students in Wuhan, China', *Asia-Pacific Journal of Public Health*, 22(1), pp. 118–126.

Zou, H., Fairley, C. K., Guy, R., Bilardi, J., Bradshaw, C. S., Garland, S. M., Sze, J. K., Afrizal, A. and Chen, M. Y. (2013) 'Automated, Computer Generated Reminders and Increased Detection of Gonorrhoea, Chlamydia and Syphilis in Men Who Have Sex with Men', *PLoS ONE*, 8(4), pp. 2–9. doi: 10.1371/journal.pone.0061972.

## **Appendix A: Indicative interview questions**

### **Sexual health provider indicative questions**

- 1) What role do you play in your institution?
- 2) What sexual health services does your institution provide?
- 3) What outreach programs does/has your institution run?
- 4) Do you do off-site testing? How does that work in terms of expense and time?
- 5) Do you have any interaction with university groups? What types of groups?
- 6) What events do you normally do for university groups?
- 7) What aspects or areas of sexual health did these promotions focus on?
- 8) When did these promotions take place? Were any included in orientation programs?
- 9) Are these promotions often targeted towards individual genders or all students? Why?
- 10) Have you had any sexual health promotion that was aimed at LGBT students? Can you tell me about it?

- 11) What do you think was the best sexual health promotion (for university students) and why do you think it was effective?
- 12) What are the biggest challenges working with a university audience?
- 13) How much time do you have for outreach activities? University outreach in particular?
- 14) Does your institution provide safe sex supplies (condoms, lubricant etc)? If so, what supplies?
- 15) I'm looking at designing a customisable promotion designed specifically for university residences. What would you would you want from such a program (both in terms of content and features)?
- 16) Are there any other organisations in Canberra you think it would be good for me to talk to?
- 17) Anything else you'd like to add?

#### **Peer educator indicative questions**

- 1) What role do you have in your organisation and how is it related to sexual health?
- 2) What types of sexual health promotion do you do? (If needed, clarify: for example, posters, talks, testing, other events)
- 3) Have you collaborated with external services for any sexual health promotion? Which services? (Eg Sexual Health and Family Planning ACT, Canberra Sexual Health Centre, university health centre)
- 4) What aspects or areas of sexual health did these promotions focus on? (Eg STI knowledge? Consent? Pleasure? Testing?)

- 5) When did these promotions take place? Were any included in orientation programs?
- 6) Are these promotions targeted towards individual genders or all students? Why?
- 7) Have you had any sexual health promotion that was aimed at the LGBT community? Why? (Define LGBT as lesbian, gay, bisexual and transgender if needed).
- 8) What do you think was the best sexual health promotion and why do you think it was effective?
- 9) What kind of participation rate did you see from this event?
- 10) Does your organisation provide safe sex supplies (condoms, lubricant etc)? If so, what supplies and how do students access them?
- 11) What have been the biggest challenges in your role as it relates to sexual health? (Eg time/money constraints, attracting students to events, lack of knowledge, not comfortable with topic?)
- 12) In the course of your role, have you visited a sexual health provider?
- 13) I'm looking at designing a customisable promotion designed specifically for university peer educators like yourself. What would you would you want from such a program (both in terms of content and features)?
- 14) Can you suggest anyone else who you think it'd be good for me to talk to about this topic?
- 15) How did you encourage people to come? Food? Drink? Activities?
- 16) Anything else?



## Appendix B: The Promotion Survey questions

1. What is your age?

2. What is your gender?

Female

Male

Other (please specify)

3. What is your sexual orientation?

Heterosexual

Homosexual

Bisexual

Other (please specify)

4. What stage of university are you currently at?

First year undergraduate

Second year undergraduate

Third year undergraduate

Fourth or later year undergraduate

Postgraduate

Staff member

Other (please specify)

5. If you are a student, are you a domestic or international student?

Domestic

International

6. What university do you attend?

Sexual Health Definition

While preventing and treating sexually transmitted infections like chlamydia, gonorrhoea and HIV is a major part of sexual health, it is by no means all of it. To draw from the World



Health Organisation's definition, sexual health is a state of physical, emotional, mental, and social well-being related to sexuality; it is not merely the absence of disease. As such it's not just about condoms, it's about striving for positive relationships and respectful approaches to sexuality. It's being free of sexual coercion, discrimination and violence. And it's about supporting the possibility of safe and pleasurable sexual experiences.

\*7. After considering the definition of sexual health above, which of the following categories best describes you?

I am a student with a role related to sexual health (e.g. men's and women's officers, sexuality representatives, health and wellbeing senior residents and similar)

I am a student leader or staff member with a role that is not related to sexual health

Other (please specify)

8. What is your position title?

9. What type of organisation is your role a part of?

A university LGBTI group (Lesbian, Gay, Bisexual, Transgender and Intersex)

A university residence (e.g. Colleges, Halls, Lodges)

A university students' association/representative council/union/similar

A residents' committee or similar from a residence

Other (please specify)

10. If your organisation is a student residence, who operates the residence?

A religious organisation

A corporation

The university

Other (please specify)

11. Approximately how many students are there in your organisation?

(For residences, please use total number of residents. For student representative committees and similar, please use the total number of students you are representing.)

12. How is your role related to sexual health?

It is mainly focused on sexual assault prevention

It is mainly focused on sexual health in particular

It is mainly focused on gender

It is mainly focused on health and wellbeing in general

It is mainly focused on sexuality including LGBTI issues

Other (please specify)

13. Is this a paid or volunteer position?

Paid/scholarship

Volunteer

14. How much sexual health training did you receive for this role?

More than enough

Enough

Some

Little

None

15. After your training (if any), how well prepared did you feel to approach the sexual health aspects of your role?

Very well prepared

Well prepared

Somewhat prepared

Poorly prepared

Not at all prepared

16. Does your organisation have any compulsory sexual health promotion?

Yes No

17. This year, sexual health has been promoted in my organisation through: (Please tick all that apply)

Social events with a sexual health message

Safe sex supplies (e.g. condoms)  
Sexual health testing (either on-site or an organised trip)  
Guest speakers  
Pamphlets and posters  
One on one support and referral to other services  
Workshops  
Relevant movies  
Discussion or Q&A panels  
Other (please specify)

18. What aspects of sexual health did these promotions focus on? (Please tick all that apply)

Transgender and intersex issues  
Sexting and digital privacy  
Respectful relationships  
Long acting reversible contraception (e.g. implanon, IUDs)  
Gay, lesbian and bisexuality issues  
Pornography  
Consent  
Domestic violence prevention  
Alcohol and sex  
Different cultural expectations about sex  
Pleasure  
Sexual harassment and sexual assault prevention  
Abstinence  
Condoms  
Abortion  
HIV/AIDS  
Dating and hook up apps/websites (e.g. Tinder and Grindr)  
Safe sex  
Men's health issues (e.g. testicular cancer)  
Other barrier methods (e.g. dams, female condoms)  
Women's health issues (e.g. cervical cancer)  
The pill

Sex work  
STI impacts/symptoms  
Emergency contraception (e.g. the morning after pill)  
STI testing  
Who to approach for support within your organisation  
Anatomy  
Who to approach for support outside your organisation  
STI statistics  
Other (please specify)

19. In the course of your role, did you seek advice, support or speakers from any of the following?

(Please tick all that apply)

Sexual health/family planning clinic  
University health centre  
Domestic violence/rape crisis support centre  
University women's department  
University students' association/representative council/union or similar  
University LGBTI group  
Sexual health researcher/advocate/speaker  
General medical/health centre  
Non-university related LGBTI group  
I did not seek any external advice, support or speakers  
Other (please specify)

20. When did your event-based promotions take place?

(Please tick all that apply)

Orientation week  
During weeks 1-4 in first semester/trimester  
Week 5 or later in first semester/trimester  
Mid year orientation  
Second semester  
Second trimester

Third trimester

Other (please specify)

21. What factors influenced the timing of your event(s)? (Please tick all that apply)

It was when other information was being disseminated

It was early to educate students before they've established relationships

It was the earliest it could be arranged

To avoid periods with many assessments

To avoid clashes with other events

To set community standards as new students arrive

It was when funding/resources were available

It was when event attendance is highest

To coincide with a major event

Other (please specify)

22. How did you encourage people to attend? (Please tick all that apply)

Free food and/or non-alcoholic drinks

Combined with social activity (e.g. party, movie night)

Free alcohol

None of the above

Other (please specify)

23. Who were your events aimed at?

Exclusively at men

Exclusively at women

At all genders

At all genders, but through separate events

At all genders, but with some mixed events, some split events

Other (please specify)

24. Why did you choose to target your promotions in this way? (Please tick all that apply)

To prevent the exclusion of transgender and intersex participants

To cover gender specific contraception options

To address gendered issues (e.g. sexual assault)

To make participants feel more comfortable talking about sex

My group is limited to one gender only

To cover biological issues that specifically relate to either men or women

To reinforce that it is a whole community issue

Other (please specify)

25. Were any aspects of your sexual health promotions tailored towards the needs of international students?

Yes No

26. If you answered 'no' to the previous question, what factors influenced your decision?

(Please tick all that apply)

No/few students in the group identify with those categories

Not enough interest from community

Don't know enough about relevant issues

Don't feel comfortable with the topic

Considered culturally inappropriate

It didn't occur to me

Another person in my organisation is in charge of these aspects of sexual health

Other (please specify)

27. Were any aspects of your sexual health promotions tailored towards the needs of gay, lesbian or bisexual students?

Yes No

28. If you answered 'no' to the previous question, what factors influenced your decision?

(Please tick all that apply)

No/few students in the group identify with those categories

Not enough interest from community

Don't know enough about relevant issues

Don't feel comfortable with the topic

Considered culturally inappropriate

It didn't occur to me

Another person in my organisation is in charge of these aspects of sexual health

Other (please specify)

29. Were any aspects of your sexual health promotions tailored towards the needs of transgender or intersex students?

Yes No

30. If you answered 'no' to the previous question, what factors influenced your decision?

No/few students in the group identify with those categories

Not enough interest from community

Don't know enough about relevant issues

Don't feel comfortable with the topic

Considered culturally inappropriate

It didn't occur to me

Another person in my organisation is in charge of these aspects of sexual health

Other (please specify)

31. Please describe the best sexual health promotion that you have organised

32. Why do you think it was so successful?

33. Approximately how many members of your organisation attended or participated in the promotion?

\*34. Does your organisation provide any safe sex supplies (e.g. condoms) or pregnancy tests?

Yes

No

Unsure

35. What safe sex supplies or pregnancy tests does your organisation supply? (Please tick all that apply)

Dams

Female condoms

Condoms

Lubricant

Pregnancy tests

Unsure

Other (please specify)

36. How are these materials accessed? (Please tick all that apply)

From a private place (e.g. bathroom)

At a sexual health event

In a welcome pack

From a public place (e.g. reception)

From a person

From a vending machine

Unsure

Other (please specify)

37. What factors influenced the decision not to provide these materials? (Please tick all that apply)

Difficulty acquiring them

Not considered a role of the organisation

Religious objection

Expense

Unsure

Other (please specify)

38. What have been the biggest challenges in your role as it relates to sexual health? (Please tick all that apply)

Knowing whether a promotion has been successful

Overcoming the awkwardness and stigma related to sexual health



Coming up with promotions  
Supporting group members with sexual health concerns  
Getting members to feel comfortable approaching you  
Convincing members that sexual health is relevant to them  
Getting up to speed on sexual health knowledge  
Cost  
Religious objections  
Managing different cultural expectations regarding sex  
Hard to find local support related to sexual health  
Engaging the community/getting people to attend events  
Not knowing enough about LGBTI issues  
Resistance from organisation  
Other (please specify)

39. Have you ever had a sexual health check up or STI test?

(This could be either to get a better understanding of the process for your role or for your own health.)

Yes

No

Rather not say

40. If you answered 'no' to the previous question, would you feel comfortable getting tested in order to expand your understanding of sexual health?

Yes No

41. Do you think someone who has just started out in your role would benefit from a 'how to' guide on sexual health promotion in universities?

Yes No

42. What do you think would be the most convenient form for such a guide?

A website

An emailed guide

A mailed guide

Other (please specify)

43. What do you think are the most important topics for a sexual health promotion aimed at a university audience?

(Please tick all that apply)

Transgender and intersex issues

Sexting and digital privacy

Respectful relationships

Long acting reversible contraception (e.g. implanon, IUDs)

Gay, lesbian and bisexuality issues

Pornography

Consent

Domestic violence prevention

Alcohol and sex

Different cultural expectations about sex

Pleasure

Sexual harassment and sexual assault prevention

Abstinence

Condoms

Abortion

HIV/AIDS

Dating and hook up apps/websites (e.g. Tinder and Grindr)

Safe sex

Men's health issues (e.g. testicular cancer)

Other barrier methods (e.g. dams, female condoms)

Women's health issues (e.g. cervical cancer)

The pill

Sex work

STI impacts/symptoms

Emergency contraception (e.g. the morning after pill)

STI testing

Who to approach for support within your organisation

Anatomy

Who to approach for support outside your organisation

STI statistics

Other (please specify)

44. Before submitting your responses, is there anything else you would like to add?

Thank you for completing this survey! If you are ready to submit your answers, please click 'next'.

45. What is your position title?

46. What type of organisation is your role a part of?

A university LGBTI group (Lesbian, Gay, Bisexual, Transgender and Intersex)

A university residence (e.g. Colleges, Halls, Lodges)

A university students' association/representative council/union/similar

A residents' committee or similar from a residence

Other (please specify)

47. If your organisation is a student residence, who operates the residence?

A religious organisation

The university

A corporation

Other (please specify)

48. Approximately how many students are there in your organisation?

(For residences, please use total number of residents. For student representative committees and similar, please use the total number of students you are representing.)

\*49. Does your organisation provide any safe sex supplies (e.g. condoms) or pregnancy tests?

Yes

No

Unsure

50. What safe sex supplies or pregnancy tests does your organisation supply? (Please tick all that apply)

Condoms

Pregnancy tests

Dams

Female condoms

Lubricant

Unsure

Other (please specify)

51. How are these materials accessed? (Please tick all that apply)

At a sexual health event

From a vending machine

In a welcome pack

From a private place (e.g. bathroom)

From a person

From a public place (e.g. reception)

Unsure

Other (please specify)

52. What factors influenced the decision not to provide these materials? (Please tick all that apply)

Difficulty acquiring them

Expense

Religious objection

Not considered a role of the organisation

Unsure

Other (please specify)

\*53. Did your organisation hold any events aimed at informing members about sexual health this year?

Yes

No

Unsure

54. Does your organisation have any compulsory sexual health promotion?

Yes No

55. This year, sexual health has been promoted in my organisation through: (Please tick all that apply)

Sexual health testing (either on-site or an organised trip)

Guest speakers

Discussion or Q&A panels

Safe sex supplies (e.g. condoms)

Relevant movies

Social events with a sexual health message

Pamphlets and posters

Workshops

One on one support and referral to other services

Other (please specify)

56. What aspects of sexual health did these promotions focus on? (Please tick all that apply)

Transgender and intersex issues

Sexting and digital privacy

Respectful relationships

Long acting reversible contraception (e.g. implanon, IUDs)

Gay, lesbian and bisexuality issues

Pornography

Consent

Domestic violence prevention

Alcohol and sex

Different cultural expectations about sex

Pleasure

Sexual harassment and sexual assault prevention

Abstinence

Condoms

Abortion  
HIV/AIDS  
Dating and hook up apps/websites (e.g. Tinder and Grindr)  
Safe sex  
Men's health issues (e.g. testicular cancer)  
Other barrier methods (e.g. dams, female condoms)  
Women's health issues (e.g. cervical cancer)  
The pill  
Sex work  
STI impacts/symptoms  
Emergency contraception (e.g. the morning after pill)  
STI testing  
Who to approach for support within your organisation  
Anatomy  
Who to approach for support outside your organisation  
STI statistics  
Other (please specify)

57. When did these event-based promotions take place? (Please tick all that apply)

Orientation week  
During weeks 1-4 in first semester/trimester  
Week 5 or later in first semester/trimester  
Mid year orientation  
Second semester  
Second trimester  
Third trimester  
Other (please specify)

58. Were there any incentives used to encourage people to attend? (Please tick all that apply)

Free food and/or non-alcoholic drinks  
Free alcohol  
Combined with social activity (e.g. party, movie night)  
None of the above

Other (please specify)

59. Who were these events aimed at?

Exclusively at men

Exclusively at women

At all genders

At all genders, but through separate events

At all genders, but with some mixed events, some split events

Other (please specify)

60. Please describe the best sexual health promotion that your organisation has run.

61. Why do you think it was so successful?

62. Approximately how many members of your organisation attended or participated in the promotion?

63. Why do you think your organisation doesn't currently have any major sexual health promotions?

\*64. Would you like to have sexual health promotions happen within your group in the future?

Yes No

65. What are the reasons for your answer to the previous question?

66. What challenges do you think pose the biggest barriers to your organisation promoting sexual health to your members?

(Please tick all that apply)

Religious objections

Supporting group members with sexual health concerns

Getting members to feel comfortable approaching you

Engaging the community/getting people to attend events

Overcoming the awkwardness and stigma related to sexual health  
Knowing whether a promotion has been successful  
Not knowing enough about LGBTI issues  
Cost  
Getting up to speed on sexual health knowledge  
Resistance from organisation  
Managing different cultural expectations regarding sex  
Coming up with promotions  
Convincing members that sexual health is relevant to them  
Hard to find local support related to sexual health  
Other (please specify)

67. If someone were to give you a ready-made promotion for student leaders to run, what features would make it attractive to your organisation?

68. What aspects of sexual health would you like such a promotion to cover? (Please tick all that apply)

Transgender and intersex issues  
Sexting and digital privacy  
Respectful relationships  
Long acting reversible contraception (e.g. implanon, IUDs)  
Gay, lesbian and bisexuality issues  
Pornography  
Consent  
Domestic violence prevention  
Alcohol and sex  
Different cultural expectations about sex  
Pleasure  
Sexual harassment and sexual assault prevention  
Abstinence  
Condoms  
Abortion  
HIV/AIDS



Dating and hook up apps/websites (e.g. Tinder and Grindr)

Safe sex

Men's health issues (e.g. testicular cancer)

Other barrier methods (e.g. dams, female condoms)

Women's health issues (e.g. cervical cancer)

The pill

Sex work

STI impacts/symptoms

Emergency contraception (e.g. the morning after pill)

STI testing

Who to approach for support within your organisation

Anatomy

Who to approach for support outside your organisation

STI statistics

Other (please specify)

69. Before submitting your responses, is there anything else you would like to add?

Thank you for completing this survey! If you are ready to submit your answers, please click 'done'.

## Appendix C: The Student Survey questions

\*1. What is your age?

\*2. Are you a current student of the Australian National University (ANU)?

Yes No

3. What is your gender?

Male

Female

Other

If you selected 'other' and would like to specify, please do so here

4. What is your sexual orientation?

Heterosexual (straight)

Homosexual (gay or lesbian)

Bisexual

Other

If you selected 'other' and would like to specify, please do so here

5. What stage of university are you currently at?

First year undergraduate

Second year undergraduate

Third year undergraduate

Fourth or later year undergraduate

Postgraduate

Other (please specify)

6. Are you a domestic or international student?

Domestic

International

\*7. Please choose the option that best represents your sexual experiences

I have had sex (vaginal or anal intercourse) and/or oral sex

I have had sexual experiences, but they didn't include intercourse or oral sex

I have not had sexual experiences.

\*8. Have you ever had sexual experiences with men?

Yes No

9. Please choose the option that best represents your sexual experiences

I have only ever had sexual experiences with men

I have only ever had sexual experiences with women

I have had sexual experiences with both men and women

10. How many men have you had sex (intercourse) with in your lifetime?

11. How many men have you had oral sex with in your lifetime? (Both giving and receiving)

\*12. Have you had sex (intercourse) with a man in the last 12 months?

Yes

No

Unsure

13. How many men have you had sex (intercourse) with in the last 12 months?

14. What was your relationship to the man you last had sex (intercourse) with?

Regular partner (e.g. husband or boyfriend)

Occasional partner

Casual/one-night stand

Other (please specify)

15. Did you have an orgasm the last time you had sex (intercourse) with a man?

Yes

No

Unsure

16. Did you use a condom the last time you had sex (intercourse) with a man?

Yes

No

Unsure

\*17. Did you use any other type of contraception the last time you had sex (intercourse) with a man?

Yes

No

Unsure

18. What other type of contraception did you use the last time you had sex (intercourse) with a man?

Contraceptive pill

IUD (intrauterine device)

Depo injection (Provera or Ralovera)

Implant (Implanon)

Partner had a vasectomy

Have had tubal ligation

Safe period/natural family planning (rhythm method, Billings method, symptothermic, periodic abstinence, 'We only do it when it's safe')

Withdrawal (coitus interruptus, pulling out)

Nuva-Ring

Diaphragm/cervical cap

Spermicide foam or jelly

Other non-prescribed (incl. Femidom, douching, sponge)

Breastfeeding

Other (please specify)

\*19. Have you had oral sex with a man in the last 12 months? (Either giving or receiving)

Yes

No

Unsure

20. How many men have you had oral sex with in the last 12 months? (Both giving and receiving)

21. What was your relationship to the man you last had oral sex with?

Regular partner (e.g. husband or boyfriend)

Occasional partner

Casual/one-night stand

Other (please specify)

22. Did you use a condom or other barrier method (e.g. dam) the last time you had oral sex with a man?

Yes

No

Unsure

23. Did you have an orgasm the last time you had oral sex with a man?

Yes

No

Unsure

\*24. Have you ever had sexual experiences with women?

Yes No

25. How many women have you had sex (intercourse) with in your lifetime?

26. How many women have you had oral sex with in your lifetime? (Both giving and receiving)

\*27. Have you had sex (intercourse) with a woman in the last 12 months?

Yes

No

Unsure

28. How many women have you had sex (intercourse) with in the last 12 months?

29. What was your relationship to the woman you last had sex (intercourse) with?

Regular partner (e.g. wife or girlfriend)

Occasional partner

Casual/one-night stand

Other (please specify)

30. Did you have an orgasm the last time you had sex (intercourse) with a woman?

Yes

No

Unsure

31. Did you use a condom the last time you had sex (intercourse) with a woman?

Yes

No

Unsure

\*32. Did you use any other type of contraception the last time you had sex (intercourse) with a woman?

Yes

No

Unsure

33. What other type of contraception did you use the last time you had sex (intercourse) with a woman?

Contraceptive pill

IUD (intrauterine device)

Depo injection (Provera or Ralovera)

Implant (Implanon)

Partner had a vasectomy

Have had tubal ligation

Safe period/natural family planning (rhythm method, Billings method, symptothermic, periodic abstinence, 'We only do it when it's safe')

Withdrawal (coitus interruptus, pulling out)

Nuva-Ring

Diaphragm/cervical cap

Spermicide foam or jelly

Other non-prescribed (incl. Femidom, douching, sponge)

Breastfeeding

Other (please specify)

\*34. Have you had oral sex with a woman in the last 12 months? (Either giving or receiving)

Yes

No

Unsure

35. How many women have you had oral sex with in the last 12 months? (Both giving and receiving)

36. What was your relationship to the woman you last had oral sex with?

Regular partner (e.g. wife or girlfriend)

Occasional partner

Casual/one-night stand

Other (please specify)

37. Did you use a condom or other barrier method (e.g. dam) the last time you had oral sex with a woman?

Yes

No

Unsure

38. Did you have an orgasm the last time you had oral sex with a woman?

Yes

No

Unsure

39. Overall, my sexual experiences have been:

Very satisfying

Satisfying

Neutral

Unsatisfying

Very unsatisfying

\*40. Have you ever had a sexual health test (e.g. a test for HIV, chlamydia, or any other sexually transmitted infection)?

Yes

No

Unsure

41. What factors most influenced your decision not to test? (Please select all that apply)

I can't afford it

I don't know where to get tested

I haven't had many sexual partners

I'm afraid of doctors

It's embarrassing

It's far away / difficult to get to

I haven't had sex

I always use protection

Other (please specify)

42. Have you had a sexual health test (e.g. a test for HIV, chlamydia, or any other sexually transmitted infection) in the last 12 months?

Yes

No



Unsure

43. Where did your most recent sexual health test take place?

Sexual Health and Family Planning ACT

Private hospital

Public hospital/outpatients

ANU Health Service

Outreach event (e.g. testing at a hall/college/lodge or other non-medical location)

Canberra Sexual Health Centre

Other sexual health or family planning clinic

New GP

Usual GP 24-h clinic

Other (please specify)

44. Do you currently live at an ANU hall/college/lodge?

Yes No

45. Are you a member of ANU Queer\* (i.e. have you attended any of their events and/or signed up to hear more about them via Facebook or email)?

Yes No

46. Are you a member of the Women's Department (i.e. have you attended any of their events and/or signed up to hear more about them via Facebook or email)?

Yes No

47. If you were to go to an event promoting sexual health, what type of event would you find most appealing?

(Please tick all that apply)

Workshop

Social event with a sexual health message (e.g. trivia night, party)

Relevant movie

Guest speaker

Sexual health testing

Question & answer panel

Other (please specify)

48. If you were to go to an event promoting sexual health, what factors would most encourage you to attend?

(Please tick all that apply)

Free giveaways/prizes

Free sexual health testing

Presented in my first language

Knowing a friend who was going

Free food and/or non-alcoholic drinks

Free safe sex supplies

Combined with social activity (e.g. party, movie night)

Games

Relevant to my sexual orientation

Free alcohol

Sensitive to my culture

The opportunity to meet new people

Other (please specify)

49. What aspects of sexual health would you like such a promotion to cover? (Please tick all that apply)

Transgender and intersex issues

Different cultural expectations about sex

Pleasure

Who to approach for support outside your organisation

Respectful relationships

Abstinence

Who to approach for support within your organisation

Emergency contraception (e.g. the morning after pill)

Anatomy

Women's health issues (e.g. cervical cancer)

Sexual harassment and sexual assault prevention

Domestic violence prevention  
Alcohol and sex  
Safe sex  
Men's health issues (e.g. testicular cancer)  
Long acting reversible contraception (e.g. implanon, IUDs) STI testing  
STI statistics  
The pill  
Pornography  
Dating and hook up apps/websites (e.g. Tinder and Grindr)  
Abortion  
Consent  
HIV/AIDS  
Sex work  
Gay, lesbian and bisexuality issues  
Condoms  
Sexting and digital privacy  
Other barrier methods (e.g. dams, female condoms)  
STI impacts/symptoms  
Other (please specify)

50. Did you receive sexual health information (e.g. sex ed) from your high school?

Yes

No

Unsure

51. How relevant to you was the sexual health information provided by your school?

Very relevant

Relevant

Somewhat relevant

Not very relevant

Irrelevant

\*52. Have you attended any sexual health related events at university?

Yes No

53. Who organised the sexual health promotion you attended? (Please select all that apply)

ANU hall/college/lodge

ANU Queer Department

ANU Women's Department

Other (please specify)

54. How relevant to you was the sexual health event at university?

Very relevant

Relevant

Somewhat relevant

Not very relevant

Irrelevant

55. Before submitting your responses, is there anything else you would like to add?

If you are ready to submit your answers, please click 'done'. If you wish to withdraw from the survey, simply close this window.



## Appendix D: Sexy Trivia questions

### Flirty Films

Question 1:

Which Australian actor played Casanova in the 2005 feature film?

Question 2:

Which actress was the first openly transgender person to feature on the cover of Time magazine?

Question 3:

How many pregnancies would typically result if 100 women used only condoms for contraception for a year?

A = 17

B = 9

C = 4

Question 4:

In the TV series 'Masters of Sex', Lizzy Caplan portrays which character of the real-life sex researcher pair, Masters or Johnson?

Question 5:

What was the birth name of screen legend and sex symbol Marilyn Monroe?

Question 6:

Which Canberra pub is on the same street as Sexual Health and Family Planning ACT?

Question 7:

Which actor has starred in the most James Bond films?

Question 8:

What is the name of the 1999 film starring Sarah Michelle Gellar and Ryan Phillippe that was based on the book “Les Liaisons Dangereuses”?

Question 9:

What percentage of people experience no symptoms when they have chlamydia?

A = Approximately 20%

B = Approximately 50%

C = Approximately 80%

Question 10:

Magic Mike is loosely based around which actor’s real life experience as a stripper?

### **Flirty Films Answers**

Answer 1:

Which Australian actor played Casanova in the 2005 feature film?

Heath Ledger

Answer 2:

Who was the first openly transgender person to feature on the cover of Time magazine?

Laverne Cox

Answer 3:

How many pregnancies would typically result if 100 women used only condoms for contraception for a year?

A = 17

(But the only form of contraception that protects against STIs!)

Answer 4:

In the TV series ‘Masters of Sex’, Lizzy Caplan portrays which character of the real-life sex researcher pair, Masters or Johnson?

(Virginia) Johnson

Answer 5:

What was the birth name of screen legend and sex symbol Marilyn Monroe?

Norma Jeane Mortenson

Answer 6:

Which Canberra pub is on the same street as Sexual Health and Family Planning ACT?

Uni Pub

Answer 7:

Which actor has starred in the most James Bond films?

Roger Moore

Answer 8:

What is the name of the 1999 film starring Sarah Michelle Gellar and Ryan Phillippe that was based on the book Les Liaisons Dangereuses?

Cruel Intentions

Answer 9:

What percentage of people experience no symptoms when they have chlamydia?

C = Approximately 80%

(And it can cause fertility problems if left unchecked, so get yourself tested!)

Answer 10:

Magic Mike is loosely based around which actor's real life experience as a stripper?

Channing Tatum

## **Sexy Science**

Question 1:

The word 'orchid' comes from the Greek word for which body part?

Question 2:

In zoology, what is the term of one female mating with multiple males?



Question 3:

When comparing vasectomies and the hormonal implant, which method of contraception has the higher fail rate?

Question 4:

Is an average man's ejaculation closer to a teaspoon or a tablespoon in volume?

Question 5:

*Sula nebouxii* is a bird better known as the what-colour footed booby?

Question 6:

What percentage of Australian women report some level of same-sex sexual experience?

A = 3%

B = 6%

C = 14%

Question 7:

Which primate has the largest penis?

Question 8:

Clownfish are sequential hermaphrodites, changing sex during their lifetime. Which sexual characteristics do they develop first?

Question 9:

Which virus does Gardasil (the cervical cancer vaccine) protect against?

Question 10:

True or False? Female komodo dragons can reproduce without male involvement.

### **Sexy Science Answers**

Answer 1:

The word 'orchid' comes from the Greek word for which body part?

Testes

Answer 2:

In zoology, what is the term of one female mating with multiple males?

Polyandry

Answer 3:

When comparing vasectomies and the hormonal implant, which method of contraception has the higher fail rate?

Vasectomies

Answer 4:

Is an average man's ejaculation closer to a teaspoon or a tablespoon in volume?

Teaspoon

Answer 5:

*Sula nebouxii* is a bird better known as the what-colour footed booby?

Blue

Answer 6:

What percentage of Australian women report some level of same-sex sexual experience?

C = 14%

Answer 7:

Which primate has the largest penis?

Humans

Answer 8:

Clownfish are sequential hermaphrodites, changing sex during their lifetime. Which sexual characteristics do they develop first?

Male

Answer 9:

Which virus does Gardasil (the cervical cancer vaccine) protect against?

HPV (Human papillomavirus)

(which also causes genital warts and other cancers)

Answer 10:

True or False? Female komodo dragons can reproduce without male involvement.

True

### **Titillating Tunes**

Question 1:

What was the name of the Justin Timberlake album containing the song 'SexyBack'?

Question 2:

In what year was the Madonna song Like a Virgin released?

Question 3:

How many pregnancies would typically result if 100 women used only the pill for contraception for a year?

A = 3

B = 9

C = 14

Question 4:

Which body part became a nick-name for Elvis Presley?

Question 5:

Which musical is based on Puccini's La Bohème and HIV/AIDS?

Question 6:

How often should sexually active people aged 15-29 get a sexual health check up (at least)?

A = Once a month

B = Once every three months

C = Once a year

Question 7:

Which singer recorded the 2014 hit All About That Bass?

Question 8:

What did Freddie Mercury die of?

Question 9:

Statistically speaking, is clitoral stimulation or vaginal stimulation more likely to trigger a female orgasm?

Question 10:

Which artist created the album Rated R?

### **Titillating Tunes Answers**

Answer 1:

What was the name of the Justin Timberlake album containing the song 'SexyBack'?

FutureSex/LoveSounds

Answer 2:

In what year was the Madonna song Like a Virgin released?

1984

Answer 3:

How many pregnancies would typically result if 100 women used only the pill for contraception for a year?

B = 9

Answer 4:

Which body part became a nick-name for Elvis Presley?

Pelvis

Answer 5:

Which musical is based on Puccini's La Bohème and HIV/AIDS?

Rent

Answer 6:

How often should sexually active people aged 15-29 get a sexual health check up (at least)?

C = Once a year

(But more frequently for more sexual partners and as soon as possible if any symptoms.)

Answer 7:

Which singer recorded the 2014 hit All About That Bass?

Meghan Trainor

Answer 8:

What did Freddie Mercury die of?

(Bronchial pneumonia resulting from) AIDS

Answer 9:

Statistically speaking, is clitoral stimulation or vaginal stimulation more likely to trigger a female orgasm?

Clitoral stimulation

Answer 10:

Which artist created the album Rated R?

Rihanna OR Queens of the Stone Age

(Either answer accepted)

### **Lusty Literature**

Question 1:

In what language was the Kama Sutra originally written?

Question 2:

In what decade was Mills and Boon publishing company founded?

Question 3:

How many pregnancies would typically happen if 100 women used only the hormonal implant (implanon) for contraception for a year?

A = 1 or fewer

B = 3

C = 6

Question 4:

What are the names of the two main houses in Shakespeare's tragic romance Romeo and Juliet?

Question 5:

On which island was the Greek poet Sappho born?

Question 6:

Which Canberra suburb is the Canberra Sexual Health Centre located in?

Question 7:

What is the name of the third book in the Fifty Shades Trilogy?

Question 8:

Who wrote Lady Chatterley's Lover?

Question 9:

What percentage of Australian men report some level of same-sex attraction?

A = 3%

B = 7%

C = 11%

Question 10:

Which gay Australian author is famous for novels such as Barracuda and The Slap?

### **Lusty Literature Answers**

Answer 1:

In what language was the Kama Sutra originally written?

Sanskrit

Answer 2:

In what decade was Mills and Boon publishing company founded?

1900's

(1908)

Answer 3:

How many pregnancies would typically happen if 100 women used only the hormonal implant (implanon) for contraception for a year?

A = 1 or fewer

Answer 4:

What are the names of the two main families in Shakespeare's tragic romance Romeo and Juliet?

Montague and Capulet

Answer 5:

On which island was the Greek poet Sappho born?

Lesbos

Answer 6:

Which Canberra suburb is the Canberra Sexual Health Centre located in?

Garran / Woden

(The number 3 bus from Daley Rd will take you right there!)

Answer 7:

What is the name of the third book in the Fifty Shades Trilogy?

Fifty Shades Freed

Answer 8:

Who wrote Lady Chatterley's Lover?

D H Lawrence

Answer 9:

What percentage of Australian men report some level of same-sex attraction?

B = 7%

Answer 10:

Which gay Australian author is famous for novels such as Barracuda and The Slap?

Christos Tsiolkas





## Appendix E: The peer educator guide

### INTRODUCTION

#### What is sexual health?

When you hear the term sexual health, most people start thinking about condoms and preventing sexually transmitted infections (STIs). While this is obviously an important part of sexual health, it is by no means all of it! As the World Health Organisation points out, sexual health is a state of physical, emotional, mental, and social well-being related to sexuality; it is not merely the absence of disease. As such it's not just about condoms, it's about striving for positive relationships and respectful approaches to sexuality. It's being free of sexual coercion, discrimination and violence. And it's about supporting the possibility of safe and pleasurable sexual experiences.

#### Why do we need sexual health champions?

Sexual health can be quite a challenge. Whether it's from less than stellar sex education or generalised hang ups about sexuality, many people lack the information they need and feel uncomfortable seeking it out. Despite the prevalence of sex in our society, we are still often led to believe that talking honestly about sex is somehow wrong or shameful. Peer educators such as yourself can play an enormous part in breaking down the barriers and ensuring your group gets the support and knowledge they deserve.

#### What is a sexual health champion?

A sexual health champion is someone who takes a role promoting sexual health within their student group. Maybe you've got a position such as women's officer, men's officer or gender and sexuality rep, or maybe you just have a burning desire to get out there and make

a difference. Whatever the case, this guide is designed to give you a head start in running events to get people thinking about sex and health.

## What is a sexual health champion NOT?

While being a sexual health champion is a very worthwhile role, it's important to remember your limits. You're not expected to be a doctor or a counsellor, simply someone who's a bit more informed and who knows how to refer students to get the information and assistance they need. And while it may seem obvious, it's important to note that a sexual health champion isn't there to scare people out of having sex or to encourage people to have sex! It's about supporting people to make informed choices that lead to both good health and happiness with their choices when it comes to sex.

## GETTING STARTED

The next few sections are all about getting you ready for the role.

### Talk to an expert

One of the best things you can do to get started is finding out what help is available in your area. Having a chat with an educator from a sexual health or family planning clinic is a good way to find out what's available for students from your uni.

In your area:

Sexual Health and Family Planning Organisations

<http://familyplanningallianceaustralia.org.au/services/>

<http://www.srhwa.com.au/> (Western Australia only)

Each state and territory has its own organisation. Aside from excellent information and advocacy, these organisations also provide sexual health clinics that are free or very low cost.

Sexual health clinics (Google this and your town name!)

Domestic violence and sexual assault support services

Go to [www.1800respect.org.au/service-support/](http://www.1800respect.org.au/service-support/) to find support near you.

At your university:

University health centre/Counselling

Women's departments

Queer departments

## Get yourself tested

One of the most useful things you can do as a sexual health champion is get yourself tested. Even if you're not sexually active, it can be a great help as it makes you familiar with how to arrange a sexual health check up and allow you to reassure others that it's about being proactive with your health rather than something to be ashamed of.

## Why is testing so important?

While some STIs have obvious symptoms, others like chlamydia do not. Chlamydia is the most prevalent STI in young people in Australia and up to 80% of people who have it experience no symptoms. While it can be very easily treated in most cases, long term infection can lead to problems such as infertility later on. And of course the longer an STI goes unnoticed, the more likely it will spread to other people. So getting tested at least once a year if you're sexually active is a great way to be proactive about your health.

## Basic STI information

(Sourced from <http://www.shfpact.org.au/sexual-health/info-sheets/30-sti-s/50-sexually-transmissible-infections>)

What are Sexually Transmissible Infections (STIs)?

STIs are infections which are passed from one person to another during sexual contact or exchange of body fluids.

STIs are caused by micro-organisms such as bacteria, viruses or parasites.

STIs can affect areas of the body other than the genitals.

STIs do not always cause signs or symptoms.

What activities put me at risk of STIs?

Having vaginal or anal sex without a condom (unprotected sex) can put you at risk of getting an STI. You can also get some STIs from unprotected oral sex, and from skin-to-skin contact.

Some activities put you at greater risk than others. Riskier activities include having unprotected sex:

with casual partners (the more partners, the greater the risk)

with a partner who has had unprotected sex with casual partners

when travelling outside Australia or with a partner who has had unprotected sex outside Australia

with a partner who has injected drugs

men who have unprotected anal sex with other men are also at significantly higher risk.

Chlamydia

Chlamydia is the most common bacterial STI in Australia and is especially common amongst young people.

If left untreated in women, chlamydia can lead to Pelvic Inflammatory Disease (PID), an infection of the uterus and fallopian tubes, which can cause infertility.

Most people who have chlamydia do not have any symptoms.

If symptoms are present, in men they can include penile discharge, and pain on passing urine or on ejaculation and in women they can include lower abdominal pain, pain with sex or on passing urine, more painful periods, and bleeding between periods or after sex.

Chlamydia is easy to catch, easy to test for, and easy to treat – a single dose of broad spectrum antibiotic tablets will clear the infection in most people.

Gonorrhoea

Gonorrhoea is a bacteria that infects the penis, vagina, anus or throat.

You can have gonorrhoea without knowing it as not everyone gets symptoms.

The most common symptom is a discharge from the penis, vagina or anus.

If left untreated in women, gonorrhoea can lead to Pelvic Inflammatory Disease (PID) an infection of the uterus and fallopian tubes which can cause infertility.

Gonorrhoea is more common among men who have sex with men.

It is treated with antibiotics, usually given by injection.

### Trichomoniasis

Trichomoniasis is a genital infection caused by an organism called a protozoa

In women symptoms may include frothy yellow-green vaginal discharge, unpleasant (fishy) vaginal odour, and vaginal itching and burning. In men symptoms may include discharge from the penis and pain on passing urine

Trichomoniasis is not usually serious but can be unpleasant.

It is treated with a type of oral antibiotic.

### Syphilis

Syphilis is transmitted during sexual contact with a person who has this infection. It is uncommon in Australia, however if left untreated it can cause serious health problems.

Early symptoms can include a painless ulcer-like sore on genitals or a rash which generally appears on hands and feet. Later syphilis, which occurs many years after the first symptoms can have no symptoms.

If a pregnant woman is infected with syphilis it can cause serious health problems for her baby. All pregnant women are usually tested for syphilis in Australia when they have their routine blood tests in pregnancy.

Syphilis is more common among men who have sex with men.

It is treated with antibiotics, usually given by injection.

### Hepatitis B

Hepatitis B is a viral infection that results in inflammation of the liver.

It can be passed on by unprotected vaginal or anal sex, by sharing drug injecting equipment, during unsterile tattooing or body piercing, or sometimes through dental or other procedures in developing countries.

All pregnant women are usually tested for hepatitis B in Australia when they have their routine blood tests in pregnancy.

### HIV (Human Immunodeficiency Virus)

HIV is a viral infection that breaks down the body's natural defences against infections by weakening the immune system. It can lead to Acquired Immune Deficiency Syndrome (AIDS).

HIV is in the blood, vaginal secretions or semen of a person infected with the virus and is passed on by vaginal or anal sex without a condom, by sharing drug injecting equipment and during unsterile tattooing or body piercing in developing countries. It can also be passed on through oral sex although the risk is much lower.

All pregnant women are usually tested for HIV in Australia when they have their routine blood tests in pregnancy.

HIV is not curable but can be managed with medication.

### Genital Wart virus (HPV)

Genital wart virus is the most common viral STI in Australia.

The wart virus is actually a family of viruses and has many different strains. It is transmitted by skin to skin contact during sex.

Some strains of wart virus cause visible warts on the penis, vulva, vagina, anus and the skin close to these areas. Other strains do not cause any visible warts but are detected on Pap tests in women and can cause changes to the cervix, which if left untreated can lead to cancer of the cervix over time.

There is no screening test for the genital wart virus that causes visible warts- if you have symptoms you think may be warts see a doctor for diagnosis

Treatments are available and include freezing, or application of liquid or cream.

A vaccine is available which protects against some of the strains of wart virus that cause genital warts and changes in the cervix - check with your health practitioner.

### Genital Herpes

Genital herpes is a common STI. It is caused by a virus, which is transmitted by skin-to-skin contact during genital or oral sex.

The virus may cause blisters or sores on the skin but can have no symptoms.

Once you have genital herpes it remains in your body for life but is not always active.

Treatment is available to reduce or help to manage symptoms.

There is no useful screening test available for genital herpes- if you have any symptoms, such as a sore which appears from time to time, see a doctor for diagnosis at the time the sore is present.

## CONDITIONS WHICH ARE NOT STIs BUT WHICH CAN AFFECT THE GENITAL AREA

### Pubic lice (Crabs)

Pubic lice are small parasites that infect the pubic hair, armpits or chest hair.

They are passed on by direct person-to-person contact with the area that is infected, or by coming into contact with infected bedding or clothes, not necessarily during sexual contact.

They can be treated with over the counter preparations available over the counter from pharmacies.

Clothes and bedding also need to be treated.

SHFPACT has produced Info Sheets on many of the STIs listed above - check these for more detailed information about the STI you want to know more about. SHFPACT Info Sheets are available free at [www.shfpact.org.au](http://www.shfpact.org.au)

## Basic Contraception Info

(Sourced from <http://www.shfpact.org.au/sexual-health/contraception>)

What is contraception?

Contraception means prevention of pregnancy. There are a number of different methods and it is important to choose one that best meets your needs and circumstances.

Considerations when choosing contraception should include accurate information about:  
effectiveness in pregnancy prevention

ease of use

side effects including changes to usual periods

benefits other than contraception

cost and availability



reversibility

protection against sexually transmissible infections (STIs)

health issues which may limit some choices

The most effective reversible methods are the “fit and forget” long-acting reversible contraceptives (LARCs) – intrauterine devices (IUDs) and contraceptive implants.

IUDs and implants:

are suitable for women of any age

can be used by most women, even if they have any significant health issues

can be removed easily at any time and are immediately reversible on removal.

involve an insertion and removal procedure by a doctor or nurse

provide no protection against STIs

IUDs include a hormone releasing device or copper devices.

**The hormonal IUD – Mirena®** is a small T-shaped device that is fitted inside the uterus (womb). Over a 5 year timeframe, it slowly releases a very low dose of progestogen hormone into the uterus. Periods usually become lighter or may stop when using a hormonal IUD. The hormonal IUD is 99.8% effective.

**The Copper intrauterine device (Cu-IUD)** is a small device made from plastic and copper that is fitted inside the uterus. They stop sperm from reaching the egg and any fertilised egg from sticking to the wall of the uterus. They have no hormones and have no effect on the normal female cycle but periods may become heavier when using a copper IUD. Cu-IUDs are 99.2% effective. IUDs need to be replaced every 5-10 years depending on their type or can be removed easily at any time.

**The contraceptive implant – Implanon NXT®** is inserted directly under the skin, on the inner arm above the elbow, where it continuously releases a low dose of a progestogen hormone into the blood stream over a 3 year timeframe.

The implant works by preventing ovulation (egg release from the ovary). Devices need to be replaced every 3 years or can be removed easily at any time Using an implant will change

a woman's usual bleeding pattern – for some women this will mean little or no bleeding at all but about 1 in 5 women have irregular or persistent bleeding. Implants are 99.9% effective.

**Contraceptive injections:** Depot medroxyprogesterone acetate (DMPA) is given by an injection into a muscle every 12 weeks. It prevents pregnancy by stopping ovulation. Periods may stop while using DMPA and there may be a short delay in return to usual fertility. DMPA is 94-99.8% effective.

Shorter acting hormonal methods include the contraceptive vaginal ring – NuvaRing®; the Combined oral contraceptive pill (The Pill) and the Progestogen-only contraceptive pill (mini pill).

A regular prescription is needed for hormonal methods of contraception. None of these methods provide protection against STIs. Some women can't use the combined pill or ring because of health conditions or side effects. All three methods are 91-99.7% effective.

**The contraceptive vaginal ring – NuvaRing®** is a soft plastic ring which slowly releases low doses of two hormones, oestrogen and a progestogen. These hormones are like those used in the combined oral contraceptive ('the Pill'). The ring is self-inserted and remains in the vagina for three weeks and then removed and replaced with the next ring a week later.

**Combined oral contraceptive pill** commonly referred to as 'The Pill', is an oral contraceptive taken daily. It contains the hormones oestrogen and a progestogen. These hormones are similar to those naturally produced by the female body. The pill may help with acne or heavy periods. Pills rely on regular and consistent daily use to be effective.

Barrier methods prevent semen from entering the uterus and can be an effective method of contraception when used consistently and correctly.

Condoms are the only method that offers protection from both unintended pregnancy and STIs.

The **male condom** is a sheath made of latex or polyurethane, which is rolled onto the erect penis before sex. The male condom is 82-98% effective for pregnancy prevention and consistent use is very important if they are the sole method of contraception. Condoms can be used in conjunction with other methods to increase contraceptive effectiveness.

The **female condom** is a polyurethane sheath, which is inserted into the vagina before sex. It has two flexible rings to keep it in place in the vagina. The female condom is 79-95% effective.

Emergency contraception (EC) can reduce the risk of unintended pregnancy after unprotected sex. EC is not a method of regular contraception. Using a reliable form of contraception is the best ongoing protection against unplanned pregnancy.

There are two types of EC – the emergency contraception pill (ECP), a pill containing a progestogen hormone and the Cu-IUD.

The **ECP** can be taken up to 5 days after unprotected sex but it is most effective if taken in the first 24 hours. When taken in the first 72 hours, it prevents about 85% of expected pregnancies, but the sooner it is taken, the more effective it is.

A **copper intrauterine contraceptive device (Cu-IUD)** can also be used as EC. When inserted in the first 120 hours after sex, it prevents about 99% of expected pregnancies. A **Cu-IUD** then provides immediate and ongoing contraception.

Permanent contraception (sterilisation) for men or women involves a small operation by a surgical doctor with general or local anaesthesia.

Sterilisation is permanent contraception which can't be reversed. Sterilisation methods are 99.5% effective.

**Female sterilisation (tubal ligation)** involves an operation blocking the Fallopian tubes to stop the passage of the ovum(egg). It is usually performed with a general anaesthetic.

**Male sterilisation (vasectomy)** involves an operation on the vas deferens to prevent sperm formed in the testes from joining the ejaculate fluid. It can be performed under local anaesthetic, often with light sedation.

Ineffective methods

**Withdrawal** is where the man takes his penis out (withdraws) from the woman's vagina before he ejaculates (comes). It is also known as coitus interruptus. Withdrawal is not recommended as a reliable form of contraception.

## Basic LGBTI Info

(Sourced from: <http://lgbtihealth.org.au/communities/> and <https://www.humanrights.gov.au/face-facts-lesbian-gay-bisexual-trans-and-intersex-people>)

### WHO ARE 'LGBTI' PEOPLE?

Each letter in 'LGBTI' contains a diverse range of real people, living real lives. 'LGBTI' people can be found in all walks of life, professions, faith communities, political parties, and locations throughout Australia.

When you speak about 'the general population' or 'the mainstream', you are talking about 'LGBTI' people in those communities, too. LGBTI people have many different ways of living their lives; there is no such thing as 'the LGBTI lifestyle'. There are many 'LGBTI communities' (plural!) – there is no single 'LGBTI Community'.

## WHAT DOES 'LESBIAN' MEAN?

A lesbian is a person who self-describes as a woman and who has experiences of romantic, sexual, and/or affectional attraction solely or primarily to other people who self-describe as women. Some women use other language to describe their relationships and attractions.

## WHAT DOES 'GAY' MEAN?

A gay man is a person who self-describes as a man and who has experiences of romantic, sexual and/or affectional attraction solely or primarily to other people who self-describe as men. Some men use other language to describe their relationships and attractions.

## WHAT DOES 'BISEXUAL' MEAN?

A bisexual person is a person of any gender who has romantic and/or sexual relationships with and/or is attracted to people from more than one gender. Some people who fit this description prefer the terms 'queer' or 'pansexual', in recognition of more than two genders. Although 'bi-' technically refers to two, it is often used by people who have relationships with and/or attractions for people of more genders than just women or men.

## WHAT DOES 'TRANS\*' MEAN?

Trans and Transgender are umbrella terms often used to describe people who were assigned a sex at birth that they do not feel reflects how they understand their gender identity, expression, or behaviour. Most people of trans experience live and identify simply as women or men; most do not have 'a trans identity'. In addition to women and men of trans experience, some people do identify their gender as trans or as a gender other than woman or man. People from Aboriginal/Indigenous and Torres Strait Islander communities often use the terms sistergirl or brotherboy. People from societies around the world with more than two traditional genders often use culturally specific language.

## WHAT DOES 'INTERSEX' MEAN?

A person with an intersex characteristic is a person born with physical characteristics that differ from modern medical norms about strictly 'female' and strictly 'male' bodies. Intersex is not about gender, but about innate physical variations. Most people with intersex characteristics describe their gender as simple women or men, not as a 'third gender'.

## WHY ARE LGBTI PEOPLE A FOCUS IN SEXUAL HEALTH PROMOTION?

First and foremost, people of diverse sexual orientation, sex or gender identity may account for up to 11% of the Australian population! Secondly, LGBTI people face a number of challenges in relation to sexuality and health. While acceptance is growing, many LGBTI Australians still face verbal or physical abuse based on the gender or sexuality. This may lead people to hide their sexuality or gender from doctors and other health practitioners, as well as from their family and friends. When combined with high school sex education that is often lacking in LGBTI-related information this means that many members of this community will miss out on the information that's relevant to them. Gay men and other men who have sex with men are also recognised as a priority population in the National STI Strategy due to their overrepresentation in terms of HIV and other STIs.

### Basic consent info

(Sourced from: <http://au.reachout.com/what-is-sexual-consent>)

Why is consent important?

Whenever you have sex or start any touch of a sexual nature, you need to make sure that your partner is just as enthusiastic as you. In other words, that they give their full consent.

It's important that you are 100% sure that the person you're with is happy and willing because non-consensual sexual activity (even kissing and touching) is actually against the law.

Not only is sex without consent a crime, but being pressured or forced into a sexual situation you're not ready for (also known as rape and sexual assault) can do lasting emotional damage. It's not enough to just assume someone wants sex as much as you, you really have to ask. This approach is known as Yes means Yes.

How do you know if the person you're with has given their consent?

The only way to know for sure if someone has given consent is if they tell you. Sometimes the person you're with might look like they're happy doing something but on the inside they're not.

One of the best ways to determine if someone is uncomfortable with any situation, especially with a sexual one, is to simply ask. Here are some examples of the questions you might ask:

Are you happy with this?

Do you want to stop?

Do you want to go further?

The look on someone's face and their body language is also a way of communicating and often has more meaning than the words that come out of their mouth. Ways you can tell if a person is not feeling sure about sex include:

Not responding to your touch

Pushing you away

Holding their arms tightly around their bodies

Turning away from you or hiding their face

Stiffening muscles

If you get a negative or non-committal answer to any of these questions or if your partner's body language is like any of the above examples then you should stop what you are doing and talk to them about it.

### Slowing things down

Consent must be freely given, and can also be freely taken away at any point during the experience. Taking your time, making sure you are both comfortable and talking about how far you want to go will make the time you spend together a lot more satisfying and enjoyable for both of you.

Some things you can say to slow things down if you feel that things are going too quickly:

I don't want to go any further than kissing, hugging, touching.

Can we stay like this for while?

Can we slow down?

### Stopping

You always have the right to say 'no' and you always have the right to change your mind at any time regardless of how far things have gone. Below are some things you can say or do if you want to stop:

No.

Say 'I want to stop'.

Say 'I need to go to the toilet'.

In a situation where the other person isn't listening to you and you feel unsafe, you could pretend you are going to vomit (it's amazing how quickly someone moves away from you if they think you are going to be sick).

### When drugs or alcohol are involved

Drugs and alcohol can affect people's ability to make decisions, including whether or not they want to be sexual with someone else. This means that if someone is really drunk or



high, they cannot give consent. Being with them in a sexual way when they don't know what's going on is equal to rape, because they cannot give informed consent.

The bottom line

The key to pleasurable sex for everyone involved is to know that you're both as enthusiastic as each other. If you're not sure, or it doesn't feel right, don't keep going. Don't pressure someone if they're not sure, just wait and if the time is right, the time is right.

If someone has come to you for help after being sexually assaulted, see ['What to do when someone discloses'](#) below.

## RUNNING AN EVENT

### Tips for successful events

Get a professional on board!

Partnering up with a professional sexual health care provider can bring amazing benefits. Not only will they have invaluable expertise in the area, they might also be able to help sourcing condoms and brochures or help out with events for your group. Sexual health clinics and Family Planning centres are great places to start looking. 10/10 would recommend.

Get started early

Choosing a good time is essential for a good turn out. Many sexual health champions like to run events during orientation week or in the first weeks of semester as these dates tend to get higher attendance. Try to avoid the assessment-heavy periods towards the end of term. And obviously, the earlier people are aware of the support that's available, the better!

## Advertise

How you advertise will depend a lot on what type of group you're from. A combination of online (e.g. facebook event invite or whole group email) with some printed posters is often a good way to get the word out. And of course, word of mouth is invaluable, make sure you invite people in person too if possible.

## Offer food and drink

Free food and drink can be powerful motivators! If you can afford them, make sure to mention it on your advertising to help encourage people to show up. Even if you can't afford to pay for it, can you run your event when a canteen or bar is open? Beyond making it feel like a fun and social event, a free drink has been shown to make events much more attractive to the people most likely to be lacking sexual health information (such as straight males who've had multiple partners). Obviously alcohol isn't going to be suitable in all groups though, so have a think about your target audience when you're planning.

## Don't preach to the converted

While inviting a speaker in to do a talk on STIs may attract a small group of diehard sexual health enthusiasts, a lot of the challenge in sexual health is getting the message out to people who aren't so keen. If you're going to have an event such as a talk or discussion panel, consider combining it with free food and drink or a social activity like a girls' movie night to lessen the stigma and get a bigger turnout.

## Be inclusive

Taking the time to think about the needs of your audience is one of the most important things you can do for a successful event. Keep in mind factors such as cultural differences and different sexualities and genders. This might involve planning events that are single gender if you have a more conservative group or getting in touch with you uni's LGBTI group for advice. In all events, make sure you use inclusive language, for instance not assuming everyone in your audience is heterosexual. If you're unsure about approaching these issues, having a chat with someone from your local sexual health or family planning clinic is a great start.

## Sexy Trivia

Sexy Trivia is a great way to get people thinking about sexual health as being part of everyday life. By mixing the sexual health related questions in with the others you end up with a fun, pub quiz atmosphere rather than a sex education test.

You'll need: A big room, paper for answers, pens, projector (optional, but preferable), microphone (optional, depending on number of people), whiteboard and markers (for scoring), prizes or certificates/condom medals.

N.B. A complete set of questions for Sexy Trivia and "I came first in Sexy Trivia" condom medal templates are included with this pack!

How it works:

Tailor the provided set of questions from the PowerPoint to make it relevant to your college in terms of where students can go for support in your area.

Choose if you want to have bonus games in the gaps between the rounds (see options below) and replace the "Bonus game" slides with the instructions from the end of the PowerPoint.

Recruit some helpers for the night. This will include an MC (you?!), and someone to help hand out sheets and score. Make sure your MC is someone who isn't going to get flustered talking about sex by getting them to have a look through the questions beforehand.

Set up your space to make it easy for small groups to write down their answers, and to see the question screen and scoring whiteboard (if using).

Run through the rounds and games, making sure to read out the correct answers so people can learn!

Tally up the scores (it can be fun to have updates throughout the night) and announce your winning table.

Ideas for games between rounds:

### Anonymous Questions

You'll need: A sexual health care professional, extra paper for anonymous questions.

How it works: If you're teaming up with a professional for anonymous questions between 1<sup>st</sup> and 2<sup>nd</sup> round is a great time for them to introduce themselves, what their organisation can do for uni students and how the anonymous questions will work. One great way to encourage people to interact is to have a bonus point for each person who goes up to their table to hand them an anonymous question that they can answer while you're tallying up points at the end of the night. This gives everyone a great excuse to duck off at some point during the night to chat. Having an experienced professional around to answer questions is amazingly useful, but remember most professionals will need to be booked in very early so get on to this as soon as you can!

### The Chocolate Covered Consent Game

You'll need: A paper plate and assorted chocolates/lollies (for each table)

How it works: In this game each table is given a paper plate with some different types of chocolates or lollies. (Remind them not to eat them just yet!) One person on the table has to communicate their ranked preferences for the different sweets through facial expression alone. This means no talking, no nodding and no moving! Give them a limited amount of time (1 minute?) and ask them to check whether the tables managed it. The point of this game is to show how difficult it can be to guess what people want without good communication. When it comes to sex, consent is vital and the easiest way to make sure is to use your words. Ask whether they're keen, don't just assume!

### The Exchanging Fluids Game

You'll need: Plastic cups (one per person), pH tester (available from pet stores in the aquarium section), citric acid (from the baking aisle), permanent marker, water.

How it works: Before the night starts, write a number from one to eight on each cup. You want at least half of the cups to have either a one or a two on them, and progressively fewer of each number after that. Add about a teaspoon of citric acid to two of the cups (preferably not a cup marked with a one). Pour some water into all of the cups, making sure they're less than half full.

On the night distribute the cups randomly among the participants and remind them not to drink it! Make sure you give the cups with citric acid out early on in case there are more cups than people. Explain that the game is about exchanging fluids and the aim of the game is to do that with the number of people written on your cup. To exchange fluids simply pour all the water from one cup into the other and then pour half back into the first cup. Encourage people to stand up and move around the room rather than just doing it at their table.

Once everyone has finished explain that the game is a rough model of how chlamydia spreads. As it often has no symptoms, testing is the only way to find out if you have it and get treated to prevent passing it on. Reveal that two of the cups started with some citric acid in them, meaning they and any cups they exchanged fluids with will be a different colour. Add a drop or two of pH tester to each cup and get them to swirl it around.

Go through each number asking people with that number to put their hand up, and then to stand up if they ended up with citric acid. The people who had to exchange fluids the most are the most likely to have it. Talk about how you should get tested more frequently if you have more sexual partners, for both your health and theirs.

### The Condom Challenge

You'll need: Strips of cloth (or something else you can use as a blindfold), condoms, bananas.

How it works: Ask for two brave volunteers from each table. The challenge is for the pair to open a condom and put unroll it over a banana, blindfolded, with only one hand each. The fastest pair wins. If you want to add an incentive, you can have points for the table for participating or points or a small prize for the fastest team.

## Other event ideas

### Talk and Testing

Having a talk from a sexual health professional with on site testing is a really effective way to break down the stigma around sexual health testing and can get a lot of people involved. If you're planning on running an event like this, make sure that you have another incentive

to attract people to the event, like free food and drink or an attached social activity. Also be sure to get in contact early as the pros are in high demand!

### Gender Bread

Using the infographic from the website below as a starting point, get your group to explore gender identity, gender expression, biological sex and attraction by using writing icing to decorate gingerbread people!

<http://itspronouncedmetrosexual.com/2012/03/the-genderbread-person-v2-0/>

### LGBTI movie

Screening an LGBTI themed movie can be a good way to get people thinking about these issues. Take a look online to see what's new and remember to check the rating.

## SUPPORT AND RESOURCES

### What to do when someone discloses

While being a sexual health champion can be very rewarding, there can also be some challenging times. Depending on what type of group you're in and your relationship with the other members, you might have people coming to you when they're tackling some very tough issues like pregnancy scares or sexual assault. Remember that you're not a doctor or a counsellor and your job is to help make them aware of professional help such as a Family Planning centre or a Rape Crisis Centre. In the case of sexual assault, make sure that you're aware of any policies that your group or university might have to support survivors as well as looking at the guidelines below.

(Based on: <http://www.anu.edu.au/students/services/health-wellbeing/sexual-assault-support> )

#### 1. Listen & support

Remain calm and provide an empathetic response. Find a quiet safe place so that you can listen to the student. Ask for help from a staff member if needed.

It is the student's choice as to who they talk to and how they deal with their situation. Your role is to support them to make decisions for themselves.

## 2. Establish immediate safety

If after listening to the student you determine that there is an immediate danger from the alleged perpetrator (or others) or an immediate medical or physical emergency.

Call 000 and report the incident to emergency services.

If the incident is on campus, call university security.

## 3. Consider informing an appropriate staff member

It is important that you involve the student in deciding if and how a report is made and who is informed, but also recognise that you are not responsible for the decisions made by the student.

The following are appropriate staff members you could approach for guidance.

An appropriate university staff member related to student experience.

A university counselling centre employee.

A relevant student association representative.

Some important points:

Inform the student that the staff member will respect the student's right to be in control of the decisions affecting them, especially their right to decide whether to seek police, legal, medical or counselling support.

Offer to approach one of them on behalf of the student, or accompany the student to meet with the staff member if they wish.

## 4. Provide information about options

The best support you can give is to help the student access the support they choose for themselves.

### Counselling

Your local sexual assault support or rape crisis centre.

Call 1800RESPECT. 24 hours, 7days. Information and support for people who have experienced sexual assault or domestic and family violence. They also have a list of local support services listed at [www.1800respect.org.au/service-support/](http://www.1800respect.org.au/service-support/)

University counselling centre.

### Medical support

Your local hospital will provide forensic and medical sexual assault care to people who have been sexually assaulted. A forensic medical examination may be conducted up to 5 days after a sexual assault.

### 5. Self-care & seeking support for yourself

Having someone disclose an allegation of sexual assault to you can be confronting and difficult to process emotionally. It is recommended that you look after your own mental health and talk to a trained counsellor.

### How to support someone who has been accused of sexual assault

Here are a few ways you might help someone in this situation:

Listen to them, and as above, refrain from judgement, commentary or choosing sides.

Provide information about their options for seeking additional support. In particular you should mention Mensline (24 hours on 1300 789 978) or other appropriate supports within your university.

The most helpful thing you can do is to keep the conversation firmly focussed on support options and avoid discussing the details of the alleged assault.

### Self-care

During tough times it's important that you think about ways to take care of yourself too! This might involve chatting to someone else in your group, having a chat with uni counselling or even simple things like taking time to hang with friends. If things are overwhelming, don't be afraid to ask others for help.

### For more information

Domestic violence and sexual assault support

<https://www.1800respect.org.au/>



Sexually Transmissible Infections Information

[www.sti.health.gov.au/](http://www.sti.health.gov.au/)

Youth focused sex education

<http://www.scarleteen.com/>

Sexual Health and Family Planning Australia

<http://familyplanningallianceaustralia.org.au/services/>

## Appendix F: Testing Attitudes about Sexual Health questions

\* 1. What is your age?

\* 2. Which session did you attend?

Sexual Health Talk

Sexy Trivia

I did not attend either session

3. What is your gender?

Male

Female

Other

If you selected 'other' and would like to specify, please do so here

4. What is your sexual orientation?

Heterosexual (straight)

Homosexual (gay or lesbian)

Bisexual

Other

If you selected 'other' and would like to specify, please do so here

5. What stage of university are you currently at?

First year undergraduate

Second year undergraduate

Third year undergraduate

Fourth or later year undergraduate

Postgraduate

Other (please specify)

6. Are you a domestic or international student?

Domestic

International

\* 7. Please choose the option that best represents your sexual experiences

I have had sex (vaginal or anal intercourse) and/or oral sex

I have had sexual experiences, but they didn't include intercourse or oral sex

I have not had sexual experiences

8. How many people have you had sex (intercourse) with in the last 12 months? (If none, please write '0')

9. What was your relationship to the person you last had sex (intercourse) with?

Regular partner (e.g. husband or wife, girlfriend or boyfriend)

Occasional partner

One-night stand

Other (please specify)

10. Did you use a condom the last time you had sex (intercourse)?

Yes

No

Unsure

\* 11. Did you use any other type of contraception the last time you had sex (intercourse)?

Yes

No

Unsure

\* 12. Have you ever had a sexual health test (e.g. a test for HIV, chlamydia, or any other sexually transmitted infection)?

Yes

No

Unsure

13. What factors do you think most discourage you from getting tested? (Please select all that apply)

I haven't had sex

My behaviours aren't risky

I don't have the time

I can't afford it

It's far away / difficult to get to

It's embarrassing

I don't know where to get tested

I'm afraid of doctors

I always use protection

I haven't had many sexual partners

Other (please specify)

14. Have you had a sexual health test (e.g. a test for HIV, chlamydia, or any other sexually transmitted infection) in the last 12 months?

Yes

No

Unsure

15. Please rate your agreement or disagreement with the following statements:

I expect myself to get tested for chlamydia every time I have a new sexual partner

I want to get tested for chlamydia every time I have a new sexual partner

I intend to get tested for chlamydia every time I have a new sexual partner

(Strongly disagree, Disagree, Somewhat disagree, Neutral, Somewhat agree, Agree, Strongly agree)

16. For me, getting tested for chlamydia every time I have a new sexual partner is:

Good - Bad (7 point scale)

17. For me, getting tested for chlamydia every time I have a new sexual partner is:

Worthless - Useful (7 point scale)

18. For me, getting tested for chlamydia every time I have a new sexual partner is:  
Admirable – Shameful (7 point scale)

19. For me, getting tested for chlamydia every time I have a new sexual partner is:  
Harmful – Beneficial (7 point scale)

20. When it comes to getting tested for chlamydia every time I have a new sexual partner...  
Most people who are important to me think...  
My friends think...  
My current/ most recent partner thinks...  
I should – I should not (7 point scale)

21. Overall I believe...  
It is expected of me that I will get tested for chlamydia every time I have a new sexual partner  
I feel under social pressure to get tested for chlamydia every time I have a new sexual partner  
People who are important to me want me to get tested for chlamydia every time I have a new sexual partner  
(Strongly disagree, Disagree, Somewhat disagree, Neutral, Somewhat agree, Agree, Strongly agree)

22. When it comes to getting tested for chlamydia every time they have a new sexual partner...  
My friends are  
My current / most recent partner is  
Likely to do it – Unlikely to do it (7 point scale)

23. Please choose the option that best represents your feelings:  
What my friends think I should do matters to me  
Doing what my friends do is important to me  
The approval of my current/most recent partner is important to me  
Doing what my current/most recent partner does is important to me  
Not at all – Very much (7 point scale)

24. In terms of getting tested for chlamydia every time I have a new sexual partner...

I am confident that I could get tested if I wanted to

The decision to get tested is beyond my control

Whether I get tested is entirely up to me

(Strongly disagree, Disagree, Somewhat disagree, Neutral, Somewhat agree, Agree, Strongly agree)

25. For me getting tested for Chlamydia every time I have a new sexual partner is...

Easy - Difficult (7 point scale)

26. I thought that the session I attended (i.e. either the sexual health talk or Sexy Trivia) was

Uninteresting - Interesting (7 point scale)

27. I thought that the session I attended was

Fun - Boring (7 point scale)

28. I thought that the session I attended was

Useless - Useful (7 point scale)

29. What did you enjoy most about the session (i.e. either the sexual health talk or Sexy Trivia)?

30. Was there anything you thought could be improved? If so, please provide details here.

31. Before submitting your responses, is there anything else you would like to add?

If you are ready to submit your answers, please click 'done'. If you wish to withdraw from the survey, simply close this window.