Virtual Prevention: Fighting HIV Online

April 15, 2008 By David Evans

Describing the state of HIV prevention at a large, international AIDS conference recently, Ronald Stall, PhD, of the University of Pittsburgh School of Public Health, said, “Is HIV prevention working among gay men in the United States? I think to put it in the most polite terms, the best thing we can say is not as well as anyone would like."

A set of key statistics published by the Centers for Disease Control and Prevention (CDC) on their website in March of 2008 states it more plainly: The number of HIV-positive gay and bisexual men has increased steadily between 2001 and 2005.

The problem has been well documented in various metropolitan areas. According to the New York City Department of Health and Mental Hygiene, between 2001 and 2006, HIV diagnoses increased by 32 percent among gay and bisexual men aged 30 or younger in the city. And in a five-city CDC study conducted between June 2004 and April 2005, 40 percent of 462 gay and bisexual men tested for HIV were confirmed to be positive for the virus—62 percent of them didn’t even know they were infected, and a whopping 8 percent were likely infected within six months prior to testing.

So, what is causing the spike in new HIV diagnoses? Experts point to several possibilities from “cultural amnesia around the epidemic” to the age-old misperception of invincibility among youth to increased drug and alcohol use to a lack of sufficient fear of a disease that has been rendered “manageable” —and survivable—with treatment. Others point out that in some cities younger gay men aren’t getting tested as often. And since researchers think that the majority of transmissions in the U.S. happen during the first weeks and months after infection, when people still think that they’re HIV negative, less frequent testing means people remain unaware of their status and pass on HIV to others. All of these factors undoubtedly leave young people more susceptible to contracting HIV.

47% of gay and bisexual men participating in a recent online POZ/AIDSmeds survey say they meet the majority of their dating and sex partners online.*

But there’s another factor—the Internet. While its impact on relationships, dating and sex is still new and largely uncharted, most will agree that it has drastically altered the way people, particularly those looking for sex, connect. The Internet makes meeting people more efficient. A single person can meet hundreds of people within a matter of minutes in cyberspace—to do the same thing in the real world takes a lot more time. Meeting online allows people to skip the stages

of getting acquainted, cutting straight to a sexual encounter without the preamble that could provide the time and/or information that would perhaps lead to a more considered decision. It may not be coincidental that as the number of Internet-based dating and sex websites has increased, so has the numbers of new HIV infections.

Simon Rosser, PhD, a researcher from the University of Minnesota, who spoke after Stall at the 15th Conference on Retroviruses and Opportunistic Infections (CROI) this past February in Boston, believes that the rise of the Internet as a place to easily and efficiently find sex partners is intimately connected with the increased numbers of gay men who are becoming HIV positive. He likened the Internet's impact on sex (rendering it more casual) to the drastic change that occurred in attitudes about air travel. While airplanes were once thought to be the realm of exotic thrill seekers, they are now commonly used by everyone from grandmas to babies. "If the Internet has a similar effect on sex, we have to ask is casual sex about to get a lot more common and even more casual?" he asked.

While it has yet to be proven that the Internet is a direct cause of increased HIV infections, the Web has undoubtedly created an arena that presents new challenges for those looking to do prevention outreach work. And some worry that the surge in online traffic will soon leave many more traditional venues for hooking up—like parks, baths and bars—empty. In an article in Xtra West, Terry Trussler, the research director of Vancouver's Community Based Research Centre, explained that the proportion of men who spend more than 50 percent of their free time with the gay community—where traditional prevention efforts are focused and where young men can learn about safer-sex norms—decreased from 62 to 42 percent, and said, "[For] many gay men who are 20 now, their first sexual encounter will have happened through connections made through their computer."

Rosser, speaking at the conference, concurred, pointing out that while the gay community has grown considerably online, the traditional gay infrastructure is eroding, and since online hookups are so much more efficient than bars or bathhouse hookups, gay men are having more sex with more people than before. More sex means that occasional slipups or decisions to forgo condoms with a special guy are also more likely to occur.

Acknowledging the potential link between a rise in online connections and the spread of HIV, prevention experts are beginning to examine what can and should be done to prevent HIV online—perhaps even in those very settings that seem to contribute to behaviors that can lead to HIV. One challenge is that most of the groups in the U.S. responsible for doing HIV prevention work, and the government agencies that fund them, have a limited presence in cyberspace. Critics of current off-line prevention efforts point out that even if we could deliver new web-based prevention tools tomorrow, they will have limited efficacy unless we find ways to integrate them into the activities that gay and bisexual men already enjoy doing, such as participating in social-networking sites, shopping online and using the Internet to learn about non-health topics.

49% say that the number of romantic and sexual partners they meet online has increased or greatly increased, compared with the number of "connections" made five years ago at venues like

bars and clubs.*

This shift in the way we meet and date online is leading several ingenious pioneers to try to capitalize on the Internet's potential to stretch the boundaries of traditional HIV prevention thinking. It's too early to tell whether they'll succeed in changing behavior and reducing new infections, or even whether they'll be able to convince their fellow prevention workers to join them on the Web. But recent statistics point to a critical need to find a mechanism that will reach those who are looking for love—and everything else—online. And such a mechanism should have enough sophistication, fun and sexiness to compete with other things that men are also doing online, such as checking e-mail, downloading music and updating their Facebook.com profile.

Disturbing Trends

Stall's conclusion that HIV prevention wasn't working well for gay and bisexual men was based on his careful scrutiny of all the available data he could find on HIV incidence, which estimates how many new infections occur each year. He and his colleagues found that by the most conservative estimate, 2.39 percent of gay and bisexual men in the U.S. were becoming infected annually between 1995 and 2005. Stall then calculated what would happen to a group of men who were 20 years old in 1995 and had a 2.39 percent HIV incidence rate. He found that by 2005, when the men had turned 30, nearly a quarter of them were likely to be infected with HIV, and that by 2015, when the men would turn 40, over 40 percent would be HIV positive.

If we consider this hypothetical group of twentysomethings, HIV wasn't the only thing that began to affect them in 1995. By then the most technologically advanced were regularly using the Internet for e-mail and to find information. By the end of the century, gay chat rooms were the rage, and more sophisticated websites devoted to personal ads for sex and dating were beginning to show up all over the Web.

Epidemiologists began to see the influence of the Internet around 2000, when rising syphilis rates among HIV-positive men were often traced back to online chat rooms and websites where people could meet and hook up. Early evidence also suggested that HIV transmission was being facilitated online. Rosser says researchers like him began to ask, "Is there something magical about the Internet? Is it attracting men of higher risk? What's going on?"

83% agree or strongly agree that they are less likely to suffer from discrimination, harassment or abuse due to their HIV status when meeting men through POZ Personals than more general dating/hookup websites for people of any HIV status.*

Professor Jonathan Elford, of City University London, in England, says the Internet has "opened up opportunities for conducting research, which didn't exist 10 years ago," and that "What we do find, is that men who are recruited through the Internet are more likely to report high levels of risk."

Rosser's own research suggests that HIV-negative men are not necessarily taking more risks with people they meet online than they would, say, with someone they met at a bar or bathhouse, but

that because hooking up online is so much more efficient, they are having more sex. “In the old days, let’s say I might score five times a week; now I can score 50 times a week, and we don’t think it’s just increased it a little bit, it’s increased it a lot,” he says.

While increased HIV risks and new diagnoses may cause some to automatically assume that HIV-positive men are knowingly having sex with unconcerned and irresponsible HIV-negative men, experts say this is a rare phenomenon. In fact, the vast majority of people with HIV, once they’ve been diagnosed, cease having unprotected sex with partners who say they are HIV negative or don’t know their status. Rather, new HIV cases appear to happen in clusters, among men who assume they are HIV negative, all of them in the early-infection stage with very high viral loads. Since young gay men are having sex more often with more people, but getting tested for HIV less often, taking higher risks or slipping up on safer-sex commitments turns into a numbers game that more and more men are losing.

What’s more, “The Internet has now taken over as the No. 1 venue for meeting sexual partners for men at high risk,” says Rosser. He’s reported data from the Minneapolis St. Paul area that showed 52 percent of single gay and bisexual men surveyed met sex partners online, compared with 47 percent who met partners at a bar or club, and just 11 percent who met partners at either a bathhouse or a sex club.

76% say they would be somewhat to very likely to visit a website devoted to HIV prevention designed specifically for people living with HIV (as opposed to those who aren’t infected).*

Rosser also feels that the Internet isn’t just affecting HIV transmission among gay and bisexual men; it may also be affecting the physical brick-and-mortar gay community. He has reported that with the exceptions of gay Meccas like San Francisco or New York, “gay neighborhoods and gay infrastructure, for instance gay bars, all appear to be in decline.”

Elford doesn’t feel that the Internet is replacing physical venues in the gay community as much as adding to them. He says, “Most of the men who said they used the Internet also went to bars and clubs…. That’s what we found in London, and there’s some evidence that the same is probably true in bigger U.S. cities.”

We Need New Tools and New Messages

Though experts may disagree about the effect that the Internet has had on real-world gay environments, most agree that the majority of gay and bisexual men probably have spent at least some of their time cruising for sex partners online and that HIV prevention interventions should increasingly be focused there.

Researchers have been quick to move some aspects of their research online, such as surveys and behavioral surveillance, but few have moved beyond what currently constitutes the majority of online HIV prevention efforts, which are mostly limited to written HIV prevention information, prevention workers who cruise chat rooms or post ads on craigslist.com, profiles on Facebook and MySpace and e-mail notifications to the sex partners of people who’ve tested positive for a

sexually transmitted infection (STI) like HIV or syphilis.

Joshua Tager, senior digital editor for Out and The Advocate magazines in New York City, says that he worries that even if prevention experts do manage to build new online tools, they may fail to work if they follow the model of existing off-line prevention efforts, which rarely adhere to the kinds of guidelines that gay businesses do if they want to be successful—namely that their products need to be sexy and enjoyable. Rosser, himself one of those prevention experts, agrees, saying, “One of the problems [with existing prevention programs] is that we made them more clinical and we had idiots like me develop more professional-type seminars and we sort of left the community out of it, and we actually left sex out of it.” In short, the newer prevention tools are going to have to go far beyond a simple message of “use a condom every time” if they are going to match up with the kind of subtle risk assessment strategies that gay and bisexual men are already using. And they’re going to have to be entertaining and sexy to get their point across.

35% agree or strongly agree that they predominantly have sex with other HIV positive men in order to have unprotected anal sex without worrying about HIV transmission. Thirty-eight percent disagreed or strongly disagreed, and 24% neither agreed nor disagreed.*

Stall and others point out that many HIV-positive men are already using a strategy called serosorting, whereby they choose to have sex only with other HIV-positive men or at least only have unprotected anal sex with these men, as a way to keep from passing HIV on to HIV-negative men. This strategy isn’t perfect, as the flurry of syphilis cases among HIV-positive men around the globe indicates, but it does mean that HIV-positive men are not putting their HIV-negative partners at risk. While serosorting may be great for HIV-positive men who wish to bareback, its effectiveness for HIV-negative men who’d also like to try condom-free sex is questionable.

“If someone in their ad says that they’re HIV positive, and another person responds who says that they’re HIV positive, chances are they really are HIV positive. But if two men say that they’re HIV negative, that depends on when they’ve had their last test, and what they’ve done since their last test. It’s much less reliable,” explains Elford.

Another risk-reduction strategy that some gay and bisexual men are trying out is called strategic positioning, whereby HIV-negative men have unprotected anal sex with partners who are HIV positive or whose HIV status is unknown, but only as the insertive partner. As Michael Ross, PhD, from the University of Texas School of Public Health in Houston, observes, however, “You know strategic is a word that George Bush uses all the time in reference to the war in Iraq, but just because we say that something is strategic doesn’t mean that it makes a lot of sense.”

Yet another factor causing gay and bisexual men to weigh the pros and cons of condoms, is a Swiss proclamation made earlier this year that stated that for straight monogamous couples, where one is HIV-negative and the other HIV-positive, HIV transmission was impossible provided that the HIV-positive partner was taking antiretroviral drugs, had an undetectable viral load for at least six months, and didn’t have any other STIs.

Brave New World

New online prevention tools, therefore, need to be both technologically innovative and offer sophisticated and comprehensive sexual-risk-assessment strategies. But Tager feels they need to go even further. He says, “If you think about most HIV prevention workshops, they’re always these stand-alone activities that someone has to make time and effort to attend. Rarely, if ever, are they incorporated into the kinds of activities that most gay men find enjoyable. I wish that people doing prevention would ask for the help of [experts in the field of gay website development] in devising new prevention efforts. I think we’ve got a lot to offer.”

Fortunately, the handful of people conducting research about what will constitute the most effective online prevention tools have taken Tager’s message to heart. A Dutch group led by Gerjo Kok, PhD, from the department of experimental psychology at Maastricht University in the Netherlands, in what Ross calls “pretty much the gold standard for interventions at this point in time,” has built a virtual gay cruise ship to help men navigate and learn about sexual decision making. Men get to choose from one of four attractive animated male pursers, guiding them through the cruise ship and helping them think through a number of sexual decision-making scenarios arising from encounters with other animated ship passengers.

49% find the Internet to be more effective than traditional venues like bars and bathhouses for meeting dates and sex partners.*

Most men who participated in the gay-cruise prevention website liked it. In their evaluations, 86 percent said it was enjoyable, 53 percent said it helped them to know more about their sex life, and 61 percent said they became more conscious about dating and sex.

You’d think, given this kind of response, that there’d already be an online gay-cruise prevention tool available worldwide. But the release of such a tool has been held up because there’s a problem. Though Kok and others proved that you can engage and retain large numbers of gay men to complete an online intervention, they also recognized that it is remarkably difficult to find those same men three or six months later to follow up and see if their behavior changed as a result of the intervention. Thus, as innovative as the gay-cruise prevention tool may be, the researchers were unable to effectively track whether or not it caused the men who experienced it to ultimately take fewer HIV risks.

Rosser is leading another team at the vanguard of online HIV prevention. It’s developed an online interactive health and sexuality environment called SexPulse that is being rigorously evaluated. SexPulse is in its third of 12 months of follow-up; involving about 600 gay men, though early results are promising, the project is not yet ready for primetime as, like with the online cruise ship, its longer-term effectiveness is still unproven.

“What we’re trying to do with SexPulse is to come up with engaging, fun ways that guys can learn about their sexuality…. I mean there’s a real gay sensibility that is wonderful and relevant to the online experience [of SexPulse] that we don’t see in other [prevention] tools. For instance we have modules on how to chat online, how to get the information you need in order to make an informed decision, and one about body image,” explains Rosser. But as excited as Rosser and his

multidisciplinary team are, they are also proceeding cautiously. He says, “We’re trying to be realistic and modest and study it well, and so maybe if version 1 won’t work, maybe version 5 will.”

Rosser also points out that his group is just one of several others around the U.S. doing this kind of work. He praises Anne Bowen, PhD, at the University of Wyoming, for her work on the Internet with rural men, and Sheana Bull, PhD, at the University of Colorado, who is building STI interventions that are based on the principles of social-networking sites like Facebook or Twitter, where the users generate their own content.

35% say they spend three or more hours online each week seeking romantic and sexual partners.*

Rosser, who has been doing HIV prevention work for 25 years, describes the work he and his team are doing with a zest and enthusiasm reminiscent of a person fresh out of graduate school. He credits the interdisciplinary nature of the work, saying, “You know the NIH came out with a big report round about 2000, and they said that major scientific advances of the 21st century are unlikely to occur by Simon Rosser sitting in his office thinking up a brilliant thought. Rather, they said that the major scientific advances are likely to occur in multidisciplinary teams where people from very different backgrounds are coming together and working together to solve a common problem.”

As exciting and hopeful as these new interventions sound, they aren’t cheap, and as Sheana Bull points out, we still don’t know for sure if they work. Nevertheless, she says, “My call is more to my own colleagues to stay ahead of innovations or at least try to anticipate things that are coming out and being prepared to do quick evaluations to get strategies out there to communities. Because they can take them and run with them more quickly and do more adaptations than we can in the academic setting.”

Perhaps the most beneficial aspect of building online prevention tools is that once something is proven effective, there’s no need to wait months and years and spend many thousands or millions of dollars ramping it up and rolling it out. Of SexPulse, Rosser says, “If version 5 works, then we can just hit the switch and everybody in the world has access. So the days of having to show demonstrated and effective programs and then scaling [them] up for everybody to repeat it—well we don’t need to repeat it, because it’s the World Wide Web.”

* All responses are from a POZ/AIDSmeds survey conducted in April 2008.

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http://beta.docker.poz.com/article/hiv-prevention-internet-14435-1812