



**Evidence for Policy and Practice
Information and Co-ordinating Centre**

The EPPI-Centre is part of the Social Science Research Unit, Institute of Education,
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***HIV health promotion and men who have sex with men (MSM): a systematic review of
research relevant to the development and implementation of effective and appropriate
interventions***

Review Protocol

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1. Background

1.1 HIV infection among men who have sex with men

Men who have sex with men (MSM) are the group at greatest risk of acquiring HIV infection in the UK. Out of a total of over 48,000 individuals diagnosed as infected with HIV-1 at the end of 2001, an estimated 27,000 (56%) are men who probably acquired infection through sex with other men. Despite initiatives to counter new infections, the rate is not falling. Over 1,676 new HIV diagnoses were reported for this group to the UK's Health Protection Agency (HPA) in 2000 (HPA, 2003). Furthermore these figures only represent individuals who are aware of their infection as a result of HIV antibody testing. Recent unlinked anonymous testing data indicates that over a third of those infected are unaware of their infection (PHLS, 2001).

Early research indicated that men who have sex with men were changing the kinds of sex they had so as to reduce HIV risk. However, research carried out in the late 1980s and early 1990s noted an increase in higher risk sexual behaviour commonly, but controversially, referred to as 'relapse' (de Wit *et al.*, 1993; Davies, 1992). More recent studies suggest that initial behavioural changes are not being maintained and that "lapses" in risk behaviour are a continuing trend. Bacterial sexually transmitted infection (STI) incidence among MSM (particularly Gonorrhoea, often taken as a proxy measure for unprotected anal intercourse) has increased significantly since 1995 (Nicoll *et al.*, 2001) as have self-reports of risky sexual behaviour (Dodds *et al.*, 2000; Johnson *et al.*, 2001).

Over recent years the socio-cultural phenomenon of 'bareback' sex (actively seeking out unprotected anal intercourse) has been on the HIV health promotion agenda. It is suggested that barebacking is becoming increasingly accepted, and some men have described their active resistance to intervention in this respect, affirming their right to choose whether or not to use condoms (Goodroad *et al.*, 2000; Mansergh *et al.*, 2002). HIV health promotion has also had to address the complexities of casual and regular sexual partnerships, particularly the strategies put into place by some men to balance the pleasure and intimacy associated with unprotected sex alongside the potential risk.

Risk reduction strategies such as 'negotiated safety' (e.g. non use of condoms within regular sexual partnerships) have recently gained attention yet there has been debate and controversy over how to intervene, or whether to recognise this phenomenon at all (Crawford *et al.*, 2001; Davidovich *et al.*, 2000; Elford *et al.*, 1999). Nevertheless, it has become apparent that the message 'use a condom every time', as advocated during the early years of the epidemic, is not appropriate. All of this suggests that HIV health promotion efforts need to be maintained in the long term to support MSM in sustaining safer practices, as well as to support those, primarily younger men, making their sexual debut in adopting risk reduction strategies. The greatest challenges are addressing complexity, the culture of bareback sex and the growing resistance amongst some men to intervention.

Collaborative strategic work on HIV health promotion for gay and bisexual men is highly advanced. In 1996, funded by the Department of Health and co-ordinated by the Terrence Higgins Trust, a number of agencies came together to form the CHAPS (Community HIV and AIDS prevention Strategy) partnership. The partnership has developed and published 'Making it count' (Hickson *et al.*, 2000), a framework for collaboration in HIV prevention aimed at increasing collective capacity to reduce HIV incidence. The document is a formal statement of the common aims of the agencies involved. It presents models for HIV infection among MSM and types of interventions, targets for prevention activity and recommendations for the evaluation of

interventions. The ethical dimension of HIV prevention activity is stressed throughout. It is recognised, for example, that "even when an outcome is universally regarded as desirable, influencing social processes to achieve that outcome must be guided by ethical principles.... The way in which we attempt to change the factors contributing to incidence is as important as successfully altering them" (p1). One of the immediate implications of this approach is the need to take into account the acceptability of interventions to the men they are trying to influence.

1.2 HIV health promotion and HIV-related sexual health

The definition of HIV health promotion used within this review builds upon the conceptual framework for factors influencing sexual behaviour and types of interventions outlined in the Health Development Agency's recent review of HIV effectiveness reviews (Ellis *et al.*, 2003). We have defined HIV health promotion as consisting of formal interventions which have as their ultimate aim the reduction or prevention of new cases of HIV infection.

HIV health promotion interventions are likely to differ in various ways, including the level at which they are delivered, the population or entity that they target, the methods by which they attempt to have influence, the setting/s and media through which they act and the constituencies involved in their development and delivery. They may include, for example, individual level interventions (e.g. voluntary counselling and testing; other types of advice and counselling); group level interventions (e.g. group counselling in mainstream clinics); community level interventions (e.g. recruiting gay men to deliver interventions in settings used by other gay men); and structural or societal level interventions (e.g. anti-discriminatory policies, increasing access to resources or services, modifying the organisation of services). These interventions may be initiated, developed and delivered by professionals, by men who have sex with men themselves, or as a collaborative effort.

This review is set within the broad scope of sexual health for MSM so as to reflect the need for individual and societal responses to HIV risk to be framed within a broad conceptualisation of health. Sexual health has been defined in various ways (e.g. WHO, 1975). Common to these definitions is an understanding that conceptions of sexual health should incorporate positively valued physical, psychological and social aspects of sex, as well as focusing on the prevention of sexually related diseases and illnesses.

This review uses a definition for sexual health provided by Robinson *et al.*, (2002), who argue that it:

- Involves an ability to be intimate with a partner, to communicate explicitly about sexual needs and desires, to be sexually functional (to have desire, become aroused and obtain sexual fulfillment), to act intentionally and responsibly and to set appropriate sexual boundaries.
- Has a communal aspect, reflecting not only self-acceptance and respect, but also respect and appreciation for individual differences and diversity, as well as a feeling of belonging to and involvement in one's sexual culture(s).
- includes a sense of self-esteem, personal attractiveness and competence, as well as freedom from sexual dysfunction, sexually transmitted diseases, and sexual assault and coercion.

Along with psychosocial and physical components of health this definition includes reference to individual actions or behaviours. For the purposes of this review we are considering the steps

taken by individual men to reduce sexual HIV risks to be one potential component of sexual health.

To make the review manageable the review is restricted to HIV-related sexual health. This is defined here as those aspects of sexual health affected by the risk of HIV infection through sex, be it the risk of becoming infected or the risk of passing the virus on to someone else..

We are also using the terms 'barriers' and 'facilitators' to refer to factors influencing HIV-related sexual health among MSM. Research findings about these barriers and facilitators can help in the development of potentially effective intervention strategies. Interventions can aim to modify or remove barriers and use or build upon existing facilitators.

While other means of HIV transmission affect the lives of some MSM, in particular, infection through intravenous drug use, this review will centre on factors influencing sexual transmission.

1.3 Developing relevant, effective and acceptable interventions

In response to rising concerns over sexual ill-health in all population groups, the Government launched its National Strategy for Sexual Health and HIV in July 2001 (Department of Health, 2001). Previous Government strategies, including 'Health of the Nation' (Department of Health, 1992) and 'HIV and AIDS health promotion: an evolving strategy' (Department of Health, 1995) presented targets related to HIV but the 2001 strategy was the first to integrate proposals for HIV and sexual health more generally. Following consultation an implementation action plan was published in 2002 (Department of Health, 2002). The National Strategy's aims include reduced transmission of HIV and STIs and a reduction in the prevalence of undiagnosed HIV and STIs. Central to the Strategy is a recognition of the need for service users and voluntary organisations to have a real say in the planning and provision of NHS services. In terms of research, the strategy emphasises the need for a sound evidence base for effective local HIV/STI prevention, describing the current state of the evidence base as dispersed and unsystematic.

Previous systematic reviews of the effectiveness of sexual health interventions for men who have sex with men have shown that few high quality evaluations have been conducted. Oakley *et al.*, (1996a) identified five such evaluations that were considered to have sufficient methodological strength to generate reliable conclusions about effectiveness. All five were conducted in North America. The review's authors concluded that relatively brief interventions consisting of small group sessions with some individual counselling, and which have some credibility in the gay community, can be an effective way to reduce higher risk behaviour, at least in the short term.

Johnson *et al.*, (2003) have recently published a systematic review and meta-analysis of evaluations of behavioural interventions for men who have sex with men. A review of a sub-set of the studies found has also been published as Johnson *et al.*, (2002). The criteria used to appraise quality were similar to those used by the 1996 Oakley review and searches were conducted of the literature up to and including June 1998. These authors found 13 high quality evaluations and concluded that the combined study results indicated potential for a 23% reduction in the proportion of men engaging in unprotected sex. They also concluded that effects were slightly more favourable for interventions that promoted interpersonal skills, were delivered in community-level formats, or focused on younger populations.

While further effectiveness reviews have been conducted that focus at least in part on interventions for MSM (e.g. Kegeles and Hart, 1998), we are aware of no others that have taken a systematic approach to identifying relevant studies while also attempting to give weight to those that provide the most reliable evidence. We know of at least one UK-based evaluation of a sexual health intervention for MSM that has been reported since 1998 (the date of the latest search conducted in any review). There is a need to conduct an update of the 1996 EPPI-Centre review to take into account the findings of this and other evaluations.

1.4 Approach taken in this review

All previous systematic reviews have been restricted to synthesising findings about the impact of interventions on sexual health related outcomes. This review will integrate a synthesis of findings about effectiveness with synthesis of other aspects of the evidence base for developing and evaluating interventions, in particular research that identifies and describes 'felt need' and the context of sexual behaviour.

To answer questions of context and felt need alongside questions of effectiveness a review needs to synthesise both studies of intervention effects and other, 'qualitative', kinds of research. Evidence about intervention effects can be gleaned from trials of interventions. 'Qualitative research' can be found both within and independently of trials. Within trials, 'qualitative research' (often referred to as 'process evaluations') can be used to examine people's responses to and experiences of an intervention (Bonell *et al.*, 2003; Strange *et al.*, 2001). Outside of trials, similar approaches can be used to help us understand more about any kind of factor that people consider to be an important influence in their lives (Popay *et al.*, 1998).

This review will then juxtapose and compare the findings on effectiveness from trials with 'qualitative' research examining the views of MSM. Contrasting the findings of research based around people's own descriptions of their lives with those from more 'expert-driven' research can raise important issues for policy, practice and research. Such a review is able to look beyond the mainly quantitative approach of trials and epidemiological work on risk factors to start to explore why interventions do or do not work and to suggest ways of developing more promising interventions to test in the future. This approach represents a new model of research synthesis for public health, developed in previous EPPI-Centre reviews within a range of different health promotion topics (Harden *et al.*, 2001a,b; Rees *et al.*, 2001; Shepherd *et al.*, 2001).

The scope for this review has been determined by members of the review team at the EPPI-Centre (RR, JS, SO, JK, AH) and input from an advisory group (detailed in section 4).

2. Aims of the review and review questions

2.1. Aims

This study aims to produce an up-to-date synthesis of research evidence on effective and appropriate approaches for reducing the sexual risk of HIV-infection for MSM. It will build on, and considerably extend, previous work at the EPPI-Centre on the effectiveness of sexual health promotion for men who have sex with men, to produce a comprehensive synthesis of a wider

range of evidence relevant to current policy concerns (Oakley *et al.*, 1996a). This earlier review addressed a single question regarding the effectiveness of sexual health promotion for MSM and included one type of study – outcome evaluations. The review proposed here will address a wider range of questions, will include a wider range of study types and will update earlier reviews. Through a systematic review of the findings of both qualitative and quantitative studies, the study will:

- help policy-makers, practitioners, and MSM identify interventions which are supported by reliable evidence of effectiveness and appropriateness for reducing the sexual risk of HIV-Infection.
- help policy-makers, practitioners, MSM and researchers to identify promising interventions which need to be further developed and evaluated for reducing the sexual risk of HIV-Infection.

2.2 Review questions

The broad question for the review is:

What are the barriers to or facilitators of HIV-related sexual health for MSM and what are MSM's perceptions and experiences of sexual health in the light of HIV?

The specific review sub-questions are outlined below.

1. What perceptions or experiences of HIV-related sexual health are reported by different groups of MSM?
2. What barriers to or facilitators of HIV-related sexual health do MSM identify?
3. What do MSM think is needed to promote HIV-related sexual health? What do they think should not be done?
4. Which HIV health promotion interventions are effective for sexual health outcomes (and for which sub-groups of MSM)? Which interventions show no effects, and which are harmful?
5. Which factors relate to the effectiveness (or otherwise) of these interventions for different sub-groups of MSM? (e.g. intervention type, duration, basis in theory)
6. Which interventions evaluated for their effectiveness address or build upon the views of MSM and which do not?

Specific sub-groups of interest will include:

- Younger men
- Homosexually active men who do not identify as gay or bisexual
- Men from black and minority ethnic groups
- Men with lower educational achievement
- Men who are sero-positive for HIV
- Sex workers
- Injecting drug users

3. Review methods

Following recommendations for a two-stage commissioning process for systematic reviews in health promotion by Peersman *et al.* (1999), the review consist of two stages: a **mapping and**

quality screening exercise; followed by an **in-depth review** of a sub-set of studies, chosen according to policy and practice needs. The mapping and quality screening exercise identifies and describes the range of relevant research activity that has been undertaken in terms of its substantive (e.g. type of intervention, country of study) and methodological characteristics (e.g. study design). The in-depth review assesses the quality of studies and synthesises their findings. Because the initial specification of systematic reviews within public health/health promotion are often broad, the mapping and quality screening exercise is designed to enable the review's commissioners and potential users of the review to be involved in further specifying the precise scope and/or prioritising the questions for the in-depth review. This also ensures that the review is manageable within the timescale.

3.1 Methods for identifying and describing studies (mapping and quality screening)

3.1.1 Criteria for including and excluding studies

Explicit pre-determined criteria will be applied to studies to decide which are to be included in or excluded from the review. Appendix A presents a set of draft criteria for the mapping. These, and a set of draft criteria for the in-depth stage of the review will be pre-tested for usability before final application.

Initially, we propose including studies in the map of research if they meet all of the following criteria:

- focus on HIV
- focus on HIV health promotion intervention or barriers/facilitators to sexual health in the context of HIV
- focus on MSM
- report evaluations of outcomes or processes, non-intervention studies (the latter only if conducted in the UK) or systematic reviews of evaluations or non-intervention studies
- report in the English Language
- are reported in 1992 or after

Criteria for in-depth review will be developed following consultation with the review's advisory group and the DoH, but are likely to include further limitations on intervention types or types of non-intervention studies. The remaining sections of this protocol assume that study of MSM's views will be a focus at the in-depth review stage.²

3.1.2 Methods for identification of studies

Reports will be identified from the following sources:

- Bibliographic databases
- Hand searching of key journals
- Citation searches of key authors
- Reference lists of key papers
- References on key web sites
- Personal contacts/advisory group

² A feasibility study to examine the issues associated with reviewing other types of non-intervention research is outlined as Appendix B of this document

- Direct requests to key informants

A number of commercially available and specialised electronic databases will be searched, including Medline, Embase, CINAHL (Cumulative Index to Nursing and Allied Health Literature), ERIC, BEI (British Education Index), SSCI (Social Science Citation Index), PsycINFO, the Cochrane Library and the trials register of the Cochrane HIV/AIDS group. Other electronic resources will include SIGLE (System of Information on Grey Literature in Europe), Bibliomap (the EPPI-Centre's in-house health promotion bibliographic database), HealthPromis (the HDA's Evidence Base), the African Trials Registry, the NGC database (National Guideline Clearinghouse) and the PRS (HIV/AIDS Prevention Research Synthesis database of the CDC).

Searches of these sources will be limited so as to identify studies conducted in the time period (1992-2003). A highly sensitive search strategy will be devised (see Appendix C for a draft Medline search), based on combining the following three concepts expressed through combinations of controlled vocabulary and free-text terms

- men who have sex with men (e.g. "homosexuality, male/"; or "gay men")
- health promotion and potential barriers and facilitators to HIV-related sexual health (e.g. Health promotion/ or health education/ or prejudice/ or homophobia)
- HIV/AIDS

As the review will consider different study designs, methodological filters will not be used.

Several key journals will be hand searched. These will be chosen after consulting other researchers in the fields of HIV prevention and sexual health promotion.

Personal contact will be made with key people in the fields of HIV prevention and sexual health promotion. Requests for further relevant studies will be made to authors of outcome evaluations and studies of MSM's views. This proved to be particularly useful in identifying studies of views in previous systematic reviews (e.g. Rees *et al.*, 2001), particularly as this type of research is not always formally published. The reference lists of already identified studies will be scanned for potentially relevant reports not identified by other means and tracked using an electronic form of the Social Science Citation Index.

Studies will be catalogued electronically for ease of analysis. We shall apply the inclusion and exclusion criteria successively to (i) titles and abstracts and (ii) full reports. We shall obtain full reports for those studies that appear to meet the criteria or where we have insufficient information to be sure. We shall reapply the inclusion and exclusion criteria to these full reports and exclude those which do not meet these initial criteria.

3.1.3. Methods for characterising included studies

All relevant identified studies will be coded according to a standardised classification system for public health and health promotion research (Peersman and Oliver, 1997). Studies will be coded for the study population (e.g. age group; sexual identity); study design (e.g. survey, outcome evaluation); and, for reports describing or evaluating interventions, the intervention site, intervention provider and intervention type. More detailed coding is likely to cover the outcomes measured when appropriate (e.g. behaviour, knowledge, attitudes); the relevance of the research to particular policy concerns (e.g. basis in theory; 'hard to reach' men); and the domain of life to which men's views relate (e.g. the community, structural factors).

3.2 Methods for the in-depth review: data extraction, quality assessment and synthesis methods

3.2.1 Data extraction

Studies aiming to describe the views of MSM on aspects of HIV-related sexual health

Data will be extracted using a framework piloted in previous EPPI-Centre reviews of the barriers to, and facilitators of, health behaviour change amongst young people (Harden *et al.*, 2001b; Rees *et al.*, 2001; Shepherd *et al.*, 2001). The quality of studies will be assessed through the application of seven criteria previously piloted in a systematic review of peer-delivered health promotion (Harden *et al.*, 1999; see also Harden *et al.*, 2001a):

1. Explicit account of theoretical framework and/ or inclusion of a literature review;
2. Clearly stated aims and objectives;
3. A clear description of context;
4. A clear description of sample and sampling methods;
5. A clear description of methodology, including data collection and data analysis methods;
6. Evidence of attempts made to establish the reliability and validity of data analysis;
7. The inclusion of sufficient original data to mediate between data and interpretation.

It is anticipated that assessment using these criteria will be used to present studies within an exploratory framework of indicators of study quality.

Outcome evaluations

Data will be extracted using a standardised tool, the EPPI-Centre's 'Review Guidelines' (Peersman *et al.*, 1997). These guidelines enable reviewers to extract data on the development and content of the intervention evaluated, the design and results of the outcome evaluation, details of any integral process evaluation and data on the methodological quality of the outcome evaluation. Data will be entered onto the EPPI-Centre's specialised computer database (EPIC). The quality of the studies will be appraised using criteria described in previous EPPI-Centre reviews (e.g. Oakley *et al.*, 1995; Oakley *et al.*, 1996a,b; Peersman *et al.*, 1996; Peersman *et al.*, 1998). Outcome evaluations will be categorised into two broad groups: 'sound' and 'not sound'. 'Sound' outcome evaluations will be those deemed to meet the four criteria of:

1. Employing a control/comparison group equivalent to the intervention group on socio-demographic and outcome variables.
2. Providing pre-intervention data for all individuals/groups as recruited into the evaluation.
3. Providing post-intervention data for all individuals/groups.
4. Reporting on all outcomes.

Recommendations and conclusions about the effectiveness of interventions will only be made from findings of the sub-set of studies considered to be methodologically sound (as defined above).

3.2.2 Synthesis

Wherever possible, syntheses will examine findings for those sub-groups of MSM outlined in section 2.2 above.

Studies aiming to describe the views of MSM on aspects of HIV-related sexual health

Once the studies of MSM's views have been collated and described using keywords, methods for synthesis will be developed. It is anticipated that the approach will be an adaptation of one used in previous EPPI-Centre reviews. These have synthesised data collected through studies of views by examining the ways in which studies have addressed the following kinds of question:

- What are people's perceptions of/ attitudes towards a desired state of health?
- What do they think helps them get closer to this desired health state?
- What do they think presents a barrier to this desired health state?
- What do they think should or could be done to promote this health state/ what do they think should not be done?

Outcome evaluations

The characteristics of interventions evaluated by methodologically sound outcome evaluations will be examined in order to identify any patterns according to effectiveness. For example, are there any common characteristics of interventions judged to be effective/ ineffective/ harmful? (e.g. intervention type, provide, setting, way in which intervention has been developed). For each intervention, the barrier(s) it aims to remove or reduce and/or the facilitator(s) it aims to build on will be identified. Meta-analysis will be attempted, with methods determined in advance.

Synthesis across study types

To synthesise the findings across study types, four main concerns will be addressed:

- What are the main barriers to, and facilitators of, HIV-related sexual health that are identified by MSM?
- What perceptions or experiences of HIV-related sexual health are reported by MSM?
- In what ways are the barriers identified in 'qualitative' and survey research similar to, or different from, those addressed in outcome evaluations?
- To what extent have the facilitators of HIV-related sexual health identified by MSM been used to develop interventions aimed at reducing the sexual risk of HIV?

In order to address the last two questions, the findings from both types of studies will be put into a synthesis matrix which will identify matches and mis-matches between views on barriers and facilitators and those addressed by intervention evaluations. Matches between barriers and facilitators identified by 'qualitative' research and those addressed in effective interventions will form the basis of recommendations for health promotion policy and practice. Matches between interventions that have not been soundly evaluated and barriers and facilitators identified by 'qualitative' research will be used as the basis for recommendations about interventions which

need further development and testing. Mis-matches will be used as the basis for making recommendations for addressing gaps in intervention provision and evaluation.

4. Advisory structure for the review

An advisory group has been convened. It is anticipated that this will meet twice, first prior to protocol development and a second time following the mapping of studies. The first meeting will aim to help define which intervention types and outcomes and which types of views are to be within the review's scope and whether any should be a main focus. The second meeting will aim to inform selection of further criteria for the review's in-depth stage. Representatives of a range of different review user groups are part of this group, including: policy specialists in the Department of Health; practice-oriented researchers from bodies specialising in HIV prevention; practitioners working in HIV prevention and colleagues involved with the Health Development Agency's HIV/AIDS Evidence Base.

5. Acknowledgements and conflict of interest

The review is funded by the Department of Health. No conflicts of interest have been identified by members of the review team.

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Appendix A. Draft Inclusion/Exclusion criteria for mapping

To be included in the map a study must NOT fall into any one of the following categories:

Round A: EXCLUSION ON SCOPE	
1	Not about HIV/AIDS
2	<p>Not about outcomes or processes of HIV health promotion, or barriers to or facilitators of or perceptions/experiences of sexual health or sexual risk-reduction in the context of HIV</p> <p>Where</p> <ol style="list-style-type: none"> 1. HIV health promotion is carried out through formal interventions which have as an ultimate aim the reduction or prevention of HIV transmission (new cases of HIV). These could include individual level interventions (<i>e.g. voluntary counselling and testing; other types of advice and counselling</i>); group level interventions (<i>e.g. group counselling in mainstream clinics</i>); community level interventions (<i>e.g. recruiting gay men to deliver interventions within their communities</i>); and structural or societal level interventions (<i>e.g. anti-discriminatory policies, increasing access to resources or services, modifying organisation of services</i>). These interventions may, or may not also address other aspects of health 2. If study is of an intervention, exclude if focus is solely on any one of the following: <ul style="list-style-type: none"> ▪ Drug treatment to reduce symptoms resulting from HIV or AIDS ▪ Therapy (non drug) to reduce symptoms (unless study also examines influence on individual/community activity aimed at reducing sexual HIV risks ▪ Condom efficacy (functioning of condoms in controlled conditions) ▪ Post-exposure prophylaxis (PEP), microbicides, treatment of other STIs, circumcision, for purposes of reducing HIV transmission following exposure 3. If study is of barriers/facilitators exclude if: <ul style="list-style-type: none"> ▪ focus is solely on biological/physical influences on HIV transmission/exposure - e.g. STDs, modality of intercourse ▪ focus is on sexual health but sexual health is not being studied in the context of HIV 4. Sexual health is enjoyment of the following: <ul style="list-style-type: none"> ▪ the ability to be intimate with a partner, to communicate explicitly about sexual needs and desires, to be sexually functional (to have desire, become aroused and obtain sexual fulfilment), to act intentionally and responsibly and to set appropriate sexual boundaries; ▪ acceptance and respect for self and others, including respect and appreciation for individual differences and diversity, as well as a feeling of belonging to and involvement in one's sexual culture(s); ▪ a sense of self-esteem, personal attractiveness and competence; ▪ freedom from sexual dysfunction, sexually transmitted diseases, and sexual assault and coercion

Draft Inclusion/Exclusion criteria for mapping cont.	
3	<p>Not about</p> <p>(i) men who are gay or bisexual or (ii) men who have sex with men, but who do not identify as either gay or bisexual.</p> <p>Specific sub-groups of interest will include:</p> <ul style="list-style-type: none"> • Younger men • Homosexually active men who do not identify as gay or bisexual • Men from black and minority ethnic groups • Men with lower educational achievement • Men who are sero-positive for HIV • Sex workers • Men who inject illicit drugs
Round B: EXCLUSION ON STUDY TYPE	
4	<p>Not</p> <p>an outcome evaluation, (with or without integral process evaluation), a process only evaluation conducted in UK, a non-intervention study or a systematic review of evaluations or non-intervention studies</p> <p>Exclude if:</p> <ul style="list-style-type: none"> • Editorials, commentaries, book reviews, bibliography, resources, policy documents • Study solely of prevalence or incidence of HIV or sexual behaviour or HIV health promotion activities • Intervention descriptions, process evaluations not linked to an evaluation of outcome, single-case studies • Theoretical or methodology paper
Round C: EXCLUSION ON COUNTRY WHERE STUDY WAS CARRIED OUT	
5	If non-intervention study, Not conducted in the UK
Round D: EXCLUSION ON LANGUAGE	
6	Not published in the English language
Round E: EXCLUSION ON DATE	
7	Not reported in 1992 or after

Appendix B

Feasibility study: systematically reviewing determinants of HIV-related sexual health

The work described within the main text of this protocol is a systematic review of: i) intervention research and ii) non-intervention research that investigates the views of MSM about HIV-related sexual health.

Other non-intervention research is also capable of identifying barriers and facilitators to sexual health. This includes observational studies that assess the degree of association between variables and health or risk, to identify determinants of health. We shall assess the feasibility of reviewing this literature in depth. A potentially useful appraisal tool for reports about harm is available from the Centre for Health Evidence at the University of Alberta (Levine *et al.*, 2001). This tool identifies well conducted cohort and case-control studies and helps readers assess the strength of evidence and the magnitude of risk from exposure to harmful factors. In this review these would be factors that increase the risk of HIV transmission.

We shall calculate the number of primary studies and the time required to review in-depth this broader non-intervention literature. We shall also assess whether we can confidently rely on the conclusions of previous systematic reviews of health determinants (e.g. Flowers *et al.*, 1997; Hospers and Kok 1995). Both studies identified so far were published six and eight years ago. It is likely that studies have been published more recently, and the search strategy should identify other cohort³ or case control studies⁴ that are particularly appropriate designs for assessing harmful determinants.

We shall assess the coverage of published reviews of determinants of HIV risk by comparing their included studies with the appropriate designs of primary studies identified by the comprehensive search strategy. We shall assess the quality of reviews of determinants by adapting appraisal tools for systematic reviews of effectiveness to address questions of harm.

We shall estimate from the number of primary studies not included in quality systematic reviews, and the length and ease of use of the appraisal tool, the work required to provide an up-to-date assessment of the non-intervention literature about determinants of HIV transmission risk.

³ A cohort study (synonyms: follow-up, incidence, longitudinal, prospective study) is an observational study in which a defined group of people (the cohort) is followed over time. The outcomes of people in subsets of this cohort are compared, to examine for example people who were exposed or not exposed (or exposed at different levels) to a particular intervention or other factor of interest. A cohort can be assembled in the present and followed into the future (this would be a prospective study or a "concurrent cohort study"), or the cohort could be identified from past records and followed from the time of those records to the present (this would be a retrospective study or a "historical cohort study").

⁴ A case-control study (synonyms: case referent study, retrospective study) is a study that starts with identification of people with the disease or outcome of interest (eg HIV positive people) and a suitable control group without the disease or outcome. The relationship of an attribute (intervention, exposure or risk factor) to the outcome of interest is examined by comparing the frequency or level of the attribute in the cases and controls. For example, to determine whether bare back sex leads to HIV transmission, a group of HIV positive men (cases) could be compared to a group of HIV free men (controls). The groups would then be compared with respect to the proportion exposed to bare back sex. Case-control studies are sometimes described as being retrospective as they are always performed looking back in time.

These findings will be presented as part of the map of literature for the Advisory Group to consider when prioritising the focus of the in-depth review.

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Appendix C. Example search strategy - Medline

27 February 2003 16:57
Ovid Technologies, Inc.

Database: Medline <1966 to present>

A. terms for men who have sex with men

- 1 exp homosexuality/ (12827)
- 2 homosexuality male/ (2603)
- 3 exp bisexuality/ (1051)
- 4 men who have sex with men.mp. (410)
- 5 gay.mp. (2249)
- 6 (Male adj (prostitut\$ or 'sex worker')).mp. (1413)
- 7 or/1-6 (14571)

B. Terms for health promotion or barriers to or facilitators of HIV-related sexual health

- 8 exp health promotion/ (19894)
- 9 exp health education/ (80297)
- 10 preventive medicine/ (6947)
- 11 public health/ (27345)
- 12 primary prevention/ (5812)
- 13 exp preventive health services/ (146328)
- 14 exp behavior therapy/ (26837)
- 15 knowledge attitudes practice/ (22176)
- 16 patient education/ (34796)
- 17 exp health behavior/ (38462)
- 18 attitude to health/ (35788)
- 19 risk factors/ (207747)
- 20 risk taking/ (6064)
- 21 knowledge/ (3473)
- 22 attitude/ (30448)
- 23 culture/ (18004)
- 24 choice behavior/ (6375)
- 25 cognition/ (24690)
- 26 exp patient acceptance of health care/ (67027)
- 27 health services accessibility/ (18247)
- 28 exp self concept/ (31772)
- 29 (prevent\$ or reduc\$ or promot\$ or increase\$ or decreas\$ or program\$ or curricul\$ or educat\$ or inequalit\$ or project\$ or campaign\$ or impact\$ or vulnerab\$ or resilien\$ or correlat\$ or predict\$ or determin\$ or mediat\$ or barrier\$ or facilitat\$).ti,ab. (4200223)
- 30 (health\$ or ill or illness or well or wellbeing or sick\$ or disease\$ or transmission or transmit\$ or infect\$ or HIV or aids or acquired immunodeficiency syndrome or std or sexually transmitted disease or condom\$ or "safe sex" or "unsafe sex" or choice\$ or behavio?r\$ or esteem or confiden\$ or assert\$ or risk\$ or serodiscord\$ or sero-discord\$ or stigma or communicat\$).ti,ab. (3233042)
- 31 ((prevent\$ or reduc\$ or promot\$ or increase\$ or decreas\$ or program\$ or curricul\$ or educat\$ or inequalit\$ or project\$ or campaign\$ or impact\$ or vulnerab\$ or resilien\$ or correlat\$ or predict\$ or determin\$ or mediat\$ or barrier\$ or facilitat\$) adj3 (health\$ or ill or illness or well or wellbeing or sick\$ or disease\$ or transmission or transmit\$ or infect\$ or HIV or aids or acquired

immunodeficiency syndrome or std or sexually transmitted disease or condom\$ or "safe sex" or "unsafe sex" or choice\$ or behavior?r\$ or esteem or confiden\$ or assert\$ or risk\$ or serodiscord\$ or sero-discord\$ or stigma or communicat\$)).ti,ab. (497142)

- 32 sex education/ (7438)
- 33 contraceptive devices male/ (1194)
- 34 condoms/ (5294)
- 35 sex behavior/ (30023)
- 36 Acquired Immunodeficiency Syndrome/pc [Prevention & Control] (11018)
- 37 exp hiv infections/pc (21937)
- 38 sexually transmitted diseases/pc (3622)
- 39 lifestyle/ (17315)
- 40 prejudice/ (11340)
- 41 homophobi\$.ti,ab. (303)
- 42 discriminat\$.ti,ab. (59041)
- 43 section 28.ti,ab. (36)
- 44 exp politics/ (29509)
- 45 family/ (37948)
- 46 minority groups/ (5321)
- 47 social class/ (22499)
- 48 social conditions/ (4940)
- 49 social control formal/ (10174)
- 50 social control informal/ (1677)
- 51 social environment/ (21263)
- 52 social isolation/ (6878)
- 53 social problems/ (7172)
- 54 socioeconomic factors/ (64648)
- 55 assertiveness/ (1075)
- 56 truth disclosure/ (6472)
- 57 AIDS Serodiagnosis/ (4149)
- 58 ((hiv or aids) adj (test\$ or diagnos\$ or counsel\$)).ti,ab. (4948)
- 59 ((hiv or aids) adj (test\$ or diagnos\$ or counsel\$ or expos\$)).ti,ab. (5378)
- 60 homeless\$.ti,ab. (2832)
- 61 ((emotional or sex\$ or physical\$) adj abuse\$).ti,ab. (5533)
- 62 ((gay or negative or positive) adj identi\$).ti,ab. (989)
- 63 community networks/ or social support/ (20433)
- 64 peer pressure.ti,ab. (251)
- 65 (social\$ adj (exclusion or exclud\$)).ti,ab. (82)
- 66 Stress, Psychological/ or Adaptation, Psychological/ or psychosocial.mp. (87881)
- 67 Culture/ (18004)
- 68 bareback\$.ti,ab. (11)
- 69 cottag\$.ti,ab. (311)
- 70 alcohol drinking/ (26733)
- 71 ((substance or drug\$) adj (abuse or use\$ or misuse\$ or take\$ or taking)).ti,ab. (24544)
- 72 or/8-28,31-71 (1297117)

C. Terms for HIV/AIDS

- 73 exp hiv infections/ (133850)
- 74 exp hiv/ (41989)
- 75 exp hiv-1/ (32195)
- 76 exp hiv-2/ (2673)
- 77 Acquired Immunodeficiency Syndrome/ (65875)

78 hiv seropositivity/ (14737)
79 hiv seronegativity/ (1805)
80 ((HIV or aids) adj (positive or negative or transmi\$ or status)).ti,ab. (12805)
81 or/73-80 (151899)

D. Combining sets A, B AND C

82 and/7,72,81 (5243)

83 limit 82 to yr=1992-2002 (3177)