

**REVIEW OF HEALTH PROMOTION OPPORTUNITIES AT THE TIME OF HIV
TESTING (AMONG GAY MEN)**

REPORT

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1. INTRODUCTION

The Queensland Association for Healthy Communities (QAHC) has commissioned a review of opportunities for health promotion interventions with gay men at the time of HIV testing.

QAHC is interested in examining opportunities for health promotion interventions at the time of HIV testing, as when people take an HIV test they are often reflecting on their behaviour, the potential consequences of their behaviour and making plans for the future. This provides a unique opportunity to develop interventions that can support gay men through this process of reflection, self appraisal and future planning.

The review of health promotion interventions at the time of HIV testing was to occur by:

- reviewing the literature on health promotion interventions at the time of HIV testing among gay men;
- reviewing the literature as it pertains to other population groups;
- reviewing the literature on written health promotion resources given at the time of HIV testing; and
- interviewing clinicians and health promoters about their practice.

The findings from this review are intended to be used to support clinical staff in their interactions with gay men and to produce a written resource for gay men who are having or seeking an HIV test. In particular the results of the review will be used to:

- support clinical staff in their interaction with gay men receiving an HIV test;
- support health promotion/education staff in their interactions with gay men around HIV testing (e.g. via the 1800 Men's health Line); and
- guide the development of a written resource for gay men provided at the time of an HIV test (possibly a workbook using motivational interviewing and cognitive behavioural approaches).

In undertaking this review, published and unpublished papers were reviewed which could provide insight into what constitutes an effective health promotion intervention at the time of HIV testing. Literature that identified effective HIV health promotion interventions within clinical settings, but not necessarily at the time of HIV testing, were included within the review if there were lessons that could usefully be applied.

The brief identified interest in developing a resource that used motivational interviewing and cognitive behavioural approaches. As a result, research was identified and analysed that had used such approaches in developing health promotion interventions, even if they did not occur at the time of HIV testing or within a clinical setting.

In addition to the literature review, six stakeholder interviews were also conducted. These interviews were conducted once the literature review had been completed so that any findings from the literature review could be discussed with the stakeholders. A key purpose of the stakeholder interviews was to ascertain their views on what are effective strategies to encourage gay men to reflect on their behaviour when receiving an HIV test, to hear their thoughts on how clinical staff could be better supported and to ensure the production of any HIV testing resources would be useful within clinical settings.

2. CONTEXT

2.1 Sexual practice¹

The Queensland Gay Community Periodic Survey is a cross-sectional survey of gay and other homosexually active men in Queensland. The 2005 survey provides an important snapshot of sexual and HIV-related practices among these men. Respondents were recruited from 13 sites in Queensland as well as at Brisbane's Pride Fair Day. There were 1382 questionnaires completed. As this is the eighth consecutive survey conducted in Queensland, results can also be compared to previous surveys conducted between 1998 and 2004.

The survey found that among men with regular partners, 54 per cent of respondents had engaged in some unprotected anal intercourse with their regular partner in the six months prior to the survey. This represents no significant change since 2001 in the proportion of men who sometimes do not use condoms. Most of the unprotected anal intercourse within regular relationship was between seroconcordant couples. Most of the respondents who had a regular male partner also had an agreement with their partner about sex within the relationship. However, about a third of the men who were in relationships when completing the survey had no spoken agreement with their partner about sex outside the relationship.

Among men who had had sex with casual partners in the six months prior to the survey, 31 per cent had engaged in some unprotected anal intercourse. Since 2002 the rates of unprotected anal intercourse with casual partners has been quite stable. However, there were significant differences in the level of condom use with casual partners between HIV-positive, HIV-negative and untested. HIV-negative men and men of unknown serostatus were less likely to have had unprotected anal intercourse than their HIV-positive counterparts. It is likely that some of the unprotected anal intercourse engaged in by HIV-positive men may be explained by positive-positive sex which poses no risk of seroconversion.

Men with casual partners were also asked if they disclosed their serostatus to their casual partners. In general respondents did not routinely disclose their serostatus to casual partners, nor did they necessarily know the serostatus of these casual partners. Fifty-four per cent of participants with casual partners did not disclose their serostatus to any of their casual partners. Similarly, about 56 per cent of participants were not told the serostatus of any of their casual partners.

2.2 HIV testing

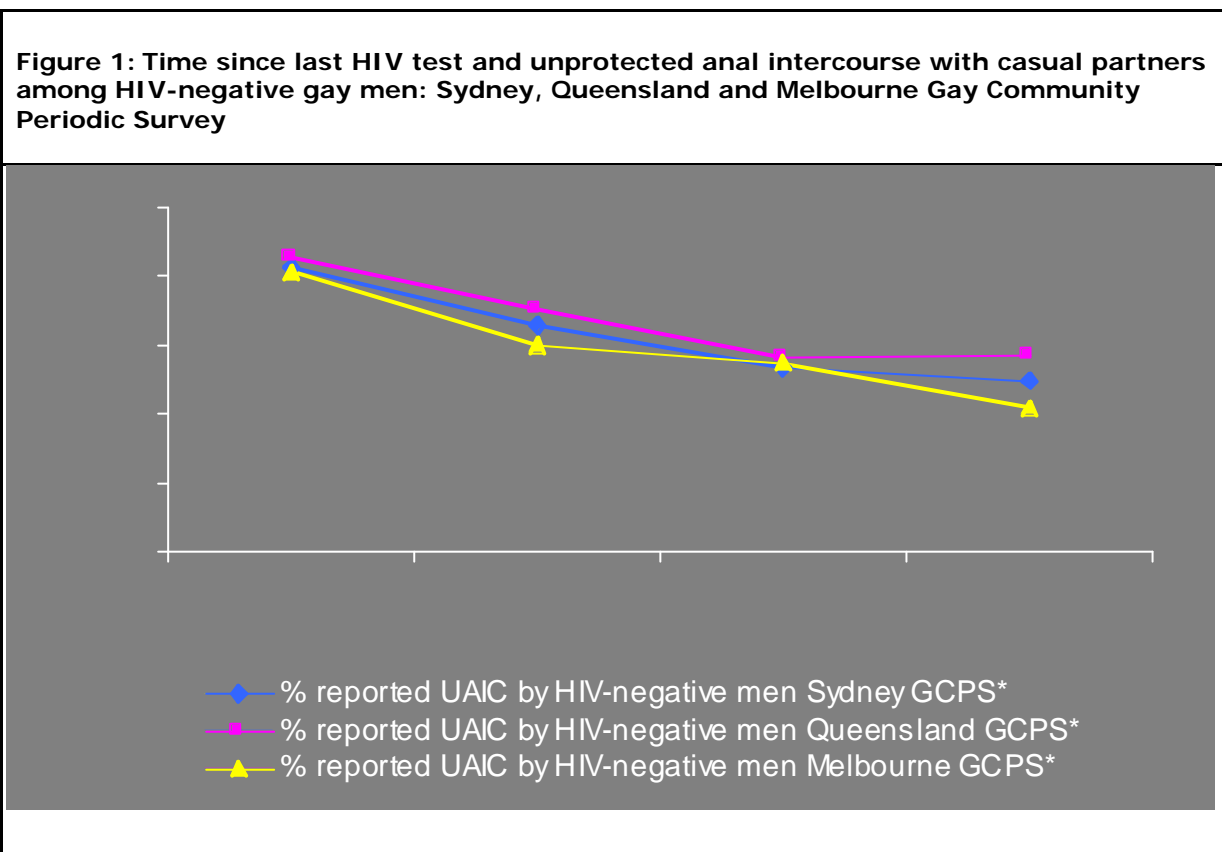
Most gay men have been tested for HIV at some point. The Queensland Gay Community Periodic Survey reported that only 11.7 per cent had either not being tested for HIV or had failed to obtain their test result. Of the total sample, 81.8 per cent sample had tested HIV negative and 6.4 per cent had tested HIV positive.

Over the past five surveys there has also been a significant decrease in the proportion of men who had not been tested or did not know their test results (15.2 per cent of the sample in 2001 compared to 11.7 per cent in 2005).

¹ Hull P, Rawstone P, Zablotska I, et al. Gay Community Periodic Survey Queensland 2005. Sydney: National Centre in HIV Social Research, 2006.

The survey also identified the time since the most recent HIV test among men who had ever been tested for HIV and had not tested HIV-positive. In 2005, only about 26 per cent had not been tested within the previous year. The last time since HIV test has remained relatively stable across the eight years the study has run.

In an analysis of data from Gay Community Periodic Surveys conducted in Queensland, Victoria, and New South Wales the National Centre in HIV Social Research found that among HIV-negative respondents a higher proportion of those who had been tested recently (within the previous six months) had unprotected anal intercourse with casual partners in the previous six months.² They also observed a decreasing proportion of HIV-negative respondents who had unprotected anal intercourse with casual partners with increasing time since last HIV test (see Table 1).



2.3 Summary

While most gay men practice safe sex most of the time, there remain high rates of unprotected anal intercourse. While rates of unprotected anal intercourse during casual encounters have remained quite stable over recent years, recent increases in HIV notifications demonstrate the need to continue to develop and implement health promotion interventions that promote and support gay men to practice safe sex.

When compared to comparable Western nations, Australia has achieved a remarkably high level of HIV testing among gay men. The high level of HIV testing has demonstrated that gay men have accepted the individual benefits of knowing their HIV status. In Queensland most gay men have been tested for HIV at some point. Gay men also regularly get tested.

² Kippax S, Zablotska I. Changes in behaviour of gay men in the context of increases in HIV.

Yet it appears that gay men who have been recently tested for HIV are more likely to have had unprotected anal intercourse with a casual partner. It may be likely that a recent episode of unsafe sex may be the motivation for having an HIV test. While not specific to HIV testing, research has also found that gay men who have previously received non-occupational post exposure prophylaxis continue to report high levels of risk behaviour and higher rates of HIV infections.³ Data from both studies suggest that when gay men engage with HIV health care service providers that existing HIV prevention interventions are inadequate or not effective at ensuring that risk behaviour is reduced.

Given the high rates and frequency of HIV testing among gay men, health care providers have a unique opportunity to support gay men in reducing their risk taking. It is highly appropriate that QAHC attempts to identify HIV health promotion interventions that can support health care providers in working with gay men to reduce their HIV risk taking behaviour.

³ Personal communication with Associate Professor Andrew Grulich. 27 April 2006.

3. CLINICAL SETTINGS

There are many arguments as to why it is important to ensure the involvement of clinical services in the provision of HIV prevention and health promotion programs. Family Health International has identified a number of reasons why clinics need to support prevention education including:⁴

- efficiency – education within the clinic reaches patients where they are already being treated;
- patient readiness – a patient’s decision to attend a clinic signals some level of concern about their sexual health;
- reinforces community education efforts; and
- synergy of care and prevention – patients more accepting of prevention advice when receiving good clinical care.

While the involvement of clinical services in health promotion interventions is important, it is also necessary to take account of the different clinical settings in which HIV testing in Australia occurs and ensure that interventions also meet the needs of clinicians working in such settings.

3.1 General practice and sexual health clinics

Sexual health clinics are important publicly funded government services that provide a range of services to people with or at risk of sexually transmitted infections (STIs). Sexual health clinics have prioritised access by priority population groups most at risk of HIV and other STIs, including gay and other homosexually active men. As well as providing testing and treatment for HIV and other STIs, sexual health clinics are also able to provide a variety of other services such as counselling, sexual assault services, information and education for individuals and groups, and health promotion programs. However the extent to which such services are provided varies for each clinic.

While sexual health clinics continue to provide an important public service, the overwhelming majority of gay men are tested for HIV in general practice. Any health promotion interventions that are developed to support clinical staff need to therefore be cognisant of the particular restraints of general practice. Unlike sexual health clinics, general practices are private businesses. This is one of the constraints that may limit their ability to provide prevention and health promotion services. This is not to say that GPs don’t recognise that they have a valuable role to play in promoting health prevention behaviours. The Royal Australian College of General Practitioners (RACGP) has adopted policies that recognise the role GPs can play in health promotion and prevention and that aim to assist GPs integrate health promotion and disease prevention into their practice.^{5,6}

While general practice has an important role to play in HIV prevention and health promotion there are many constraints. Recently, the NSW Health Department examined how sexual health and HIV health promotion can be strengthened in general practice.⁷ The project identified a number of barriers that inhibit the involvement of GPs in sexual health and HIV health promotion. They included:

⁴ Family Health International. Control of Sexually Transmitted Diseases.

⁵ Royal Australian College of General Practitioners. Putting prevention into practice. A guide for the implementation of prevention in the general practice setting. Melbourne: Royal Australian College of General Practitioners, 1998.

⁶ Royal Australian College of General Practitioners. Guidelines for preventive activities in general practice. Updated 5th Edition. Melbourne: Royal Australian College of General Practitioners, 2002.

⁷ Spina A, Fowler D. Sexual health and HIV health promotion in general practice review project. Sydney: NSW Health Department, 2004

- systems of remuneration which favour quick throughput of patients;
- varying levels of skill among individual GPs;
- low perception among some GPs of STI risk;
- perception of some GPs that sexual health is a specialisation beyond their expertise;
- lack of readily available resources to support interventions around sexual health;
- discomfort and stigma associated with sexual health; and
- salience of sexual health in the broader community.

These are not necessarily easily overcome barriers, but nevertheless they are factors that need to be considered when developing interventions. Importantly, the NSW Health Department project highlighted the importance GPs attach to having printed resource available to support prevention interventions.

In the interviews conducted with stakeholders for this review, all emphasised that risk assessment, prevention and education are an important part of their clinical practice. But as identified above, there were limitations on the time and resources available to do so. Even within publicly funded sexual health clinics, there were significant variations in the pre and post test counselling that is able to occur with patients, as well as the emphasis given to addressing risk behaviours and the skills of staff to do so.

3.2 Appropriate HIV interventions to support GPs

While not specific to sexual health, the RACGP's *Putting prevention into practice* identifies many opportunities for prevention in general practice. One of the strategies it recommends is ensuring appropriate patient education resources are available, particularly within waiting rooms, and that they are appropriately profiled and displayed. It argues that such strategies are important as they have proven effective, are feasible and cost-effective to adopt and are appropriate to the Australian context.

As part of the NSW Health Department's Sexual Health and HIV Health Promotion in General Practice Review Project, qualitative interviews were conducted with GPs to assess their experience and needs in relation to sexual health and HIV.⁸

The project reported that most GPs undertake STI testing, diagnosis and treatment when patients present with symptoms or request testing. GPs see the provision of sexual health services as part of their responsibility, while using the sexual health clinic as a source of support and information and a place of referral for more complex presentations. GPs generally recognised the importance of sexual history taking. However, much of the client education that takes places is didactic and many GPs fail to counsel asymptomatic clients with obvious STI risk.

The GPs interviewed for the project indicated that they would value having more resources to hand to patients and would value receiving support and further education to enhance their abilities in this area.

The project also reported on the needs of GPs in three inner city practice that see a high proportion of gay men. The GPs indicated that support, education and information around the following issues would enhance their ability to discuss risk practices:

- providing suggestions for GPs to recognise trigger issues, and strategies for intervening;

⁸ Spina A, Fowler D. Sexual health and HIV health promotion in general practice review project. Sydney: NSW Health Department, 2004.

- resources that can be used during consultation (e.g. more detailed information on relative risk of different practices);
- education on doctor/patients communication; and
- identification of strategies to improve uptake of referral.

As part of this review, a number of clinicians were interviewed. They supported much of what has already been stated. They value having education resources that they are able to hand to clients. They believe this provides important reinforcement of the information and education that happens between the clinician and patient. While all felt it was important to ensure that concise and accurate factual information was available, many clinicians also discussed the importance of making the information personally relevant to patients and emphasised that such resources needed to consider how to assist people with behaviour change (in recantation that information alone was often insufficient).

They also identified the importance of ensuring training was available for clinicians that enable them to develop their skills in addressing risk behaviour among their patients.

3.3 Summary

Sexual health clinics and general practices are important sites for HIV testing among gay men. However, the capacity to implement prevention and health promotion programs between such settings will vary significantly.

Health promotion interventions intended to be used by general practice need to be particularly cognisant of their time restraints due to the system of remuneration and skill level in addressing HIV prevention.

Given these constraints, the development of resources is one appropriate health promotion intervention. The RACGP has identified the importance of prevention education resources. Research with GPs in NSW has identified most value having sexual health education resources to hand to patients. Consultations with GPs with a high gay caseload in NSW has also identified that they would value suggestions that assist them intervening with patients engaging in high risk behaviour and having resources available that can be used during consultations.

4. THEORETICAL APPROACHES AND MODELS

Health promotion interventions can be usefully informed by a range of theoretical approaches and health behaviour change models. Such models and theoretical approaches can provide insight into how to effectively support gay men in reducing their HIV risk reduction taking behaviour.

While there are many models that can inform the development of health promotion interventions, we have outlined four models that frequently informed the published literature that we identified as part of this review. The models include the Health Belief Model, AIDS Risk Reduction Model, Stages of Change Model, and Information-Motivation-Behavioural Skills Model.

QAHC also identified that it was considering developing a workbook using motivational interviewing and cognitive behavioural approaches. Such approaches frequently informed the development of health promotion interventions identified during this review. We have provided an outline of these approaches.

4.1 Models

The models identified below primarily focus on individual behaviour change, rather than models that focus on social theories, or structural and environmental changes. This is appropriate given the focus of this review is to identify interventions that have been effective at encouraging gay men at the time of HIV testing to reflect on their behaviour and consider how they might want to change their behaviour. However, other models continue to be important as they provide insight into ways to ensure individual commitment to risk reduction behaviour change is supported and sustained.

Each of the models outlined below can provide some insight into promoting behaviour change, however it also needs to be recognised that each model has its own particular strengths and weaknesses in explaining how to support and sustain individual behaviour change.

Health Belief Model

This model postulates that the following factors need to be addressed to maximise the likelihood of behaviour change:

- perceived susceptibility;
- perceived seriousness of a condition;
- belief in effectiveness of new behaviour;
- cues to action;
- perceived benefits of preventive action; and
- barriers to taking action.

This model is often considered limited, particularly in regards to explaining sexual behaviour change, as it assumes awareness and knowledge is adequate to shift behaviour.

AIDS Risk Reduction Model⁹

⁹ Catania J, Kegelas S, Coates T. Towards an understanding of risk behaviour: an AIDS Risk Reduction Model. Health Education Quarterly 1990; 17(1):53-72.

The AIDS Risk Reduction Model contends that there are three stages of activities that a person must engage in to reduce the risk of acquiring HIV. They are:

- behaviour labelling
- commitment to change
- taking action.

An at risk person must at first recognise and label their behaviour as risky. This requires knowledge of the risk factors of HIV transmission, awareness of personal susceptibility and believing that acquiring HIV is undesirable. Once a person has labelled their behaviour as risky they must make a commitment to change. A commitment to change is shaped by self-efficacy, a belief that the cost of risky behaviours outweighs the benefits, and social support for behaviour change. Taking action is influenced by having the skills to change behaviour and the ability to seek appropriate help.

Interventions focus on:

- client perception of risk;
- influencing the decision to reduce risk through perceptions of enjoyment or self efficacy; and
- client support to enact change (e.g. access to condoms, social support).

Stages Of Change Model¹⁰

The Stages Of Change Model was originally developed for smoking cessation. It has, however, become more widely used as a model to guide health promotion interventions addressing a range of health issues, including HIV. Five basic stages of change have been identified:

- precontemplation – describes individuals who are not seriously thinking about behaviour change;
- contemplation – is the period of time when a person seriously considers thinking about behaviour change;
- preparation – is the stage which a person make a serious commitment to change;
- action – is where behaviour occurs; and
- maintenance – requires sustaining the behaviour change.

Relapse in some cases has also been identified as a six stage.

Interventions will differ depending on what stage an individuals is at. For example during the precontemplation stage the role of health care providers may be to raise awareness. Prior to action, the role of health care providers might be to assist individuals recognise the benefits of change and help them to identify barriers to changes. Health care providers role, once change has occurred, might be to follow up with patients to ensure the behaviour is sustained.

Research across twelve behavioural problems identified that increasing the pros of changing can help people shift from precontemplation to contemplation. And to shift people from contemplation to action, interventions should focus on decreasing the cons of changing.

Information-Motivation-Behavioural Skills Model¹¹

¹⁰ Prochaska J, Velicer W, Rossi J, et al. Stages of change and decisional balance for 12 problem behaviors. Health Psychology 1994; 13(1): 39-46.

This model argues that information, motivation and behavioural skills are critical factors in HIV prevention.

According to this model, HIV risk behaviour is generally caused by deficits in an individual's level of knowledge, motivation and behaviour skills. In order to increase preventive behaviour, these deficits must be identified and addressed.

The model acknowledges that specific information, motivational and skills factors will vary as a function of culture, class, economics, environment and life circumstance and that, therefore, interventions need to be developed that are specific for population groups.

4.2 Self-justifications – A cognitive approach

Gold has presented a cognitive approach to AIDS education that focuses on thinking processes which accompany gay men's decisions to engage in high-risk sex. Gold proposes that:¹²

1. Gay men generally engage in an 'internal dialogue' at the time they are deciding to have high-risk sex that justifies this decision to themselves.
2. The AIDS-related thinking underpinning such self-justifications can differ from the AIDS-relating thinking that takes place outside the sexual context.
3. AIDS education should exploit the difference between 'heat of the moment' and 'cold light of day' thinking.

Gold has identified a range of self-justifications that gay men use.¹³ The self-justification most commonly reported by young HIV negative gay men was, 'This guy look so healthy, he can't possibly be infected', while among older HIV-negative gay men the most commonly reported justification was, 'It'll be safe to fuck without a condom, so long as we don't cum up the arse. So we'll just fuck without cumming'. While many of these self-justifications may still hold true, the research on self-justifications took place in the early nineties. Since then changes in the medical treatment of HIV and general perceptions of the seriousness of HIV, may have impacted upon some of the self-justifications gay men use.

Gold has implemented interventions studies that try to get gay men to reflect on and evaluate, in the cold light of day, the thinking they had used in the heat of the moment when having unprotected anal intercourse. A number of conditions were identified for this sort of intervention to be effective. Firstly, gay men need to want to change their behaviour. If they do not see what they are doing as unsafe or if they are unconcerned about what they are doing then the intervention is unlikely to have an impact. The intervention is designed for men who want to remain safe but nevertheless find themselves slipping up. Secondly, the premise underlying the intervention is that self-justifications arise when gay men are deliberately deciding to do something they know may be dangerous. And thirdly, the intervention has to grab their attention strongly.

¹¹ Fisher J, Fisher W. Changing AIDS-risk behavior. *Psychological Bulletin* 1992; 111:455-474.
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¹² Gold R. AIDS education for gay men: Towards a more cognitive approach. *AIDS Care* 2000; 12:267-271.

¹³ Gold R, Skinner M, Ross M. Unprotected anal intercourse in HIV-infected and non-HIV-infected gay men. *The journal of sex research* 1994; 31:59-77

Randomised control studies were used to test the impact of two different interventions. In one intervention trial, the intervention was delivered via a questionnaire.¹⁴ For the other trial self-justifications used standard HIV prevention posters that dealt with common self-justifications.¹⁵ Gold found that using posters did not appear as effective as using a questionnaire. In fact then men exposed to the posters were no less likely to slip up than were those in the control group. Gold believes, given that sample selection and methodology was similar for both studies, that the explanation lies in the in the intervention. For an intervention to be effective it has to be personally relevant. The posters were simply not as good as the questionnaire at involving men in the intervention. Information that is perceived as relating to the self receives deeper, more extensive processing than information that is not perceived as relating to self. Men need to feel as if they are being confronted with their own thinking during sex.

Importantly, following both studies, Gold identified that the men's off-line reflection on self-justifications was the effective component in behaviour change rather than simply identifying a risk-taking situation.

4.3 Motivational interviewing¹⁶

Motivational interviewing offers a practical approach to delivering a cognitive model of risk reduction. It is a client-centred counselling approach for helping clients to resolve ambivalence towards behaviour change. Motivational interviewing has been described as more a style of therapy than a set of particular techniques.

The client centred approach means that the particular way of thinking and concerns of clients are drawn out. Motivational interviewing is designed to generate motivation in clients. Motivational interviewing has been applied in a range of programs targeting a variety of health behaviours.

There are five principles to motivational interviewing:¹⁷

1. Express sympathy – allow clients to explore problems in an atmosphere of trust.
2. Develop discrepancy – motivational interviewing depends on creating a dissonance state where clients' goals are seen to be in conflict with their behavioural patterns.
3. Avoid argument – if a counsellor engages in argument, a client may attribute their dissonance discomfort to the effects of personal conflict rather than cognitive inconsistency.
4. Roll with resistance – those in a state of dissonance will seek the method of resolving which involves the least psychological efforts.
5. Support self efficacy – clients who feel that their intentions to change can be translated into actions are more likely to have a good outcome.

¹⁴ Gold R, Rosenthal D. Preventing unprotected anal intercourse in gay men: a comparison of two intervention techniques. I. *International Journal of STD and AIDS* 1995; 6: 89-94.

¹⁵ Gold R, Rosenthal D. Examining self-justifications for unsafe sex as a technique of AIDS education: the importance of personal relevance. *International Journal of STD and AIDS* 1998; 9: 208-213.

¹⁶ Miller W. Motivational interviewing: research, practice, and puzzles. *Addictive Behaviors* 1996; 21: 835-842.

¹⁷ Miller W, Rollnick S. Motivational interviewing: preparing people to change addictive behaviors. New York: Guilford 1991 in Draycott S, Dabbs A. Cognitive dissonance 2: a theoretical grounding of motivational interviewing. *The British Journal of Clinical Psychology* 1998; 37(3): 355-364.

Using these principles, the classic confrontational approach in which the therapist asserts the need for change while the clients denies it is avoided. Instead the counsellor elicits from the clients and reinforces reasons for change. The goal is to motivate the client to see the discrepancy between their behaviour and desired goals, thereby triggering behaviour change.

There are range of techniques used during motivational interviewing. Many of these techniques are mainly applicable in counselling sessions, where there is face-to-face contact. For example reframing what a clients says by allowing the basic observation but reinterpreting them in a way that favours change. However, some of these techniques could be used in the development of a resource. For example techniques include:

- asking open questions about how a clients feels about their state, how it affects their life;
- asking clients to elucidate goals that are important to them and how problem behaviour affects them;
- asking for information on how a behaviour episode normally proceeds; and
- asking clients to develop a balance sheet that outlines the reasons for giving up the problem behaviour and reasons for retaining it.

Motivational interviewing has traditionally been using in clinical settings in one-on-one counselling sessions with patients. However, increasingly it is been used to inform a variety of interventions that have been developed for different settings.

One example of how motivational interviewing has informed the development of an intervention is the Positively Latino Program. It uses motivational interviewing techniques during four one-on-one counselling sessions.¹⁸ The process involves identifying the clients current sexual practice. This includes examining the alcohol and substance use and how this might impact sexual risk. After their practice has been identified a change plan worksheet is developed. The worksheet includes a plan of action, a target date, and what might interfere with that change. The worksheet asks open-ended questions such as:

- "The changes I want to make are..."
- "The most important reasons I want to make these changes are..."
- "The main goals for myself making these changes are..."
- "I plan to do this to reach my goals..."

In section 5.3, we profile in detail two other examples of projects that have used motivational interviewing.

4.4 Summary

A range of models and theoretical approaches can usefully inform the development of health promotion interventions. Such models and approaches are not intended to provide a definitive answer to how to effectively promote behaviour change, but they are able to provide a robust framework for developing interventions.

In the next section we examine what interventions have proven to be effective, and identify what models and theoretical approaches they have used and how they put such approaches into practice.

¹⁸ Motivational interviewing seeks specific solutions. interventions shift responsibility to the clients. AIDS Alert 19.10 (Oct 2004): 115(2)

5. EFFECTIVE INTERVENTIONS AT THE TIME OF HIV TESTING

There is a significant body of published research identifying effective interventions to reduce the risk of HIV infection among gay and other homosexually active men. A recent meta-analysis of behavioural interventions for men who have sex with men showed that interventions focused on interpersonal skills related to risk reduction can reduce self-reported episodes of unprotected anal intercourse.¹⁹ There have been other publications that show that interventions should also target use of alcohol and recreational drugs, social norms encouraging risk taking, enjoyment of risk-related sexual behaviour and life events as environments that trigger risk taking.^{20,21} However, the scope of this review has been to specifically focus on health promotion interventions at the time of HIV testing. There is less evidence of interventions that are effective at the time of HIV testing. The majority of interventions identified involve one-on-one or group counselling sessions.

It is important to be cautious in interpreting the applicability of this research within Australia. Frequently the interventions take place within publicly funding health services, While such interventions may be able to be more easily replicated in publicly funded sexual health services in Australia they may have less relevance to general practice. It is also important to bear in mind that often the health promotion interventions that are trialled as part of research projects have resources available to them that are not normally available in clinical or community settings thereby reducing the ability of such interventions to be implemented in non-trial conditions or without additional funding being made available.

5.1 Prevention counselling

A substantial body of research has been published that examines the impact of counselling on HIV risk behaviour. Most of the counselling interventions, though not all, occur at the time of HIV testing.

The effectiveness of HIV counselling on changing sexual risk behaviour was reviewed in 1999.²² The meta-analysis examined published research from 1985 to 1997. The review included 27 published studies that provided sexual behaviour outcome data, assessed before and after counselling and testing. A key conclusion of the study was that HIV counselling and testing appears to be an effective means of secondary prevention for HIV positive individuals but, as conducted in the reviewed studies, is not an effective primary prevention strategy for uninfected participants.

HIV positive individuals who underwent counselling increased their safe sex behaviour and reduced their risk behaviours, thereby decreasing the likelihood of infecting others or becoming reinfected with HIV or other STIs. HIV-negative individuals did not modify their risk behaviour, after counselling and testing, more than untested participants. However, the review found inadequate attention had been paid to the psychological and social contexts of testing, the theoretical grounding of counselling, and the type and amount of

¹⁹ Johnson W, Hedges L, Ramirez G, et al. HIV prevention research for men who have sex with men: a systematic review and meta-analysis. *Journal of Acquired Immune Deficiency Syndrome* 2002; 30(suppl1):s118-29.

²⁰ Stall R, Hays R, Waldo C, Ekstrand M, McFarland W. The gay '90s: a review of research in the 1990s on sexual behaviour and HIV risk among men who have sex with men. *AIDS* 2000; 14(suppl 3):s101-14.

²¹ Strathdee S, Hogg R, Martindale S, et al. Determinants of sexual risk-taking among young HIV-negative gay and bisexual men. *Journal of Acquired Immune Deficiency Syndrome Human Retroviral* 1998; 19: 61-66.

²² Weinhardt L, Carey M, Johnson B, Bickham N. Effects of HIV counselling and testing on sexual risk behaviour: A meta-analysis. *American Journal of Public Health*; Sep 1999; 89, 9; 1397

counselling provided. The authors identified that a closer examination of these factors may reveal that HIV counselling and testing is effective with HIV-negative individuals under some circumstances.

The meta-analysis above contrasts with more recent and comprehensive research that has examined the effectiveness of voluntary counselling and testing in Kenya, Tanzania and Trinidad.²³ Voluntary counselling and testing (VCT) has been strongly advocated as key strategy to prevent HIV transmission in developing countries. It is advocated for on the grounds that it provides an opportunity for education and behaviour change, and that knowledge of serostatus allows individuals to plan, make important life decisions, and to seek care and support. The research has sought to determine the efficacy of VCT in reducing unprotected intercourse. The study of 3120 individuals and 586 couples examined the efficacy of VCT as compared to the provision of basic health information. It found the proportion of individuals reporting unprotected intercourse with non-primary partners declines significantly more for those receiving VCT than those receiving health information. Among men, there was a 35 per cent reduction with VCT compared to 13 per cent for those receiving health information. Among women, there was a 39 per cent reduction with VCT compared to 17 per cent for those receiving health information. The researchers in this trial are critical of previous studies evaluating the effectiveness of VCT as they believe such study designs were largely observational and were complicated by a variety of confounding factors.

Apart from the study of VCT, since the meta-analysis was conducted further research studies have occurred that have paid more attention to the nature, frequency and type of counselling provided. Project RESPECT was a large multi-centred randomised controlled trial conducted in the U.S.A that aimed to assess the efficacy of counselling to prevent HIV infection and other STIs.²⁴ The trial was conducted from 1993 to 1996 among patients from public inner-city STD clinics. The study looked at the effects of interactive HIV/STD counselling interventions compared to brief didactic prevention messages that they identified as typical of current practices. The counselling intervention consisted of four arms. One arm trialled an enhanced counselling intervention (four sessions). The second arm trialled a brief counselling intervention (two sessions). Participants in the third and fourth arm each received two brief didactic message.

The four-session enhanced counselling intervention, based on the theory of reasoned action and social cognitive theory, sought to change self-efficacy, attitudes and perceived norms. Sessions included behavioural goal-setting and agreeing to a longer-term risk-reduction plan. The two session brief counselling intervention, was modelled on Centers for Disease Control HIV counselling guidelines, they aim to assess actual and self-perceived risk, to help participants recognise barriers to risk reduction, and to negotiate an acceptable and achievable risk reduction plan. The didactic arms of the trial involved brief messages (5 minute duration) about HIV and STI prevention being delivered.

This trial was the first of its kind to report that counselling leads to a reduction in STIs. The study found that participants in both the enhanced and brief counselling interventions had fewer new STIs as compared with those who just received didactic messages. They found that the four session enhanced counselling and the much shorter two-session brief counselling had equivalent STD reduction. Participants who received the enhanced counselling or brief counselling intervention evidenced a 30 per cent reduction in new STIs over 6 months and a 20 per cent reduction over 12 months compared with those in the didactic messages arm. The STI reduction occurred among both men and women.

²³ The efficacy of voluntary HIV-1 counselling and testing in individuals and couples in Kenya, Tanzania, and Trinidad: a randomised trial. *The Lancet* 2000; 103-112.

²⁴ Kamb M, Fishbein M, Douglas J, et al. Efficacy of risk-reduction counselling to prevent human immunodeficiency virus and sexually transmitted diseases. *The Journal of the American Medical Association* 1998; 280(13): 1161-1167.

The effect of the intervention was strongest early in follow up, during the first six months after the intervention. The authors believe that timing may be an important element for intervention success, as the risk reduction intervention was delivered to those individuals who were seeking STI testing and treatment the participants may have been more amenable to behaviour change. The finding that the four-session enhanced counselling and the much shorter two-session brief counselling had equivalent STI reduction is good news for public health programs. Other research has also reinforced that brief counselling intervention can be effective.

Another study used Gold's work on self-justifications to develop a brief counselling intervention. The intervention with men who have sex with men included a standard HIV counselling session and an additional single one hour counselling intervention focused on a re-evaluation of a person's self-justifications operant during a recent occasion of high risk behaviour. The additional counselling intervention focussed on the thoughts, attitudes or beliefs that allow the participant to engage in high risk sexual behaviours. The trial found that a counselling intervention focused on self-justification decreased high-risk sexual behaviour beyond that achieved by standard HIV counselling and testing alone.²⁵

Another brief intervention counselling session, this time based on the information-motivation-behavioural skills model, was conducted with men and women receiving STI clinic services.²⁶ The study found that a brief single-exposure HIV prevention counselling session, informed by the information-motivation-behavioural model can reduce HIV transmission risks. The study aimed to assess what elements of the model were most effective at reducing risk behaviour. Positive outcomes were most effective for men. Men who received the information-motivation-behavioural session demonstrated the greatest skills-building benefits and relatively lower rates of unprotected intercourse. However, as with a number of other studies, the authors noted that the impact of such an intervention is likely to only be effective in the short term. They noted that at the 9 month follow up the effects dissipated.

Similarly a brief HIV risk reduction counselling intervention with women, also using the information-motivation-behavioural skill model, found that even a single session two hour one-on-one session can be effective at improving rates of condom use.²⁷

Brief intervention counselling sessions have also been found to be effective with injecting drug users. Two studies with injecting drug users evaluated the behavioural effects of brief counselling sessions.²⁸ One study randomised participants to receive either a 50-minute experimental counselling session or a packet of education brochures. The second study was modified so that the experimental counselling occurred in the context of notifying drug users of their HIV test results. Half received a standard 15 minute post-testing counselling session, and half received an enhanced 50 minute post-testing counselling session. All participants in the second study received standard pre-test counselling. The study found that there was a substantial decreases in injection-related

²⁵ Dilley J, Woods W, Sabatino J. Changing sexual behaviour among gay male repeat testers for HIV: A randomised, controlled trial of a single-session intervention. *Journal of Acquired Immune Deficiency Syndromes* 2002; 30(2): 177-186

²⁶ Kalichman S, Cain D, Weinhardt L, et al. Experimental components analysis of brief theory-based HIV/AIDS risk-reduction counselling for sexually transmitted infections patients. *Health Psychology* 2005; 24(2): 198-208.

²⁷ Belcher L, Kalichman S, Topping M, et al. A randomized trial of a brief HIV risk reduction counselling intervention for women. *Journal of Consulting and Clinical Psychology* 1998; 66(5): 856-861.

²⁸ Gibson D, Lovelle -Drache J, Young M, Hudes E, Sorensen J. Effectiveness of Brief Counseling in Reducing HIV Risk Behavior in Injecting Drug Users: Final Results of Randomized Trials of Counseling with and Without HIV Testing. *AIDS and Behavior* 1999; 3(1).

and sexual risk behaviour among subjects in both conditions and in both studies, even among those who received the very minimal intervention of being handed some educational brochures. While the researchers concluded that many drug users may not require intensive counselling to reduce risk practices, they acknowledged that reduction in risk behaviour that occurred was probably a consequence of participating in the research project. In particular they suspect that the baseline interview which involved 120 questions and took 30 minutes to administer resulted in many drug users reflecting on how their behaviour put them at risk of HIV infection.

Apart from brief interventions, more comprehensive counselling has also been found to be an effective intervention with injecting drug users. One study examined the impact of a six-session cognitive-behavioural intervention for pregnant injecting drug users who were also on the methadone maintenance treatment program.²⁹ The intervention sessions were conducted individually, lasted between 60-90 minutes and focussed on the acquisition of different skills. The intervention included the use of motivational interviewing techniques. The research highlighted that those who received the intervention, as compared to those who were only on the methadone maintenance treatment program and received no intervention, reduced the needle risk associated drug use. The researchers however note that there is a relatively high cost to the intervention and as a result it may be necessary to limit it to subgroups of injecting drug users.

Like the study above, The EXPLORE study evaluated a counselling intervention that consisted of ten one-on-one counselling sessions followed by a maintenance session every three months with men who have sex with men.³⁰ The study found that not only did the intervention reduce high risk behaviour, but that the intervention was associated with an 18.2 per cent lower rate of acquisition of HIV infection. Further analysis of the data is aimed to develop more effective behavioural interventions, particularly if there are subpopulations of men for whom the intervention was more beneficial.

While the outcomes from Project Enhance have yet to be published, the project has highlighted that there may be benefits in working with gay and other homosexually active men with HIV to reduce risky sexual behaviour within clinical settings. The intervention has occurred within a community health centre that is the largest provider of HIV care within Boston.³¹ The project was conducted by trained peer interventionists and uses information, motivational interviewing and behavioural change as its base. The intervention consists of nine individual counselling sessions completed over two years and, unlike the other interventions identified, was an HIV positive peer-led intervention. The project reports that the intervention has proved to be an appropriate model to use within an existing community health centre, and has proven acceptable and relevant to both patients and providers.

More intensive risk-reduction counselling sessions have also been trialled with high-risk heterosexual adults attending an STI clinic.³² The intervention consisted of four individual 60 minute sessions over four consecutive weeks. Each session was facilitated by a trained intervention counsellor. The intervention was based on the AIDS risk-reduction

²⁹ O'Neill K, Baker A, Cooke M, Collins E, Heather N, Wodak A. Evaluation of a cognitive behavioural intervention for pregnant injecting drug users at risk of HIV infection. *Addiction* 1996; 91(8): 1115-1125.

³⁰ The EXPLORE Study Team. Effects of a behavioural intervention to reduce acquisition of HIV infection among men who have sex with men: the EXPLORE randomised controlled study. *The Lancet* 2004; 364: 41-50.

³¹ Knauz R, Safren S, Driskell J, et al. Developing a secondary prevention behavioural intervention for HIV infected MSM within a community health center. Paper presented at National HIV Prevention Conference, Atlanta, Georgia, June 12-15, 2005.

³² Boyer C, Barrett D, Peterman T, Bolan G. Sexually transmitted disease and HIV risk in heterosexual adults attending a public STD clinic: evaluation of a randomized controlled behavioral risk-reduction intervention trial. *AIDS* 1997; 11: 359-367.

model. The intervention aimed to increase prevention knowledge, reduce high-risk psychosocial factors, and build decision-making and communication skills to modify sexual behaviours. This randomised control trial focused on the efficacy of a cognitive/behavioural skills-building intervention to prevent sexually transmitted diseases in high-risk heterosexual adults. The study found that while the intervention did not have a significant impact on risk behaviours in women, it had some impact on behaviours in men. Among men condom use increased more among the intervention group than the control group and the mean number of sexual partners without condom use was lower in the intervention groups than the control group. However the study also found that there was no difference in the acquisition of STIs between the intervention and control groups.

Apart from one-on-one counselling sessions, studies have also indicated that group counselling within clinic settings can also be effective. One study has shown group counselling at STD clinics to promote use of condoms to be effective among men at reducing STIs.³³ The intervention consisted of a short group discussion on condom use, a presentation of a videotape portraying condom use as socially acceptable behaviour, and a role-playing session concerning negotiating the use of a condom with one's sex partner.

5.2 Other interventions at the time of HIV testing

Apart from counselling interventions, the review of published and unpublished data identified a limited range of interventions that have been conducted and reported on at the time of HIV and other STI testing. The use of video-based education within sexual health clinics was identified, as well as two other projects that have developed resources for clinicians to use at the time of HIV testing.

Video-based education

A variety of studies have examined the impact of video-based education within sexual health clinics on improving knowledge, influencing attitudes that support safe sex behaviour, increasing treatment compliance and condom use, and increasing acquisition of condoms.^{34,35} While there have been studies to assess the impact of videos on patient knowledge and attitudes, there has been limited evidence to conclude they can have a positive impact on long-term behaviour change or health outcomes. One intervention, however, aimed to evaluate the efficacy of video-based patient education in reducing STI infections subsequent to a clinic visit.³⁶ The study involved African-American and Hispanic men attending a large public STD clinic. The study identified that patients seeking diagnostic and treatment services at inner-city public STD clinics are at high risk of acquiring new STI infections subsequent to their clinic visits. Thus, providing effective prevention service to patients at the time of their clinic visit can have significant impact on risk taking. The video featured information about STIs and their prevention, portrayed positive attitudes about condom use, and modelled strategies for encouraging condom use. The study found that the overall rate of new infections among patients who were exposed to the video-based interventions were significantly lower than those who just

³³ Cohen D, MacKinnon D, Dent C, Mason H, Sullivan E. Group counselling at STD clinics to promote use of condoms. *Public Health Report* 1992; 107(6): 727-731.

³⁴ O'Donnell L, Doval A, Duran R, O'Donnell C. Video-based sexually transmitted disease patient education: its impact on condom acquisition. *American Journal of Public Health* 1995; 85(6): 817-821.

³⁵ Solomon M, DeJong W. Preventing AIDS and other STDs through condom promotion: a patient education intervention. *American Journal of Public Health* 1989; 79(4): 453-458.

³⁶ O'Donnell C, O'Donnell L, Doval A, Duran R, Labes K. Reductions in STD infections subsequent to an STD clinic visit: using video-based patient education to supplement provider interactions. *Sexually Transmissible Diseases* 1998; 25: 161-7.

received regular clinical services. Among those reporting multiple sex partners, two or more, the impact of the educational intervention was greatest. It found that there was a 12 per cent reduction in the rate of new STI infections over an average 17 months follow up and 23 per cent reduction in rates of new infections among subjects with multiple sex partners. Undoubtedly, a major advantage of video-based approach is that there is not an increased time burden placed upon physicians. The video seems particularly effective at increasing knowledge levels and attitudes towards condoms. It is unclear that such an approach would be as effective among gay men where high knowledge levels and condom use already exist.

***Heat of the moment* booklet**

In the United Kingdom, as in Australia, gay men have high levels of knowledge about HIV and how to prevent its transmission. Despite such knowledge, many gay men continue to engage in sexual practice that may put them at risk of HIV infection. Interventions are needed that go beyond the provision of information. The *Heat of the moment* booklet was an attempt to develop a resource that goes beyond just information provision.

The *Heat of the moment* is a booklet for gay and other homosexually active men who want to stay HIV negative. The booklet was developed by the Terrence Higgins Trust for sexual health clinic staff to hand to clients at brief (approximately 10 minutes) post HIV test discussions. Staff would only provide a cursory explanation of the contents of the booklet as part of the post-test discussion. It was thought that gay men would be more receptive to receiving the booklet in post-test discussions, rather than pre-test discussions.

The booklet consists of a series of structured exercises that are designed to encourage the reader to reflect on past sexual behaviour that were risky for HIV and consider how in the future they may be able to avoid such risks. It provides examples of the 'hot thoughts' men use to justify taking sexual risks and then encourages readers to identify their own 'hot thoughts' that they use during the middle of sex. It then encourages readers to re-examine those thoughts in the cold light of day. The booklet asks readers to identify if they are able to commit themselves to being safe and to identify rules that they can follow to keep safe.

Readers are asked to write responses to questions that ask them to:

- make a commitment to stay HIV negative and stick to your own safe sex rules;
- identify their own 'hot-thoughts' that they have used when having sex;
- describe the last time they had unsafe sex including the place, the day of the week, who it was with, where you had sex, the time of the day, their 'hot-thoughts' and when you thought about HIV;
- identify their own rules for sex; and
- identify how to respond to their own 'hot-thoughts' next time they hear them in their head.

The booklet was informed by cognitive behavioural and motivational interviewing theory and practice. The booklet draw extensively upon Gold's studies exploring on-line and off-line thinking. While cognitive behavioural and motivational interviewing techniques have proven effective when used during counselling sessions, the booklet was an attempt to assess whether the same techniques could be applied within a print resource.

An evaluation was conducted to test the acceptability, accessibility and effectiveness of the booklet with the target audience.³⁷ Of the 48 men who were eligible for inclusion within the study, 21 men agreed to participate in a telephone administered evaluation survey. Of these 21 participants, three men then agreed to further participate in a follow-up qualitative telephone interview. The evaluation results should be interpreted cautiously due to the small sample size.

On average it took participants 25 minutes to read the booklet. All participants, across educational levels, found the booklet 'very easy' or 'easy' to read. All participants acknowledged that the booklet had relevance to their own risk taking behaviour, with 10 respondents indicating that it was very relevant and 11 respondents indicating that it had some relevance.

Nearly all the men felt the booklet was effective in promoting reflection on their own behaviour. Most participants also found the booklet was 'very useful' or 'useful'. Only one person found that the booklet was not very useful and stated that they didn't learn anything that they could apply. All other respondents stated that they had learned something that they could apply.

Three themes emerged from the qualitative interviews. The respondents indicated that the booklet had resonance and enhanced post test discussions with health staff, particularly in comparison to previous occasions of testing. The booklet was seen to reinforce what participants already knew or were thinking. The second theme that emerged was that the booklet was seen as effective at illustrating the gap between thoughts and actual behaviour. Finally, participants felt that the booklet motivated them to change their behaviour.

Some criticisms were offered of the booklet by participants in the evaluation. It was felt that the booklet needed to better profile the influence of drugs and alcohol on behaviour. Participants also suggested that time with clinical staff was enhanced by active engagement with the written material afterward, and the booklet was less helpful without discussion with clinic staff.

As with other trials using motivational interviewing, this evaluation was focussed on recruiting participants who had indicated they were 'open to receiving a health promotion intervention' and therefore had some willingness to at least explore changing their behaviour. This, of course, may impact upon whether such a resource will be useful with a broader mix of gay men.

The evaluation concluded that the approach used by the booklet helped achieve a degree of self-reflection on gay men's risky sexual behaviour. That it was an acceptable and accessible critical reflection tool. Importantly, the evaluation also identified that the booklet adds value to post test discussion with health professionals.

The S. A. F. E Assessment Screening Tool

The *S.A.F.E Assessment Screening Tool* was produced by South Eastern Sydney Illawarra Area Health Service and NSW Health.

The motivation to develop the tool was in response to GPs with a high gay caseload expressing their concern about how to work with patients that were signalling some level of discomfort with their sexual behaviour and/or drug use.

³⁷ Pollard A, George H, Ottewill M. Development and evaluation of a resource for HIV post-test discussions: the '*Heat of the Moment*' – a critical reflection tool to promote HIV risk reduction for men who have sex with men. Unpublished paper.

The tool presents a range of questions to explore with patients who are at risk of HIV and STIs. The tool draws upon a stages of changes model that acknowledges patients may be at different stages that can include precontemplation, contemplation, ready for action, action and maintenance and relapse prevention. At each stage a different approach and set of questions may be required to assist patients. The tool draws upon motivational interviewing techniques as way of prompting critical reflection by patients.

The tool is currently being evaluated to assess its usefulness and the impact that it has had.

Prevention interventions with people with HIV

Within the United States there has been an increasing emphasis given to prevention programs targeting people with HIV to prevent further HIV transmissions. While not within the scope of this review, it is useful to highlight the SAFE initiative and the strategies they have identified to reduce HIV transmission.

The CDC has launch a new strategy for HIV Prevention called the Serostatus Approach to Fighting the Epidemic (SAFE).³⁸ SAFE is aimed at those who are infected with HIV – including those currently unaware of their serostatus – as well as those who have been tested and found to be uninfected but are at continued high behavioural risk. The five SAFE steps include:

1. Increase the number of HIV-infected persons who know their serostatus;
2. Increase the use of health care and preventive services;
3. Increase high quality care and treatment;
4. Increase adherence to therapy by individuals with HIV; and
5. Increase the number of individuals who adopt and sustain HIV-STI risk reduction behaviour.

SAFE has a significant clinical intervention focus which recognises that there is a public health benefit and individual health benefit in people with HIV monitoring their viral load, taking antiretroviral treatments and adhering to their treatment regime. The premise underpinning this approach is that antiretroviral treatment reduces infectivity, which therefore reduces the risk of HIV transmission.

Many of the other SAFE strategies advocated by the CDC are focussed on interventions within clinical settings. For example physicians who provide HIV care to people with HIV need to assess the risk behaviour of their patients, provide HIV prevention counselling with sexually active HIV positive people, as well as screening for other STIs.

The weakness inherent in the SAFE approach is that while it identifies the need to increase use of prevention services by people with HIV there is little evidence that indicates which programs are likely to be accessed and have proven to be effective with HIV people in reducing risk behaviour. Additionally, there is very little acknowledgement that the motivations to practice safe sex are significantly different between people who are HIV negative and those who are HIV positive.

³⁸ Janssen R, Holtgrave D, Valdiserri R, Shepherd M, Gayle H. The serostatus approach to fighting the HIV epidemic: prevention strategies for infected individuals. *American Journal of Public Health* 2001;91(7):1019-1024.

5.3 Two case studies of interventions using motivational interviewing

Motivational interviewing has informed the interventions in a number of the studies reviewed. The two interventions we profile below also use motivational interviewing techniques. The published reports on the interventions are particularly illuminating as they provide a detailed account of the types of questions that were asked of participants. The types of questions that they asked can provide a useful starting point for any intervention that is developed by QAHC.

Motivational interviewing in commercial and public sex settings³⁹

This research study examined the use of motivational interviewing in a non-clinical setting. The study explored the feasibility of using motivational interviewing and cognitive interventions to reduce HIV risk taking in commercial venues and public sex environments. Given the setting, the intervention was designed to be brief, while still being able to highlight discrepancies between desired and actual behaviour. The focus was primarily on assessing whether such an intervention approach would prove feasible, with data collection being a secondary outcome of the work.

The intervention used a questionnaire schedule to encourage individuals to compare their desired behaviours versus actual behaviours (see table 1 below). Rather than impose a standard of 'safe sex', the research developed the notion of 'safe enough for me' as a way of dealing with the diverse attitudes of gay men. The schedule was completed at commercial and public sex environments. Clients could choose from a list of responses. Following completion of the schedule, an optional conversation was conducted. The conversation provided an opportunity to discuss the individual's responses. Forty volunteers were trained to implement the schedule and to conduct the conversational work.

The researchers reported that the schedule has been successfully implemented in both bars and cruising grounds, and proved to be feasible and acceptable to the volunteers and gay men who took part. High uptake of the schedule was reported with approximately 70-80 per cent participation in public sex environments and 80 per cent in bars. The volunteers who took part found it to be a useful tool in making in-depth contact with gay men at such spaces. The team, however, has as yet been unable to evaluate the outcomes of the intervention. They did note however that it has yielded a large number of sexual health focussed in-depth conversations with gay men and that the schedule augmented the value of outreach work with gay men.

<i>Opening</i>	Two simple demographic questions.
<i>Taking the client 'on-line'</i>	The client is asked to think about and identify all the places where he has had sex in the last year.
<i>Identify personal goals ('what is safe enough')</i>	The clients selects what constitutes their personal safe sex strategy (e.g. universal condom use, sero-concordant unprotected anal intercourse, negotiated safety).

39 Harding R. Motivational interviewing for HIV risk reduction among gay men in commercial and public settings. AIDS Care 2001; 13:493-501.

<i>Empathy and permission</i>	The notion that we aren't always 'as safe as we'd like to be' is introduced, and the impact of the 'heat of the moment'.
<i>Recognizing risk-taking cognitions</i>	The client identifies the self-justifications they have used during risk-taking contexts. A list of 32 self-justifications is provided.
<i>Highlight discrepancy</i>	The client is asked how many times in the last year he has not adhered to his own personal safe sex strategy.
<i>Implications</i>	The client is asked his HIV status.
<i>Open ended conversation</i>	The client is assisted in exploring his risk taking and selecting appropriate means for change.

A model for conducting post-HIV test counselling⁴⁰

The framework proposed for post-HIV test counselling combines motivational interviewing strategies with an informed understanding of successful intensive approaches to sexual behaviour change.

Open ended questioning is used to enable clients to gain new perspectives on their situation and to increase the range of choices clients believe they have in their lives. Approaches that produce far more client participation are more likely to be effective than approaches that focus solely on giving advice or prescriptive health education messages. The thrust of the model is encouraging persons to reevaluate or reframe their beliefs about sexual practices, to enable perceived choices to increase and for behaviour change to become more of a possibility.

From research on intensive HIV behaviour interventions, it is clear that counselling at the time of an HIV test needs to be tailored to the particular stage the individuals is at in relation to changing risky behaviour. While it is possible for HIV prevention interventions to be pursued in pre-HIV test discussions, there are other priorities at that time such as identifying risk, checking clients concerns about HIV and ensuring they understand the HIV antibody test. Anxiety about the possible test result will also make it difficult for clients to concentrate on future HIV prevention at pre-test session. In contrast, where the test result is known to be negative, the client will then consider future behaviour.

The table below outlines the sorts of questions which can be used by counsellors during a post-HIV counselling session.

Table 2: A model for conducting post-HIV test counselling	
Exploring the result	<i>What will be the effect of taking this test today? Having had this test today, what have you learned?</i>

⁴⁰ Norton J, Miller R, Johnson A. Promoting HIV prevention: a problem identification approach to interventions in post-HIV test counselling. *AIDS Care* 1997; 9(3):345-353.

Subsequent behaviour	<i>How might this experience affect what you do in the future? How do you want to go about things from now on?</i>
Remaining concrete	<i>What do you mean by 'safer'? How might you be more careful in the future?</i>
Being relevant	<i>How do you perceive the risk of HIV if you continue to do what you have been doing?</i>
Establishing goals	<i>What role does sex play for you in your life, and in your relationships? What do you like to get out of sex? If you were to have some goals in the area of sex, what might they be?</i>
Achieving goals	<i>How might your goals be met through safer sex? What other safer options are available to you in your relationship?</i>
Determining readiness to change	<i>If you had only safe sex, how might that affect your relationship now and in the future? How would using condoms all the time impact on the way you conduct and maintain your relationship?</i>
Negotiating a commitment	<i>What would have to happen to make it easier to use condoms all the time? What would make you more committed to changing the way you have sex to make it safer?</i>
Identifying barriers and risk situations	<i>What difficulties do you see in being safer? What sorts of situations or moods are dangerous for you in terms of risky behaviour?</i>
Devising alternative responses	<i>How might you respond if you found yourself in such a situation? If you were to take steps to avoid these dangerous situations, what might they be? If you were in a similar situation again, how might you go about things differently? What would help you in that situation? What would make it more difficult for you?</i>
Emphasising strengths	<i>What has been effective so far in helping you change things in your life? What lessons can you take from successful past experiences to help you in the future? What steps have you already taken to reduce your risky sexual behaviour? What sources of encouragement or help do you have to change your behaviour? What things make it difficult for you to change?</i>

Challenging beliefs and introducing new perspectives	<i>If the other person is not using a condom with you, what do you think they might be doing with someone else they have sex with? If the other person wants to have sex without a condom, do you ever think that it may be because they are already HIV positive and are not worried about being infected?</i>
Communication skills	<i>How might you go about telling a sexual partners what you want to do? If the other person does not want to use a condom, what might you do? How might you go about it?</i>
Shock tactics	<i>Now that you know you are negative, do you want to stay that way? Do you think you will stay negative, or will you continue to take some risks from time to time? Now that you are negative, what would becoming HIV positive in the future mean to you?</i>

5.4 Summary

With a few exceptions, much of the published data on effective health promotion interventions at the time of HIV testing, has primarily focussed on prevention counselling. There is an increasing body of evidence that demonstrates that counselling can be effective at reducing risk behaviour. Research, however, has highlighted that the impact the counselling will have is also dependent upon the type of counselling provided.

A number of the intensive counselling interventions that were identified as effective may not be able to be replicated outside of a research trial. Most of the interventions that were developed and implemented had additional funding attached. Without additional funding it is highly questionable that some of more the intensive counselling sessions could be implemented within the normal operations of publicly funded sexual health clinics or general practice. Furthermore, many of the interventions provide some payment to research participants for participation in the trial. The payments may act as a strong motivation to participate in the intervention and are likely to contribute to the high retention rate of many of the interventions. It is less clear whether such interventions would attract participants and maintain a high retention without financial incentives to participate.

More generally, counselling can be a very costly and resource intensive intervention. While the Centres for Diseases Control has recognised that counselling sessions can have a positive impact on individual risk taking behaviour, it has also recognised that such programs can be costly and that therefore such interventions need to be targeted at persons most likely to benefit from them.⁴¹

Fortunately, research has also shown that brief counselling interventions can be just as effective, particularly when the intervention has been based on models and theories that have demonstrated some success in reducing risk behaviours. Yet such interventions may not be effective at sustaining long term behaviour change. A number of the research projects that examined brief interventions only involved a one and three month follow up. Some of those that involved a longer term follow up, noted that the interventions were often strongest in the short term with the effects dissipating in the long term. This

⁴¹ Centres for Diseases Control. Revised guidelines for HIV Counselling, Testing and Referral. MMWR 2001; 50; 1-58.

highlights the difficulty of expecting a one-off intervention focused on producing individual behaviour change to be sustained in the long term.

Many of the counselling interventions that have proven effective at reducing HIV risk taking behaviour, used motivational interviewing that focussed on working with clients to get them to recognise the differences between their actual and desired behaviour. Motivational interviewing was developed as a tool to use within one-on-one counselling sessions. The strength of motivational interviewing is that it aims to focus on where the client is at. Given its emphasis on fostering dissonance, its perhaps not surprising that the interventions with gay men have used motivational interviewing in conjunction with the self-justification research conducted by Gold.

Apart from being used within counselling sessions, motivational interviewing has also been applied to other settings. If motivational interviewing techniques can be used in settings that are generally not easily conducive to health promotion discussions, such as in public sex settings, then it can quite feasibly be adapted to other settings.

The *'Heat of the moment'* booklet demonstrated that it is possible to develop a booklet that uses motivational interviewing and cognitive behavioural approaches as a way of getting gay men to reflect on their risk behaviour. While the sample size for the evaluation of the resource is small, it did indicate that such a resources could be acceptable and accessible for gay men willing to explore their sexual risk taking. While the use of Gold's self justification, or 'hot thoughts' as described within the booklet, was a key component of the resource, there was not clear evidence that it was the essential element of the text which made the booklet useful and relevant.

The evaluation of the booklet also indicated that it was used to inform post-test discussions between patients and clinic staff. What remains less clear is whether such a resource would be as effective if it was not used as a tool in post-test discussion with health care providers but merely handed to gay men for them to review and complete in their own time without follow up discussion.

6. RECOMMENDATIONS

Gay men test regularly for HIV. This provides an opportunity for QAHC to implement interventions at the time of HIV testing that can support gay men to reflect on their risk behaviour and plan for the future.

Currently, based on available research, it seems that gay men accessing HIV testing or HIV medical services such as post-exposure prophylaxis, does not lead to a reduction in risk behaviour. This requires us to reconsider the effectiveness of existing HIV prevention interventions at the time of HIV testing and explore new strategies that can be effective in reducing risk behaviour.

The review of literature sought to identify effective health promotion interventions at the time of HIV testing. Perhaps not surprisingly, much of the published literature focused on clinical interventions that involve single or multiple counselling sessions. Within publicly funded sexual health clinics the research on brief counselling interventions has somewhat more relevance due to most clinics including dedicated counselling positions, however, within general practice, where the overwhelming majority of HIV testing in Australia occurs, the ability to participate even in brief interventions, often between 60 to 90 minutes, is unrealistic without additional funding.

The review of effective counselling interventions did, however, identify that motivational interviewing has underpinned many of the interventions that achieved positive changes in behaviour. While motivational interviewing was primarily designed as a practical approach to counselling for behaviour, it has increasingly been applied in a range of non-counselling settings. The types of questions that have been used in previous interventions have been identified, and may lend themselves to use in the interventions QAHC develops.

While the review of published literature mainly identified interventions that used counselling at the time of HIV testing, a review of 'grey' or unpublished literature did identify a few other relevant interventions.

The *'Heat of the moment'* booklet is an innovative attempt to adapt motivational interviewing techniques within a written resource. While the booklet has been evaluated, the limited sample size means we should interpret the findings with caution. However, the findings do indicate that the resource has significant potential as a cost effective way of working with gay men to reconsider their own risk behaviour.

The *'Heat of the moment'* booklet provides a good model for QAHC in terms of developing a locally relevant resource. QAHC should give consideration to producing a similar booklet that is targeted at gay men. An important finding from research on motivational interviewing and Gold's self-justification approach, is the importance of targeting prevention interventions at gay men who want to change their behaviour and ensuring it is personally relevant. The development of any resource therefore needs to be targeted at those gay men who are concerned about their current behaviour. The resource also needs to be targeted at gay men at a time when they are most likely to be receptive to such an intervention. This means it is probably most usefully distributed when gay men receive an HIV negative test result. Gay men may not be as receptive to receiving such a resource during pre-test counselling as they are likely to be more concerned about finding out their HIV status, rather than considering their future behaviour.

The obvious advantage of the production of such a booklet is that it is a relatively low cost effective intervention, particularly when compared to the interventions that involve one-off or a series of counselling sessions. While the evaluation of the *'Heat of the moment'* booklet provides some useful insights into the receptiveness of gay men to such

an intervention, it would be important that QAHC ensures any similar resource that it produces locally is also evaluated to both assess the acceptability and relevance of the booklet to gay men and assess any impact it may have on their HIV risk taking behaviour.

The evaluation of the *'Heat of the moment'* booklet identified that while gay men found the booklet useful, it was used in the context of post-test result discussion with clinic staff. The impact of the resource appears to have been enhanced by ensuring a brief discussion occurs between clinical staff and gay men.

The production of any similar resource by QAHC should occur in a way that will maximise its ability to be used in clinical settings. This requires that clinicians and other health care providers who can support gay men in using the resource, are involved in the development process from the beginning.

Ideally, the resource should be developed so that it can be used by clinicians during their interactions with gay men. GPs frequently identify the difficulties they face in addressing HIV risk behaviour among gay men. This may require QAHC considering what options are available to providing training to general practitioners who have a high gay men caseload and/or are s100 HIV prescribers.

The utility of such a resource could be enhanced by ensuring that a simple brief intervention tool is available that can accompany the booklet for use by clinicians in their interaction with patients. The brief intervention tool should use a similar approach to that used within the booklet and also be based upon motivational interviewing. Such an intervention tool can be used by health promotion and education staff in their interaction with gay men around HIV testing. The *S.A.F.E Assessment Screening Tool*, while more generally targeted, might usefully be redeveloped, if the authors are agreeable, so that it can accompany the QAHC booklet.

While such a booklet may have potential to address risk behaviour, as with all interventions that focus on changing behaviour, the challenge is enormous. It should not be expected that one resource, focused on an individual's own risk behaviour, will be sufficient to sustain long term behaviour change. Much of the research identified in this review has highlighted that even interventions that are effective in changing individual behaviours often are only successful in the short term, with the effects dissipating in the long term. Additionally, while the focus of this review has been on supporting individuals to consider their risk behaviour, the effectiveness of such interventions are still mediated by a range of social, cultural and environmental factors that work to support individual behaviour change.

Recommendations

- 1. That QAHC gives consideration to producing, in collaboration with sexual health clinic staff and GPs, an HIV testing booklet for gay men who are interested in reconsidering their risk behaviour.*
- 2. That QAHC redevelops the S.A.F.E Assessment Screening Tool, in collaboration with sexual health clinic staff and GPs, so that it can be used by clinicians and health promotion staff when distributing the booklet.*
- 3. That QAHC use motivational interviewing techniques to inform the development of the booklet.*
- 4. That QAHC targets the booklet for distribution when gay men are receiving an HIV negative test result.*

5. *That QAHC gives consideration, in collaboration with The University of Queensland University's HIV and HCV Education Projects, to providing training to health care providers on addressing HIV risk behaviours among gay men.*
6. *That QAHC develops an evaluation strategy to assess the acceptability of the resource to gay men and its impact upon their sexual behaviour.*