

**HIV/STD PREVENTION IN GENERAL PRACTICE**

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Ward J, Sanson-Fisher R. Prevalence and detection of HIV risk behavior in primary care: implications for clinical preventive services. *American Journal of Preventive Medicine* 1995; 11:224-30

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Prochaska JO, Redding CA, Harlow LL, Rossi JS, Velicer WF. The transtheoretical model of change and HIV prevention: a review. *Health Education Quarterly* 1994; 21: 471-486

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## **ABBREVIATIONS**

AIDS	Acquired immunodeficiency syndrome
ANCARD	Australian National Council on AIDS & Related Diseases
CARG	Commonwealth Aids Research Grant
CDC	Centers for Disease Control and Prevention
CMV	Cytomegalovirus
CNS	Central nervous system
CSAHS	Central Sydney Area Health Service
ELISA	Enzyme-linked immunosorbent assay
GRID	Gay-related immune disease
HIV	Human immunodeficiency virus
IDU	Injecting drug user
MMWR	Morbidity and Mortality Weekly Reports
NAHOU	Needs Assessment and Health Outcomes Unit
NHMRC	National Health and Medical Research Council
RACGP	Royal Australian College of General Practitioners
STD	sexually transmitted disease
STI	sexually transmitted infection

Note: the term ‘sexually transmitted disease’ was recently superseded by ‘sexually transmissible infection’. However, to maintain consistency, the older terminology is adhered to throughout the thesis, as this was the term in common use over the term of the candidature and appears in the ethics applications.

## **SYNOPSIS**

This thesis examines aspects of the prevention of sexually transmitted diseases (STDs) in the Australian community, with a particular emphasis on HIV/AIDS in the context of general practice (or primary care settings). The work has four broad aims:

- i) To describe the primary prevention of sexually transmitted diseases, following from the arrival of the HIV/AIDS pandemic in Australia
- ii) To describe HIV/STD risk behaviour
- iii) To summarise previously known evidence of interventions to reduce risk and to raise awareness of HIV and other sexually transmitted diseases
- iv) To contribute new evidence addressing the potential of the general practitioners' role in HIV/STD prevention

The first chapter gives a brief review of the history of HIV/AIDS from its discovery in the United States of America to its appearance in Australia and New Zealand, and discusses the Australian response strategies, both initial and continuing, to confine the epidemic. Specifically, the arrival of HIV/AIDS gave rise to increasing awareness of sexually transmitted diseases, which hitherto, although sometimes chronic, were rarely fatal. The public health risk of HIV necessitated swift government action and led to wider acceptance of publicity about sexual behaviour. Although the thesis does not concentrate

solely on HIV, this is still an emphasis. This chapter provides useful background to ensuing chapters.

Chapter Two provides an overview of behavioural risk in sexually transmitted diseases. It gives a review of risk factor prevalence studies, and introduces risk behaviour and cognitive models of behaviour change, as applied to STD risk. Sexual behaviour is a complex social interaction, usually involving more than one person, and relying on the personality and behaviour patterns intrinsic to the individuals taking part. It is therefore perhaps more challenging to alter than behaviour which is undertaken alone, being dependent on the behaviour and intentions of both parties. Moreover, comprehensive assessment of sexual risk behaviour requires very detailed information about each incident. Its private nature makes accurate data difficult to obtain, and sexual risk behaviour is, correspondingly, difficult to measure.

Chapter Three reviews the effectiveness of interventions tested in primary health care settings to reduce sexual risk behaviour. The candidate uses a replicable method to retrieve and critique studies, comparable with standards now required by the Cochrane Collaboration. From 22 studies discussed, nine health interventions were short, 'one-shot', efforts owing to limited time, resources and other practical constraints. This review demonstrates the scarcity of interventions with people who may be perceived as 'low-risk'. Only four interventions were carried out in community health centres and two in university health clinics. One of the university interventions showed no change in sexual behaviour in any of three arms of the intervention (Wenger, Greenberg et al 1992) while the other showed an increase in condom use in both groups, although the intervention group's self-efficacy and assertiveness also improved (Sikkema, Winett & Lombard 1995). The rationale for the intervention, where given, is described.

Chapter Four analyses the content, format and quality of sexual health information brochures available in New South Wales at the time of the candidate's own planning for an interventional study. One of the most effective ways to disseminate information widely is by the use of educational literature, especially when the subject material is potentially sensitive or embarrassing to discuss in person. In this chapter, the candidate reviews the literature available at the time of designing the intervention used in Chapter Five. Readability, attractiveness, clarity and the accurate presentation of facts about sexually transmitted disease risk are examined for each pamphlet. Forty-seven pamphlets were scored according to the Flesch formula, and twenty-four of these scored in the 'fairly' to 'very difficult' range. There was, therefore, a paucity of easy-to-read material on these subjects.

Chapter Five evaluates a general practitioner-based counselling intervention to raise awareness of sexually transmitted diseases and to modify HIV/STD risk behaviour. While adults aged 18-25 are less likely than older cohorts to have a regular general practitioner or to visit often, most people visit a general practitioner at least once a year. This could provide an opportunity for the general practitioner to raise preventive health issues, especially with infrequent attendees. As the effectiveness of an opportunistic intervention about sexual risk behaviour was yet to be tested, the candidate designed an innovative randomised controlled trial to raise awareness of risk and increase preventive behaviour. The participation rate was 90% and 76% consented to followup; however the attrition rate meant that overall only 52% of the original participants completed the follow-up questionnaire. The intervention proved easy and acceptable both to GPs and to patients, and risk perception had increased at three months' follow-up; however this occurred in both the control (odds ratio 2.6) and the intervention group, whose risk perception at baseline was higher (odds ratio 1.3).

In order to establish some markers of risk in the general population, Chapter Six analyses data resulting from questions on sexual behaviour asked in the Central Sydney section of the NSW Health Survey. The candidate advocated for inclusion of relevant questions to determine some benchmarks of sexual risk behaviour and to provide an indication of condom use among heterosexuals. Although limited in scope as a result of competing priorities for questions in the survey, results demonstrate that, while a small percentage of people were at risk, those with higher levels of partner change or of alcohol use were the most likely to always use condoms. Specifically, 100% of those with more than four new partners in the last 12 months had used condoms with every new partner. In addition, 'heavy' alcohol users were more likely to report condom use every time with new partners (odds ratio 0.34).

To furnish data to inform future planning of educational activities for general practitioners, Chapter Seven presents the results of a survey of Central Sydney general practitioners' opinions and current practices in HIV risk reduction with in the broader context of sexually transmitted disease prevention. The general practitioner is in an ideal position to provide information and advice, especially if future research affirms the impact of such advice on STD risk behaviour. General practitioners in this study said they would be slightly more likely to discuss sexual health matters with young patients than with older ones ( $p=0.091$ ), but this was not significant. The most cited barrier to discussing sexual health was inadequate remuneration for taking time to do so (over 50% gave this reason). The next most cited obstacle was difficulty in raising the subject of STDs or HIV in routine consultations, but this reason was given by less than half the sample. Forty-six percent had participated in continuing medical education programs in STDs, HIV/AIDS, or hepatitis diagnosis or management; 32% of GPs had patients with HIV, and 55% of all GPs indicated they would like more training in management and continuity of

care of HIV patients. Approximately half (51%) wanted more training in sexuality issues, including sexual dysfunction.

Chapter Eight reviews the whole thesis and discusses future directions for the research agenda.

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