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Lessons Learned From Tobacco Control: A Proposal for Public Health Policy Initiatives to Reduce the Consequences of High-Risk Sexual Behavior Among Men Who Have Sex With Men and Use the Internet

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Abstract: The introduction of the Internet has enabled men who have sex with men (MSM) to develop new social and sexual networks, resulting in more frequent opportunities to engage in a variety of sexual behaviors, including those that may transmit HIV infection and other sexually transmitted diseases (STDs). There is growing recognition within the HIV and STD prevention community of the need for interventions that can alter the Internet environment using structural approaches aimed at modifying social, economic, and political structures and systems. Learning from the tobacco control model, the authors make recommendations to help change the online environment for MSM from one of sexual risk to one promoting sexual health. These recommendations include governmental excise taxes imposed on particular websites, collaborations to create a sexual health seal of approval, and donations by commercial websites of banner ad space for online public service announcements.

Key words: gay; STDs; HIV

> Studies we have from different populations all show that if you start smoking in your teenage years and continue to do so systematically, you have about a 50 percent chance of being killed by tobacco. There is no other exposure or addiction that produces that sort of risk, with the single exception of sexual risk-taking and HIV. (Lopez, 1997, p. 2)

The Problem

The introduction of the Internet has enabled men who have sex with men (MSM) to develop new social and sexual networks, resulting in more frequent opportunities to engage in a variety of sexual behaviors, including those that may transmit HIV infection and other sexually transmitted diseases (STDs). In San Francisco in 2002, 33% of the men who tested positive for syphilis said they met their sex partners on the Internet. In 2004, that number increased to 42% (STD Control Section, 2004). The data for MSM in California statewide follow the same trend (Lo, Samuel, & Klausner, 2003). Online studies of MSM conducted outside of California have found that the vast majority of men surveyed (80%) have had sex with partners they met online (Bull, McFarlane, & Rietmeijer, 2001).

It is easy for men to find sex partners on the Internet and to find specific partners with whom to participate in risky sexual behavior because they can state their preferences of both partner choice and sexual activity in their profiles. Data from one study of MSM in San Francisco (Kim, Kent, McFarland, & Klausner, 2001) demonstrated higher levels of sexual risk behavior in MSM who found their partners online compared with those who did not meet their partners online. That study also found HIV-

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negative men with online partners to be more likely to report an HIV-positive partner. It has been shown that some MSM use the Internet to find partners for barebacking, or intentional unprotected anal sex (Bull & McFarlane, 2000; McFarlane, Bull, & Rietmeijer, 2000; Rietmeijer, Bull, & McFarlane, 2001, Mansergh et al., 2002), and there are reported cases of MSM who have contracted HIV infection from sex partners they met in online chatrooms (Tashima, Alt, & Harwell, 2003).

In a study (Hirshfield, Remien, Walavalkar, & Chiasson, 2004) of men who used Gay.com, a popular lifestyle site for the lesbian, gay, and bisexual communities, researchers found that 80% of respondents located sex partners online and 80% had multiple sex partners. That study also found that 47% of the 109 HIV-positive respondents with multiple sex partners reported unprotected anal intercourse. It has been demonstrated that men who use the Internet to look for sex are more likely to be HIV-infected, older, and engaging in high-risk sexual activities (Bolding, Davis, Sherr, Hart, & Elford, 2004). In one New York City study (Halkitis, Parsons, & Wilton, 2003), HIV-infected men reported a significantly greater number of sex partners with whom they had engaged in intentional unprotected anal intercourse compared with non–HIV-infected men. In that study, the Internet and the availability of sexually oriented chatrooms was a frequently cited reason for barebacking. Data from the University of California–San Francisco Center for AIDS Prevention Studies (Rebchook, Kegeles, & Pollack, 2003) indicated that among young MSM, the number of recent sex partners and the rates of unprotected anal intercourse with those sex partners were strongly correlated with the frequency of Internet use to meet sex partners.

Current Responses to the Problem

Community-based organizations (CBOs) and local departments of public health have begun using the Internet in their HIV and STD prevention programs. In one study (Curotto, Rebchook, & Kegeles, 2003) of 23 CBOs nationwide, the most common online prevention method involved outreach workers announcing their availability to participants in gay chatrooms, with the goal of chatting with individuals online about risk reduction and prevention. That type of intervention accepts the Internet's structure and design as is, using outreach—a traditional method of health education—to reach individuals thought to be at high risk of contracting or transmitting an STD. Online outreach is both cost and labor intensive, and because of the one-on-one nature of the intervention, it is difficult to reach even a fraction of the people using the Internet to find sex partners. There is growing recognition within the HIV and STD prevention community of the need for interventions that can alter the Internet environment using structural approaches aimed at modifying social, economic, and political structures and systems. These structural approaches could take the form of legislative, media, and/or marketplace changes (Wohlfeiler, 2000).

Some of the more creative, effective, and sustainable program efforts of this type have included online community forums, expert-facilitated chats, online advice columns, online partner notification programs, banner and billboard advertising, community-level e-coalitions, and placement of warning labels on areas of websites where people may go to seek sex partners for behaviors that facilitate STD and HIV transmission. These methods are considered to be more effective than one-on-one online outreach because of the combined support of the community at risk and the relationship between the commercial websites and the professional health community. They also reach larger numbers of people at risk for HIV and other STDs, and can be less costly to implement and maintain. However, these activities are still being conducted locally, jurisdiction by jurisdiction and website by website, and data evaluating their impact are limited. There is a distinct need for state and national policy changes to ensure the reduction of STD and HIV transmission by men who meet their partners online.

Lessons Learned

Public health officials seeking to change men's high-risk behaviors vis-à-vis the Internet do not have to reinvent the wheel. Some public health professionals, such as Wohlfeiler (2000) and Wohlfeiler, Teret, and Levine (2003), believe that successes in other areas of public health, such as tobacco control, can be models for change in this new arena. Lessons to be learned include those regarding the importance of systemwide change in averting individual risk as well as reducing community risk, of defining clear areas of responsibility for public health and the private sector, and of creating a variety of strategies for developing collaborations with the private sector.

Using tobacco control as an example, it can be noted that in the early 1950s, when crucial new evidence was identified linking tobacco use and lung cancer, there was a significant lag between the published evidence and public health action (Parascandola, 2001). A long, slow process of gathering additional evidence ensued for almost 15 years before the public health response was initiated. In contrast, the scientific literature has linked Internet use and STDs since 2000, and public health has responded by acknowledging the association on a national level. Part of the reason for this difference is that in the 1950s,

researchers and public health policymakers were working in two different worlds. So although researchers were able to prove that smoking caused cancer, they stopped short of making specific policy recommendations (Parascandola, 2001). Today's rapid response to the problem of STD transmission and the Internet includes more researchers collaborating with public health officials to disseminate the results of their studies and to make recommendations that can be put into action programmatically. In addition, public health officials are often conducting the relevant research themselves, testing hypotheses about the relationships among sexual risk behaviors, STD/HIV transmission, and Internet use (Klausner, Wolf, Fisher-Ponce, Zolt, & Katz, 2000; McFarlane et al., 2000; Toomey & Rothenberg, 2000). However, there is still a great need to fund and conduct more education and prevention research to understand how to maximize interventions to reduce the spread of STDs, including HIV infection, in association with the Internet and high-risk sexual behavior.

Another distinction made in the 1950s regarding tobacco and public health was between cancer control (controlling morbidity from cancer) and cancer prevention (removing the cause) (Parascandola, 2001). The public health response was to reduce cancer mortality through early detection. This makes sense in light of the fact that the causes of most types of cancer are still unknown 50 years later. However, the fact that tobacco use had been causally linked to lung cancer was seemingly ignored.

Today, with respect to the Internet and high-risk sexual behavior, the outreach and prevention efforts taking place also ignore part of the cause of the high rates of transmission. The Internet provides fast and easy access to multiple sex partners via websites and portals specifically designed to help men meet new partners. The increases in the speed and intensity of sexual encounters are believed to be without precedent due to the accessibility, affordability, and relative anonymity of cyberspace (Cooper & Griffin-Shelley, 2002, p. 5). The Internet may well increase the average number of sex partners of MSM, thereby increasing risk and STD/HIV transmission rates. In San Francisco, often a trendsetter with regard to gay men's sexual health issues, the average number of reported sex partners in the previous two months by gay and bisexual men seen at the municipal STD clinic more than doubled from 1995 to 2003, from 3.8 to 7.9 (Kent, 2004). During that same period, the number of gay and bisexual men who visited the clinic increased threefold. These data suggest that over the last eight years, more gay and bisexual men have been having more sex partners (Kent). Without the Internet, specifically the gay websites and portals that facilitate men's introduction to multiple new sex partners, most MSM may not have had access to nearly as many sex partners.

The websites and portals need to be part of the solution in response to this trend and must take responsibility for their adverse impact on public health by providing accurate sexual health information and health promotion to their members. Some sites, including Manhunt.net in Massachusetts and Sex4HotMen.net in California, have already voluntarily engaged with public health officials without negative consequences on their businesses (Stephan Adelson, Online Buddies, Inc., personal communication). In fact, membership has been increasing steadily on these two sites, despite administrators' fears that STD and HIV prevention messages would deter men from joining. According to the general manager of Manhunt.net, the site has experienced 100% growth in membership in the past year.

The public health response to cancer prevention changed in 1961, more than 10 years after the first research was published linking tobacco use and cancer, when the American Cancer Society, the American Heart Association, the American Public Health Association, and the National Tuberculosis Association (1961) sent a joint letter to President Kennedy requesting the appointment of a special commission to examine the responsibilities of government and business in relation to smoking and health.

At the same time that pressure from nongovernmental health organizations was increasing, public pressure was also mounting for a more substantial response to the tobacco problem. During the 1950s and early 1960s, a number of bills were introduced in Congress to control advertising, fund antismoking programs in schools, and mandate warning labels on cigarette packages. Unfortunately, those efforts were stymied as a result of corporate influence on Congress (Neuberger, 1963). In contrast, today the CEOs and administrators of most websites that facilitate sex partnering for MSM seem to have little interest in or influence on national policy, with AOL as one possible exception. Most websites for MSM would like to be free of scrutiny by federal or state regulators, presumably because of the pornographic nature of some of the material created by their members. In their business, any attention by people or agencies outside of their private membership may not be a good thing, if only because of the time required to respond to complaints and allegations. Consequently, it will take pressure from the members of the sites themselves, in addition to any pressure from public and private health advocates and agencies, to create effective policy and legislative changes that will increase sexual

health promotion and decrease STD and HIV transmission associated with use of the Internet.

With national tobacco control, what finally tipped the scales in changing public health policy and practices was the 1964 report *Smoking and Health,* written by the Advisory Committee to the Surgeon General. Part of the reason this report was so successful in bringing about policy change regarding tobacco control was that the Surgeon General, Luther Terry, effectively used the media to draw substantial attention to the committee's conclusion—that excessive cigarette smoking causes lung cancer (Brandt, 1990). Cooperation by the Department of Health, Education, and Welfare, the Federal Trade Commission, and Congress in the face of increasing public pressure to acknowledge the link between smoking and cancer finally led to public health action. Although the problem of increasing rates of STDs and HIV among gay and bisexual men who use Internet websites is not as widespread an issue as smoking and cancer, it will still take some combination of public, private, and governmental efforts to increase awareness and implement interventions to decrease HIV and STD transmission.

Types of Interventions Used in Tobacco Control: Taxes, Warnings, Advertising Limitations, and Legislation

From 1955 through 1994, increases in state taxes on cigarettes were effective in reducing cigarette use. Federal tax increases were even more effective, perhaps because they were larger (Meier & Licari, 1997). In addition to the effectiveness of cigarette taxes in reducing consumption simply from a financial standpoint, many states used the taxes to support tobacco-related and other public health initiatives (Snyder, Falba, Busch, & Sindelar, 2004). In 1985 Minnesota became the first state to enact legislation to earmark a percentage of the state cigarette excise tax for the support of smoking prevention programs (Office on Smoking and Health, 1996). California followed suit in 1988, and other states had joined in such prevention efforts by the early 1990s (Office on Smoking and Health). Revenues from a tax imposed on Internet sites that facilitate MSM sex partnering could similarly be allocated to state and local health departments to fund STD and HIV prevention activities designed to reduce the adverse public health impact of those sites.

Cigarette smoking also declined after specific labels detailing the adverse health impact of tobacco use were added to cigarette packaging (Meier & Licari, 1997). A warning label has already been implemented in one area of one website, www.craigslist.org, in its San Francisco personals section where men seek other men. This warning was added as a result of an arrangement between ISIS-Inc., the San Francisco Department of Public Health, and the site administrators, and it reads, "Anonymous sex with multiple partners greatly increases your risk of contracting STDs, including HIV. Ask your own questions and find out how to protect yourself in the safer sex forum, moderated by the staff from SF City Clinic" (Men Seeking Men, 2002). The label is part of a mandatory legal disclaimer page that all users of the men-seeking-men personals section must click through to access the site. As yet there is no measure of the impact of this warning, except for the fact that approximately 1,000 people per day visit the associated safer-sex forum directly accessed from that warning.

Soon after the report *Smoking and Health* was released, cigarette manufacturers established a voluntary Cigarette Advertising Code for television and radio. Following the manufacturers' adoption of the voluntary code, the National Association of Broadcasters (NAB) endorsed the phasing out of cigarette ads on television and radio (Office on Smoking and Health, 1996). This prompted the Federal Cigarette Labeling and Advertising Act of 1965, which prohibits cigarette advertising on any medium of electronic communication. This act also requires conspicuous Surgeon General's warnings to be placed on all cigarette advertisements and billboards.

Today the Internet sites and portals targeting MSM have no advertising restrictions on local and national billboards, magazines, and Internet sites, as well as in clubs and bars and on the street. Most do not direct their advertising at male audiences younger than 18 years of age, but public ads such as those on mass transit can be viewed by anyone. Currently, the Federal Communications Commission's obscenity regulations barring full frontal nudity and explicit sexual activity are applicable to all forms of advertising. However, the ads for these websites are full of implicit sexual activity. They are often seductive and titillating, featuring muscular, scantily clad male models in compromising positions (bending over, on their knees, etc.). Even though the First Amendment of the U.S. Constitution precludes restrictions on the content of advertising materials, it could be beneficial to users of these websites for the advertisers to provide a more balanced perspective of what the experience on their site may be like and how it could affect their sexual health. Similar to the mandatory Surgeon General's warning on tobacco print and billboard advertisements, websites intended for facilitating sexual partnering among MSM could be encouraged and/or mandated to include information about the risks of STD and HIV transmission associated with meeting multiple sex partners online.

In the state of California, which has been successful in reducing smoking rates, tobacco control policy has consisted of a combination of increased taxes, strict controls on indoor smoking at both work and leisure venues, and a very aggressive antismoking advertising program (Sugarman, 2003). To implement a parallel effort in relation to websites and portals for sex partnering for MSM, state and federal funding, as well as a percentage of an excise tax added to membership costs on these sites, could be used to direct men who would like to meet sex partners online to sites that educate their members about risky behaviors as well as to encourage safer sex practices, as is currently done at http://www.SafeSexCity.com.

In addition, funds could be used to create public-private partnerships between public health departments, community organizations, and commercial website administrators. Collaboration could focus on ways to develop community norms that reflect positive, healthful sexual values as an incentive for men who meet partners online to practice safer sex, leading to reduced STD and HIV transmission.

Recommendations

Implementing policy, legislative, and social or educational measures to restrict access to or mandate particular uses of the Internet is very complex, especially considering the medium's international reach. Because of this complexity, experts in the field recommend a multipronged approach to ensuring that individuals and communities who use the Internet for sexual purposes are informed about the risks involved (Thornburgh & Lin, 2000; Wohlfeiler et al., 2003). Table 1 summarizes a variety of possible public health strategies and lists the pros and cons of implementing each of them.

Incentives are needed to encourage commercial sex websites to take actions to educate and inform their membership (Thornburgh & Lin, 2000). For the websites serving MSM wishing to meet sexual partners online, this could mean adding fields to their profiles (personal ads) that include such health-related questions as date of last STD screening, HIV serostatus, and genital herpes or genital wart history. Some such sites, such as Manhunt.net and Match.com, have already chosen to add some of those fields. Incentives for adding educational value to the sites include media attention (see Tuller, 2004), positive member feedback, and trust building with public health professionals.

Public policy in this arena could also take the form of creating a sexual health seal of approval for sites that meet a set of national standards. This could be similar to the Health on the Net Code of Conduct for medical and health websites (HONcode, 1997). Standards could include the provision of balanced information about the risks and benefits of seeking sex partners online; educational content regarding STDs, including HIV infection, symptoms, testing, and treatment; advice for negotiating

Table 1. Recommendations for Improving Sexual Health on Websites Designed to Facilitate MSM Sex Partnering

Recommendation	Pros	Cons
Tax imposed on websites	Funds allocated to HIV/STD prevention efforts and collaborations between commercial sites, community-based organizations, and public health departments	Requires lobbying and legislative change on state and/or national level
Warning label requirement	Helps to create informed users regarding risk of STD/HIV transmission and multiple partners	Requires buy-in from the website administrators and/or legislative change on state or national level
Mandated requirements for print advertising/marketing	Helps to give individuals a more realistic perspective of risks and benefits associated with site usage	Requires lobbying and legislative change on state or national level
Addition of sexual health content to websites	Creates and empowers informed users	Requires resources to implement plus buy-in from site administrators
Addition of fields in personal profiles regarding STDs and sexual health	Helps individual site users ascertain sexual risk; helps to change cultural norms of online sex partnering	Requires buy-in and resources from site administrators
Use of sexual health seal of approval	Helps individuals choose sites based on sexual health rather than risk; provides standards for the online community; can be applicable beyond MSM sex partnering sites	Requires collaboration between nongovernmental, governmental, and commercial entities; requires resources to create and maintain service
Designate percentage of online advertising for PSAs	Helps disseminate brief sexual health messages targeted to specific audiences; provides links to more in-depth information	Requires mandated or voluntary efforts by site administrators; requires technical assistance for CBOs and health departments creating ads

safer sex with partners met online; information in the terms of service or community guidelines about the ability of health professionals to contact site members about important health matters; and regular updates via e-mail, pop-up screens, or forums regarding sexual health and disease prevention.

Major commercial websites and portals have the resources to experiment with different approaches to their online offerings (Thornburgh & Lin, 2000). These resources could also be applied to campaigns to promote the sexual health of their members. Since the mid-1990s, concerned Internet publishing companies (including AOL, Time Warner, and Disney) have demonstrated their interest in educating the public at large about the dangers the Internet can pose to children (Thornburgh & Lin). For these programs to be effective, the companies involved in these campaigns must believe it is in their commercial interest to finance them (i.e., there must be a threat of either some harm, such as potential governmental regulation or criminal or legal litigation, or some promise of benefit, such as greater public awareness of their concern for their members' sexual health, resulting in goodwill). Ventures could include funding new websites designed to inform and educate men who use the Internet to search for sex partners, adding sexual health content to existing sites designed to assist men in meeting sexual partners, and launching awareness campaigns aimed at changing community norms so that negotiating safer sex with a new partner met online is the rule, rather than the exception.

Public service announcements (PSAs) and media campaigns are an effective means for conveying relatively simple messages to target audiences (Klausner, Levine, & Kent, 2004). Websites and portals often provide free or low-cost ad banners to nonprofit organizations and public health departments. Among MSM who use the Internet to find sex partners, effective online messages in the form of banner ads have included those that suggest getting tested for STDs. Examples of banner ads that ISIS-Inc. and the San Francisco Department of Public Health have run on sites such as Gay.com and Manhunt.net include "Syphilis is back. Get tested today," "This month, 12 men in X City who met their partner online tested positive for syphilis. Did you have sex with one of them?", and "Boyfriends come and go. So do the symptoms of syphilis." Commercial sites commit some of their advertising space to these PSAs for sexual health. Self-policing by the sites and pressure from community members could increase the number of sites displaying banner PSAs as well as the amount of space allotted on the sites for health messages. Federal legislation could mandate that a percentage of a site's banner ad space be devoted to PSAs, similar to current legislation for TV and radio.

Finally, professional development for health professionals using the Internet to promote sexual health and prevent disease transmission is important. Public health professionals need to know more than how to send and receive e-mail or how to use an online medical library for research purposes. Education is needed about how MSM use the Internet to search for sex partners, cultural sensitivity with respect to the online culture, and community norms that have developed among the men using these sites to find sexual partners.

It is clear that there is no single answer to this complex problem. However, experience from previous successful public health initiatives, as well as governmental reports about similar topics, suggest that a combination of public policy tools and social and educational strategies can help to prevent STD and HIV transmission among MSM who meet their partners on the Internet. Collaborations between the commercial businesses involved, governmental health departments, and community groups are essential to changing the online environment from one of sexual risk to one of sexual health.

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