



# Effectiveness and Impact of the Using the Internet for Prevention of HIV/AIDS



## Question

What is the effectiveness or impact of using the Internet for prevention of HIV/AIDS?

## Key Take-Home Messages

- The Internet is a feasible channel to deliver HIV prevention and intervention. With the internet increasingly used not only for meeting sex partners but also for finding health information it can be used to develop interventions to proactively reach out to high-risk populations.(3;4)
- Benefits of internet HIV prevention interventions include low cost to deliver, ability to customize intervention content, flexible information dissemination channels, ability to reach hidden populations, the potential to erase geographic and social barriers caused by stigmatization and marginalization, and the relative anonymity it provides in seeking information and support online.(3;5;6)
- There are both opportunities (e.g., reaching high-risk populations, absence of facilitator issues and individual obstacles) and challenges (e.g., keeping people engaged in multiple sessions online, recruiting and retaining more high-risk individuals for technology-based research) with online interventions when compared to offline prevention interventions.(3;4)
- Internet-based interventions should be seen as an adjunct to rather than as a replacement of traditional programs.(4)

## EVIDENCE INTO ACTION

The OHTN Rapid Response Service offers HIV/AIDS programs and services in Ontario quick access to research evidence to help inform decision making, service delivery and advocacy. In response to a question from the field, the Rapid Response Team reviews the scientific and grey literature, consults with experts, and prepares a brief fact sheet summarizing the current evidence and its implications for policy and practice.

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## The Issue and Why It's Important

The internet has emerged as a popular mechanism for meeting sex partners through sources such as chat rooms, discussion forums, instant messaging systems, websites soliciting sex and personal advertisements.(1) With the internet also being increasingly being used as a source of health information, its potential as a method of HIV prevention is significant, especially given that interventions can be delivered anonymously and with minimal cost.(2)

## What We Found

A considerable percentage of men who have sex with men (MSM) use the internet to look for sex partners and those using the internet have a riskier sexual behaviour profile.(7) In addition, younger MSM and MSM of colour are more likely to meet partners online.(1;7;8) In general, chat rooms appear to be one of the most common places to meet partners and, as a result, these venues have been identified as an important place for targeted prevention activities. (1;4)

Methods for delivering HIV prevention over the internet that were discussed in the articles used for this summary include chat room outreach, online partner notifications, online test slips, banner ads, interactive targeted interventions and informational websites (5;9-13) and they were largely targeted to high-risk populations such as men who have sex with men (MSM), adolescents and young adults.(14;15) Internet interventions have also been used for the prevention of secondary transmission, which is a major concern as many HIV-positive youth continue to engage in risky sexual behaviour.(14)

## Findings related to the effects and feasibility of using the internet for preventing HIV/AIDs

- We identified nine studies that assessed internet HIV prevention interventions for MSM of which eight suggested that they are promising and possibly beneficial interventions that offer new opportunities for HIV prevention (1;2;4;7;8;12;16;17) and one (a randomized controlled study in Hong Kong) found non-significant results.(18)
- Internet chat room HIV prevention outreach materials and protocols have been shown to be effective in targeting young men who have sex with other men of colour who are at the risk for acquiring HIV/AIDS.(18) However, such strategies need to be culturally appropriate.(18)
- Younger MSM and MSM of colour are more likely to meet partners online and the studies find that the internet is a feasible HIV intervention medium. (1;7;8)
- Four of the studies we reviewed focused solely on adolescents and young adults, of which three found the Internet to be a feasible prevention intervention.(5;14;15;19)
- Findings support the acceptability, feasibility and efficacy of an internet-delivered intervention program for hard to reach groups such as rural MSM as their geographic and social isolation may limit access to HIV risk reduction resources. Resources for prevention and treatment in rural areas are often scarce and the internet could provide inexpensive and easily accessible programs.(2;16;20)
- Online communication can be an effective way to disseminate STI/HIV information and provides a medium for users to remain anonymous while

asking delicate questions. For instance, a team of registered nurses from British Columbia's Centre for Disease Control's Outreach/Street Nursing Program developed an online sexual health information and referral service and the response indicated that online members were highly receptive to communicating with an online nurse.(13)

- Methods such as the use of instant message counseling have been shown to conserve resources, to encourage the most at-risk individuals towards testing and treatment and to ease some of the burden on governmental and community-based organizations responsible for HIV/STI prevention.(12)
- The Internet has been successful at accessing special and/or hidden populations such as HIV positive men, bisexual men or Hispanic MSM.(8;18)

## Opportunities and Challenges

There are both opportunities and challenges with online HIV prevention interventions. Various websites and programs such as PowerON, CyberReach, +Click (6;12;14) have been successful in harnessing the power of chat rooms, online forums and creating education spaces towards prevention.

Some of the barriers and challenges that exist with offline HIV prevention behavioural interventions such as lack of adequate human resources, discomfort with facilitators and other facilitator issues, individual obstacles (transportation, insurance, physical limitations, the need for childcare) are addressed by online interventions.(3;4)

The behaviours of men seeking men and women seeking women online could be different. A study in Western Australia found that men were easier to access through sexuality related chat rooms than women. While same sex attracted young women used the internet for information and support, overall women were more reluctant and cautious about giving details than same sex attracted young men.(6)

Difficulties with recruitment of hidden populations, such as Hispanic MSM, have hampered HIV prevention research, and researchers who used online recruitment found that it was more efficient and somewhat less costly than community recruitment.(21)

Internet-based interventions should be seen as an adjunct intervention rather than as a replacement of traditional programs. The field of internet-based HIV prevention is still preliminary but there are various opportunities to advance the field in the future.(4)

## Factors that May Impact Local Applicability

No studies addressed the issue of internet access and connectivity, which could potentially be an important limitation of any internet-based prevention program. In addition, only one study was conducted in Canada and most were based in the United States.

## What We Did

To identify literature, we hand searched all systematic reviews and protocols from the HIV/AIDS Cochrane review group and the 'HIV' and 'acquired immunodeficiency syndrome' topic categories on [www.health-evidence.ca](http://www.health-evidence.ca). We also searched the Cochrane Library (hits = 1 other review and 8 clinical trials), Database of Reviews of Effects (hits = 5) and PubMed (hits = 310) using standardized search terms (HIV AND prevention AND internet).

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