

The internet and gay men

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The internet provides a new meeting ground for gay men that did not exist in the early 1990s. Recent surveys in Sydney (Mao 2002) and London (Bolding 2002) found that around half the gay men questioned had used the internet to look for sex. This figure is likely to rise over the next few years. Interestingly, several studies have found high levels of risk behaviour among gay men who seek—and meet—sexual partners through the internet (Elford 2001, McFarlane 2000, Hospers 2002, Kim 2001, Benotsch 2002). The underlying processes, however, are not yet understood.

In a study conducted in a public HIV testing clinic in Denver, Colorado, people who sought sex on the internet were more likely to have had a sexually transmissible infection (STI) or report sexual exposure to a person with HIV than those who did not seek sex on the internet (McFarlane 2000). They were also more likely to be male, gay and report anal sex. While the study concluded that gay men were more likely than other participants to use the internet to seek—and meet—sexual partners, it could not establish whether sexual risk actually occurred with partners whom the men had met through the internet. A study in San Francisco also found that gay men were more likely than heterosexual men and women to use the internet to seek sexual partners (Kim 2001).

Similar reports have emerged from European studies. Among gay men in London gyms, seeking sex on the internet was associated with a recent STI diagnosis and high-risk sexual behaviour (Elford 2001). HIV-negative internet sex seekers were twice as likely as other men to report unprotected anal intercourse (UAI) with a person of unknown or discordant HIV status.

This clearly presents a risk for HIV transmission. There was also evidence that HIV positive men may be using the internet to meet other HIV positive men for UAI. While this does not present a risk of HIV transmission to an uninfected person, it may lead to co-infection with an STI or with another, potentially drug-resistant strain of HIV.

The association between seeking sex on the internet and high risk sexual behaviour raises a number of important, as yet unanswered, questions.

The association between seeking sex on the internet and high risk sexual behaviour raises a number of important, as yet unanswered, questions. Does the excess risk for HIV and STI occur with sexual partners whom men actually meet through the internet? Or does the association reflect the fact that men who report high risk practices are selectively using the internet to look for sex? Is there some cause-and-effect relationship? In other words, does the internet represent a newly emerging sexual risk environment for gay men? Furthermore, does the internet attract a constituency of men who have little contact with the established gay scene or health promotion agencies eg. men who do not use bars and clubs, bisexual men, or men from geographic regions which currently report low HIV prevalence (Ross 2000)? And what is the potential for HIV prevention using the internet (Ross 2002)?

To answer these questions, a research project funded for two years by the UK Medical Research Council (MRC) is currently gathering detailed information concerning the internet from London gay and bisexual men (referred to here as gay men). The objectives of the research are to: measure the extent to which London gay men seek sexual partners on the internet; compare the characteristics of London gay men who do and do not seek sex on the internet; examine whether sex with internet partners is less safe than with other sexual partners; and determine the potential for using the internet for HIV prevention.

These objectives will be explored using a variety of quantitative and qualitative research methods among four groups of London gay men: gay men recruited through internet chat rooms and profiles; HIV positive gay men attending a National Health Service (NHS) outpatient treatments clinic; gay men seeking an HIV test in an NHS HIV testing clinic; gay men recruited in a community setting. Quantitative data will be collected by means of confidential, anonymous self-administered questionnaires to be completed online by the internet sample. Qualitative data will be collected by means of one-to-one interviews conducted either face-to-face or online. Further information about the research can be found at <http://www.city.ac.uk/barts/bsi>

The internet provides new opportunities for conducting behavioural research among gay men. Over a four week period in 2002, nearly 5000 men completed an online questionnaire as part of the MRC-funded research project in the UK; a quarter of the men lived in London, two-thirds elsewhere in the UK while the remainder lived outside the UK. One of the advantages of online questionnaires is that they

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reach some men who would not otherwise be included in behavioural surveys i.e. bisexual men, men who do not identify as gay, do not use gay community venues or who are geographically dispersed (Ross 2000).

The internet undoubtedly offers enormous potential for HIV prevention and sexual health promotion particularly among men who would be otherwise hard to reach. However, we still know relatively little about the efficacy of online sexual health promotion and HIV prevention (Elford 2002). Hopefully, the evidence generated by research over the next few years will allow us to develop and evaluate internet-based HIV prevention initiatives. In this way we will be able to fully explore the potential for using the internet for sexual health promotion.

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SRB 1/001

Benotsch, E. G., Kalichman, S. & Cage, M. (2002). Men who have met sex partners via the internet: prevalence, predictors, and implications for HIV prevention. *Archives of Sexual Behavior*, 31(2), 177–183

This paper reports on the prevalence of internet use for meeting sexual partners among men who have sex with men surveyed at a gay pride festival in Atlanta. A total of 609 men were included in the analysis. A majority of men (75%) reported using the internet to access gay-oriented web sites. One third of the total sample (34%) reported having met a sexual partner via the internet. Men who used the internet to meet sexual partners were more likely to be white (84% vs. 72%), younger (mean age 31.2 years vs. 33.4 years), use methamphetamines (10% vs. 5%), and Viagra (16% vs. 5%).

The study also examined HIV risk behaviours among men who reported meeting a sexual partner via the internet. Men meeting sexual partners over the internet reported having sex with more male partners in the previous six months (mean = 8.38) compared with men not meeting partners in this manner (mean = 3.13). Men meeting partners via the internet also reported higher rates of both insertive and receptive unprotected anal intercourse (UAI). Meeting a sexual partner on the internet was independently associated with having UAI with multiple partners in the previous six months—after controlling for demographic factors (age, education, ethnic status), AIDS knowledge, attitudes to condoms, and the use of cocaine, marijuana, methamphetamines and nitrites.

SRB 1/002

Bull, S. S., McFarlane, M. & King, D. (2001). Barriers to STD/HIV prevention on the internet. *Health Education Research*, 16(6), 661–670

An online survey conducted in the US in 2000 received 4,601 responses (3,266 males and 1,335 females). This analysis focuses on the respondents' willingness to participate in internet-based educational interventions.

Most respondents (60.6%) indicated that they would visit a website for information on preventing HIV or sexually transmissible infections (STIs), but fewer would open an email (45%) or chat about the topic (29.5%). Top reasons for rejecting website, email and chat room education about STIs and HIV were: the perception by respondents that they had no need for such information; they get their information elsewhere; they don't trust information from chat rooms; they only open emails from known persons; general disdain for 'spam'; an overload of emails; suspicions of misuse of their email addresses; fear of email viruses; and not knowing what websites to access.

Logistic regression results showed that having a history of testing for STIs, or being a man who has sex with men (MSM), is associated with endorsement of STI/HIV prevention through chat rooms, email and websites.

The data demonstrate the internet may facilitate health promotion among men who have sex with men who may not be reached in a publicly funded STI prevention setting. The

authors suggest linking up sites where partner solicitation occurs to HIV/STI prevention sites. Chat room interventions need to guarantee confidentiality and also overcome the perception that chat does not offer accurate information. For gay men this could be the linking of health organisations with web-based gay advocacy groups. All interventions should demonstrate privacy protection and offer high quality information.

SRB 1/003

Bull, S. S. & McFarlane, M. (2000). Soliciting sex on the internet: what are the risks for sexually transmitted diseases? *Sexually Transmitted Diseases*, 27(9), 545–550.

The aim of this study was to document how the internet is used to find sex partners and what risks such activity poses for STIs. This paper is based on an analysis of 175 participant observation visits to various chat rooms used by MSM, heterosexuals and 'swingers'. Most (81%) of the chat room visits were to MSM-related sites.

Differences exist between sites for men who have sex with men, and sites for other populations. MSM-related sites provided more opportunities for face-to-face meetings and the profiles of participants tended to be more sexually explicit. MSM were also more likely to share personal information. Safe sex or risk-reduction behaviours were not frequently mentioned, but were sometimes referred to by indicating a desire for drug-free and disease-free partners. Findings also indicated evidence of: previous meetings (9% of MSM room observations, 15% of couple-room observations); and solicitation of sex (9% of heterosexual room observations, 17% of MSM room observations, 36% of couple room observations) by members of these groups.

The authors suggest that because the internet offers fast and efficient encounters resulting in sexual contact, this may translate into more efficient disease transmission. However, like others, they also emphasise that the internet also offers many possibilities for innovative approaches to preventing STI and HIV transmission.

SRB 1/004

Elford J, Bolding G & Sherr L. (2001). Seeking sex on the internet and sexual risk behaviour among gay men using London gyms. *AIDS*, 15(11), 1409–1415.

In a survey of gay men in London recruited through gyms in January–February 2000, those who sought sex partners through the internet were compared to other men, also with internet access, who did not seek sex in this way. Of the 743 men included in the analysis (121 HIV-positive, 465 HIV-negative, 157 never-tested), 80.9% (601) had access to the internet. Among these 601 men, 34.4% (207) had used the internet to find a sex partner, and this did not vary by HIV status. internet sex seekers were more likely to have had an STI in the previous year. HIV-negative internet sex seekers were more likely to report non-concordant UAI in the previous three months. HIV-positive internet sex seekers were more likely to report UAI with another positive man. There needs to be further

investigation into the contribution of seeking sex on the internet to the recent increase in high-risk behaviour among London gay men.

SRB 1/005

Halkitis, P. N. & Parsons, J. T. (2003). Intentional unsafe sex (barebacking) among HIV-positive gay men who seek sexual partners on the internet. *AIDS Care*, 15(3), 367–378.

'Barebacking'—which is understood to be a culture based on intentional UAI—has received a great deal of attention in the media. This phenomenon has emerged at a time when the internet has become a common means of finding sexual partners. The internet has also provided a forum for men who are interested in anal sex without condoms to seek each other out. This study recruited 112 HIV-positive men from internet sites where men meet for sex. Most respondents (84%) reported barebacking in the past three months, and 43% reported recent barebacking with a partner of unknown serostatus. Men who had bareback sex with other men regardless of serostatus had higher scores on a scale of sexual adventurousness. In terms of the number of occasions, those with higher scores on the sexual adventurousness scale also reported more frequent occasions of insertive and receptive UAI with other HIV-positive partners, more receptive UAI with HIV-negative/unknown partners, but only slightly more insertive UAI sex with HIV-negative/unknown partners. Those who had higher scores on the scale of 'sex as a definition of masculinity' also reported more frequent insertive and receptive UAI with HIV-positive partners and more receptive (but not insertive) UAI with HIV-negative/unknown partners.

SRB 1/006

Hospers, H. J., Marterink, P., van den Hoek, K. & Veenstra, J. (2002). Chatters on the internet: A special target group for HIV prevention. *AIDS Care*, 14(4), 539–544

This study examined characteristics of men who use gay chat sites on the internet, including dating behaviour and sexual risk-taking with sex partners who were initially met through chatting. Men were asked to complete a brief questionnaire which contained questions on demographics, chatting-related variables, and dating and risk-taking sexual behaviour.

The results show that a large majority of the 190 respondents (aged 17–53 yrs) reported actual encounters as well as sex with men who were initially met through chatting. Almost 30% of the respondents who engaged in sex with chat dates reported inconsistent safe sexual behaviour. The study found that the only variable independently associated with reporting any UAI was the proportion of the previous five sex partners that were met through chat sites—ranging from 16% for only one partner met through gay chat sites to 60% for five out of the last five sex partners met through chat sites.

Men were also asked their opinion of HIV prevention activities on the internet: 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; 3.3% preferred to request brochures by email; and 10% did not see the need.

SRB 1/007

Kim, A. A. & Kent, C. et al. (2001). Cruising on the internet highway. *Journal of Acquired Immune Deficiency Syndrome*, 28(1), 89–93.

This paper explores differences in sexual behaviour and risk for STIs among MSM who met partners online and those who did not. MSM seeking public STI services were asked to complete a self-administered questionnaire on sexual behaviour.

Thirty-two percent of MSM patients reported meeting a sexual partner over the internet in the past year. MSM with online partners were younger, more likely to report sex with an HIV-positive person in the last year, and more likely to report casual partners in the last year compared with MSM who did not meet any partners in this way. HIV-negative MSM who met partners on the internet were more likely than HIV-negative MSM with no such partners to have received money or drugs for sex in the past year and to report sex with a known HIV-positive partner in the past year.

Among MSM who sought partners online, there was no difference between sexual behaviour with online and offline partners, including type of sex and condom use. However online partners were more likely than offline partners to be categorised as 'casual' (82% vs. 56%).

The authors conclude that although meeting partners on the internet was associated with increased risk for STIs in MSM, it also provides an opportunity for as-yet unexplored ways of undertaking health promotion among this population.

SRB 1/008

McFarlane, M., Bull, S. S. & Rietmeijer, C. A. (2000). The internet as a Newly Emerging Risk Environment for Sexually Transmitted Diseases. *Journal of the American Medical Association*, 284(4), 443–444

Between September 1999 and April 2000 a cross-sectional survey was conducted among clients of the Denver Public Health HIV Counseling and Testing Site. Of the 856 respondents, most were white (77.8%), men (69.2%), heterosexual (65.3%), and aged 20 to 50 years (84.1%). Of those, 135 (15.8%) had sought sex partners on the internet, and 88 (65.2%) of these reported having sex with a partner initially met via the internet.

Of those with internet partners, 34 (38.7%) had four or more such partners, with 62 (71.2%) of contacts occurring within six months prior to the client's HIV test. Internet sex seekers were more likely to be men, and homosexual. Internet sex seekers were more likely to report a previous STI, had more sexual partners, had more oral and anal sex (but less vaginal sex), had more sexual exposure to men and to MSM, and more sexual exposure to partners known to be HIV-positive, than those not seeking sex via the internet. Those who sought partners online were more likely to have used a condom during their last sexual encounter.

Seeking sex partners via the internet was a relatively common practice in this sample of persons seeking HIV testing and counselling

(representative of neither Denver nor the overall US population). Clients who seek sex using the internet appear to be at greater risk for STIs than clients who do not seek sex on the internet.

SRB 1/009

Phua, V. C., Hopper, J. & Vazquez, O. (2002). Men's concerns with sex and health in personal advertisements. *Culture, Health & Sexuality*, 4(3), 355–363.

The authors of this paper examined men's personal advertisements collected from the internet, focusing on descriptions of sex and 'health', which in this case was any mention of HIV or phrases such as 'disease free'. Of particular interest were differences in the likelihood that men mentioned health in their advertisements—based on sexual preference and race. Advertisers (whether gay or straight) who were seeking live sexual encounters were more likely to mention health. However, whether or not advertisers who were seeking live sexual encounters mentioned sex roles or specific body parts had no impact on whether they mentioned health. And similarly, those who emphasised sexual roles were also more likely to mention health than those who didn't. The association in this study between health and seeking live sex partners is suggestive of a culture of disclosing HIV status as a way of meeting seroconcordant partners.

One notable racial difference was that gay Latinos—particularly those who were explicitly looking for sexual encounters—were less likely to mention health. The authors call for further research to explore the links between health concerns in personal advertisements and sexual behaviour.

SRB 1/010

Reid, D., Weatherburn, P., Hickson, F. & Stephens, M. (2002). *Know the score: Findings from the National Gay Men's Sex Survey 2001*. Sigma Research, London.

The *National Gay Men's Sex Survey 2001* of England and Wales Sigma employed an internet recruitment arm for the first time—to complement recruitment at pride events and through a self-complete mail back booklet. Of the total, 6,345 (35%) of the 18,105 responses were submitted through the website (Reid 2002). Compared to the other recruitment arms, the web 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 conclude that web sample complements, but does not offer a substitute for, the other recruitment methods.

A notable issue in web-based recruitment is the number of returns submitted from outside the geographic area of the study. In this web sample, 22.3% of respondents were excluded because they were resident outside England and Wales.

<http://www.sigmaresearch.org.uk/downloads/report02d.pdf>

SRB 1/011

Rhodes, S. D., DiClemente, R. J., Cecil, H., Hergenrather, K. C. & Yee, L. J. (2002). Risk among men who have sex with men in the United States: a comparison of an internet sample and a conventional outreach sample. *AIDS Education and Prevention*, 14(1), 41–50.

How do samples of gay men differ based on the method of recruitment? This study compared the demographics and risk behaviours of two samples of MSM using cross-sectional data that were collected via the internet and through a conventional bar-based recruitment strategy. Internet recruitment was conducted by creating links from gay and bisexually-oriented websites to the online data collection site. Results showed that the internet sample was significantly older, more likely to identify as 'bisexual,' and less educated than the bar sample. After controlling for age and education, only three variables clearly differentiated the samples. Men who were recruited through the internet were more likely to report a history of STIs and more likely to be HIV-positive. Men recruited through the internet also reported a more diverse range of sources to obtain sexual health information. There was no difference between the two samples in use of the internet to obtain sexual health information.

These findings provide evidence that internet and bar respondents are similar and that the internet may serve as a practical and reliable methodology to increase understanding of risk among MSM.

SRB 1/012

Ross, M. W., Tikkanen, R. & Mansson, S. (2000). Differences between Internet Samples and Conventional Samples of Men Who Have Sex with Men: Implications for Research and HIV Interventions. *Social Science and Medicine*, 51(5), 749–758.

This article reports on differences between samples of MSM obtained on identical questionnaires distributed through the mail and contact lists of a large national gay organisation in Sweden, and through the same organisation's website (which hosts a popular chat room). Those who responded via the internet ($n=678$) were younger, more likely to live in small towns or cities, live with parents or a girlfriend, and have lower educational qualifications, than those who responded via the written questionnaire ($n=716$). The internet respondents were less likely to have previous sexual experience solely with other men and more likely to visit sex venues. They also visited internet chat rooms more frequently (86% of the internet sample vs. 50% of the mail questionnaire sample). Sexual practices between the two samples were generally similar, although the internet sample reported significantly less body contact—kissing, hugging and mutual masturbation—and more condom use for anal intercourse with steady partners. Over four times as many internet respondents reported sex with women in the past year as did mail respondents. These data indicate that internet data collection is feasible, and that this mode of data collection, despite the non-random and self-selected

nature of both types of samples, is likely to be important for recruitment of young, geographically more isolated, and more behaviourally or self-identified bisexual respondents than conventionally distributed written questionnaires.

SRB 1/013

Tikkanen, R & Ross, M. W. (2003). Technological tearoom trade: characteristics of Swedish men visiting gay internet chat rooms. *AIDS Education and Prevention*, 15(2), 122–132.

In this analysis the authors examine differences between Swedish MSM based on frequency of chat room use. The survey was conducted in 1998. Responses were received through the internet (678 respondents) and printed questionnaires (718 respondents). Frequent visitors were more likely to: live outside the major urban areas; be younger (mean age 30.1 years); and not have a university degree.

Responses were analysed comparing those who had visited chat sites in the previous 12 months to those who hadn't. Those who had visited were more likely to: 1) identify as bisexual or heterosexual; 2) have had sex with female partners; 3) only have casual sex partners or live in sexually non-exclusive (ie. open) relationships with male partners; 4) currently have sex with casual female partners; 5) not be members of gay organisations; and 6) report UAI with casual male partners. (The survey did not ask men where they met casual partners with whom UAI took place so it should not be assumed that this means UAI took place with partners met through chat rooms.)

There were no differences between those who had used chat sites and those who hadn't in terms of perceived HIV status (although among those who used the internet, frequent users were less likely to have tested for HIV, and the occasional users were more likely to be worried that they had been infected with HIV in the past 12 months). There were no differences between the groups in terms of their experiences visiting gay bars and sex clubs. Those who visited chat sites were more frequent visitors to gay bars and sex clubs than those who never visited chat sites. There was no difference between the groups in terms of UAI with regular/steady partners.

The authors highlight the potential value of the internet for young men 'coming out' ie. as a rehearsal for disclosing sexual identity in real life.

SRB 1/014

Wetherburn, P., Hickson, F. & Reid, D. (2003). *Net benefits: Gay men's use of the internet and other settings where HIV prevention occurs*. Briefing Paper. Sigma Research, London.

In the *Gay Men's Sex Survey 2001*, Sigma Research started asking gay men about their use of the internet and this report outlines some of the interesting findings. Men were asked about their use of specific aspects of the internet—the world-wide web (www), chat rooms, email and bulletin boards.

Regular web use was most common among men: living in London; in their 20s and 30s;

with a university degree; and who did not have sex with women. There were similar findings for email use. Regular email use was most common among men: living in London; over 20 years of age; with a university degree; and who did not have sex with women.

The use of web chat rooms was different and suggests that a reasonable proportion may be MSM who do not necessarily identify as gay. Regular chat room use was more common among men: living outside London; under 20 years of age; without a degree; who had sex with women as well as men; who were white or Asian; and who had never tested for HIV.

In 2001, men were twice as likely to have used the internet to look for sex partners in the previous month, than in 1999. As the use of the internet has increased, the proportion of men using 'cottages' (public toilets) and cruising grounds has decreased. However, over this same period, the proportion of men using sex-on-site venues (backrooms and saunas) has not decreased, and the proportion of men using pubs and clubs has decreased only slightly. It is also possible that men may be going to the same range of venues, but perhaps less frequently than they did in the past. (The survey did not collect data on frequency of using different settings.)

In 2002 a new question was added which asked where respondents had met new sexual partners in the last 12 months. The most common responses were gay bar/club/pub (62%) and the internet (50.5%), and 31% used both. Of the total sample, 10% used only the internet to meet sex partners. The investigators sought to explore the relationship between the different settings ie. the impact of one on the others—or the likelihood that use of one is related to use of others. There were no positive associations between meeting on the internet and other settings, however there were two negative associations—men who had met a new partner via the internet were only half as likely to have met a new partner in a bar/club/pub or a social group.

An exploratory factor analysis revealed four styles of meeting new partners which explained 48% of the variance: 1) public sex environments and sex venues; 2) everyday interaction (including the commercial gay scene); 3) media (eg. internet, personal print ads); and 4) social groups. The authors recommend that HIV prevention work should include interventions covering all four settings.

<http://www.sigmaresearch.org.uk/downloads/report03b.pdf>

Glossary

Chat room	A facility enabling simultaneous, real-time connection via the internet to other users. Usually grouped according to interest group or geographic location.
MSM	Men who have sex with men.
STI	Sexually transmissible infection.
UAI	Unprotected anal intercourse.

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