

HIV Prevention among Men Who Have Sex with Men: Cross-cutting Challenges and Multiple Health Threats

(from a CDC Satellite Broadcast on May 17, 2007)

[Announcer] *This podcast is presented by the Centers for Disease Control and Prevention, CDC, safer, healthier people.*

[Announcer] After the airing of this Satellite Broadcast in May 2007, CDC issued a revised 2005 HIV/AIDS Surveillance Report (June 2007). Some of the data cited in this broadcast have been updated. The revised report can be found at www.cdc.gov/HIV/datarevision.htm.

[Moderator/Dr. Rob Janssen] The internet has provided MSM new options to interact, make friends, meet romantic and sexual partners. It also has the potential to facilitate casual sexual encounters that can lead to increased transmission of HIV and STDs. A number of studies have shown that MSM who seek sex partners online are at greater risk for HIV and STD infections than are MSM who do not seek partners on the internet. Here to discuss the challenges and the potential of the internet, are research behavioral scientist Mary McFarlane, from CDC's division of STD prevention, and Mary Ann Chiasson and her colleagues from the medical and health research association in New York City. Also in this segment we'll hear about methamphetamine abuse as an epidemic in the MSM community and how this drug has devastated the lives of a growing number of MSM. Methamphetamine is very closely associated with risky sexual behavior. We'll hear from substance abuse researcher Dr. Cathy Reback on the impact of this dangerous and highly addictive drug.

[Mary McFarlane/CDC] The role that the internet plays in HIV risk among MSM, is the same role that it plays in the rest of your life. The efficiency that you gain in your shopping life, your social life, your research life may also be gained in facilitating sexual contact. You may be able to seek sexual contact more efficiently, more privately, more anonymously than you have before. You may be able to find people with similar interests or orientations or you may be able to explore behaviors that you weren't willing to explore in your ordinary life. The internet has a potentially profound impact on rural MSM because in small communities there may be issues with knowing everyone in the community and there may be a lack of social support networks or other MSMs to bond with or to serve as peer guides. There may also be an urge to go to the internet to find sex partners in local cities. Once in local cities, sex contact may result in disease coming back to the small towns. That has the effect of changing the geography of the disease transmission as we know it because, previously, we have not seen disease popping up in rural areas to the extent that we've seen it in urban areas, which is beginning to understand the role the internet can play as an HIV and STD prevention tool. We know that the internet is where people are and where behaviors are originating. So, we know that we need to be there. We need to be there with messages that will attract our populations of interest and that will be effective in reducing the transmission of STDs, including HIV. We also know that we can use the internet to conduct partner notification, which is the process by which we notify people that they may have been

exposed to a disease. We also conduct outreach on the internet. Where outreach workers will go online and answer questions and help people understand disease transmission.

[Dr. Mary Chiasson et al / NY] Well, Mike and Sabrina, here at Medical Health Research Association in New York City we've been working in online research with men who have sex with men, looking at high-risk behavior that's associated with HIV infection since 2002. It seems hard to believe it has been that long. It's been very successful. I think that we learned an enormous amount from our surveys but there've been a lot of challenges.

There's been challenges, there's been lots of opportunities that presents, where, you know, we have the opportunity now with this technology to reach people that we want to learn about in a different way, where as, before, we might have had to locate people. Say we wanted to find Men Who Have Sex with Men, we had to go where they met. We'd have to go to bars and we'd have to find them on the streets, we'd have to go in to clinics, whatever those traditional venues that researchers would go. Now, with the internet, we're able to take these, our surveys, our interventions, directly to them in the convenience of their own home. We're able to customize them in some ways, asking questions that are dynamic surveys that are geared directly towards the experience that somebody may be describing, as they answer the survey. And we've been able to now go where people meet now. There's a whole new generation for whom they don't really remember life so much without computers and it's a primary social tool for them, a primary place that they meet. So we're really able to take the research where people are in this new way. It's led to some interesting things. Interesting things that we've learned. Sabrina's have found some wonderful things, some surprising things, right, that because of the internet we have been able to find out about.

Right, I mean I have several points I want to make about the advantage of using the internet and one is that there are no geographic boundaries. Which means that if you have internet access from anywhere in the world, you can take our survey. We can reach men that are hard to reach, such as non-gay identified, which would be really hard to find a sample, you know, on the traditional off-line surveys and venue-based surveys. So we can reach hard to reach men, men in rural areas and, basically, anyone who has access. So, this is, you know, a great advantage for research and just two findings that come to mind in general about geographic differences in the U.S., we found higher rates of drug use on the west coast versus the east in one of our analyses and in another study that we looked at, a recent sexual encounter, we saw that men from small towns in rural areas were much more likely to travel for sex in their most recent encounter. So, this was an interesting finding.

So, those are things that have implications for interventions. If we're learning what people are doing online, we're learning about them, studying them online, we're able to also get in the intervention messages there in new and innovative ways because we're able to see what's happening in a new way.

Exactly, and the fact that we've done four internet-based studies at this point, we've reached at least 40,000 men at this point and maybe 20 to 30 have completed, 20,000 to 30,000, excuse me, have completed our surveys. What we found is a reliability across these studies that the majority of men are white, 80%. Highly educated and have high incomes. So you know that is something that we found.

That points out one of the challenges which is to find a way to reach more and more people. And we've done our best with that in that we programmed these surveys utilizing technology that if a participant has a slow dial-up connection or they have old hardware or old browser software, they're still able to participate in the studies because, of course, we want to be able to reach as many people as possible, both in terms of studies and in terms of interventions, economic status.

That's been I think, a huge advantage and it's also pointed us in the direction of interventions. I mean, because we can reach so many high-risk men online and this system is an enormous opportunity to do HIV prevention work and I think that everybody in the world is moving online, HIV prevention is going to move more and more online, particularly for men who have sex with men.

[Dr. Cathy Reback] There's been a long line of research that has documented the connection between methamphetamine use and high-risk sexual behaviors. In studies with gay men, who report methamphetamine use, they also report engaging in high-risk sexual behaviors. Some as a result of methamphetamine use, but, often, they use methamphetamine to increase the sexual behaviors. They report that they use methamphetamine to engage in sexual behaviors that they wouldn't have engaged in otherwise. They report that methamphetamine increases the duration of the sexual activities, so it prolongs the sexual encounters. That it lowers the inhibitions and that it allows the individuals to engage in high-risk sexual activities. As a consequence, gay, bisexual and heterosexually identified MSM tend to engaged in sexual activities with multiple partners, particularly casual and anonymous partners, engaged in unprotected insertive and receptive anal sex, lower their condom use and engage in activities that then would increase their risk of either acquiring or transmitting HIV. Because the problem, the concern that we have, is that these sexual activities are taking place in the core of the HIV epidemic. In urban environments where there's a high seroprevalence among gay and bisexual men, when you couple that with methamphetamine use and high-risk sexual behaviors, you're in a situation where you will see a lot of virus being fuelled by methamphetamine use. In studies that I have conducted with my colleague Dr. Steve Shoptaw, we have seen an association between the increase in HIV seroprevalence and the increase in methamphetamine use. So that we've looked at several samples and in a sample of recreational users, we have found that the seroprevalence of that group was 23%. When we looked at a sample of chronic methamphetamine users, those that report methamphetamine use at least once a month for a period of six months, the seroprevalence is 41%. In our treatment clinics, out-patient treatment for those who meet criteria for abuse or dependence the seroprevalence is 61%. And for those that seek treatment in a residential facility because an out-patient modality isn't structured enough based on their level of use, the seroprevalence it has been 86%. So,

we see the increase of seroprevalence from 23% to 41, 61 and 86% increase with the level of use from recreational to chronic to abuse-dependence and then severe dependence. So, clearly we've been able to mark this increase of HIV seroprevalence with methamphetamine use. So, the longer one uses methamphetamine, the more likely they are to seroconvert and be HIV infected.

[Moderator/Dr. Rob Janssen] Many MSM experience multiple health threats, which elevate HIV risk. In fact, research indicates that the combined effects of these problems may be greater than their individual impact. We recently discussed these health threats and implications for HIV prevention with Dr. Ron Stall from the University Of Pittsburgh School Of Public Health.

[Dr. Ron Stall] Our group has been studying psycho-social health conditions as they exist among MSM in the United States. We've discovered a number of interesting points, particularly how these conditions drive the AIDS epidemic among MSM. First, the prevalence rates of psycho-social health conditions among, certain psycho-social health conditions among MSM is far higher than among men in the general population. To be more precise, the rates of depression among MSM, is far higher than for men in the general population. So is substance abuse, so is violence victimization with partners, so is childhood sexual abuse. Another interesting phenomenon about these epidemics is that they're interacting and intersecting and amplifying the effects of each other. So that men who are depressed are far more likely to also have substance abuse and be victims of violence victimization and suffer from the life-long consequences of childhood sexual abuse. So, that in the MSM communities in the United States, there are at least four intersecting psycho-social health conditions that are intersecting and making each other worse. Another interesting point about these Intersecting epidemics is that they are closely associated with HIV. In other words, men who have more of these psycho-social health conditions are far more likely to have had recent high risk sex and are far more likely to be HIV positive. So, men who have none of these conditions are very unlikely to have recent high-risk sex or be HIV positive. And there is a dose response effect: so that men who have one condition are more than men who have none, men who have two or three are far more likely to have had recent high-risk sex and/or be HIV positive than men who have none of these psycho-social health conditions. What this means is that we have at least four psychosocial health conditions co-occurring in MSM communities in the United States that are intersecting, amplifying the effects of each other and driving risk for HIV transmission among MSM.

So, what does this have to do with HIV prevention? The first thing I think we need to remember is that when we're working with MSM communities in the United States, we're dealing with communities that have very high prevalence rate and problems like depression, substance abuse, violence victimization and so on. What this means is that some men who are mired in these problems are gonna be less likely to respond to HIV prevention messages than we may like. This, however, offers us the opportunity to work with other agencies that are meeting health needs in MSM communities to partner and reach the men with highest risk for HIV infection. For example, by working with substance abuse agencies, we may find ways by partnering with these agencies to

deliver messages, HIV prevention messages and tools to the men who are at greatest risk of HIV infection. The same kind of strategies can be used with violence prevention programs in MSM communities, so that men who show up at agencies looking for refuge from a violent relationship, we should know automatically to screen for mental health problems like depression, co-existing substance abuse and HIV risk. Men can be referred to other agencies so that they can get help for these kinds of problems and so increase their ability to respond to HIV prevention messages. In other words, by partnering with other agencies interested in the broader gay men's health movement, we have a way of raising all of the health boats and increasing the advocacy of HIV prevention itself.

[Announcer] *To access the most accurate and relevant health information, that affects you, your family and your community, please visit www.cdc.gov.*