

cruising and connecting online

the use of internet chat sites
by gay men
in Sydney and Melbourne

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ACRONYMS

GCS	Gay chat sites
HIV	Human immunodeficiency virus
MGCPS	Melbourne Gay Community Periodic Survey
MSM	Men who have sex with men
OR	Odds ratio
SGCPS	Sydney Gay Community Periodic Survey
STI	Sexually transmissible infection
UAI	Unprotected anal intercourse
UAI-C	Unprotected anal intercourse with a casual partner or partners

GLOSSARY

Bivariate analyses	Statistical analyses that examine the relationship between two variables
Multivariate analyses	Statistical analyses that examine the relationship between more than one independent variable with one or more dependent variables

INTRODUCTION

We talk about our past as the golden era of pubs and discos and of high heels and lippies. But those days are well and truly over. Just the thought of putting on a wig only to sweat in those sardine cans they call venues, trying to look cool and sophisticated or, when needed, desperate and slutty, fishing for eye contact, it's all too much. These days I'd rather sit home in my pyjamas and do my thing on the Internet (Chuang, 2003, p.28).

We have seen a phenomenal rise in the popularity of Internet-based chat sites in the past few years, particularly by gay and bisexual men. Around half of gay men in Australian cities use the Internet to look for sex partners.

Previous studies have shown that the Internet is a popular place to look for sex partners because it is accessible, affordable and anonymous—although the anonymity of chat sites that are popular among gay men is open to debate, and appears to be a concern for some users.

...people who use the Internet to find sex often are 'highly sexually compulsive. They have rash, uncontrollable desires for sex that they can't seem to keep under control' (Marcus, 2003).

Uncontrolled desire and addiction are often associated with gay men's use of the Internet. The assumption that compulsive online behaviour exists and can be classified is problematic, not least because the distinction between acts that are freely chosen and those that are compelled is not always straightforward (Keane, 2002). It is also far from clear that frequent or excessive use of chat sites is experienced as a problem by those involved. We therefore need to question whether the representation of the Internet as a space of addiction and compulsion contributes to our understanding or is simply an attempt to classify and ultimately regulate behaviour.

At present, we have no evidence that the Internet is anything other than just another—albeit new—setting to seek and find sex. It helps some men who would otherwise have little sex to have some. And it helps others who already have plenty of sex to have even more. We have no evidence to date that there is anything particularly unique about it (Weatherburn, Hickson, & Reid, 2003, p.2).

It seems inevitable that the future will bring more online education and prevention activities in relation to HIV and sexual health. However, at the moment there is little existing research on Australian gay men's Internet use which could act as a reference point for future online work.

Although the Internet as a phenomenon has certainly captured the public imagination, it has also generated wildly diverging representations of online activity—from the unforeseen promise of new technology to speed/efficiency/pleasure/fun, to risk/danger/addiction and cynicism/boredom/hype. In this report we step back from these images of the Internet to discuss the findings of a survey of gay men's use of, and attitudes toward, chat sites.

KEY FINDINGS

Cruising and connecting online investigates online chat sites as environments in which gay men can socialise and look for sex partners. We conducted original survey research of gay chat site (GCS) users in Melbourne and Sydney and looked at existing data collected in the Gay Community Periodic Surveys. The overall findings of the study were:

- Gay chat sites are social as well as sexual environments and support or mediate a range of relationships between gay men.
- Internet sex-seeking has become a popular supplement to and extension of the sex-seeking repertoire of gay-community-attached men.
- While Internet sex-seeking allows men to meet additional sex partners and is associated with increased rates of some HIV risk behaviour, the medium of gay chat sites may also facilitate HIV risk-reduction practices such as seeking out seroconcordant partners.
- Gay-community-attached men express distinctive patterns of gay chat site usage, reflecting different attitudes to and experiences of online activity and Internet sex-seeking.
- Gay chat site users appear to be open to education and prevention activities online.

PERIODIC SURVEY ANALYSIS

From Periodic Survey data collected in 2003 we found that gay-community-attached men who used the Internet to find sex partners were:

- more likely to use gay bars and sex venues to find sex partners than other men
- likely to report more male sex partners than other men.

CHARACTERISTICS OF GAY CHAT SITE USERS

The present study recruited 450 gay-community-attached men in Melbourne and Sydney in February 2003. Men were considered eligible to participate if they had ever used gay chat sites. The men recruited were broadly similar to men in the Gay Community Periodic Surveys in terms of sexual identity and gay community involvement. There were, however, a number of differences between gay chat site users and community samples. Gay chat site users were:

- more likely to be aged less than 30 years, or greater than 40 years
- more likely to be HIV-positive
- more likely to report both regular and casual male partners, or no current sexual relationship
- less likely to use dance parties and beats to find sex partners
- more likely (if HIV-negative) to have been tested for HIV in the previous six months
- more likely to report unprotected anal intercourse with a casual partner (UAI-C) in the previous six months.

USE OF GAY CHAT SITES

Looking at the use of gay chat sites, we found that:

- 56% of users had started using gay chat sites more than two years previously
- 60% of users had met casual partners through gay chat sites
- 59% had found friends
- 24% had found a boyfriend.

- Of those who currently used chat sites to find sex partners, 54% used chat sites at least once a week.
- After identifying a potential partner online, chat site users employed a wide range of preparatory and evaluative activities before meeting that person face to face.

PATTERNS OF GAY CHAT SITE USE

The study was innovative in exploring gay-community-attached men's attitudes to and patterns of gay chat site usage. We identified three factors or patterns that captured different experiences of and attitudes to gay chat sites:

- satisfaction/confidence (positive experiences of and attitudes to gay chat sites and Internet sex-seeking)
- concern (worries about Internet sex-seeking and the security of online information)
- disclosure (a tendency to disclose HIV status to male sex partners found online and to seek out concordant partners through chat sites).

Satisfaction/Confidence was associated with meeting more sex partners through gay chat sites, using GCS more frequently, having more friends who used GCS and using more features of GCS. *Concern* was associated with meeting fewer partners through GCS, using GCS less often, having fewer friends who used GCS, and using fewer features of GCS. *Disclosure* was associated with looking for a boyfriend/long-term partner or friends through GCS, chatting and emailing extensively before meeting men face to face, and having more friends who used GCS to look for sex partners.

OPPORTUNITIES FOR EDUCATION AND HEALTH PROMOTION

Given the ease with which gay men can find sex partners online, gay chat sites are often

represented within the research literature as potential risk environments. However, our study suggests that these sites support a range of activities and relationships in addition to sex-seeking, and may support mutual negotiation of sex practices and facilitate HIV risk-reduction strategies. In terms of education and health promotion, our research suggests a number of potential avenues for HIV-prevention work among chat site users. Possibilities include:

- providing easily accessible sexual health information online
- investigating the use of chat sites by some gay men to seek out seroconcordant partners and the difficulties this may pose, especially for (known or self-assumed) HIV-negative men and their sexual partners. In particular, we do not know under what circumstances status is discussed explicitly online or when it is implied or assumed
- understanding the culture of GCS, particularly for new users and those who are not confident about using GCS. Peer education may be an appropriate way to encourage online competence and confidence
- addressing concerns about using GCS, particularly the privacy and security of online information. Peer education may help to address some of the most common concerns
- promoting STI and HIV testing among gay chat site users who have a high number of casual sex partners
- promoting agreements about the use of condoms both within and outside relationships (i.e. 'negotiated safety') for users who have both regular and casual partners, as chat site users were more likely to report both regular and casual partners and higher rates of unprotected anal intercourse with casual partners (UAI-C).

REVIEW OF THE LITERATURE

Gay men have taken to the Internet and computer-mediated communication in increasing numbers since the 1990s. Popular gay chat sites (GCS) on the Internet such as 'gaydar' and 'gay.com' have provided an alternative medium through which gay men and other men who have sex with men (MSM) can identify each other, socialise, and arrange meetings and sexual contacts. Recent surveys of Australian gay men suggest that around 50% make use of GCS to look for sex partners (Hull, Van de Ven, Prestage, Rawstorne, Grulich et al., 2003; Hull, Van de Ven, Prestage, Rawstorne, Kippax et al., 2003). These surveys also show that the proportion of gay men using GCS to seek sex partners continues to increase over time. Various factors may account for this popularity but it is the apparent speed and ease with which gay men can find other men for sexual and social contact (whether virtual or face-to-face) that seems to be driving the growth in online interaction between gay men, together with the relative anonymity of the net as a cruising environment (Rietmeijer, Bull & McFarlane, 2001).

The idea that gay men can find sex partners more efficiently online has led some researchers and educators to label the Internet (and GCS in particular) as an 'emerging risk environment' (McFarlane, Bull & Rietmeijer, 2000, p.443). In some quarters, particularly in the press, Internet sex-seekers have been branded as sexually compulsive risk-takers, and gay male Internet use has become synonymous with high-risk sexual practice (such as 'barebacking', i.e. intentional anal intercourse without condoms), despite a lack of clear evidence for these assertions (Hurley, 2002). Researchers and educators seem to have responded to this heightened sense of concern, suggesting that the use of the Internet poses 'serious implications for HIV prevention efforts' and 'that Internet-based education should be a priority in order to reach men who rely on this

mechanism to find sexual partners' (Halkitis & Parsons, 2003, p.367).

While we might want to exercise some caution in suggesting that GCS usage *in itself* increases the likelihood of risky sex practices, it is clear that the Internet provides a popular and growing medium in which gay men's sexual practices can be expressed, and where virtual communication may allow gay men's interests, prejudices and desires to be articulated in different and potentially unforeseen ways (Weatherburn et al., 2003). As others have put it:

As with any technological tool, the Internet is not inherently good or bad. Instead it is what the cyber-traveler does with it that can lead to positive or negative outcomes (Cooper & Griffin-Shelley, 2002, p.13).

The Internet presents a challenge to educators to understand the features and dimensions of this new terrain, together with an opportunity to reach gay men (and other MSM) and to promote sexual health through a different avenue. However, as is well understood, educational and preventative strategies need to be carefully planned to address the needs, values and concerns of target groups. The context in which health messages would be encountered also needs to be considered. Preventative and educational strategies are likely to be seen as irrelevant, intrusive or patronising if they do not address these issues. To develop health promotion strategies targeting gay men on the Internet, and GCS in particular, we need a thorough understanding of the meaning and significance of GCS as a cultural space in which gay men socialise and seek sexual contacts. This study therefore sets out to explore how GCS are perceived and used by a sample of gay men, and to describe Australian gay men's attitudes to and experiences of seeking sex through GCS. Firstly, though, we should consider what we already

know about Internet chat sites and their use by gay men. The following review therefore considers published research on the characteristics of gay and MSM chat site users, associations between Internet sex-seeking and risk behaviour, and issues of online recruitment, education and prevention.

GAY CHAT SITE USE: BACKGROUND AND CONTEXT

To give some idea of the scale and success of GCS, the providers of one popular site claim to have over 1.8 million registered user profiles across their global network (gay.com, December 2003). Sites such as gaydar and gay.com have similar methods of operation, offering central Internet sites or 'portals' (e.g. www.gaydar.com.au and www.gay.com) through which registered users can set up and view personal profiles, post and access online personal ads, send messages to each other (messaging), and take part in real-time online conversations in virtual chat rooms (chatting).

When users set up their profiles they choose a username or 'nick' (nickname) that identifies them to others. While nicks or pseudonyms often disguise a person's real name (suggesting a desire for anonymity), they can also be used to advertise the user's demographic characteristics and sexual qualities, e.g. *hornymikesyd*, *gayasianmelb*, *xtrahungjock30*. Nicks are therefore employed to both pique other users' interest and to obscure a user's 'real' identity (see Livia, 2002). A personal profile can include an individual's demographic details, vital statistics, relationship status and sexual interests, and commonly includes scanned images or photos of the user (varying from simple 'face pics' to explicit nude body shots and photos of sex acts). Face pics can be withheld by users to maintain anonymity until a face-to-face 'meet' is arranged¹. To chat to one another, users can enter one of the main chat rooms by clicking on

a link in their browser windows and by typing messages in a text box on the page (these messages are then seen by all the users within the room). Given its dependence on typing, the conversational style within chat rooms tends to be characterised by rapid turn-taking and short phrases, making use of abbreviations similar to those used in personal ads; e.g. *ISO* for 'is seeking other', *LOL* for 'laughs out loud', *IMO* for 'in my opinion', *GWM* for 'gay white male', *GAM* for 'gay Asian male'.

Chat rooms tend to be organised by geographical location or sexual interest so that users can look for men located nearby, find other users with common interests regardless of location, or chat to users in other states and countries. By exercising control over the content of their profiles, users can manage the amount and type of information they disclose about themselves, affording anonymity for those who want it and/or making explicit their sexual interests and desires in highly specific detail. Specific sections of chat site profiles (such as those on sexual practice and the 'scenes' in which users are interested) make it possible for users to indicate (implicitly or explicitly) the kinds of sex they engage in, the extent to which they practise safe sex, and their HIV status. The relatively anonymous medium of GCS may therefore make it easier for men to disclose personal information (such as HIV status) and can facilitate risk-reduction practices such as partner-sorting and -matching on the basis of sexual practice, safe sex attitudes and serostatus. Alternatively, stated preferences for practices such as 'barebacking' may be read as implying that a user is likely to be HIV-positive (Race, 2003).

Given that it is relatively easy to search for other users according to their personal characteristics, sexual interests and geographical location, GCS provide environments that facilitate cruising for virtual 'cybersex' and real-life, face-to-face encounters. Once a potential online

partner is identified (and assuming that the user is online at the time), users can initiate a private conversation by opening a private chat window (known as 'privating' someone). Private chat is commonly used for more personal and explicit conversation and to arrange sexual pick-ups or 'meets'. The ease with which users can initiate or terminate private conversations may embolden men who find other cruising environments (such as bars or sex clubs) intimidating (Rietmeijer et al., 2001). However, although it may be easier for users to terminate unwanted online conversations compared to face-to-face encounters, it is unlikely that this would always be without negative consequences (as Rietmeijer et al. suggest). Summarily dismissing an online suitor or offending other users can be seen as breaching gay 'netiquette' and can result in hostile commentary or 'flaming' the perceived perpetrator to other men online.

We should mention that, when it is not being demonised as a 'risk environment', the Internet is often seen as an egalitarian and liberated space that facilitates communication and contact between diverse users and provides a supportive environment for gay men and MSM. Research on young Australian lesbians' and gay men's use of the Internet both supports and questions this benevolent view, suggesting that on the one hand the Internet is used to make social contacts, find sexual health information and negotiate a positive sexual identity for same-sex-attracted youth, but that, on the other, gay chat rooms are also reported by young men in particular as spaces in which they can feel threatened or harassed (Hillier, Kurdas & Horsley, 2001). For users in general, the sexualised atmosphere of GCS, the speed with which online cruising can be executed² and the reduction of negative consequences for terminating or refusing private chat, all potentially *intensify* the social divisions and sense of hierarchy that can permeate dominant gay male cultures (e.g. Holt & Griffin, 2003; Ridge, Hee &

Minichiello, 1999; Ridge, Minichiello & Plummer, 1997). For example, phrases such as 'no GAMS' (no gay Asian men) and 'no queens/fags' can often be found appended to the profiles of white and/or self-styled 'straight-acting' gay men in Australian chat rooms. Other phrases such as 'drug-/disease-free', or the unpleasant yet evocative euphemism 'clean', can also be employed to imply the type of sexual partner being sought or offered. While these phrases clearly reflect the sexual preferences of some Australian men, and also indicate attempts at partner-sorting and -matching, the apparent ease with which exclusionary language is employed online indicates that the medium of GCS is not free of the prejudices found in gay communities, and may not always be experienced as a safe and supportive environment.³

It is also worth noting that, although the basic services of GCS are free at present, there is a trend towards making users pay subscriptions for access and additional fees for 'premium' services and add-ons (such as unlimited access to explicit profiles, to messaging services, or to involvement in video and webcam chat). Most 'free' gay chat services, like other commercial Internet services, derive their revenues from subscriptions, memberships, and banner and 'pop-up' advertising.

COMPARING GAY AND OTHER ONLINE USERS

Comparative research conducted in the US suggests that gay and bisexual men are more likely to use the Internet to seek sex partners than women or heterosexual men. A survey of 856 clients of a Denver HIV counselling and testing service found that, compared to offline seekers, Internet sex-seekers were more likely to be male (90.4% vs. 65.2%) and to have partners of the same or both sexes (67.7% vs. 28.6%) (McFarlane et al., 2000). This study also found that 21.7% of

respondents with partners of the same or both sexes had met a partner through the Internet, compared to 3.6% of heterosexual respondents. A larger study by the same researchers recruited 4507 North American participants online and administered a similar survey (McFarlane, Bull & Rietmeijer, 2002). This also found that, compared to offline seekers, those who had met a partner online were more likely to be male (66.7% vs. 56.8%) and to have partners of the same or both sexes (46.7% vs. 13.3%).

A survey of 1011 respondents attending a San Francisco STI clinic (by Kim et al., 2001) found that MSM were nearly three times more likely to report meeting a sex partner over the Internet compared to heterosexual men (32% compared with 13%), and over five times more likely than women respondents (6%). Other British and American studies have found similar proportions of gay men (around a third) who reported having met or sought a sex partner over the Internet (Benotsch, Kalichman & Cage, 2002; Elford, Bolding & Sherr, 2001). As mentioned previously, Australian Gay Community Periodic Surveys (in Melbourne and Sydney) have found high rates of seeking (but not necessarily finding) partners on the Internet, with around 50% of gay men reporting Internet sex-seeking, and with this proportion increasing over the past few years (Hull, Van de Ven, Prestage, Rawstorne, Grulich et al., 2003; Hull, Van de Ven, Prestage, Rawstorne, Kippax et al., 2003).

Research also suggests that gay men are more likely to disclose personal information and include sexually explicit content in their online interactions. A study comparing Internet chat sites aimed at gay men, heterosexual men and women, and 'swinging' heterosexual couples, suggests that within chat rooms gay men are more likely to disclose personal information (such as age, sexual interests or physical characteristics), to seek 'drug-free' or 'disease-free' partners, to make reference to anal, oral or group sex, and to negotiate face-

to-face meetings (Bull & McFarlane, 2000). Incidentally, this study highlights some of the ethical issues raised (or ignored) in Internet-based research. Bull & McFarlane used a participant-observation methodology to gather their data, posing as ordinary users within chat rooms and recording the discussions within them. At no point during the research (or afterwards) were chat room participants informed that they were being observed, and the research was exempted from ethics approval by the researchers' institutional review board. The authors quote user profiles and online discussions without apparently seeking consent for their publication and it is not clear whether they have changed names to protect the confidentiality of users. Although online chat rooms are usually in the public domain, accessible to anyone with an Internet connection, and usernames do not always reflect real names, it would seem advisable to at least assign pseudonyms to participants due to the personal nature of the material being collected.

Another US study, examining 2400 personal advertisements posted by gay and heterosexual men on the Internet, supports the idea that gay men are more sexually explicit than heterosexual men and are more likely to mention health or HIV status when seeking partners online (Phua, Hopper & Vazquez, 2002). Phua et al. found that gay men's ads were more likely to say that they were looking for a sexual partner, to describe or request particular body features (specifically as regarded genitalia) and to mention their health status (or to request particular types of partners) by disclosing their HIV status or by using phrases such as 'drug-/disease-free'. Advertisers seeking face-to-face sexual encounters (whether gay or straight) were more likely to mention health status, and health status was also more likely to be included in ads with more stipulations or requests for specific types of partners. A different analysis of the same study looked at men's use of gender and sexual roles (their references to masculinity

and femininity, and roles in sexual activity). Phua (2002) found that gay men were more likely to describe or specify sexual and gender roles in their ads, while straight men were more likely to take gender roles for granted.

The association between specifying or disclosing health status and gay men's online interactions in the studies by Bull & McFarlane (2000) and Phua et al. (2002) is suggestive of a culture by gay men of seeking seroconcordant partners online.

CHARACTERISTICS OF GAY AND MSM INTERNET SEX-SEEKERS

There are a number of published articles comparing the demographic (and other) characteristics of gay men who use the Internet to find sexual partners (Internet sex-seekers) with those who do not. Benotsch et al. (2002) surveyed 609 gay men attending a gay pride festival in Atlanta, Georgia. They found that Internet sex-seekers reported more sexual partners within the previous six months than did non-Internet sex-seekers (mean 8.4 partners vs. 3.1). Internet sex-seekers also had higher rates of methamphetamine and recreational Viagra use than non-Internet sex-seekers (10% vs. 5% for methamphetamines; 16% vs. 5% for Viagra) but did not use greater amounts of other drugs like alcohol or cocaine. They were also more likely to be white (84% vs. 72%), were slightly younger (mean age 31.2 vs. 33.4 years) and reported higher rates of unprotected anal intercourse (UAI) in the previous six months than did non-Internet sex-seekers (66% vs. 52%). The two groups did not differ in terms of educational or income levels, gay acculturation (going to gay bars, reading gay newspapers and so on), their attitudes to condoms, knowledge of HIV transmission risks, or HIV status.

Kim et al. (2001) recruited MSM through a public STI clinic in San Francisco and found that

men who sought sex on the Internet were younger, more likely to report sex with an HIV-positive person in the previous year (21% vs. 9%) and more likely to report casual sex partners in the previous year compared with MSM who had only offline partners (82% vs. 64%). Overall, Internet sex-seekers did not differ from those with only offline partners in terms of race/ethnicity, educational level, having a STI diagnosis, reported condom use or self-reported HIV status. However, examining respondents by HIV status in more detail, Kim et al. found that HIV-negative MSM with online partners were more likely than other HIV-negative men to have received money or drugs for sex in the previous year, and to have reported sex with an HIV-positive partner in the previous year. Overall, both HIV-positive and HIV-negative MSM were more likely to categorise their online partners as 'casual' compared to their offline partners.

A survey of 743 gay men in London (UK) gyms found that Internet sex-seekers were more likely to have had an STI in the previous year than other gym users (Elford et al., 2001). There were no significant differences in ethnicity, education or employment, or whether or not they were paid for sex, between Internet sex-seekers and non-Internet sex-seekers. HIV-positive Internet sex-seekers were more likely to report UAI with other positive men in the previous three months than were other HIV-positive men (64.9% vs. 31.5%), were more likely to use steroids (45.9% vs. 22.2%), and were likely to be younger (median age 34 vs. 37 years). HIV-negative Internet sex-seekers were less likely to be in a relationship than other HIV-negative men (51.5% vs. 66.3%) and were more likely to report nonconcordant UAI in the previous three months (23.1% vs. 11.8%).

A survey of Swedish men distinguished between those who had not visited GCS in the previous twelve months, those who had visited occasionally (once or twice a week) and those

who had used GCS frequently/daily (Tikkanen & Ross, 2003). The results showed that frequent users of GCS were younger and more likely to live outside major urban areas. GCS users who identified as gay or bisexual were less likely to be open about their sexuality than those who did not use GCS. Compared to non-users, chat site users were also more likely to have casual male partners or to have a non-exclusive or open relationship with a male partner, and were less likely to be a member of a gay organisation. GCS users identifying as heterosexual or bisexual in the study (and men who had had previous sexual experiences with women) were more likely to be GCS users than non-users. The study found no difference in HIV status between groups, but did find that a significantly larger proportion of men who visited GCS reported having had UAI with a casual partner in the previous twelve months, compared to non-users. The authors concluded that GCS may be particularly useful in reaching younger, more isolated and behaviourally bisexual men, and that the Internet may provide an accessible and anonymous environment for men who are unable or unwilling to express a gay or bisexual identity. GCS may also provide a space where non-gay-identified men can experiment with the idea of homosexual behaviour and identity.

Given the small number of studies and their restricted sampling, we should be wary of drawing conclusions from this US and European research about the characteristics of gay/MSM Internet sex-seekers. However, these studies do offer a tentative portrait. Gay Internet sex-seekers do not seem to differ in terms of HIV status from other gay men. There is some suggestion that gay Internet sex-seekers may be younger than other gay men, and may report more sex partners overall, more casual partners and more sexual contact with HIV-positive partners. Some studies also suggest that knowledge of and attitudes to

condom use are similar for those who seek partners online or offline.

To date, Australian studies have not explicitly set out to explore gay men's Internet usage or their seeking of sex partners on GCS. In recent years, some Gay Community Periodic Surveys have asked respondents to say whether they use the Internet as a way to find sex partners, but contrasting Internet sex-seekers with other gay men has not been a focus of these surveys (e.g. Hull, Van de Ven, Prestage, Rawstorne, Grulich et al., 2003; Hull, Van de Ven, Prestage, Rawstorne, Kippax et al., 2003). In the next chapter we use this survey data to outline what we know about the characteristics of Australian gay-community-attached men who use the Internet to find sex partners.

RISK PRACTICES

Some studies, including some of those mentioned above, have shown that men who use the Internet to seek sex partners are more likely to report high-risk behaviour for HIV transmission or infection, particularly UAI. Risk is measured in various ways in different studies, and how risk is understood may be implied (or assumed) rather than defined by researchers with different theoretical perspectives and research priorities. In addition, the design of survey studies often does not allow the effects of Internet-specific variables to be measured against known risk factors. The use of bivariate analyses (examining the relationship between two variables) may show that Internet use (or meeting partners through the Internet) is a predictor of high-risk behaviour, but not that it is an *independent* predictor; i.e. high-risk behaviour may not be associated with Internet use when other factors—which are known to be associated with high-risk behaviour at a bivariate level, or make conceptual sense—are taken into account. This makes it difficult to discern whether the broad

practice of Internet sex-seeking or specific features of it are associated with (or predictive of) high-risk practices.

For example, some studies do not distinguish between casual or anonymous partners on the one hand and regular partners on the other. This means that negotiated unprotected sex between seroconcordant regular partners may be classified as high risk for HIV even though there is little or no risk at all (notwithstanding the issue of reinfection or 'superinfection' for positive men). In the study by Benotsch et al. (2002) mentioned above, UAI with two or more partners in the previous six months was classified as a higher risk category than UAI with only one partner (or none). This rather unusual division was justified because the authors wanted to categorise 'individuals who may have had unprotected anal sex exclusively within the context of a mutually monogamous relationship into the lower risk group' (p.180). Asking participants separate questions about UAI with regular and casual partners (and about seroconcordance) would have obviated the need for such assumptions. However, having found that Internet sex-seekers reported higher rates of UAI in the previous six months compared to non-Internet sex-seekers, Benotsch et al. did attempt to determine the independent influence of Internet sex-seeking relative to known risk factors. They found that meeting a sexual partner over the Internet was a significant predictor of having UAI with multiple (two or more) partners in the previous six months, after controlling for demographic factors such as age, ethnicity and education, AIDS knowledge and attitudes to condoms, and the use of various recreational drugs (cocaine, marijuana, methamphetamines, and nitrites or 'poppers').

In contrast, a study of 2934 MSM recruited through chat room banners on a US-based general-interest gay website found that, although men who had met sex partners online reported

more UAI than those who had met partners in other ways (64% vs. 58%), finding partners through the Internet was not significantly associated with UAI in a multivariate analysis (Chiasson et al., 2003). The multivariate analysis found that being less than 30 years old, using drugs before sex, and using poppers in particular, were significantly associated with UAI. The study also found that HIV-positive men were more likely than HIV-negative men to report UAI whether they met partners online or offline, but once again it is not reported whether or not these were seroconcordant partners.

A Dutch study looking at gay men who used GCS found that nearly 30% reported inconsistent safe sexual behaviour with the men they met online (Hospers, Harterink, Van den Hoek & Veenstra, 2002). The research design did not include a comparison with men who did not use these sites, or of sexual behaviour with partners the men met in other ways; however, a multivariate analysis found that the only significant predictor of inconsistent or unsafe sexual behaviour was the proportion of recent sex partners met through online chat. Only 16% of those who found one out of their previous five sexual partners through a chat site reported any UAI, compared to 60% of those who had found all five previous sexual partners through a chat site.

A small study of 150 men attending a sex resort⁴ in the southern United States also attempted to see whether Internet sex-seeking was associated with HIV risk behaviours (Mettey, Crosby, DiClemente & Holtgrave, 2003). The study found a number of bivariate associations between Internet sex-seeking and sex practices such as fisting and group sex, using sex venues, beats and dance parties to meet men, and the use of poppers, Ecstasy and nitrous oxide, with Internet sex-seekers more likely to report all of these practices. However, in a multivariate

analysis only fisting was independently associated with Internet sex-seeking, with Internet sex-seekers about 3.3 times more likely to report this practice than other men. The study did not find that Internet sex-seeking was associated with unprotected anal intercourse or an increased number of sex partners.

Overall, while some studies report increased rates of UAI by Internet sex-seekers, using the Internet to seek sex partners is not always significantly associated with UAI when other known risk factors are taken into account. Even when Internet sex-seeking is found to be independently associated with increased rates of UAI, we often do not know whether this UAI is occurring with casual or regular partners, or whether or not Internet sex-seekers are attempting to have UAI with seroconcordant partners. The study by Elford et al. (2001) of gay gym users in London (mentioned above) is one of the few studies to make these distinctions. This study found elevated rates of UAI among HIV-negative men who used the Internet to find partners, and that this behaviour was usually with a casual partner of unknown serostatus. HIV-positive Internet sex-seekers seemed to be seeking out other HIV-positive men for sex without condoms, reporting elevated rates of concordant UAI (also with casual partners). A recent study of intentional UAI or 'barebacking' in New York City confirms the idea that UAI is reported as occurring more frequently with seroconcordant partners by HIV-positive Internet sex-seekers (Halkitis & Parsons, 2003).

It is clear that further research is required to understand the relationships between risk behaviour and seeking sex partners on the Internet. It would be desirable for future studies of Internet sex-seeking to classify risk behaviour in terms of whether it occurs with casual or regular partners, and whether or not partners are seroconcordant. We also need further research to understand whether the Internet has provided

a forum in which HIV-positive men can seek seroconcordant sex partners but where HIV-negative men are failing to discuss serostatus (or assuming a negative status) when arranging to meet casual partners.

RECRUITING MSM THROUGH THE INTERNET

Using the Internet to recruit gay men and MSM for research is considered to have a number of advantages (and some limitations). Among some of the general advantages of using the Internet to recruit participants and conduct research are reduced cost and ease of data collection (Mustanski, 2001). Internet-based research projects may be able to operate with minimal expenses once a website has been set up or an email survey deployed.⁵ The potential reduction or elimination of printing and the reduced need to employ trained interviewers or data entry clerks can reduce costs significantly.⁶ Once a project is under way, getting participants to return surveys by email or fill in questionnaires online (e.g. using web-based forms) can greatly speed up data collection and reduce the time spent on data entry.

The relative anonymity of the Internet, together with the fact that most people are alone when they 'surf' the Internet, may also make it particularly useful for sexuality-related research and surveys of sexual practice. Participants may be less affected by social desirability and experience less social anxiety when online, thus increasing the potential for honest self-reporting (Joinson, 1999), although, since being online also reduces inhibition, the potential for misrepresentation and 'massaging the truth' may increase (Joinson, 1998).

Due to the increasing popularity of the Internet, and the relative ease with which studies can be targeted and publicised, it is thought that online surveys may reach a potentially large target audience and facilitate broader or more

representative sampling (Mustanski, 2001). This may be an advantage for researchers who have to rely on limited opportunity samples. However, in the sexual health and HIV-prevention fields (particularly in Australia) there are well-established traditional recruitment mechanisms that are used to recruit gay men and MSM (particularly from metropolitan areas). It is often important within these fields to maintain comparable samples over time (such as in the Gay Community Periodic Surveys) and there is a question, therefore, about whether Internet recruitment is likely to attract similar or different groups of gay men and MSM. Up until recently there has been a concern, for example, that Internet access among Australian MSM may not be sufficiently high to prevent the skewing of samples recruited online. However, the Sydney Gay Community Periodic Survey in August 2002 found that 87% of respondents reported that they used the Internet either at home or at work, perhaps alleviating some of these concerns about access.⁷

Although there have been no Internet-based surveys specifically targeted at Australian MSM, a 1998 survey of Australian same-sex-attracted youth used a 'mail-back form' posted on the Internet (which could be printed out by participants and sent back to the research team) (Hillier et al., 1998). The majority of respondents to the survey (55%) cited the Internet as the place where they had heard about the survey (whether they used the mail-back form or not). This was followed by those who had heard about it through magazines (21%), radio (7%), community organisations (5%), on university campuses (5%) and through friends (4%). According to national postcode ranges, 22% of the sample was from rural areas. This indicated an over-representation of rural youth in the sample. Of course, this is not necessarily a drawback to Internet recruitment, provided allowance is made for variations in recruitment methods, and may in fact be of benefit

if a study aims to include rural and/or geographically isolated populations.

To see if online recruitment produced different samples from other methods, some studies conducted outside Australia compared online samples to those recruited through other means.⁸ Using the same data gathered in a study of Swedish men who used GCS (Tikkanen & Ross, 2003), researchers compared the characteristics of men who completed a survey on the website of the main Swedish lesbian and gay rights organisation (N=678) to those of men who completed the same survey in paper format, distributed through offices of the same organisation and through gay community contacts (N=716) (Ross, Tikkanen & Mansson, 2000). The results showed that the Internet respondents were younger (mean 29.8 vs. 39.8 years) and were more likely to live in smaller towns or cities, to live with their parents or girlfriend and to have less formal education than the paper and pencil sample. The Internet respondents also reported less sexual experience with men and more sexual experience with women. Consistent with this, Internet respondents were less likely to identify as gay (62.7% vs. 91.8%) and more likely to identify as bisexual (33% vs. 6.8%). They were also less likely to have been members of gay organisations, less likely to have had an HIV test (62.6% vs. 85.3%), and had visited more sex-on-premises venues and used GCS more frequently than the written sample (86.3% vs. 49.7%).

These findings seem to suggest that Internet-recruited samples could be quite different from traditional community samples (particularly in terms of age and bisexual behaviour); however, Ross et al.'s (2000) analysis and the conclusions drawn from it have been criticised. Mustanski (2001) argues that the recruitment methods for both samples did not differ only in terms of the medium of the survey (Internet or paper) and that therefore the differences between the samples may be an artefact of other aspects of the

recruitment process and not a result of the medium of delivery. In particular, he points out that Internet respondents were assured of total anonymity, while written respondents had to have contact with a gay community member or social network to receive a survey. In addition, the offices used to distribute paper surveys were all located in large Swedish cities, which could explain the higher proportion of respondents from smaller towns and cities in the Internet sample. A fairer comparison of Internet and non-Internet samples would involve randomly assigning either the Internet or paper version of the survey to each participating organisation.

In contrast to the Swedish study, a US study comparing MSM recruited through the Internet to MSM recruited through conventional bar-based methods found the Internet sample to be significantly *older* (mean 37.4 vs. 31.4 years) (Rhodes, DiClemente, Cecil, Hergenrather & Yee, 2002). However, as in the Swedish study, the Internet sample was more likely to identify as bisexual and had less formal education. After controlling for age and education, the Internet sample was found to be more likely to be HIV-positive and to report a history of STI infection, and made use of more sources of sexual health information than the bar sample. There were few differences in reported sexual behaviour between the two samples (although the bar sample was significantly more likely to report having engaged in anal intercourse over the previous year) and there were no reported differences in condom use. Over three-quarters of both the Internet and bar samples reported obtaining sexual health information on the Internet. Based on the overall similarities between the Internet and bar samples, the authors concluded that the Internet may serve as a reliable and expedient way of collecting data from MSM.

Another study compared the response rates and demographic profiles of Internet users completing surveys on a US gay and lesbian

website to a national profile of lesbians and gay men generated from voters' exit polls (Koch & Emrey, 2001). The authors concluded that the demographic characteristics of their Internet participants and the national profile were almost indistinguishable in terms of age, race, education, income and political affiliation. The overall response rate of 16.4% for the Internet surveys was also comparable to traditional mail-survey techniques.

In 2001 an Internet recruitment arm was added to the *National Gay Men's Sex Survey* of England and Wales (Reid, Weatherburn, Hickson & Stephens, 2002). This complemented recruitment at Pride events and the distribution of a mail-back booklet. Of the total 18 105 surveys received, 6345 (35%) were submitted through the website. Compared to the other recruitment arms, the Internet sample was younger, more likely to be in full-time education, more likely to have had sex with a woman in the previous year, and more likely to be Asian or from mixed or other ethnic groups. The authors concluded that web-based recruitment complements, but cannot replace, other recruitment methods.

A notable issue in web-based recruitment is the number of returns that are excluded from studies because they fall outside the desired geographic area. Some of the studies already discussed report exclusion rates of between 10% and 22% on the basis of participants' geographic locations being outside the country of study (McFarlane et al., 2002; Reid et al., 2002; Rhodes et al., 2002). Other issues raised in relation to Internet recruitment include the potential for the repeated submission of data from the same person, lack of control over the context in which surveys are completed (although this is also true for mail-back surveys), and the need for research websites to appear relevant and appealing in order to attract potential participants (Mustanski, 2001). In order to reduce the chance of non-target populations responding to Internet recruitment,

Mustanski advocates careful promotion of studies to target groups and preventing the listing of study websites on Internet search engines.

Overall, research on recruitment of MSM from the Internet suggests that, with careful preparation, targeting and publicity, Internet recruitment can be a quick and efficient way of accessing MSM. Some studies comparing recruitment methods suggest that there may be differences between Internet and conventional samples (particularly in terms of age and bisexual behaviour), while others suggest that Internet samples may be broadly in line with MSM samples recruited through other methods. A safe compromise may therefore be to use Internet recruitment in consort with traditional recruitment methods.

SEXUAL HEALTH EDUCATION AND OUTREACH ONLINE

Some researchers suggest that the alleged 'risks' of Internet sex-seeking may be balanced by opportunities for HIV outreach and education, and the apparent willingness of Internet users to seek out health information online (Rietmeijer et al., 2001). For example, a survey of clients of an STI clinic in Denver, Colorado, found that Internet sex-seekers were significantly more likely than other Internet users to look for information about STIs online (54.4% vs. 26.2%) (Rietmeijer, Bull, McFarlane, Patnaik & Douglas, 2003). Other US studies report high proportions of both Internet and conventional samples seeking out sexual health information online (e.g. Rhodes et al., 2002).

In the study by Hospers et al. (2002) men were asked their opinion of HIV-prevention activities on the Internet:

- 10% did not see the need
- 3.3% preferred to request brochures by email

- 37.2% wanted a website on safe sex
- 25.7% wanted to be able to ask questions about safe sex by email
- 23.5% wanted a safe sex chat platform.

A US survey of 4601 men and women also investigated online users' attitudes to prevention and education activities on the Internet (Bull, McFarlane & King, 2001). Most indicated that they would visit a website for STI/HIV-prevention information (61%), but fewer would open an email (45%) or chat about the topic (30%). The most common reasons given for rejecting website, email and chat room education about STIs/HIV included a perceived lack of need for STI/HIV information, getting health information from other sources, and concerns about junk mail or the quality of online information. Interestingly, only 9% of users who expressed concerns about using chat sites for health education cited privacy issues as a barrier. A more detailed analysis showed that MSM and persons with a history of testing for STIs were consistently more likely than other users to endorse STI/HIV prevention through chat rooms, email and websites. The authors suggest that the Internet may facilitate more effective health promotion among MSM who may not be reached in publicly funded STI-prevention settings.

Other commentators have argued that the Internet could be seen as a 'rich, interactive, individualized pedagogical tool' which could 'provide effective sex education to large numbers of individuals in a very cost-effective fashion' (Barak & Fisher, 2001, p.324). Many of the potential advantages of Internet-based sex education (such as cost-effectiveness and anonymity) are similar to those outlined in the *Recruiting MSM* section above. The use of the Internet for sex education also has other advantages, such as:

- the perceived acceptability or legitimacy of the Internet as an educational and entertainment tool

- the tendency for users to undertake Internet activities on their own
- the potential for interactivity, multimedia communication and connectivity in virtual environments
- the potential for multiple visits, easy updating of information and the development of ongoing campaigns
- data collection about users (subject to ethical limits).

Of course, while these characteristics make the Internet highly suitable for education related to sexuality, they also set up expectations that online educational ventures will be entertaining, of high quality and well maintained. This may offset the apparent cost-effectiveness of running an Internet campaign.

Taken together, these studies of Internet-based education seem to suggest an interest on the part of Internet users (and sex-seekers in particular) in websites containing sexual health information and resources, but less enthusiasm for more invasive methods of communication, such as online chat or email. The idea of maintaining a visible and accessible presence online, but not pursuing or pressuring users to take part in educational activities, respects the anonymity and privacy often regarded as an important benefit of online activity. However, when a public health imperative is perceived, the flexibility of the Internet can be exploited for outreach purposes, and user privacy may be considered less important. The most well-publicised (and controversial) example of this was detailed in the San Francisco Department of Public Health's (SFDPH) use of a gay chat site for contact-tracing and partner-notification after an STI outbreak (Klausner, Wolf, Fischer-Ponce, Zolt & Katz, 2000). In 1999 the SFDPH discovered that a small number of gay men who had been diagnosed with early syphilis had reported the use of a specific chat site to find sex partners. Officials decided

that they would trace other potentially infected partners using the same chat site and collected the online usernames of sex partners from the infected men. They then approached the website's Internet service provider (ISP) to gain the contact details of the named users. The ISP refused to divulge the personal details of the men (this would have presumably breached its privacy code), so SFDPH staff publicised the syphilis outbreak on a related gay and lesbian website, and used the chat site to contact users directly via their online usernames. SFDPH staff contacted hundreds of users by email, encouraging them to seek medical evaluation, then compared the men presenting for examination with the list of reported partners. As a result, 42% of named partners were notified and underwent testing for syphilis. During the publicity campaign there was also an 18% rise in the number of gay men presenting for testing at the SFDPH City Clinic. An online evaluation survey was also conducted during the campaign but this was only completed by 35 respondents. Of these, 25 (71%) thought that the awareness campaign was useful and appropriate.

Despite this apparent satisfaction with the campaign (on the part of online users and public health staff), this type of intervention raises serious ethical questions about the use of the Internet for outreach purposes. Although the campaign was thought necessary and deemed successful in raising awareness of STI infection, its methods of contact-tracing were invasive and could be regarded as having violated the privacy of online users (Hurley, 2002). Of course, it is difficult to know whether simply publicising the outbreak and informing online users where they could receive counselling, testing and treatment (rather than contacting users directly) would have had the same impact. Future outreach attempts will certainly have to weigh the benefits of accessibility and rapid response afforded by Internet sites against the ethical requirements to protect the privacy of users.

INTERNET SEX-SEEKERS IN THE SYDNEY GAY COMMUNITY

As we have mentioned, there have been no in-depth studies in Australia of gay men who use the Internet to find sex partners. However, for the past few years, the Gay Community Periodic Surveys have asked men to indicate if they use the Internet to look for sex partners.⁹ This allows us to identify general characteristics of gay-community-attached men who use the Internet to look for sex partners, and to compare them to men who do not seek sex on the Internet. We used multivariate logistic regression to explore which factors independently related to (predicted) Internet sex-seeking, based on data from the 2003 Sydney Gay Community Periodic Survey. This kind of analysis enabled us to look at a number of different factors simultaneously to identify which were the most important in relation to one particular outcome, i.e. those that had the strongest relationship when all the other factors were taken into consideration. The variables entered into the regression analysis were those correlated with Internet sex-seeking in the SGCP

at a bivariate level, as well as other variables identified within the research literature as associated with Internet sex-seeking. We also included in the analysis other variables that we thought likely to be related to Internet sex-seeking for theoretical reasons. From this initial range of variables, a final model was constructed in which five variables were found to be independent predictors of Internet sex-seeking (see Table 1). Variables with odds ratios above one have stronger associations with Internet sex-seeking (i.e. using gay bars to find sex partners has the strongest relationship with Internet sex-seeking). An odds ratio less than one indicates a negative association (i.e. higher scores on this variable indicate less chance of Internet sex-seeking).

Internet sex-seeking was predicted by a range of sex-related activities, such as using gay bars and sex venues to find sex partners and having an increased number of sex partners in the previous six months (found through a variety of sources including bars, beats, sex venues and the Internet). Internet sex-seeking was also more likely if men reported using Viagra, but *less* likely if they reported using Ecstasy. This could reflect the way these drugs are used, i.e. Ecstasy is usually used in clubs while Viagra tends to be used at home as a sexual enhancer.

Although Internet sex-seeking was associated with having more sex partners, the analysis did not show that reported rates of risk behaviours such as unprotected anal intercourse with casual partners (UAI-C) differentiated between gay men who used the Internet to look for sex partners and those who did not. Variables such as age or HIV serostatus also did not predict use of the Internet to look for sex partners.

Overall, these features or predictors of Internet sex-seeking suggest that use of the Internet is part of a broader repertoire of sex-seeking, where the Internet is used in consort with

Table 1: Logistic regression model of factors independently associated with Internet sex-seeking (Sydney GCPs 2003)

	Using the Internet to find male sex partners			
	Beta (β)	p	Odds ratio (OR)	95% Confidence interval for OR
Using gay bars to find sex partners	1.22	0.000	3.37	2.33–4.88
Using sex clubs to find sex partners	0.38	0.046	1.46	1.01–2.12
No. of male sex partners in previous six months	0.68	0.000	1.97	1.63–2.38
Use of Viagra	0.68	0.005	1.97	1.22–3.18
Use of Ecstasy	-0.56	0.001	0.57	0.41–0.80

traditional venues such as bars and sex venues to find sex partners. This is perhaps not surprising given that the Periodic Surveys target gay-community-attached men recruited through community events, social and sex venues, and clinics.

RESEARCH QUESTIONS AND RATIONALE

While the Gay Community Periodic Surveys give us some idea of the behavioural characteristics associated with Internet sex-seeking, and how the Internet has become incorporated into the sex-seeking repertoire of gay-community-attached men, they leave us with a number of unanswered questions. These include:

- How do gay men use chat sites?
- How often do they use them?
- How many users find partners online?
- What else is the Internet used for?
- Do Internet sex-seekers prefer chat sites to other ways of meeting men?
- How do they feel about using chat sites?
- What impact has using chat sites had on their sexual practice?

The current study set out to answer these questions using a short self-report questionnaire. The chapters that follow detail the study methodology, the characteristics of gay chat site users from Melbourne and Sydney, their patterns of chat site use and their attitudes towards using these sites.

THE CHAT SITES SURVEY

This study was an anonymous, cross-sectional survey designed to explore gay-community-attached men's attitudes to and use of GCS on the Internet. Participants were recruited at gay community events in Sydney and Melbourne in February 2003. The project was partly funded by community organisations, including the Australian Federation of AIDS Organisations, the Victorian AIDS Council/Gay Men's Health Centre and the AIDS Council of New South Wales. As far as we are aware, this is the first survey of Australian gay men/MSM explicitly designed to investigate attitudes to Internet use and the seeking of sex partners online.

The aims of the survey were to provide data on the frequency of gay men's Internet use and online sex-seeking, and to outline patterns of chat site usage and attitudes to online activity. Although it was not a primary aim to explore perceptions of risk and the frequency of risk behaviour, the survey also contained questions on sexual behaviour, allowing us to explore some relationships between Internet sex-seeking and sexual behaviour.

The questionnaire used in this study is attached at the end of this report. It was a short, self-report instrument that typically took around five to ten minutes to complete. To ensure anonymity, no personally identifying information was collected. Questions focused on the frequency and history of gay chat site usage, reasons for GCS use, the use of GCS to find sex partners, and attitudes to GCS use and Internet sex-seeking. The questionnaire also included questions on condom use and sexual behaviour, regular and casual sex partners, aspects of gay community attachment, and HIV testing and serostatus. The items related to sexual relationships, condom use and sexual behaviour were similar (but not identical) to those used in

the Gay Community Periodic Surveys. Further analyses of the data may be disseminated in the future.

RECRUITMENT

Participants were recruited at the Midsumma Carnival in Melbourne and the Mardi Gras Fair Day in Sydney, both held in February 2003. Men were approached by a member of the research team or a trained volunteer and were asked if they had ever used a GCS on the Internet. If they said they had, they were considered eligible for participation and were asked if they would like to participate in the study. Those who agreed then completed a short, anonymous questionnaire.

Of 560 men who were approached and were deemed eligible to participate, 34 men in Melbourne and 76 in Sydney declined to fill in a questionnaire. This gives an overall refusal rate of 19.6% (110 out of 560 men), with a slightly higher refusal rate in Melbourne than in Sydney (20.7% vs. 19.1%).

SAMPLE PROFILE

In total, 450 men completed the questionnaire. Of the total sample 29% (n=130) was recruited in Melbourne and 71% (n=320) in Sydney.

To give a sense of whether the GCS users in this study were similar to gay-community-attached men more broadly, in this section we compared our participants, on a number of demographic and other criteria, with gay community samples. Because this study's participants were recruited in February 2003 at the same community events used in the Melbourne and Sydney Gay Community Periodic Surveys (i.e. Midsumma Carnival and Mardi Gras

Fair Day), we are able to compare samples of gay men recruited at the same times and places, although we have not tested for statistical differences as the samples are not directly comparable.

In the tables that follow, the Melbourne Gay Community Periodic Survey is referred to as the MGCPS and the Sydney survey as the SGCPs. To allow a 'fairer' comparison with the chat sites survey, the Periodic Survey samples (also referred to as 'community samples') have been restricted to men recruited at Midsumma Carnival and Fair Day and not at other sites and venues.

Age

The age range of the GCS sample was 16–71 years. The median age was 34 years. Compared to the Melbourne and Sydney community samples (see Table 2), the GCS survey appears to have a lower proportion of men in their thirties, but slightly higher proportions of men aged under 30 and over 40.

Sexual relationships with men

The majority of the GCS men (60%) reported being in a regular sexual relationship with a man at the time of the survey (see Table 3). This is similar to the rates found in the Periodic Surveys conducted at the time. Just over half of the GCS sample (54%) reported having sex with casual male partners, which is broadly similar to the Periodic Surveys, although GCS users were more likely to report both a regular relationship *and* casual partners, rather than just casual partners. The chat site users also seemed more likely to report having no sexual relationship with either casual or regular partners than did men in the Periodic Surveys.

Of the 297 men in a regular relationship (see Table 4), two-thirds reported being in the relationship for at least a year, while a third

reported relationships of less than a year's duration. This is similar to the findings of the Periodic Surveys conducted at the same time.

Table 2: Age

	Gay chat sites survey	MGCPS Midsumma 2003	SGCPS Fair Day 2003
Under 25	78 (17.7%)	212 (14.9%)	126 (13.0%)
25–29	68 (15.4%)	201 (14.1%)	169 (17.5%)
30–39	153 (34.7%)	596 (41.8%)	397 (41.1%)
40–49	100 (22.7%)	288 (20.2%)	198 (20.5%)
50 and over	42 (9.5%)	128 (9.0%)	77 (8.0%)
Total	441 (100%)¹	1425 (100%)²	967 (100%)³

¹Missing data (n=9) ²Missing data (n=4) ³Missing data (n=99)

Table 3: Current relationships with men

	Gay chat sites survey	MGCPS Midsumma 2003	SGCPS Fair Day 2003
None	73 (16.8%)	188 (13.8%)	107 (10.4%)
Casual only	100 (23.0%)	395 (29.0%)	287 (28.0%)
Regular plus casual	133 (30.6%)	322 (23.6%)	231 (22.5%)
Regular only	128 (29.5%)	458 (33.6%)	401 (39.1%)
Total	434 (100%)	1363 (100%)	1026 (100%)

Table 4: Length of relationships with men

	Gay chat sites survey	MGCPS Midsumma 2003	SGCPS Fair Day 2003
Less than one year	97 (32.7%)	291 (33.0%)	190 (27.9%)
At least one year	200 (67.3%)	591 (67.0%)	490 (72.1%)
Total	297 (100%)	882 (100%)	680 (100%)

Note: This only includes men who reported being in a regular relationship.

Sexual identity and gay community involvement

The vast majority of the men in the GCS sample identified as gay, homosexual or queer (see Table 5). The proportions of reported sexual identities were broadly in line with larger community samples, although the GCS sample seemed to have a lower proportion of bisexually-identified men than in the Periodic Surveys.

The GCS users were also highly socially involved with gay men, perhaps to a higher degree than other community samples (see Table 6). Correspondingly, just over 90% of the GCS sample said they spent some or a lot of their time with gay men (see Table 7), although this is a similar rate to that found in the Periodic Surveys.

Where men look for sex partners

GCS users were asked where they looked for sex partners, including locations other than the Internet. Table 8 compares their responses to those of the men recruited at Midsumma and Fair Day in the Periodic Surveys. The percentages refer to the proportions of men who looked for a sex partner 'occasionally' or 'often' at the different locations and venues. Unsurprisingly, a very high proportion of men in the GCS survey used the Internet to find sex partners, compared to those questioned in the Periodic Surveys. A similar proportion of gay chat site users and men from the Periodic Surveys looked for sex partners in bars and clubs, but gay chat site users seemed less likely to use dance parties and beats to find sex partners.

HIV testing and status

Most of the GCS users said that they had been tested for antibodies to HIV, and the status of these men was predominantly HIV-negative (see Table 9, page 26). The GCS survey appeared to have a slightly higher proportion of HIV-positive men compared to the community samples.

Table 5: Sexual identity

	Gay chat sites survey	MGPCS Midsumma 2003	SGCPS Fair Day 2003
Gay/homosexual/queer	422 (95.9%)	1333 (93.9%)	996 (93.6%)
Bisexual	12 (2.7%)	59 (4.2%)	51 (4.8%)
Heterosexual/other	6 (1.4%)	27 (1.9%)	17 (1.6%)
Total	440 (100%)¹	1419 (100%)²	1064 (100%)³

¹Missing data (n=10) ²Missing data (n=10) ³Missing data (n=2)

Table 6: Gay friends

	Gay chat sites survey	MGPCS Midsumma 2003	SGCPS Fair Day 2003
None	0 (0%)	3 (0.2%)	4 (0.4%)
Some or a few	171 (38.8%)	661 (46.3%)	445 (41.8%)
Most or all	269 (61.2%)	765 (53.5%)	616 (57.8%)
Total	440 (100%)¹	1429 (100%)²	1065 (100%)³

¹Missing data (n=10) ²Missing data (n=0) ³Missing data (n=1)

Table 7: Free time spent with gay men

	Gay chat sites survey	MGPCS Midsumma 2003	SGCPS Fair Day 2003
None	5 (1.1%)	9 (0.6%)	10 (0.9%)
A little	37 (8.4%)	166 (11.7%)	94 (8.8%)
Some	169 (38.5%)	576 (40.4%)	373 (35.1%)
A lot	228 (51.9%)	673 (47.3%)	587 (55.2%)
Total	439 (100%)¹	1424 (100%)²	1064 (100%)³

¹Missing data (n=11) ²Missing data (n=5) ³Missing data (n=3)

Table 8: Where men look for sex partners

	Gay chat sites survey	MGPCS Midsumma 2003	SGCPS Fair Day 2003
Internet	78.9%	52.1%	48.5%
Gay bars/clubs	68.5%	69.0%	66.0%
Dance party	37.7%	46.8%	53.0%
Beats	26.3%	35.9%	29.4%
Sex venues	48.0%	53.2%	42.7%

Note: These categories are not mutually exclusive.

Among the GCS users who were not HIV-positive men and who had 'ever' had an HIV antibody test, the majority (nearly 60%) had had an HIV test within the previous six months (see Table 10). GCS users therefore tended to have been more recently tested for HIV antibodies than men in other community samples.

Unprotected anal intercourse with casual partners

Participants were asked whether they had had any unprotected anal intercourse with a casual male partner (UAI-C) in the previous six months. The majority (63.7%) said they had not had UAI-C and 36.3% said that they had had UAI-C occasionally or often in the previous six months. We should point out that we only asked a single question about UAI-C ('In the last six months have you had any anal intercourse without a condom with a casual male partner?'), and that within the Periodic Surveys a more discriminating range of questions are asked (for example, distinguishing between receptive and insertive positions, and whether men practiced withdrawal before ejaculation). Therefore we should be wary of directly comparing the rate of reported UAI-C between these samples. However, given those reservations, the rate of UAI-C found here (36.3%) seems considerably higher than the UAI-C rates reported in the Melbourne and Sydney Gay Community Periodic Surveys conducted in February 2003 (20.5% for Melbourne and 22.9% for Sydney, both figures based on full samples and not just those who had casual partners).

Further analysis shows that men who reported any UAI-C in the previous six months had been using chat sites for significantly longer than men who did not report any UAI-C ($M=3.42$ vs. 3.14), $t=2.79$, $p<0.01$. UAI-C was also associated with having met more sex partners through GCS in the previous six months ($M=3.36$ vs. 2.24), $t=7.85$, $p<0.001$ and having met more sex partners through other sources ($M=3.96$ vs. 2.81), $t=7.86$, $p<0.001$. Although the

Table 9: HIV test results

	Gay chat sites survey	MGCPs Midsumma 2003	SGCPs Fair Day 2003
Not tested/ no results	50 (12.5%)	205 (14.4%)	131 (12.3%)
HIV-negative	306 (76.3%)	1103 (77.3%)	826 (77.9%)
HIV-positive	45 (11.2%)	119 (8.3%)	104 (9.8%)
Total	401 (100%)¹	1427 (100%)²	1061 (100%)³

¹Missing data (n=49) ²Missing data (n=2) ³Missing data (n=5)

Table 10: Time since most recent HIV test

	Gay chat sites survey	MGCPs Midsumma 2003	SGCPs Fair Day 2003
Less than 6 months ago	178 (59.3%)	465 (41.4%)	391 (46.9%)
7–12 months ago	28 (9.2%)	224 (20.0%)	165 (19.8%)
1–2 years ago	57 (18.9%)	200 (17.8%)	147 (17.6%)
Over 2 years ago	38 (12.6%)	233 (20.8%)	130 (15.6%)
Total	301 (100%)	1122 (100%)	837 (100%)

Note: This table includes only non-HIV-positive men who had been tested for HIV.

Table 11: UAI-C by HIV status

	Untested/ unknown status	HIV-negative	HIV-positive	Total
No UAI-C in previous 6 months	37 (74.5%)	204 (66.9%)	12 (26.7%)	253 (63.4%)
Any UAI-C in previous 6 months	12 (25.5%)	101 (33.1%)	33 (73.3%)	146 (36.6%)
Total	49 (100%)	305 (100%)	45 (100%)	399 (100%)

$\chi^2=30.86$, $df=2$, $p<0.001$

majority of men reporting any UAI-C were HIV-negative, this was because they comprised the majority of the sample. When we compare reported UAI-C by serostatus (see Table 11), we see that the proportions of untested, negative and positive men engaging in UAI-C within each status category were quite different. Nearly three-quarters of HIV-positive men reported some UAI-C in the previous six months, compared to a third of HIV-negative men and just over a quarter of men who did not know their status.

To investigate this phenomenon further, we conducted a multivariate logistic regression analysis to identify variables that were independent predictors of UAI-C in the previous six months (see Table 12).¹⁰ The variables initially entered into the regression equation included those found to have a bivariate relationship to (significant correlation with) UAI-C from a list of variables identified within the literature as predictive of or associated with UAI-C, together with other variables thought likely to be related to UAI-C for theoretical reasons. From this initial range of variables, a final model was constructed in which three variables were found to be independent predictors of UAI-C. Variables with larger odds ratios have stronger associations (i.e. the number of men met elsewhere has the strongest relationship with UAI-C). An odds ratio less than one indicates a negative association (i.e. higher scores on this variable indicate less chance of UAI-C).

Unprotected anal intercourse with casual partners in the previous six months was predicted by a number of factors. The number of male sex partners met through sources other than the Internet was the strongest predictor of reported UAI-C, followed by the number of partners met through GCS. In both cases, men with more partners were more likely to report UAI-C. In addition, HIV status was related to UAI-C. Comparing HIV-positive men to HIV-negative and untested men (or men of unknown status) we

Table 12: Logistic regression model of factors independently associated with UAI-C

	Any UAI-C in the previous 6 months			
	Beta (β)	p	Odds ratio (OR)	95% Confidence interval for OR
HIV status		0.001		
• Untested/unknown	-1.71	0.001	0.18	0.07–0.51
• HIV-negative	-1.47	0.000	0.23	0.11–0.50
• HIV-positive	Comparison category			
No. of men met through GCS in previous 6 months	0.31	0.000	1.36	1.15–1.62
No. of men met elsewhere in previous 6 months	0.37	0.000	1.44	1.22–1.71

found that HIV-positive men were more likely to report UAI-C than HIV-negative or untested men.

Taken with the analysis of UAI-C by HIV status in Table 11, this regression analysis is important in that it suggests that the relatively high rate of UAI-C reported by GCS users was not the result of random risk-taking but was the outcome of an informed strategy influenced by HIV status. While HIV-negative men and men who did not know their status comprised the majority of men who reported unprotected anal intercourse with casual partners, this was principally because they made up the majority of the sample. HIV-positive men were disproportionately more likely to report UAI-C compared to men of other statuses. Unfortunately, due to the size limitations of the questionnaire, we did not collect information on the serostatus (known or assumed) of casual male partners. We therefore do not know whether chat site users were reporting UAI-C with predominantly seroconcordant or nonconcordant partners (partners of the same or different HIV status). However, the variation of UAI-C rates by HIV status was similar to that found in the Melbourne and Sydney Periodic Surveys (Hull, Van de Ven, Prestage, Rawstorne, Grulich et al., 2003; Hull, Van de Ven, Prestage, Rawstorne, Kippax et al., 2003).

Based on previous research, and the data we have here, we can offer two potential readings of this elevated rate of UAI-C. A conservative reading might suggest that Internet sex-seeking is associated with increased risk practices by gay men, and that the elevated rate of UAI-C demonstrates a departure from safe sex practices by gay men who use chat sites. However, the variation in reported rates of UAI-C by HIV status suggests an alternative reading. In the present study, men who knew their HIV status reported higher rates of UAI-C than those who did not, and HIV-positive men reported higher rates than HIV-negative men. This suggests that at least some men were *deciding* whether to participate in UAI-C based on their HIV status. Those who did not know whether they were at risk of transmitting or receiving HIV infection were most likely to avoid UAI-C (untested men and men of unknown status). Men who knew they were at risk of becoming infected (HIV-negative men) avoided UAI-C more than men who knew they were HIV-positive.

British and American research on Internet sex-seeking has found that HIV-positive men use GCS to find seroconcordant partners for unprotected or 'bareback' sex (Elford et al., 2001; Halkitis & Parsons, 2003). This suggests that the high rate of reported UAI-C by HIV-positive men in the current study may reflect the use of GCS to find partners for positive-positive sex (Prestage et al., 1995), although without knowing the HIV status of chat site users' casual partners we cannot be sure of this interpretation. However, another finding of the research by Elford et al., that HIV-negative Internet users tended to report UAI-C with partners of unknown status, is a cause for concern given the rates of UAI-C reported here by HIV-negative men and those of unknown status. In addition, if a strategy of seeking seroconcordant partners online for UAI does exist, there is likely to be a number of ways in which men indicate their HIV status, some of which will be more reliable than

others; e.g. explicitly discussing status during online chat is likely to be more reliable than implying or assuming HIV status.

USE OF GAY CHAT SITES

Unless otherwise stated, all the statistics and percentages in this section relate to the full sample of 450 GCS users from both Sydney and Melbourne. We did not separate Sydney and Melbourne chat site users because the only difference found between these samples was that of HIV status (the Sydney sample had a slightly higher proportion of HIV-positive men). As this difference is found in other community samples (see Table 9, page 26), we have kept the sample together.

Sites and features used

Participants reported 'gaydar' and 'gay.com' as the two most popular chat sites (see Figure 1, page 30).

The most commonly used features of GCS were chat rooms, followed by instant messaging and email (see Table 13). The free or basic features of chat sites seemed to be most often used; i.e. those that did not require the purchase of additional equipment (e.g. a camera or microphone) or a premium subscription.

Access

Participants accessed GCS from a variety of locations, but most commonly from their own homes (see Table 14). This emphasises that using GCS was a mixture of private and public activity, given that users tended to most commonly access GCS in the relative privacy of the home (although we do not know whether online activities were shared with co-resident partners or friends), and then communicate with other users in the virtual public space of GCS.

History of gay chat site usage

When asked when they had started using GCS, over half of the sample reported that they had first used GCS over two years previously (see Figure 2, page 30). Given that over three-quarters of the sample had first used GCS at least a year before, this suggests that the majority of the study sample was experienced in the use of online chat. However, a significant minority (23.7%) had been using GCS for less than a year.

The men were also asked about their initial reasons for using GCS to look for male sex partners (see Table 15). The reasons most commonly highlighted were that friends were using or talking about GCS, that chat sites seemed to be an easy way to meet other men, and that GCS seemed to provide a space in which you could get to know other people.

In line with their reasons for initially trying GCS, the majority of the men (57%) said that some, most or all of their friends used the Internet to meet men for sex (see Figure 3, page 30). This suggests the existence of strong friendship networks amongst gay-community-attached men using GCS. Whether these friendships were in existence before using GCS, or whether the majority of these friendships were established from using GCS, remains unclear. Either way, the use of GCS is clearly a very social activity in addition to being a sexual one. Among this sample, only 6% of men had no friends who were using GCS.

Participants were asked to estimate how long it had taken to arrange a sexual encounter after they had first started to use GCS (see Table 16). Just over half the men said it had taken less than a month to meet an online sex partner, with about a quarter of the men saying it had taken more than a month, and just under a quarter saying they had not met any sex partners through GCS. It would be interesting to know more about this latter group of men: were they actively searching

Table 13: Features used on gay chat sites

	n (%)
Chat rooms	366 (81.5%)
Instant messaging	254 (56.6%)
Email	220 (48.9%)
Webcam	89 (19.8%)
Microphone	33 (7.3%)

Note: These categories are not mutually exclusive.

Table 14: Accessing chat sites

	n (%)
At home	397 (88.2%)
Internet café	61 (13.6%)
At work	60 (13.3%)
At someone else's home	42 (9.3%)
In other cities	23 (5.1%)

Note: These categories are not mutually exclusive.

Table 15: Initial reasons for using GCS to look for sex partners

	n (%)
Friends were doing it/talking about it	184 (41.0%)
Sounded like an easy way to cruise	167 (37.2%)
Good way to get to know someone	159 (35.4%)
Sounded like a safe way to cruise	118 (26.3%)
Tired of cruising in bars/beats/sex clubs	105 (23.4%)
I wanted sex straightaway	96 (21.4%)
Other	51 (11.4%)

Note: These categories are not mutually exclusive.

Table 16: Time to meet first online sex partner

	n (%)
Less than 1 day	67 (15.3%)
Less than 1 week	87 (19.9%)
Less than 1 month	73 (16.7%)
More than 1 month	109 (24.9%)
Have not met any sex partners through GCS	101 (23.1%)
Total	437 (100%)¹

¹Missing data (n=13)

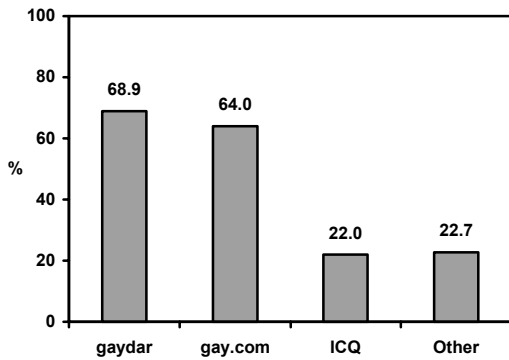


Figure 1: Gay chat sites used

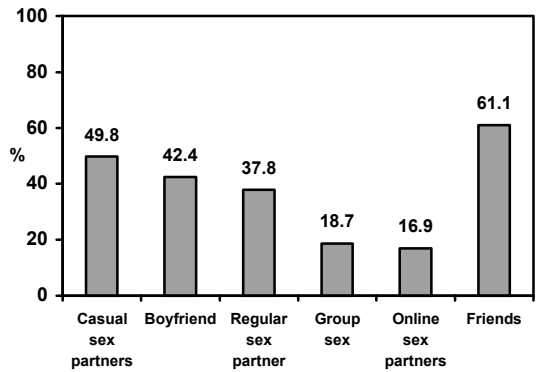


Figure 4: What men are seeking on gay chat sites

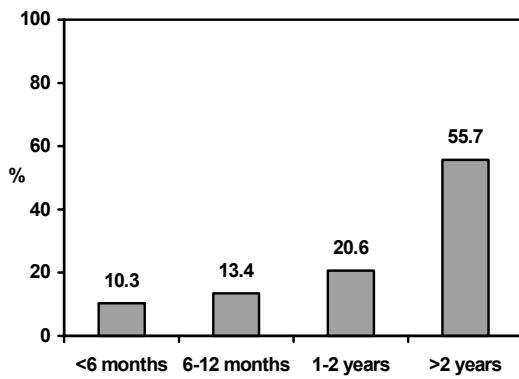


Figure 2: Time since first use of gay chat sites

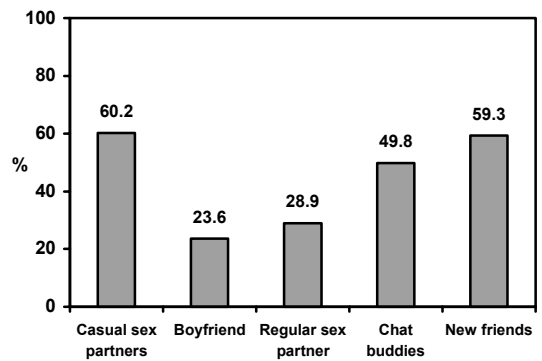


Figure 5: Who men have met through gay chat sites

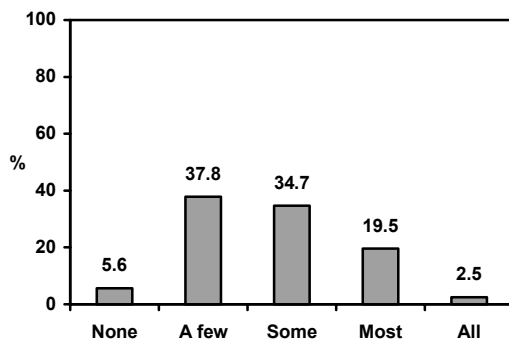


Figure 3: No. of male friends who used the Internet to meet men for sex

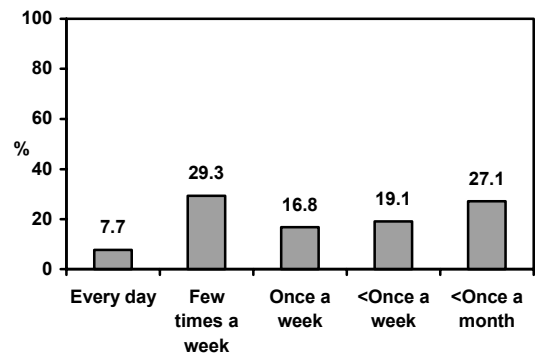


Figure 6: Frequency of using GCS to look for sex partners

for partners or were they enjoying the online chat only, or simply observing?

What men are seeking on gay chat sites

When asked what they were currently looking for when they used GCS, half of the men said they were looking for casual sex partners (see Figure 4). Just over 40% said they were looking for a boyfriend, partner or lover, and a slightly smaller proportion said that they were looking for a regular sex partner (e.g. fuck buddy). Smaller proportions (less than 20%) said that they were looking for group sex partners or for online sex ('cybersex') partners. However, perhaps reminding us that chat sites are not only used for cruising, over 60% of the men said that they were looking for friends online. The latter result suggests a crossover of sexual and social activities as men may expect or hope that friendships will evolve with some of the men they initially meet as casual sex partners.

Who men have met on gay chat sites

The men were also asked whom they had actually met through the use of chat sites (see Figure 5). Nearly 60% of the sample said that they had met friends through GCS. Half the sample also reported that they had made online friends ('chat buddies'). Just over 60% said that they had met casual sex partners through GCS. Also noteworthy was the fact that nearly a quarter of the sample said that they had met a boyfriend through GCS, which is surprisingly high given chat sites' reputation as catalysts for casual sex encounters.

These findings suggest that GCS provide a medium conducive to making friends (whether online or face-to-face), for meeting casual sex partners, and for finding regular sex partners or a boyfriend. This emphasises that chat sites are *not*

just an environment for meeting casual sex partners, but seem to provide a range of relationship opportunities for gay men.

Seeking and meeting sex partners online

Just over a fifth of the total sample (21.1%) said that they did not currently use GCS to look for sex partners. This probably reflects men who are already in a relationship with a regular partner (and are therefore not currently looking for sex partners online), rather than men who have *never* used GCS to look for sex partners. Figure 6 illustrates the frequency with which the remaining 78.9% of participants reported using GCS to look for sex partners, summed to 100%. There was a broad range of reported Internet sex-seeking, with over half the Internet sex-seekers reporting that they used GCS to look for sex partners at least once a week.

The whole sample of chat site users was also asked how many male sex partners they had met in the previous six months through GCS and other sources. Table 17 shows a comparison of these two questions. Just under half the men said that they had met between one and ten men through GCS in the previous six months, and just over half the men said that they had met a similar number of men through other sources. Men were also more likely to say that they had not met *any* sex partners through GCS compared to other sources, and to say that they had met ten or more partners in places other than GCS. It would appear that chat site users are still likely to meet more of their sex partners through other sources (such as bars, clubs or sex-on-premises venues) than through chat sites.

It is also interesting to note that a substantial minority of chat site users (n=53 or 12.2% of the sample) had met no men through chat sites *or* other sources in the previous six months.

Table 18 outlines the preparations that gay chat site users undertook before meeting online sex partners, such as reading online profiles, viewing pics, extensive chat or discussing particular types of sexual practice. The percentages refer to the proportions of men who had ‘sometimes’ or ‘always’ undertaken the listed activities, based on their previous experience. Some of the most commonly used sources of information about online partners were, unsurprisingly, face pics, explicit pics, user profiles, and online chat and email. However, over 80% of men also found out the online partner’s name (as opposed to their ‘nick’) and/or spoke to him before meeting. Just less than a third of men reported having arranged group sex through the Internet, and a smaller proportion had arranged sex involving drugs.

When asked where they went to meet an online sex partner for the first time (based on their previous experience), around equal (but surprisingly low) proportions of men said that they had met men at either their own home or the sex partner’s home (see Figure 7). However, a more common response was to say that they had met somewhere else (presumably a public meeting place). This suggests a common practice of mutual scrutiny and evaluation, perhaps reflecting

concerns about the veracity of online pics and profiles, and a desire for face-to-face contact before committing to sexual activity. Future research could explore in more detail the strategies gay men have developed for meeting up with online partners and the range of places in which these meetings occur.

Other uses of the Internet

Other than using GCS, the men reported a wide range of current uses of the Internet, the most common being Internet banking (see Table 19).

Although only around a fifth of men said that they currently used the Internet to look for general health information, and just less than a fifth to look for sexual health information in particular, over three-quarters agreed or strongly agreed that they would be likely to access sexual health information through the Internet (see Figure 8).

When asked whether they would be more likely to access sexual health information if it were in a sexually explicit format, there was no particular preference for or against explicit material. Just over half of the sample agreed or strongly agreed that they would be more likely to access sexual health information if it were sexually explicit, while just under half disagreed or strongly disagreed (see Figure 9).

Table 17: No. of men met through chat sites and other sources in previous six months

No. of men met through chat sites	No. of men met through other sources						Total
	None	1	2–5	6–10	11–50	>50	
None	53 (12.2%)	29 (6.7%)	46 (10.6%)	6 (1.4%)	15 (3.4%)	5 (1.1%)	154 (35.3%)
1	9 (2.1%)	12 (2.8%)	10 (2.3%)	3 (0.7%)	3 (0.7%)	1 (0.2%)	38 (8.7%)
2–5	18 (4.1%)	13 (3.0%)	62 (14.2%)	9 (2.1%)	25 (5.7%)	12 (2.8%)	139 (31.9%)
6–10	1 (0.2%)	1 (0.2%)	8 (1.8%)	13(3.0%)	12 (2.8%)	2 (0.5%)	37 (8.5%)
11–50	1 (0.2%)	1 (0.2%)	5 (1.1%)	10 (2.3%)	27 (6.2%)	2 (0.5%)	46 (10.6%)
>50	1 (0.2%)	1 (0.2%)	1 (0.2%)	3 (0.7%)	6 (1.4%)	10 (2.3%)	22 (5.0%)
Total	83 (19.0%)	57 (13.1%)	132 (30.3%)	44 (10.1%)	88 (20.2%)	32 (7.3%)	436 (100%)

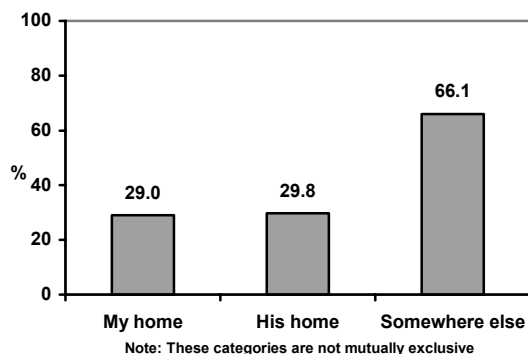


Figure 7: Meeting an online sex partner for the first time

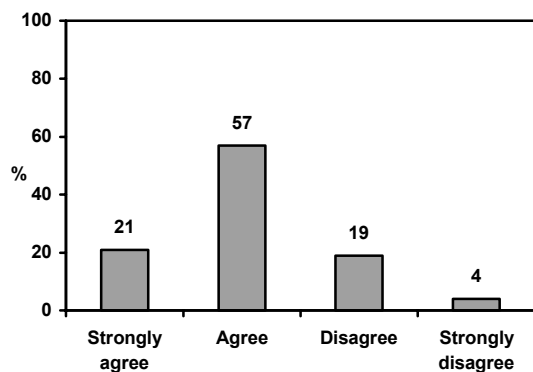


Figure 8: 'I would be likely to access sexual health information through the Internet'

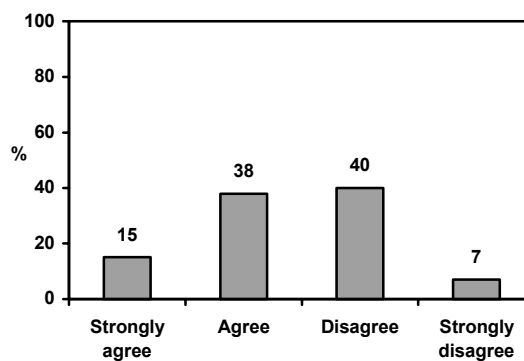


Figure 9: 'I am more likely to access sexual health information if it is in a sexually explicit format'

Table 18: Preparations for meeting online sex partners

	%
Read his profile/description	94.8
Seen face pic(s)	91.4
Chatted/emailed extensively	89.6
Known his name	88.4
Spoken to him	87.1
Seen other (explicit) pic(s)	80.5
Arranged group sex	29.1
Arranged sex involving drugs ('chem sex')	16.0

Note: These categories are not mutually exclusive.

Table 19: Other uses of the Internet

	%		%
Banking	68.2	Shopping	45.3
Entertainment	60.9	Job-seeking	35.3
Work/study	54.9	General health	21.3
Pornography	52.7	Games	19.8
Music	49.3	Sexual health	17.8
Travel	49.1	Other	4.0
News	45.6		

Note: These categories are not mutually exclusive.

FACTOR ANALYSIS: PATTERNS OF GAY CHAT SITE USAGE

The GCS survey contained 26 questions on participants' attitudes to different aspects of GCS and their experiences and expectations of Internet sex-seeking (see Questionnaire items 18–43). Participants indicated their degree of agreement or disagreement with each statement or question by answering 'strongly agree', 'agree', 'disagree', or 'strongly disagree' (scored from 1 to 4 respectively).

In order to make sense of this potentially unwieldy set of data, we subjected the responses to these questions to a factor analysis. Factor analysis is a statistical technique designed to uncover patterns and relationships among many variables.¹¹ It allows related variables (often referred to as items) to be condensed into fewer dimensions, called factors, which can help in the analysis of complex multivariate data. In the case of our questionnaire data, factor analysis allowed us to identify which questions were related to one another and were responded to in similar ways by our participants, and to group these related items together. Because factor analysis is a highly flexible technique that can easily generate alternative models of a data set, there is a trade-off between finding the most statistically comprehensive model (that explains the majority of variation in the data) and simpler models that are theoretically justifiable. In this case, we present three distinct factors (based on 18 of the 26 items) that made conceptual sense and accounted for 28.6% of the variance in the data. We have called these factors: 1) Satisfaction/Confidence, 2) Concern, and 3) Disclosure. Each of these factors included particular questionnaire items. These are detailed below.

We have treated each factor as a scale, assigning each study participant a score for Satisfaction/Confidence, Concern, and

Disclosure. This allows us to see whether particular demographic or behavioural characteristics (correlates) are associated with particular factors. These scales are relatively independent as evidenced by the correlations between the scales. The items underpinning each scale are also reported below. The scales have been reverse scored so that a higher score indicates greater agreement with the items in the scale.

FACTOR 1: SATISFACTION/ CONFIDENCE

The Satisfaction/Confidence factor or scale contained the following questionnaire items, statements to which respondents had to agree or disagree:

- 'Since using gay chat sites I have had a greater number of sex partners overall.'
- 'Since using gay chat sites I have been more sexually adventurous in general.'
- 'One of the reasons I use gay chat sites is to find partners who want the same kind of sex as I do.'
- 'Gay chat sites make it easy to get sex when I want it.'
- 'I feel confident about contacting men through gay chat sites.'
- 'It is easier to negotiate the kind of sex I want on gay chat sites than elsewhere.'
- 'Gay chat sites make it possible to know more about casual sex partners before meeting them.'
- 'Since I started using gay chat sites I no longer look for sexual partners elsewhere.'

The Satisfaction/Confidence scale also included one item with a negative relationship:

- 'Overall, my experiences using gay chat sites have been disappointing.'

Men who scored higher on the scale were likely to disagree with this item.

The mean score for the Satisfaction/Confidence scale was 2.57 (s.d. = 0.49). Overall, this factor seems to relate to positive experiences of using GCS, with the related items suggesting that men who scored highly on this factor had confidence in using GCS and found the Internet conducive to meeting the kinds of sex partners they wanted. Men scoring highly on the Satisfaction/Confidence scale also saw GCS as allowing them to arrange sex more easily and be more sexually adventurous. The Satisfaction/Confidence scale accounted for 16.5% of the variance in the data and had a reliability coefficient (Cronbach's alpha) of 0.76.

FACTOR 2: CONCERN

The second factor, Concern, included the following questionnaire items:

- 'I am concerned about having my face pic(s) on gay chat sites.'
- 'I am concerned about having explicit pics of me on gay chat sites.'
- 'It's risky to meet men through gay chat sites.'
- 'I am concerned about who may be able to access my personal information from gay chat sites.'
- 'Overall, my experiences using gay chat sites have been disappointing.'
- 'I expect men who I meet through gay chat sites to mislead me in some way about themselves.'

The mean score for the Concern scale was 2.60 (s.d. = 0.49). The Concern factor seemed to capture a more cautious pattern of online behaviour than the Satisfaction/Confidence factor. Items on this factor were related to users' worries about posting personal photos online, the privacy of online material and the potential risks of meeting men through the Internet. Men who scored highly on this scale were likely to say that they had been disappointed by their experiences of using GCS and expected men they met online to mislead them. The Concern scale accounted for 8.4% of the variance and had a reliability coefficient (alpha) of 0.65.

FACTOR 3: DISCLOSURE

The third factor, Disclosure, included three items:

- 'I am likely to tell my HIV status to men I make contact with on gay chat sites before meeting them.'
- 'On gay chat sites I usually seek sex partners who are the same HIV status as me.'
- 'I expect men who I meet through gay chat sites to be honest about their HIV status.'

The mean score for the Disclosure scale was 2.79 (s.d. = 0.63). This factor reflected a pattern of online behaviour related to HIV status. Men who scored highly on Disclosure said that they were likely to disclose their HIV status to men they contacted online, they expected other online users to disclose their serostatus to them, and they sought seroconcordant partners through chat sites. This pattern of responses suggests that some men used chat sites as a forum in which they could disclose their HIV status before meeting men and finding seroconcordant partners. The expectation that other men would disclose their serostatus too was suggestive of a culture of negotiation and disclosure around HIV status in Internet sex-seeking. The Disclosure scale accounted for 3.7%

of the variance and had a reliability coefficient (α) of 0.51. This level of internal consistency reliability is relatively low and suggests more measurement error than would ordinarily be accepted for research purposes (Kaplan & Saccuzzo, 1993). However, because the scale included only three items, which necessarily reduces scale reliability, we decided to include it. Future research may consider the benefit of improving the scale by the addition of more items.

CORRELATIONS BETWEEN SCALES

The correlations between the three scales are shown in Table 20. These indicate that high scores on the Satisfaction/Confidence scale are correlated with low scores on the Concern scale and high scores on the Disclosure scale. In other words, men who scored highly for Satisfaction/Confidence in GCS usage were likely to express fewer concerns about Internet sex-seeking and were more likely to indicate that they disclosed their HIV status and sought out seroconcordant partners online. This suggests that positive attitudes to and experiences of GCS are associated with a culture of serostatus disclosure. The Concern and Disclosure scales are not significantly correlated.

Table 20: Correlations between factors

	Concern	Disclosure
Satisfaction/Confidence	-0.212*	0.293*
Concern	–	0.056

* $p < 0.001$

CORRELATES OF SATISFACTION/CONFIDENCE

Satisfaction with and confidence in the use of GCS was correlated with a number of variables.

Using GCS to look for certain types of sex partner was associated with Satisfaction/Confidence. Men who used GCS to look for

casual sex partners had higher Satisfaction scores than those who did not (mean 2.66 vs. 2.48, $t=3.91$, $p < 0.001$), as did those who sought regular sex partners (fuck buddies) online (mean 2.73 vs. 2.47, $t=5.57$, $p < 0.001$). Men who sought group sex online also scored higher on the Satisfaction scale (mean 2.71 vs. 2.54, $t=2.75$, $p < 0.01$).

Unsurprisingly, having had particular experiences with meeting partners through GCS was also associated with Satisfaction/Confidence. Men who had met casual partners online were more satisfied than those who had not (mean 2.69 vs. 2.38, $t=6.86$, $p < 0.001$), as were men who had met a regular sex partner/fuck buddy (mean 2.82 vs. 2.47, $t=7.18$, $p < 0.001$) or those who had met a boyfriend/long-term partner (mean 2.72 vs. 2.53, $t=3.52$, $p < 0.001$). Satisfaction was also related to the total number of sex partners met through GCS in the previous six months, with men who had met more sex partners online registering higher scores ($F=11.29$, $df=5$, $p < 0.001$). Men who said they had ever arranged group sex before through a chat site were more satisfied/confident than those who had never made such an arrangement (mean 2.79 vs. 2.59, $t=4.03$, $p < 0.001$), as were those who had ever arranged sex involving drugs or ‘chem sex’ (mean 2.78 vs. 2.62, $t=2.51$, $p=0.01$).

Men who reported any unprotected anal intercourse with a casual partner in the previous six months also had higher Satisfaction/Confidence scores than those who did not report any UAI-C (mean 2.67 vs. 2.52, $t=3.01$, $p < 0.005$).

The popularity of GCS among Internet sex-seekers’ friends and the frequency with which it was used were also related to Satisfaction/Confidence. Men who reported that most of their friends used GCS to meet men for sex had significantly higher Satisfaction scores than those who said that none, a few or some of their friends were Internet sex-seekers ($F=7.12$, $df=3$, $p < 0.001$). In addition, the more frequently men reported using chat sites to look for male sex

partners, the more satisfied they said they were ($F=7.75$, $df=5$, $p<0.001$). The features used on chat sites were also related to Satisfaction/Confidence scores. The more features that men reported using on GCS, the higher their Satisfaction scores ($F=3.16$, $df=4$, $p=0.01$).

Overall, the correlates of the Satisfaction/Confidence scale confirm the idea that those men who have found GCS a useful and effective medium through which to meet men (for casual, regular and long-term relationships) feel positive about their ongoing use of GCS and have incorporated it into their sex-seeking repertoire. For men with higher Satisfaction/Confidence scores, there is a sense of a culture of Internet sex-seeking supported and encouraged by friends who are also Internet sex-seekers, and where regular use of GCS facilitates the maintenance (and expansion) of these men's sexual contacts. Of course, we do not know whether satisfaction and confidence with chat site usage is the *result* of positive online experiences or whether positive experiences of GCS are an outcome of men's feeling competent and confident *before* they seek sex on the Internet. Both accounts are likely to be true to some degree.

CORRELATES OF CONCERN

There were a number of correlates of the Concern scale. As with Satisfaction/Confidence, seeking and meeting certain types of male sex partners through chat sites was correlated with levels of Concern. Men who did not seek casual sex partners through chat sites had higher Concern scores than those who did (mean 2.70 vs. 2.49, $t=4.61$, $p<0.001$), and men who did not seek regular sex partners online had higher Concern scores than those who did (mean 2.67 vs. 2.48, $t=4.02$, $p<0.001$). In a similar vein, men who had not met casual sex partners through GCS had higher Concern scores than those who had (mean 2.75 vs. 2.50, $t=5.23$, $p<0.001$), as did those who had not met regular sex partners online (mean

2.68 vs. 2.40, $t=5.57$, $p<0.001$). Never having arranged group sex or 'chem sex' before meeting an online sex partner was also associated with Concern scores. Men who had never arranged group sex had higher Concern scores than those who had (mean 2.59 vs. 2.42, $t=2.94$, $p<0.005$), as did those who had never arranged 'chem sex' (mean 2.59 vs. 2.32, $t=3.76$, $p<0.001$). In general, the fewer sex partners men reported meeting through GCS in the previous six months, the more concerned they were ($F=6.75$, $df=5$, $p<0.001$).

Men who said that none, a few, or some of their friends used GCS to find male sex partners had higher Concern scores than men who said that most or all of their friends used GCS for Internet sex-seeking ($F=4.15$, $df=3$, $p<0.01$). Frequency of GCS use was also related to levels of Concern. The less often men reported using GCS to find male sex partners, the higher were their levels of Concern ($F=10.39$, $df=5$, $p<0.001$). Men who did not access chat sites at work also had higher Concern scores than those who did (mean 2.62 vs. 2.45, $t=2.54$, $p=0.01$). In general, those who used fewer features of GCS had higher scores on the Concern scale ($F=3.75$, $df=4$, $p<0.01$).

Men who said that they would not arrange to meet an online partner for the first time at their own home had higher Concern scores than those who would (mean 2.66 vs. 2.45, $t=4.04$, $p<0.001$), as did those who would not meet an online partner at the partner's home (mean 2.66 vs. 2.45, $t=4.16$, $p<0.001$). Those men who had not met any sex partner through GCS had significantly higher Concern scores than other chat site users (mean 2.87 vs. 2.56, $t=4.54$, $p<0.001$).

Although the scales are independent, the correlates of the Concern scale are similar to those of the Satisfaction/Confidence scale, suggesting that different experiences of the same aspects of Internet sex-seeking are associated with either positive feelings and attitudes to GCS (Satisfaction/

Confidence) or a precautionary attitude and dissatisfaction (Concern). Men who score highly on the Concern scale are less likely to seek out casual or regular partners online, are less likely to have ever met casual or regular partners through GCS, or to have arranged particular types of sexual activity (such as group sex). Men with higher scores on the Concern scale use GCS less frequently than other men, have fewer friends who use GCS for sex-seeking, and use fewer features of chat sites. As with the Satisfaction/Confidence scale, we do not know whether negative experiences of Internet sex-seeking lead men to have higher levels of Concern, or whether men's pre-existing concerns and worries about GCS make it difficult for them to engage with GCS in the same way as men who express confidence and satisfaction. Once again, elements of both accounts are likely to be true. However, just as the Satisfaction/Confidence scale seems to reflect the successful incorporation of Internet sex-seeking into a broader sexual repertoire, the Concern scale seems to suggest that men who lack confidence and who find sex-seeking activities difficult in general also find using GCS a challenge.

CORRELATES OF DISCLOSURE

The correlates of the Disclosure scale were somewhat different to those of the Satisfaction/Confidence and Concern scales. Gay chat site users from Sydney had higher scores on the Disclosure scale than those from Melbourne (mean 2.83 vs. 2.67, $t=2.49$, $p=0.01$). This is likely to reflect the higher proportion of HIV-positive men in the Sydney sample, as HIV-positive men are known to be more likely to disclose their serostatus when seeking sex partners (e.g. Prestage et al., 2001).

There were also a number of correlates of the Disclosure scale related to seeking and

meeting men through GCS. Men who said they were looking for a boyfriend/partner online had higher Disclosure scores than those who were not looking for this type of relationship (mean 2.89 vs. 2.70, $t=3.06$, $p<0.005$). Similarly, those who said they had met a boyfriend/partner through GCS also had higher scores on the Disclosure scale than those who had not (mean 2.99 vs. 2.72, $t=3.83$, $p<0.001$). In addition, men who said they were looking for friends online had higher Disclosure scores than those who were not looking for friends through GCS (mean 2.86 vs. 2.66, $t=3.26$, $p<0.005$).

Those men who said they also used sex venues to find male sex partners had lower scores on the Disclosure scale than those who did not (mean 2.71 vs. 2.86, $t=2.55$, $p=0.01$).

Chatting or emailing extensively before meeting an online partner was also predictive of scores on the Disclosure scale, with men who said that they always chatted or emailed extensively having higher Disclosure scores than those men who undertook this activity sometimes or never ($F=5.54$, $df=2$, $p<0.005$). Disclosure scores also increased in line with the number of friends men said they had who used GCS to meet sex partners ($F=3.92$, $df=3$, $p<0.01$).

Taken together, the correlates of the Disclosure scale suggest that men looking for a boyfriend or friends online are more likely to disclose their HIV status when negotiating the relationship, and to seek out men of a similar serostatus (compared to men who do not look for boyfriends or friends online). Disclosing or negotiating HIV status online is more likely to occur among men who spend 'extensive' amounts of time communicating through chat or email, among men who have a lot of friends who are Internet sex-seekers, and seems less likely to occur among men who use sex venues to find sex partners.

DISCUSSION

Cruising and connecting online was the first major survey of Australian gay community-attached men and their use of GCS. Our principal findings both support and refute common beliefs and existing research about how GCS are used by gay men.

GAY CHAT SITES AS SEX ENVIRONMENTS

Chat sites are regarded as supporting a range of sex-seeking practices by gay men, providing a fast and efficient medium through which men can locate one another for sex. The results of this study support the idea that gay men have successfully taken up Internet technology in order to find other men for sex, but they also indicate that GCS are not just used to find casual sex partners. While around 60% of men in the study reported finding casual sex partners online and nearly 30% had met a regular sex partner (fuck buddy), almost a quarter had found a boyfriend or long-term partner through a gay chat site. The medium of chat sites therefore appears to be conducive to arranging both short-term encounters and more enduring sexual relationships.

Chat sites also allow men to look for partners for other sexual activities, some of which are specific to the medium itself. When we asked what they were looking for when they went online, substantial minorities of men indicated that they were seeking opportunities for group sex and online sex ('cybersex'). As yet, the range of practices that cybersex might encompass are not entirely clear. Users are likely to use private chat as a way to 'talk dirty' to one another, similar to phone sex. The incorporation of webcams and microphones can afford additional visual and aural stimulation, and the potential for exhibitionistic play and voyeurism. In addition

to cybersex practices involving two (or more) users, it is also important to note that men can treat the general online space of chat sites as a sexualised environment, browsing other users' profiles (particularly explicit ones) for titillation and stimulation, or 'lurking' within the online environment observing exchanges between other men. Simply being logged in to gaydar or gay.com (and the chance of being contacted by other users or having one's profile viewed) may be sexually stimulating for some men, although it is uncertain whether this would be regarded as sexual activity by those involved.¹² While we are finding out more about how chat sites are imagined and incorporated into the sexual worlds of gay men, there is clearly still a great deal to understand, particularly about how the technology both supports existing sexual practices and generates unforeseen ones.

CHAT SITES AND RISK

As we have already mentioned in this report, chat sites are often represented in the media and some of the research literature as potential 'risk environments'. The growing popularity of GCS and the speed and ease with which men can find each other online has led some to foresee an explosion of risk-taking behaviour 'caused' by (or at least associated with) Internet sex-seeking. The rapid emergence of sex-seeking in cyberspace seems to have troubled many educators and researchers, who are concerned that gay men will forget safer sex practices when they log on, or that prevention messages may not 'transfer' to the online medium. Reports that suggest gay Internet sex-seekers have more partners than other gay men, engage in more unprotected sex, or are the 'vectors' for outbreaks of syphilis and other STIs stir up homophobic stereotypes about gay men's

promiscuity and associations with disease. They also fuel conservative anxieties about the Internet as an unregulated space that condones all sorts of perversion. We have tried to avoid a view of online sex-seeking as inherently problematic or risky as this seems to preclude discussion about unproblematic or normalised Internet sex-seeking, and the potential opportunities of chat sites for risk-reduction and prevention efforts (see Cooper, Scherer, Boies & Gordon, 1999; Weatherburn et al., 2003).

However, our research *has* generated results that require explanation or further investigation. Our analysis of Australian Gay Community Periodic Survey data showed that, amongst other things, Internet sex-seekers seem to have a greater number of sexual partners overall than other gay-community-attached men. The fact that Internet sex-seeking is associated with an increased number of sexual partners is perhaps not surprising in itself. Given that the medium is renowned for speed, efficiency and anonymity, GCS are likely to: a) attract men who are already adept at cruising for sex and want to add the Internet to their sex-seeking repertoire; and b) provide a space in which men who lack confidence in other cruising environments can find partners more easily (Weatherburn et al., 2003). It should also be borne in mind that an increased number of partners does not necessarily mean an increase in risky or unsafe behaviour—the analysis of Periodic Survey data did not find an association between increased risk practice (such as UAI-C) and Internet sex-seeking.

The finding from the current survey that chat site users reported higher rates of UAI-C than those seen in the Periodic Surveys should be treated with caution (as discussed in the section *Unprotected anal intercourse with casual partners*) because the questions asked about UAI-C and sex partners were not directly comparable.

In the chat sites survey, rates of UAI-C varied according to HIV serostatus, with nearly three-quarters of HIV-positive men, a third of HIV-negative men and a quarter of untested men reporting any UAI-C in the previous six months. We have suggested that this variation by serostatus might indicate a deliberate strategy of using the Internet to find seroconcordant partners for sex without condoms, particularly by HIV-positive men. Other findings, such as the high levels of HIV testing by HIV-negative chat site users in the previous six months, could support this interpretation (by indicating that negative men are regularly confirming their status), but without further information (such as the status of the casual partners involved) it is difficult to be sure. There is clearly an opportunity here for further research on unprotected sex and how it is negotiated, implied or sought online.

CHAT SITES AS SOCIAL ENVIRONMENTS

Perhaps running contrary to the popular image of the Internet as a sex environment or a space of risk, a number of findings of the study indicate that GCS are important social spaces for significant numbers of gay men. Nearly 60% of men in the study said they had made ‘real life’ or offline friends through GCS, and nearly 50% had made online friends or chat buddies. Over a fifth of men said that they were not using GCS to look for sex partners at the time of the survey. The findings that a substantial minority of users were *not* looking for sex when online and a majority of users had made friends through chat sites indicate that the online environment probably supports a range of social activities (such as chatting, exchanging information and keeping up with community gossip and news) and is conducive to developing non-sexual relationships with other users.

Rather than becoming the 'bathhouses of the 21st century' as some have suggested (see Marcus, 2003), it is perhaps more appropriate to think of GCS as the online equivalent of gay bars; while some go there to pick up, others are there to 'hang out' in gay space, to see other gay men, to meet up with friends, to socialise and relax. GCS clearly do not provide the physical experience of being in a bar, club or other gay space, and therefore may offer what might be regarded as an 'impoverished' form of socialising or community participation. Nevertheless, chat sites may be useful in maintaining a sense of community engagement for gay men who can already be regarded as community attached (such as the men in our sample), and offer a social space without the expectation of alcohol consumption or the use of other drugs. For other gay men who may be socially or geographically isolated, or for those who are 'coming out' or exploring their sexuality, GCS may also be significant in providing a 'visibly' queer space and the opportunity to connect with other gay men (while also retaining anonymity if they so choose). Research on the use of the Internet by Australian same-sex-attracted youth highlights the important role that gay online environments increasingly play in combating isolation, providing support and friendship, and in the development of affirmative gay (and lesbian) identities (Hillier et al., 2001). Of course, if we regard chat sites as the online equivalent of gay bars, we must also recognise that some men will feel excluded by the dominant culture and values expressed there (such as those extolling youth, beauty and sexual prowess). As in gay bars, some men will find the atmosphere of GCS overly sexualised, superficial or even threatening. Further work is needed to understand how the culture and practices of GCS might support (or undermine) notions of 'gay community' and under what circumstances patterns of exclusion are reproduced or challenged online.

DEVELOPING ONLINE COMPETENCE

It seems clear to us that many of the gay men who participated in *Cruising and connecting online* are highly literate Internet users, making full and regular use of Internet technology and GCS to find and connect with other gay men. Many users expressed confidence and satisfaction with their use of GCS, feeling that GCS enabled them to find partners more easily, to find out more about men before they met them, and to negotiate the kind of sex they wanted. Participants also indicated that chat sites could be used as way to disclose HIV status or to seek out seroconcordant partners for sex. However, many men still had concerns about the privacy and security of the online information they posted about themselves (quite legitimately given the ease with which chat sites can be accessed and online information copied and exchanged). Concerns about GCS were associated with more infrequent access, seeking and meeting fewer sex partners online, and having fewer friends who used GCS for sex-seeking.

If we accept that GCS have become important spaces in which gay men establish social and sexual connections with each other, and that they are useful in sustaining affirmative gay identities and a healthy range of sexual expression for many men, then the patterns of chat site usage we have identified suggest opportunities for outreach and education. While many users, particularly those familiar with computers and the Internet, will find they can quickly set up, access and get involved in GCS, some will find the technology and medium baffling and potentially alienating. For gay men who want to get involved in gay online activity, but who have concerns about chat sites and online practices, peer support and education may be beneficial in helping them to develop confidence in using GCS. This could involve familiarising new users with the mechanics and

features of chat sites, and assisting them to develop the skills they need to express what they are looking for online and to successfully negotiate for it, as well as to manage and control the disclosure of personal information. Some critics would argue that developing online competence would simply make it easier for gay men to find sex partners through the Internet.

However, attempting to restrict gay men's access to sex has never been a particularly successful or happy health promotion strategy (Kippax & Race, 2003). Encouraging gay men to be confident and reflexive about their online activities seems to be a more productive avenue to explore if we wish to encourage and sustain safer sex practices in both online environments and the 'real world'.

ENDNOTES

¹Withholding face pics also focuses attention on a user's other features, such as body shots or their text profile.

²Signalling sexual interest and initiating a pick-up can be achieved extremely economically online. *ASL* ('age, sex, location?') is a notable use of frugal 'netspeak'.

³The Internet does, however, afford some opportunities for challenging exclusionary online practice; the informal movement 'Sexual Racism Sux!' (www.sexualracismsux.com) encourages users to confront racial prejudice online.

⁴The sex resort was described by Mettey et al. (2003) as a '65 room complex equipped with a privacy fence' (p. 466) which typically accommodates between 50 and 100 men per week. The resort can be regarded as a residential sex-on-premises venue in that it provides a steam room, hot tub, maze, dungeon and outdoor pool, and customers (men aged over 18) can stay for several days, renting rooms or buying day passes.

⁵In the case of web-based projects, keeping costs down may rely on the negotiation of free or cheap website hosting with, for example, a community organisation or public institution, and that a project website does not require regular maintenance or updating. The cost savings of web-based projects also depend to some degree on whether initial set-up costs can be kept low by using in-house design expertise and computer support.

⁶The use of face-to-face interviewers may have its own advantages; interviewers can provide informal feedback on the progress of a study and the reception of surveys by participants.

⁷It is unlikely, however, that those who access the Internet mainly at work will use the medium in the same way as those who do so at home. In addition, despite the apparent widespread availability of Internet access among Australian MSM, it is probable that those without access will be disproportionately from geographically isolated areas or on low incomes.

⁸This is of course not the same as comparing Internet users to non-users (or Internet sex-seekers to non-Internet sex-seekers) from within a wider sample that may be drawn solely from the Internet, generated by traditional recruitment methods, or both (as in the research detailed in the sections above).

⁹The survey question asks respondents where they look for sex partners. The list of options includes the Internet, gay bars, sex venues, beats and sex workers.

¹⁰For an explanation of the logistic regression technique, please see the section on *Internet sex-seekers in the Sydney gay community*.

¹¹Factor analysis originated with the work of Spearman (1904). For a more recent discussion of multivariate statistics, including factor analysis, see Tabachnik (2001).

¹²Abigail Groves is conducting postgraduate research on cybersex at the NCHSR. For more information, please contact her by email (a.groves@student.unsw.edu.au).

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Internet Chat Sites Survey*

National Centre in HIV Social Research
National Centre in HIV Epidemiology & Clinical Research

University of New South Wales

ACON & PLWH/A (NSW)

*a supplement to the Gay Community Periodic Survey

This survey is for men who have ever used gay INTERNET chat/sex sites.

1 Which gay chat sites do you use? (Tick as many as applicable.)

gaydar

gay.com

ICQ

Other (please specify)

2 When did you first start using gay chat sites?

Less than 6 months ago

6-12 months ago

1-2 years ago

More than 2 years ago

3 What have you used gay chat sites for? (Tick as many as applicable.)

Meet men for casual sex

Chat

Meet the same man/men for sex on a regular basis

Online sex ('cybersex')

Meet men for a possible relationship

Just looking/surfing

4 What are you seeking on gay chat sites? (Tick as many as applicable.)

Casual sex partners

Men I can meet up with regularly for sex (e.g. 'fuck buddies')

Online sex ('cybersex') partners

A boyfriend/partner/lover

Group sex

Friend(s)

Other (please specify)

5 Who have you met through gay chat sites? (Tick as many as applicable.)

Casual sex partners

Men to meet up with regularly for sex (e.g. 'fuck buddies')

Regular partner (boyfriend, lover)

Chat buddies

New friends

6 Why did you start using gay chat sites to look for male sex partners? (Tick as many as applicable.)

My friends were doing it/talking about it

It sounded like a safe way to cruise

It sounded like an easy way to cruise

I was tired of cruising in bars/beats/sex clubs

I thought it was a good way to get to know someone

I wanted sex straight away

Other (please specify)

7 How long after you started using gay chat sites did you have your first sexual encounter with a man you met online?

Less than 1 day

Less than 1 week

Less than 1 month

More than 1 month

Haven't met any sex partners through gay chat sites

8 Apart from gay chat sites, where else do you look for male sex partners? (Tick as many as applicable.)

Gay bars/clubs

Beats

Dance parties

Sex venues

9 How many different men (that you've met through gay chat sites) have you had sex with in the past 6 months?

None

2-5 men

11-50 men

One

6-10 men

More than 50 men

10 How many different men (that you've met elsewhere) have you had sex with in the past 6 months?

None

2-5 men

11-50 men

One

6-10 men

More than 50 men

11 How many of your male friends use the Internet to meet men for sex?

None A few Some Most All

12 How often do you use gay chat sites to look for male sex partners?

Every day

A few times a week

About once a week

Less than once a week

Less than once a month

Never

13 Where do you access gay chat sites? (Tick as many as applicable.)

At my home

At someone else's home

At work

In other cities

At Internet cafés

Other (please specify)

14 Which of the following do you use on gay chat sites? (Tick as many as applicable.)

Instant messaging

Chat room

Web cam

Email

Microphone

Other (please specify)

15 When you arrange to meet someone for the first time through gay chat sites, where do you meet them? (Tick as many as applicable.)

My home

His home

Somewhere else

I haven't met someone through a gay chat site

16 What other things do you use the Internet for? (Tick as many as applicable.)

Shopping

News/weather

Employment seeking

Music

Sexual health information

Banking

Entertainment

Travel

Games

Health

Pornography

Work/study

Other please specify).....

17 Before meeting someone through a gay sex site, how often have you:

Never Sometimes Always

Seen his face pic(s)

Seen his other (explicit) pic(s)

Read his profile/description

Chatted/mailed extensively

Spoken to him

Known his name

Arranged group sex

Arranged sex involving drugs ('chem sex')

Please indicate whether you agree or disagree with the following statements:

- 18 Most men I have met through gay chat sites have honestly described their physical characteristics.
strongly agree agree disagree strongly disagree
- 19 I usually know the type of sex I will have with men from gay chat sites before I meet them.
strongly agree agree disagree strongly disagree
- 20 Since I started using gay chat sites I no longer look for sexual partners elsewhere.
strongly agree agree disagree strongly disagree
- 21 I prefer meeting men through gay chat sites than through gay venues.
strongly agree agree disagree strongly disagree
- 22 One of the reasons I use gay chat sites is to find partners who want the same kind of sex as I do.
strongly agree agree disagree strongly disagree
- 23 I am concerned about who may be able to access my personal information from gay chat sites.
strongly agree agree disagree strongly disagree
- 24 Gay chat sites make it easy to get sex when I want it.
strongly agree agree disagree strongly disagree
- 25 I am likely to tell my HIV status to men I make contact with on gay chat sites before meeting them.
strongly agree agree disagree strongly disagree
- 26 Since using gay chat sites I have been more sexually adventurous in general.
strongly agree agree disagree strongly disagree
- 27 Since using gay chat sites I have had a greater number of sexual partners overall.
strongly agree agree disagree strongly disagree
- 28 On gay chat sites I usually seek sex partners who are the same HIV status as me.
strongly agree agree disagree strongly disagree
- 29 Overall, my experiences using gay chat sites have been disappointing.
strongly agree agree disagree strongly disagree
- 30 I usually know the HIV status of men I meet through gay chat sites before I meet them.
strongly agree agree disagree strongly disagree
- 31 It is easier to negotiate the kind of sex I want on gay chat sites than elsewhere.
strongly agree agree disagree strongly disagree
- 32 I feel confident about contacting men through gay chat sites.
strongly agree agree disagree strongly disagree
- 33 Gay chat sites make it possible to know more about casual sex partners before meeting them.
strongly agree agree disagree strongly disagree
- 34 I am concerned about having my face pic(s) on gay chat sites.
strongly agree agree disagree strongly disagree
- 35 I am concerned about having explicit pics of me on gay chat sites.
strongly agree agree disagree strongly disagree
- 36 It's risky to meet men through gay chat sites.
strongly agree agree disagree strongly disagree
- 37 I am less likely to use condoms for casual anal sex with men I meet through gay chat sites than elsewhere.
strongly agree agree disagree strongly disagree

- 38 I always use condoms with men I meet through gay chat sites.
strongly agree agree disagree strongly disagree
- 39 I expect men who I meet through gay chat sites to mislead me in some way about themselves.
strongly agree agree disagree strongly disagree
- 40 I expect men who I meet through gay chat sites to be honest about their HIV status.
strongly agree agree disagree strongly disagree
- 41 I am concerned about racial discrimination on gay chat sites.
strongly agree agree disagree strongly disagree
- 42 I would be likely to access sexual health information through the Internet.
strongly agree agree disagree strongly disagree
- 43 I am more likely to access sexual health information if it is sexually explicit.
strongly agree agree disagree strongly disagree
- 44 How old are you? _____ years.
- 45 Where do you live? Postcode
- 46 Have you ever had an HIV antibody test?
No Yes
If no, go to question 50.
- 47 When were you last tested for HIV antibodies?
Less than a week ago 1-4 weeks ago
1-6 months ago 7-12 months ago
1-2 years ago 2-4 years ago
More than 4 years ago
- 48 Based on the results of your HIV antibody tests, what is your HIV status?
No test/Don't know
Negative
Positive
- 49 Do you currently have sex with a regular male partner?
No Yes
- 50 Do you currently have sex with casual male partners?
No Yes
- 51 In the last 6 months have you had any anal intercourse without a condom with a **casual** male partner?
Never Occasionally often
- 52 If you are in a regular relationship with a man, for how long has it been?
Less than 6 months 7-12 months
1-2 years More than 2 years
Not in a regular relationship with a man
- 53 Do you think of yourself as:
Gay/homosexual
Bisexual
Heterosexual
Other (please specify) _____
- 54 How many of your friends are gay or homosexual men?
None A few Some Most All
- 55 How much of your free time is spent with gay or homosexual men?
None A little Some A lot

THANK YOU FOR COMPLETING THIS SURVEY 2003/2