



## Men, deprivation and sexual health: scoping review

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## Summary

This report details the findings of a scoping review to determine the efficacy of current research on sexual health and risk taking among heterosexual men from lower socio-economic groups, with the intention of informing future intervention development in Scotland. 50% of HIV acquisition in the U.K. is acquired through heterosexual transmission yet 'high risk groups' dominate research. We reviewed studies with a specific focus on masculinities and sexual health or which include heterosexual men aged 18 years and older from deprived or lower socio-economic areas. Pre-1990 studies were excluded to ensure the greatest relevance to contemporary economic circumstances and sexual health issues. There were insufficient interventions to reduce sexually transmitted infection (STI) acquisition which directly targeted general risk, adult, heterosexual males. Studies have shown that men from deprived areas have fewer resources for constructing masculinity and draw on 'narrow definitions of masculinity', which impact negatively on their sexual health. Although masculinities have been shown to have a profound effect on sexual health practices, most research into STI reduction in heterosexual males in the UK and US does not use a theoretical framework of masculinity. Future research and interventions aimed at lowering STI transmission rates, and using a framework of masculinity theory, should be conducted with heterosexual men from deprived areas.

## Introduction

This report details the findings of a scoping review to determine the extent and efficacy of current research on sexual health and risk taking among heterosexual men from lower socio-economic groups. It is intended to inform intervention development in this area in Scotland.

Diagnosis of sexually transmitted infections (STIs) continues to increase in Scotland, and in 2011, of 362 new diagnoses of HIV infection in Scotland, 148 were attributed to heterosexual sex. (Health Protection Scotland, 2012).

Low socio-economic status (SES) is frequently linked to risky sex practices and high STI incidence (Towe et al., 2010), and male reluctance to adopt health promoting behaviours has been reported and attributed to masculinity construction (Mahalik et al, 2007). With an aim to review research on masculinities, sexual health, gender and risk taking, the key research questions the review addressed were:

- i) What are the attitudes and behaviours related to sex, sexual health and safer sex among men living in deprived areas?
- ii) What sexual health interventions have been evaluated with this population?
- iii) What research has focused on masculinities and sexual health?

## Methods

Included in this scoping review were studies with a specific focus on masculinities and sexual health or which include heterosexual men aged 18 years and older from deprived or lower socio-economic areas. Pre-1990 studies were excluded to ensure the greatest relevance to contemporary economic circumstances and sexual health issues.

A comprehensive literature search was conducted by the Unit's Information Scientist to identify relevant papers from the following databases: Cochrane Library, Campbell collaboration, NHS EED, medline, embase, cinahl, and COPAC. The medical subject heading (MeSH) terms used were, for example, "condoms", "sexual behaviour" and "male". Subject and socio-economic circumstance specific search terms were also used. The searches identified 26 references for the masculinities research question and 23 for the deprivation research question and these were examined by the Research Assistant (Ross G).

### **RQ1 - What are the attitudes and behaviours related to sex, sexual health and safer sex among men living in deprived areas?**

Titles and abstracts of the 23 papers relating to the first research question were assessed for relevance using the following inclusion criteria:

- Studies of the attitudes and behaviours related to sex, sexual health and safer sex with heterosexual men aged 18 years or older in deprived (lower socio-economic) areas.
- Relevant to review question: 'What are the attitudes and behaviours related to sex, sexual health and safer sex among men living in deprived areas?'

Papers for which the title and abstract were insufficient to determine inclusion were sourced and the paper checked for relevance. 13 papers were excluded from the deprivation research literature; many were omitted due to the age of the participants. Adolescents and drug users are common in the deprivation literature and this review is concerned with adults of 18 years or older and though it may be a causal factor with regard to sexual health, drug use was also not in the remit of this review (all reasons for omitting unsuitable papers can be found in Appendix 1). Two papers marked as pertaining to research question 1: Elwy et al. (2002) and Dworkin et al. (2009) were assessed under research question 2 and research question 3 respectively.

Additional searches were conducted by the Research Assistant which resulted in 5 further articles being sourced for inclusion. As a result of these search strategies, omissions and inclusion criteria, a final set of 13 articles were included in the literature review pertaining to deprivation.

### **RQ2 - 'What sexual health interventions have been evaluated with this population?'**

Analysis of intervention research was initially limited to two recent NHS Health Scotland publications (Fullerton & Burtney. 'Overview of the effectiveness of sexual health improvement interventions.': NHS Health Scotland, June 2010 and Burtney & Fullerton. 'Sexual health improvement interventions in Scotland: Mapping Exercise.': NHS Health Scotland, March 2011). The aim was to identify sexual health interventions that meet the following inclusion criteria:

- Interventions to improve sexual health or reduce sexual risk behaviour/sexually transmitted infections with heterosexual men aged 18 years or older in deprived (lower socio-economic) areas.
- Relevant to review question: ‘What sexual health interventions have been evaluated with this population?’

The reviews’ lack of focus on heterosexual males from the general population when assessing intervention success prompted the Research Assistant to source further systematic reviews of interventions. As a consequence, 6 reviews were sourced for inclusion.

### **RQ3 - ‘What research has focused on masculinities and sexual health?’**

Titles and abstracts of papers of the 26 papers sourced by the Information Scientist relating to the third research question were assessed for relevance to the current review using the following inclusion criteria:

- Review papers or books on masculinities and sexual health related to heterosexual men.
- Relevant to review question: ‘What research has focused on masculinities and sexual health?’

23 papers were excluded from the masculinities research literature as they variously focused on adolescents, gay men or sexual violence (see Appendix 1). Further searches were conducted by the Research Assistant which resulted in the inclusion of 14 additional papers. One paper marked as pertaining to research question 1 was instead assessed under research question 3. As a result of these search strategies, omissions and inclusion criteria, a final set of 18 articles were included in the literature review pertaining to masculinities.

### **Data extraction**

Three data extraction spreadsheets were created using a pre-ordained list of data extraction criteria which contained questions such as ‘What was the method of data collection?’, ‘What data/variables were included on behaviours related to sex, sexual health or safer sex?’ and ‘What issues / problems / limitations of the study are reported?’. The data extraction spreadsheets were then used to inform and assist in addressing each of the research questions. Data extraction was completed by the research assistant and checked by one of the review authors (Young I).

**Studies of deprivation and sexual health among adult, heterosexual men**

There is a marked paucity of study into the effect deprivation has on sexual health among adult, heterosexual men. The focus of study was often not exclusively on socioeconomic position and how it affects sexual health behaviours and attitudes. As such, studies were included where they utilised socioeconomic position as a variable in relation to sexual health. Only one (US) study focused exclusively on heterosexual males (Essien et al., 2005), all other studies drew from mixed gender samples.

The studies we reviewed suggested that those of low SES from deprived backgrounds are at greatly increased risk of STI acquisition. The literature tended to engage more with quantitative than qualitative methods; assessing nationally or locally available statistics as opposed to determining individual attitudes towards sex and sexual behaviour. Most of the studies show that those who reside within the most deprived areas also have the lowest SES and have significantly higher rates of STI than the general population.

The majority of studies were conducted in the U.S. where poverty and race are intrinsically linked, and consequently studies had a high percentage of African Americans included in their samples. Therefore it was often difficult to extrapolate information and correlations associated with STI incidence and being from a deprived area, with those of incidence of STIs in the African American population. Also, often studies focused primarily on HIV rather than broader sexual health. A racial disparity has emerged amongst heterosexually transmitted HIV infection in the US, with higher prevalence of HIV among African Americans than European Americans; such that it is reaching epidemic status in many areas. Recent studies have attributed this disparity to structural factors and the socioeconomic situations of many African Americans (Towe et al., 2010; & Denning et al., 2011). Denning et al. suggested that were European Americans to occupy similar areas of deprivation and suffer similar socioeconomic conditions, then the ethnic background factor might diminish.

UK studies have yet to delve so expansively into the causes of sexual health disparities and no UK study has focused purely on heterosexual men from deprived areas. Two late 1990s studies into the epidemiology of gonorrhoea by Lacey et al. (1997) and Low et al. (1997) were based in Leeds and London respectively. Both displayed similarly high STI incidence amongst those from more deprived areas and men had higher rates of STI incidence than women in both studies. Lacey et al. classified areas of similar SES based on the 1991 census and found that people from the most deprived area of Leeds were four times more likely than those from the most affluent area to acquire a STI. Low et al. similarly stressed the geographical disparity of gonorrhoea transmission, where the areas of study: Lambeth, Southwark, and Lewisham held six to seven times more incidences of gonorrhoea than the general population. As with the US studies, a high proportion of residents in the most deprived areas were ethnic minorities.

One Glasgow study, which investigated social factors associated with gonorrhoea among genitor-urinary medicine clinic attendees, found socioeconomic deprivation was not independently associated with gonorrhoea acquisition (Scoular et al., 2008). Although Scoular et al. found no significant relationship between socioeconomic deprivation and gonorrhoea acquisition, their study sample could not be said to be representative of the general population. GU medicine attendees exhibit higher-risk sexual behaviour than the general population. Also, the majority from both the

infected and the control group were comparatively poor (68% and 62% respectively earned an annual income of £15000 or less). Scoular et al reasoned that no significance was found between SES and STI incidence as their sample was more uniformly deprived than in the Low et al. & Lacey et al. studies. While the findings of Scoular et al. (2008) appear to run counter to the other findings discussed above, it also may suggest that deprivation in itself may not be the main predictor of STI acquisition; although it may indirectly mediate higher risk through other factors.

### **Structural impacts on sexual health**

The US research stressed the structural barriers to sexual health of those of low SES, such as limited access to care and services and lack of insurance. Towe et al. (2010) argued that their results strongly suggest that individual behaviours are not the main contributors to HIV or STI prevalence. Low SES impacts upon sexual health and this is compounded by those in low SES being confined to sexual networks with high underlying rates of STI's and HIV (Denning et al, 2011). Though structural factors appear to prescribe STI incidence, individual behaviour also impacts upon sexual health. A consistently high proportion of participants in the articles assessed for this review report engaging in unprotected sex.

Both Denning et al. (2011) and Magnus et al. (2009) described an HIV epidemic amongst heterosexual African Americans and suggested that the epidemic may be network based rather than based on individual behaviour. They suggest that while risks are perpetuated by lack of condom use, early sexual debut, substance abuse, and partner concurrency, it is the high risk sexual networks to which low SES heterosexual individuals are restricted that facilitates the spread of STI. Magnus et al. suggest that the area (of deprivation) in which these networks are based place their inhabitants at a much greater risk of STI acquisition. Arnold et al. (2010) further suggested various ways in which SES may impact upon sexual behaviours. They highlighted the correlation between poverty and psychological distress and depression which are linked to both substance abuse and weakened immune systems. Substance abuse is associated with increased HIV risk behaviour and a weakened immune system would increase a person's susceptibility to HIV infection.

Further to this, Cohen et al. (2000) developed a 'broken windows' theory in the mid 90s, which suggested that neighbourhood decay and appearance may be a better causal indicator of increased sexual health risk and behaviour than poverty alone. This study found that disorderly physical environments could send messages which affect behaviour. The broken windows index contained such indicators as level of structural damage; graffiti; garbage on streets and abandoned vehicles, in contrast to the usual poverty index limited to household income, level of education and employment status. Cohen et al. found that gonorrhoea rates were significantly higher in areas which scored higher on the broken windows index. Further, areas which scored high on the poverty index but low on the broken window index showed no significant differences in terms of gonorrhoea acquisition rates to areas which scored low on both indexes.

Scoular et al. (2008) suggested the broken windows index theory as a reason why an area like Glasgow which contains some of the poorest parliamentary constituencies in the UK (<http://news.bbc.co.uk/1/hi/uk/1826411.stm>) had a gonorrhoea incidence rate of 20/100,000 in 2004, while in the same year the rate was 104/100,000 in London. Rather than a purely structural explanation for the gonorrhoea incidence rate, Cohen et al. suggested a combined explanation. Poverty on its own is not a sufficient explanation for why citizens enact high-risk sexual behaviours, but the deterioration which poverty can bring to a neighbourhood and the resultant increase to the broken windows index could negatively affect behaviours in that neighbourhood. This would suggest further study into deprivation and sexual health amongst the heterosexual population in Scotland could benefit from inclusion of the broken windows index (Cohen et al., 2000).

### **Sampling and recruitment issues**

Problems of generalisability were the main issues found in sampling in the US studies. NHBS participants were not representative of all low-income heterosexuals in the US and this led to an overestimation of the prevalence of HIV amongst low-income populations due to the sample targeting census tracts with high rates of HIV diagnoses in addition to high rates of poverty. (Arnold et al., 2010 & Denning et al., 2011)

Flom et al. (2001) used a chain referral method to recruit participants and admitted that this may have biased their sample towards the more popular or extroverted members of the population. Similarly, Scoular et al. (2008) suggested selection bias may have occurred in their Glasgow study due to their stringent matching criteria between control and study group and only 55% participation from those eligible. However, it was stressed that age, gender and residential characteristics of those who did not partake in the study were not dissimilar to those who did.

Another element of selection bias in the Scoular et al. study was that participants were unrepresentative of the general population because they were recruited in genitor-urinary medicine clinics and therefore it was assumed that they engaged in higher sexual health risk behaviours than the wider population. Low et al. (1997) suggested that their results would be an underestimate of the frequency of gonorrhoea in the study population because patients attending non-participating clinics and patients without a supplied address were excluded from analyses.

### **Sexual health interventions among adult, heterosexual men in deprived areas**

Initially we reviewed two reports, which it was thought would supply relevant information on effective sexual health interventions with heterosexual males from deprived areas in Scotland (Fullerton & Burtney, 2010, and Burtney & Fullerton, 2011). However, they served mainly to highlight the lack of study into this area and their focus was on specific groups of adults such as commercial sex workers and STI clinic attendees rather than the general heterosexual adult population. Therefore, other reviews, which assessed interventions delivered to the adult heterosexual population, were sourced for this scoping review (Exner et al., 1999; Elwy et al., 2002; Neumann et al., 2002; Lyles et al., 2007; Noar et al., 2007). A general overview of each is shown in Table 1.

Sexual health interventions which have been evaluated with heterosexual adults from the general population are limited in number and those administered exclusively to heterosexual males are rare. Neumann et al. (2002) performed a meta-analysis of HIV prevention interventions on heterosexual adults. They assessed studies which focused on heterosexual adults whose only risk of infection was through heterosexual transmission, and found small group interventions to have more favourable effects than individual level interventions. The meta-analyses of sexual health interventions evaluated with adult populations produced an increase in condom use, a reduction in reported unprotected sex and a decrease in STI acquisition.

Exner et al. (1999) did focus on heterosexual men, but only 3 of the 20 studies included focused exclusively on men (2 of those were drug using men), the rest studied both men and women from the heterosexual population (inclusion was dependent upon the study displaying a male-specific analysis of intervention effects on sexual risk). None of the studies focused on heterosexual men from the general population and the majority were high risk groups.

**Table 1: Reviews of sexual health interventions with heterosexual men**

Author	Exner et al.	Elwy et al	Neumann et al.	Lyles et al.	Noar et al.
Year	1999	2002	2002	2007	2007
Type of review	Narrative review	Systematic review	Meta-analysis	Systematic review	Review and synthesis of meta-analytic evidence
Aim of review	To describe and evaluate the effectiveness of HIV sexual risk reduction programs targeting heterosexually active men.	To systematically review studies of interventions to prevent transmission of STI's and HIV in heterosexual men.	To examine whether behavioral and social interventions for heterosexual adults in the U.S. are effective in changing sexual behaviors related to the risk of acquiring HIV infection and in reducing the incidence of STDs.	Systematic review of US-based HIV behavioral intervention research literature to identify interventions demonstrating best evidence of efficacy for reducing HIV risk.	The effects of "typical" behavioral interventions across key outcomes such as condom use, unprotected sex, number of sex partners, and incident STDs? How consistent are these effects across differing at-risk populations?
Did intervention target males/Females?	Yes	Yes	Both	Both	Both
Did interventions target males from general population?	Yes	Yes	No	No	No
Interventions addressed masculinities?	No	No	No	No	No
Main findings or most successful aspect of interventions	No clear pattern distinguished effective from ineffective interventions. Only 3 of the 20 reviewed studies targeted men exclusively.	A single approach is unlikely to be successful in any given setting. However, on-site counseling and HIV testing and peer-education giving workers information about HIV & STI proved successful.	Interventions delivered to small groups of participants showed more favorable effects than interventions delivered to individuals. Too few studies to determine which intervention characteristics produce significant protective effects.	Lack of interventions delivered solely to general population heterosexual males means this review cannot present any useful interventions for that population.	Of the 2 behavioural interventions delivered to heterosexual adults, both were effective.

Elwy et al. (2002) focused on sexual health interventions with heterosexual males, but again the majority of intervention groups were high-risk categories. However, four interventions were conducted with the general heterosexual male population and they all proved effective in producing positive behavioural changes. The interventions were among men in the workplace in Brazil and Africa and men joining the military after a nationwide mass media and structural intervention to reduce HIV risk in Thailand; each is summarised below:

- An intervention with trucking workers in Kenya produced a significant intervention effect on lowering STI incidence and decreasing the number of sex partners, no reported increase in condom use, through on-site counselling and HIV testing and individual sessions where the men were taught skills in condom negotiation, condom use through demonstration and STI and HIV risk reduction.
- A significant increase in condom use and a decrease in sex partners (over a 2 year follow up period) was reported in an intervention with Brazilian port workers. Face-to-face contact was made by peer outreach workers discussing HIV and AIDS individually or in groups and condoms were distributed free of charge. There was no change in the men's knowledge of HIV and AIDS or in their attitudes towards condoms.
- An evaluation of an intervention with trucking workers in Senegal, reported significant effects over 2 years of study in increasing men's condom use and HIV knowledge through peer-education giving workers information about HIV & STI and teaching skills related to condom use, condom negotiation and communication.
- A successful structural intervention involving a mass national communication campaign was conducted in Thailand. Its effectiveness was assessed through a prospective cohort study with men entering the military over 2 periods. A significant reduction in the incidence of new STI was reported over the course of the study.

Despite the success of the four above examples, some methodological problems and issues about their generalisability to a Scottish heterosexual male population should also be considered.

### **Methodological issues in sexual health interventions among adult, heterosexual men**

Although biological outcomes (new STI infection) were reported in some studies, the majority of outcomes were either behavioural (unprotected intercourse, number of partners, condom use) or social psychological (knowledge of HIV, attitudes towards condoms, intention to use condoms), and therefore reliant on self-reporting. Social desirability bias was also evident; for example, in the Senegalese intervention, reports of men having fewer sex partners was not corroborated by the female sex workers frequented by the men. Elwy et al. stress the need to adopt biological outcomes such as laboratory-diagnosed STI acquisition to ensure more reliable results and to aid external validity.

The lack of homogeneity across the intervention outcome measures and the small number of interventions applied to heterosexual adults from the general population has made it difficult for authors to recommend one intervention as being more successful than any other. The lack of randomized design or appropriate comparison groups across the interventions and the possibility of publication bias were also raised as concerns (Exner et al. 1999; Elwy et al. 2002). As such, no single intervention was found which could be said to be more effective than any other in reducing STI or HIV acquisition in heterosexual men. Of the interventions which proved successful in changing men's sexual behaviour, it remains unclear what aspect of the interventions elicited the behavioural change in the men. Information on interviewer characteristics, intervention attendance rates and quality control procedures were also absent from the majority of studies (Exner et al.

1999). Indeed, Exner et al. found a lack of clear patterns which distinguished effective from non-effective interventions.

Due to the heterogeneity of the groups of men involved in previously successful sexual health interventions, the varied contexts in which interventions were enacted and evaluated, and the different methods utilised across the evaluations, it is not possible to recommend any one of the interventions across the reviews on sexual health interventions. However, peer-education providing information about HIV & STI proved successful, as did individual counseling, small group work and HIV testing. The majority of the successful interventions were conducted in a male only environment and the efficacy of this could be adopted for use with heterosexual men living in deprived areas in Scotland.

### **Masculinities and sexual health**

Although our focus, and interest, is on the empirical studies which have used masculinities theory in sexual health research, it is pertinent to first discuss the theoretical concepts around masculinities and how they relate to sexual health.

#### **Essentialist theory of masculinity**

Masculinities are behaviours men adopt to express their male identity. The first work to link masculinities and health was grounded in biological theory. This theory suggested that male masculinity was biologically determined and mostly immutable. Essentialist masculinity dictated that males were predisposed to aggression and risk-taking behaviours as an expression of their 'maleness'. It has been argued that this is an overly simplistic explanation, which takes no account of heterogeneity within male behaviour. Creighton & Oliffe (2010) argued that biologically driven masculinity merely serves to uphold and excuse men's risky health practices. This theory lingers in the general consciousness but it is generally not adopted by researchers.

#### **Constructionist theory of masculinity**

Connell and Messerschmidt (2005) offered a theory of hegemonic masculinities which built on Connell's (1995) social constructionist theory. Constructionist theory suggested that history, social class and culture combined with gender create the dominant form of masculinity. Contemporary western hegemonic masculinity dictates that men should be middle class, heterosexual and white; they should espouse stereotypical masculine traits of dominance, control, aggression, strength, assertiveness and emotional restraint. (Evans et al, 2011)

Connell and Messerschmidt (2005) highlighted the existence of multiple masculinities. Few men could possess all the traits which embody hegemonic masculinity and therefore the idea of multiple masculinities such as protest, marginalised and subordinate masculinities can be used to describe how the working-class or those of lower socio-economic status, gay men and ethnic minorities construct masculinities with the resources available to them. Courtney (2000, 2009) concurred with the social construction theory of masculinities and stated that men's construction of masculinity, and their resultant health risks, is influenced by factors such as economic status, social context and educational level. Also important in the construction of masculinities is the rejection of feminine ideals. Following this argument, health care utilisation is regarded as feminine territory, and as such, it behoves the male to reject health care to varying degrees depending on the other resources which one may have for constructing masculinities.

Men who are marginalised by their economic status, ethnicity, or education seek other resources for masculinity construction. It is argued that a more readily accessible means of enacting masculinity for many men is by embracing risk, and, as Courtney (2000) argues, the means available to men for constructing masculinities, and demonstrating manhood, are largely unhealthy.

### **Psychosocial theory**

Lohan (2007) introduced a psychosocial explanation for gender health inequality. Stress, hopelessness and loss of control can combine to have a negative impact on health. That is, the resultant impact on self-esteem and social involvement of being socially and/or economically unequal can lead to unhealthy coping behaviours such as smoking, drink and drug abuse and unsafe sexual behaviours. Lohan (2007) argued that in attempting to regain social status through unhealthy behaviours, men are 'appealing to hierarchies of masculinities rather than hierarchies of social class'.

Dworkin et al. (2009) apply the work of Messner (1997) to HIV, noting that the risks men take in constituting masculinity can negatively impact on the health of men and women, i.e. by avoiding HIV testing, help seeking and having multiple partners. Socio-economically disadvantaged men face a disproportionately high risk of infection (Dworkin et al. 2009).

### **Empirical research addressing associations between masculinities and sexual health**

We found few studies that directly addressed the associations between masculinities and sexual health. A brief overview of the studies included in our review is shown in Table 2, and below we discuss their findings and the implications for intervention research.

In a study of the HIV risk perceptions and sexual behaviour of young working class men in Glasgow, Wight (1999) found that those in professions or higher education were less inclined to perceive of the HIV virus as residing only within distinct 'risk groups'. This group took personal responsibility for their sexual health by practising safe sex. They generally lost touch with their school friends and developed new friendships with peers at university or work; they also had mixed-gender friendship groups. In contrast, a third of the unskilled manual workers and unemployed men stated that they felt no personal vulnerability to HIV (Wight, 1999). The other two thirds did not consider HIV to be of a sufficient threat for them to change their sexual behaviours. Wight attributed this lack of concern in part to the young men's socio-economic position (relative to the group who were in professions or higher education). Wight found the men from the lower socio-economic group espoused fatalistic comments about HIV infection and their chances of acquisition; they didn't feel that their individual actions could determine their likelihood of contracting the disease. The young men generally belonged to homo-social peer groups; as such traditional gender divisions remained unquestioned.

Flood (2003) explored the sexual culture and unsafe sexual practices of heterosexual men between the ages of 18 and 26. The attitudes and behaviours of the men were grounded in the construction of masculinities and they regarded their social circles and sexual networks as free of AIDS. Five main themes emerged to explain the men's non-use of condoms:

- The risk of pregnancy rather than HIV or other STI's was stressed. The assumption amongst the men in the study was that if a female is sexually active then she is probably taking the contraceptive pill and condoms were not required.
- Condoms decreased penile sensation and the respondents chose to prioritise their own sexual pleasure over the sexual health of themselves and their sexual partners.

- The 'heat of the moment' problem, and interruption required to put on a condom impeded their use. Half of the study group admitted to discarding condom use in 'the heat of the moment'.
- Sexual relations quickly become 'relationships' and ideally relationships were monogamous and trusting; therefore condoms were discarded. The men in the study stated that this could occur very quickly after the couple's first sexual encounter and the further use of condoms once in a relationship would seem to point to a lack of trust in the sexual partner.
- Men regard their heterosexual social circles as free of AIDS; being unlikely to contract HIV, the perception was that only contraception was required to protect against pregnancy (and its use was the responsibility of their female partners).

O'Brien et al. (2005) found that masculinities played a fundamental role in the construction of behaviours affecting sexual health. In this Scottish study, men would only contemplate visiting the doctors or a health clinic following pain or visible injury, and even then they would rather wait until someone else suggested they should go (O'Brien et al., 2005). The relation between help-seeking and masculinity seemed to be reinforced by the exception to the rule: problems with sexual performance. The men in the study stated that they would actively seek health care were they unable perform sexually; doing so was deemed to preserve masculinity, whereas help-seeking for many other ailments was seen to threaten one's masculinity. Kalmus & Austrian (2010) reported similar findings in a study with young Latino & African American men. The men would not readily seek care due to a perceived risk to their masculine status, except when their sexual prowess was in danger of being affected. Kalmus & Austrian suggested that this exception could be seen as an example of the health promoting benefits of men's sense of masculinity. However, the high number of asymptomatic STI's would seem to refute this claim. Without symptoms, a man would not suspect that his sexual functioning was under threat, so there is no trigger to seek care. Kalmus & Austrian also found that some men would 'tough things out' even in the case of symptomatic STI's. This was a less typical response, although another display of adherence to an aspect of hegemonic masculinity. The authors were unable to determine why a man would choose one masculinity construct over another. It is possible that more men in private would admit to the 'toughing it out approach' as this applies to all other aspects of health care.

However, it should be noted that the focus group setting of both studies may have had some bearing on the responses of the men, in that they were essentially performing masculinity and health in front of a group of other men (i.e., what the men said they would do with regards to health seeking amongst a group of their peers might differ to what they would say in private). Indeed, the importance of peer norms around masculinities and health was also studied by Mahalik et al., (2007). They used the Conformity to Masculinity Norms Inventory (CMNI) and a Health Promotion Behaviour index to study the extent to which men's health behaviours were dictated by their allegiance to hegemonic masculinity. The CMNI assesses conformity to a number of dominant cultural norms of masculinity using a 94-item questionnaire. The higher the score on the CMNI, the greater one is likely to conform to masculinity norms. The results indicated that those who scored higher on the CMNI reported the least health promoting behaviours. Another significant finding was that more educated men and those with higher household incomes, (those of higher socio-economic status) reported greater health promoting behaviours (Mahalik et al., 2007).

Sloan et al. (2009) questioned the pessimism involved in the theory of hegemonic masculinities and sought to understand the effect of masculinity on those men who engage in health promoting behaviours and lifestyles. They recruited men who defined themselves as healthy and the inclusion criteria included a healthy diet, regular exercise, low or no alcohol consumption and non smoking.

Although this study did not focus on sexual health, it provides a good example of how men can utilise aspects of hegemonic masculinities to improve health.

Masculinity was found to have a framing influence on the men in the study in that although they were ostensibly healthy individuals, they all downplayed the extent to which health concerns impacted upon their lifestyle choices (Sloan et al., 2009). The authors argued that expressing health concern exposed the men to perceived vulnerability. Instead the reasons the men gave for enacting health promoting behaviours were those of being autonomous, maintaining sporting interest and body-consciousness. The men actively rejected unhealthy forms of behaviour linked to hegemonic masculinities such as drinking to excess and eating high fat foodstuffs. Yet in adopting health promoting behaviours, they displayed other aspects of hegemonic masculinity such as functionality, autonomy and rationality; as such, they achieved a constructed masculinity which balanced 'being a man' with 'being healthy' (Sloan et al., 2009).

Similarly, Farrimond (2011) found men talked of health care seeking in terms of being in control, problem-solving, being responsible and taking action. However, all of the men in this study were employed in professional or white collar jobs, (none were unemployed, living in poverty, or of low socio-economic status). This suggests that they fulfil one of the fundamental attributes of hegemonic masculinity: financial success, which in turn supplies them with sufficient resource to not feel compelled to construct their masculinity under the pretence of invulnerability (and the associated avoidance of health care services). Farrimond argues that this change in masculinity construction from 'Neanderthal Man to Action Man' may lead to more men accessing health care. However, greater gender equality may serve to highlight inequalities between men of differing socio-economic status, with those of lower status more likely to remain 'Neanderthal Man' in terms of masculinity construction.

Finally, De Visser et al. (2009) examined whether men enacting traditionally non-masculine behaviour, such as abstaining from drinking or overt displays of vanity, could compensate with other forms of masculinity. They found that a certain 'masculinity capital' could be traded to allow men to compensate for non-masculine behaviours. For example, the rugby player could abstain from drink or the footballer could display acts of vanity because they have achieved sporting success, and sporting achievement is an important element of masculinity. However, the study participants found it more difficult to attribute masculinity to a gay rugby player, highlighting that heterosexuality is higher in the masculinity hierarchy than heavy drinking or lack of vanity (De Visser et al., 2009).

### **Masculinities and sexual health interventions**

Dworkin et al. (2009) note that most research on sexual risk behaviour of heterosexual men in the US is not guided by theories of masculinity and none of the best evidenced interventions at that time used these. The successful interventions, discussed earlier in this Report, all suffered from methodological failings which negated their generalisability, and again did not employ theories of masculinity. Dworkin et al. (2009) highlight two interventions that did address the negative impact of traditional gender norms on sexual risk behaviour and each is described briefly below.

Pulerwitz et al. (2004), targeted young men (aged 15-24) in Brazil, with the aim of promoting healthy gender-equitable relationships and reducing STI and HIV transmission. They used group education sessions led by adult males along with a community wide social marketing campaign to encourage gender-equity by changing perception of masculinity norms. In directly addressing gender construction, the intervention engaged the men in discussions about what it was to be a man, the 'costs of masculinity' and the advantages of more gender-equitable behaviours. The intervention succeeded in reducing support for traditional gender norms and decreasing STI

acquisition; more equitable gender norms were significantly associated with a reduction of between four and eight times the reported STI symptoms. Positive results were recorded at six months and increased at twelve months.

The Stepping Stones intervention conducted by Jewkes et al. (2008) in South Africa with 15 to 24 year olds sought to change norms around gender inequity in order to reduce partner violence and HIV acquisition. Over a two year period, it reported a 33% reduction in STI acquisition and improvements in other risk behaviours such as substance abuse, transactional sex and partner violence (Jewkes et al., 2008).

## Conclusions and Recommendations

This review has shown that there is relatively limited research on the correlation between deprivation and STI acquisition among adult, heterosexual men. It has also highlighted a lack of interventions to reduce STI acquisition which directly target adult, heterosexual males in the general population. Although masculinities have been shown to affect sexual health practices, most research into STI reduction in heterosexual males in the UK and US has not used a theoretical framework of masculinity.

First, some limitations of the scoping review should be noted. The review does not purport to be fully comprehensive, nor a systematic review. Instead, we sought only to source sexual health research that had been conducted with adult, heterosexual males from deprived areas, assess what interventions with this population had been included in existing systematic reviews, and consider what role did (or could) masculinities play in such interventions. Furthermore, we did not critically appraise any of the studies included in the review. Also, many studies were omitted due to their focus on adolescents, which could be seen as a mistake. Although our focus was on adult men, the transferability of current research with younger age groups should not be dismissed on the grounds of the target demographic. For example, the interventions by Pulerwitz et al. (2004) and Jewkes et al. (2008) were initially excluded because the participants were under the age of eighteen. The research assistant also mistakenly excluded two books (Ruxton, 2002; Seidler, 2006), which were likely to have been relevant and should be considered in relation to future research and intervention development in this area.

Although the number of studies was limited, the research demonstrates that those from low SES backgrounds and who inhabit deprived areas experience high STI incidence. Whether conducted in the US or the UK, the research tended to focus on the disparity between ethnic groups. Also, population sub-groups, which attract independent study due to their 'high risk' status, mask the potential benefits of research into general risk heterosexual males. Only one study in the deprivation literature addressed heterosexual men from deprived areas (Essien et al., 2005). Moreover, it was conducted in the US and its focus was on HIV prevention in African American men. This highlights the need for more research into the attitudes and behaviours of heterosexual males from deprived areas.

Even in systematic reviews of interventions to prevent STI and HIV acquisition in the heterosexual male population, the vast majority of interventions targeted particular risk groups, such as drug users and STI clinic attendees. No intervention was discussed which targeted heterosexual males from deprived areas. The research gaps are therefore substantial and Neumann et al. suggest there is a lack of: institutional and community level interventions; interventions for men who do not inject drugs; interventions which address the general population in public or residential areas; and interventions which teach condom use and negotiation. Most importantly, for the remit of this scoping review,

Future research and interventions aimed at lowering STI transmission rates could benefit from incorporating a theoretical framework of masculinity. Studies in the UK have shown that men from deprived areas have fewer resources for constructing masculinity and draw on narrow definitions of masculinity, which could impact negatively on their sexual health. Traditional masculinity norms, which exacerbate poor sexual health practices, need to be addressed amongst heterosexual men from deprived areas. However, no UK studies have focused on sexual health interventions which address the subject of masculinities. These findings are significant because two successful

interventions, which specifically addressed masculinity and gender norms, demonstrated that significant improvements to men's sexual health (Pulerwitz et al., 2004; Jewkes et al., 2008). Although the transferability of these interventions to the UK context, should be considered, the findings could well inform future intervention development in this area.

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Flood, M. (2003) Lust, trust and latex: Why young heterosexual men do not use condoms. *Culture, Health & Sexuality* 5: 353-69.

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Kalmuss, D. & Austrian, K. (2010) Real men do ... real men don't: Young Latino and African American men's discourses regarding sexual health care utilization. *American Journal of Men's Health* 4(3): 218-230.

Lacey, C.J.N., Merrick, D.W., Bensley, D.C., Fairley, I. (1997) Analysis of the sociodemography of gonorrhoea in Leeds, 1989-93. *BMJ* 314:1715-1718.

Lohan, M. (2007) How might we understand men's health better? Integrating explanations from critical studies on men and inequalities in health. *Soc Sci Med* 65(3):493-504.

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Magnus, M., Kuo, I. et al. (2009) Risk factors driving the emergence of a generalized heterosexual HIV epidemic in Washington, District of Columbia networks at risk. *AIDS* 23(10): 1277-1284.

Mahalik, J.R., Burns, S.M., Syzdek, M. (2007) Masculinity and perceived normative health behaviors as predictors of men's health behaviors. *Soc Sci Med* 64:2201-2209.

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Neumann, M.S., Johnson, W.D., Semaan, S., Flores, S.A., Peersman, G., Hedges, L.V. & Sogolow, E. (2002) Review and meta-analysis of HIV prevention intervention research for heterosexual adult populations in the United States. *J AIDS*, 30, S106-S107.

Noar, S.M. (2008) Behavioral interventions to reduce HIV-related sexual risk behavior: review and synthesis of meta-analytic evidence. *AIDS Behav* 12: 335-353.

O'Brien, R., Hunt, K. & Hart, G. (2005) It's caveman stuff, but that is to a certain extent how guys still operate: Men's accounts of masculinity and help seeking. *Soc Sci Med* 61(3):503–516.

Pulerwitz, J., Barker, G., Segundo, M. (2004) *Promoting healthy relationships and HIV/STI prevention for young men: Positive findings from an intervention study in Brazil*. Horizons Research Update. Washington, DC: Population Council; Available at: [http:// www.popcouncil.org/pdfs/horizons/brgndrnmsru.pdf](http://www.popcouncil.org/pdfs/horizons/brgndrnmsru.pdf). Accessed on February 24 2012

Ruxton, S. (2002) *Men, masculinities, and poverty in the UK*. Oxford, Oxfam GB.

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Seidler, V.J. (2006) *Transforming masculinities: men, cultures, bodies, power, sex, and love*. London, Routledge.

Sim, J., Fraser, S., Church, S., Wight, D., and Eaglesham, P. (2009) *Wellbeing in Sexual Health (WISH) - The sexual health and wellbeing of vulnerable groups in Scotland: a scoping review of research literature*. Health Scotland & Medical Research Council SPSU Sexual Health and Wellbeing Research Scoping.

Sloan, C., Gough, B., and Conner, M. (2009) Healthy masculinities? How ostensibly healthy men talk about lifestyle, health and gender. *Psychology and Health* 25(7):783–803.

Smith, J. & Robertson, S. (2008) Men's health promotion: A new frontier in Australia and the UK? *Health Promotion International* 23(3): 283–289.

Towe, V. L., Sifakis, F. et al. (2010) Prevalence of HIV infection and sexual risk behaviors among individuals having heterosexual sex in low income neighborhoods in Baltimore, MD: the BESURE study. *JAIDS* 53(4): 522-528.

Wight, D. (1999) Cultural factors in young heterosexual men's perception of HIV risk. *Sociology of Health and Illness* 21, 735-758.

## Appendix I

### **Papers suggested by the Unit's Information Scientist as relevant to RQI and included in the review**

Arnold, M. P., H. F. Raymond, et al. (2011). "Socioeconomic position and HIV risk-relevant behavior among lower-income heterosexuals in San Francisco." *AIDS Behav* 15(2): 499-506.

Centers for Disease, C. and Prevention (2011). "Characteristics associated with HIV infection among heterosexuals in urban areas with high AIDS prevalence --- 24 cities, United States, 2006-2007." *MMWR Morb Mortal Wkly Rep* 60(31): 1045-1049.

Essien, E. J., A. F. Meshack, et al. (2005). "Strategies to prevent HIV transmission among heterosexual African-American men." *BMC Public Health* 5: 3.

Flom, P. L., S. R. Friedman, et al. (2001). "Stigmatized drug use, sexual partner concurrency, and other sex risk network and behavior characteristics of 18- to 24-year-old youth in a high-risk neighborhood." *Sex Transm Dis* 28(10): 5

Ford, J. L. and C. R. Browning (2011). "Neighborhood Social Disorganization and the Acquisition of Trichomoniasis Among Young Adults in the United States." *Am J Public Health* 101(9): 1696-1703.

Lansky, A., A. K. Nakashima, et al. (2000). "Risk behaviors related to heterosexual transmission from HIV-infected persons. Supplement to HIV/AIDS Surveillance Study Group." *Sex Transm Dis* 27(8): 483-489.

Magnus, M., I. Kuo, et al. (2009). "Risk factors driving the emergence of a generalized heterosexual HIV epidemic in Washington, District of Columbia networks at risk." *AIDS* 23(10): 1277-1284.

Towe, V. L., F. Sifakis, et al. (2010). "Prevalence of HIV infection and sexual risk behaviors among individuals having heterosexual sex in low income neighborhoods in Baltimore, MD: the BESURE study." *J Acquir Immune Defic Syndr* 53(4): 522-528.

### **Additional papers relating to RQI sourced by research assistant**

Cohen D, Spear S, Scribner R, et al. "Broken windows" and the risk of gonorrhoea. *Am J Public Health*. 2000;90: 230–236.

Lacey CJN, Merrick DW, Bensley DC, Fairley I. Analysis of the sociodemography of gonorrhoea in Leeds, 1989-93. *BMJ* 1997; 314:1715–1718.

Low N, Daker-White G, Barlow D, et al. Gonorrhoea in inner London: results of a cross sectional study. *BMJ* 1997; 314:1719–23.

Anne Scoular, Kirsty Abu-Rajab, Andy Winter, Judith Connell, & Graham Hart, - The case for social marketing in gonorrhoea prevention: Insights from sexual lifestyles in Glasgow genitourinary medicine clinic attendees *International journal of STD & AIDS* August 2008 vol. 19 no. 8 545-549

Noar, S. Et al. (2011) Sexual Partnerships, Risk Behaviors, and Condom Use Among Low-Income Heterosexual African Americans: A Qualitative Study. Arch Sex Behav.

### **RQ1 Excluded papers and reasons for exclusion**

Bauermeister, J. A., M. A. Zimmerman, et al. (2011). "Neighborhood disadvantage and changes in condom use among African American adolescents." J Urban Health 88(1): 66-83.

– ‘We examined the association between neighborhood characteristics and condom use in a sample of African American youth followed across the high school years’

Bensyl, D. M., S. K. Vesely, et al. (2011). "Associations Between Youth Assets and Sexual Intercourse by Household Income." American Journal of Health Promotion 25(5): 301-309.

- ‘Youths’ mean age was 14.9’

Cubbin, C., C. D. Brindis, et al. (2010). "Neighborhood poverty, aspirations and expectations, and initiation of sex." J Adolesc Health 47(4): 399-406.

- ‘models were stratified by gender and age group (11-14 and 15-17 yr)’

Cubbin, C., J. Santelli, et al. (2005). "Neighborhood context and sexual behaviors among adolescents: findings from the national longitudinal study of adolescent health." Perspect Sex Reprod Health 37(3): 125-134.

– ‘analyses of data from 14,151 adolescents in grades 7-12’

Eisenberg, M. L., A. W. Shindel, et al. (2010). "Socioeconomic, Anthropomorphic, and Demographic Predictors of Adult Sexual Activity in the United States: Data from the National Survey of Family Growth." Journal of Sexual Medicine 7(1): 50-58.

Fichtenberg, C. M., J. M. Jennings, et al. (2010). "Neighborhood Socioeconomic Environment and Sexual Network Position." Journal of Urban Health-Bulletin of the New York Academy of Medicine 87(2): 225-235.

– ‘study of sexual networks among urban African American adolescent’

Lang, D. L., L. F. Salazar, et al. (2010). "Neighborhood environment, sexual risk behaviors and acquisition of sexually transmitted infections among adolescents diagnosed with psychological disorders." Am J Community Psychol 46(3-4): 303-311.

- ‘sexually transmitted infections among adolescents’

Levy, V., K. Page-Shafer, et al. (2005). "HIV-related risk behavior among Hispanic immigrant men in a population-based household survey in low-income neighborhoods of northern California." Sex Transm Dis 32(8): 487-490.

*Immigration and risk behaviour, not redundant but did not add anything to existing papers*

Lindberg, L. D. and M. Orr (2011). "Neighborhood-Level Influences on Young Men's Sexual and Reproductive Health Behaviors." Am J Public Health 101(2): 271-274.

- ‘never-married males aged 15 to 19 years’

Ramirez-Valles, J., M. A. Zimmerman, et al. (1998). "Sexual risk behavior among youth: Modeling the influence of prosocial activities and socioeconomic factors." Journal of Health and Social Behavior 39(3): 237-253.

– ‘high-school-aged youths’

Reed, E., J. G. Silverman, et al. (2011). "Male perpetration of teen dating violence: associations with neighborhood violence involvement, gender attitudes, and perceived peer and neighborhood norms." *J Urban Health* 88(2): 226-239.

– *'This study aims to examine the link between male perpetration of teen dating violence (TDV) and neighborhood violence'*

Semple, S. J., S. A. Strathdee, et al. (2011). "Correlates of trading sex for methamphetamine in a sample of HIV-negative heterosexual methamphetamine users." *J Psychoactive Drugs* 43(2): 79-88.  
*'sex-for-drug exchanges among heterosexual methamphetamine users'*

Sikkema, K. J., E. S. Anderson, et al. (2005). "Outcomes of a randomized, controlled community-level HIV prevention intervention for adolescents in low-income housing developments." *AIDS* 19(14): 1509-1516.

– *'Youth are increasingly at risk for contracting HIV infection' More about frequency of sexual activity and how frequency relates to Socioeconomic, anthropomorphic, and demographic situation.*

### **Papers marked as RQ1 but moved to RQ2**

Elwy, A. R., G. J. Hart, et al. (2002). "Effectiveness of interventions to prevent sexually transmitted infections and human immunodeficiency virus in heterosexual men - A systematic review." *Archives of Internal Medicine* 162(16): 1818-1830.

### **Papers marked as deprivation but moved to masculinities**

Dworkin, S. L., R. E. Fullilove, et al. (2009). "Are HIV/AIDS Prevention Interventions for Heterosexually Active Men in the United States Gender-Specific?" *Am J Public Health* 99(6): 981-984.

### **Papers suggested by the Unit's Information Scientist as relevant to RQ3 and kept**

Sydor, A. M. and G. University of (2010). *The lived experiences of young men addressing their sexual health and negotiating their masculinities* [electronic resource], University of Glamorgan.

Creighton, G. and J. L. Oliffe (2010). "Theorising masculinities and men's health: A brief history with a view to practice." *Health Sociology Review* 19(4): 409-418.

Courtenay, W. H. (2000). "Constructions of masculinity and their influence on men's well-being: a theory of gender and health." *Social Science & Medicine* 50(10): 1385-1401.

### **Additional papers relating to RQ3 sourced by research assistant**

Wight, D. (1999) Cultural factors in young heterosexual men's perception of HIV risk. *Sociology of Health and Illness*, 21, 735-758.

Flood, M. 2003. Lust, trust and latex: Why young heterosexual men do not use condoms. *Culture, Health & Sexuality* 5, no. 4: 353-69.

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Robertson, S. (2006a) 'Not living life in too much of an excess': Lay men understanding health and well-being. *Health*, 10(2), 175–189.

Odimegwu C., Okemgbo C.N. (2008) Men's perceptions of masculinities and sexual health risks in Igboland, Nigeria. - *Free Online Library* 2008. [accessed 1 April, 2010]

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Kalmuss D and Austrian K (2010) Real men do ... real men don't: Young Latino and African American men's discourses regarding sexual health care utilization *American Journal of Men's Health* 4(3): 218–230.

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Evans, J., Frank, B., Oliffe, J.L., & Gregory, D. (2011). Health, Illness, Men and Masculinities (HIMM): a theoretical framework for understanding men and their health. *Journal of Men's Health*, 8(1), 7-15.

### **RQ3 Excluded papers and reasons for exclusion**

Asberg, C. and E. Johnson "Viagra selfhood: pharmaceutical advertising and the visual formation of Swedish masculinity." *Health Care Analysis* 17(2): 144-157.  
*About Viagra*

Beasley, C. (2008). "The challenge of pleasure: Re-imagining sexuality and sexual health." *Health Sociology Review* 17(2): 151-163.  
*Sexual violence*

Bell, D. (2005). "Review of 'The Life of Brian: Masculinities, Sexualities and Health in New Zealand'." *Sociology of Health & Illness* 27(5): 670-671.

*Book review suggests book would not be acceptable – too vague*

Cossins, A. (2000). *Masculinities, sexualities, and child sexual abuse*. The Hague ; London, Kluwer Law International.

*Child Sexual Abuse*

Hyde, A., E. Howlett, et al. "Masculinities and young men's sex education needs in Ireland: problematizing client-centred health promotion approaches." *Health Promotion International* 20(4): 334-341.

*15 to 19yrs*

Inhorn, M. C. and E. A. Wentzell (2011). "Embodying emergent masculinities: Men engaging with reproductive and sexual health technologies in the Middle East and Mexico." *American Ethnologist* 38(4): 801-815.

*focuses on men's encounters with emerging reproductive and sexual health technologies*

Jewitt, C. (1998). "A social semiotic analysis of male heterosexuality in sexual health resources: the case of images." *International Journal of Social Research Methodology* 1(4): 263-279.

*Sample aged 13-19*

Marshall, B. L. (2006). "The New Virility: Viagra, Male Aging and Sexual Function." *Sexualities* 9(3): 345-362.

*not sexual health & masculinities but the extension of sexual behaviour and reinvigorated sense of masculinity through Viagra use*

Numer, M. S. and J. Gahagan (2009). "The sexual health of gay men in the post-AIDS era: Feminist, post-structuralist and queer theory perspectives." *International Journal of Men's Health* 8(2): 155-168.

*- gay men*

Numer, M. (2008). "The Sexual Health of Gay Men: Exploring the Intersections of Identities, Masculinities and Health Promotion." *International Journal of Diversity in Organisations, Communities & Nations* 8(3): 249-254.

*Gay Men*

Onyango, M. A. and K. Hampanda (2011). "Social Constructions of Masculinity and Male Survivors of Wartime Sexual Violence: an Analytical Review." *International Journal of Sexual Health* 23(4): 237-247.

*Sexual violence*

Ott, M. A. (2010). "Examining the Development and Sexual Behavior of Adolescent Males." *Journal of Adolescent Health* 46(4): S3-S11.

*Adolescent Males*

Phillips, A. F. and C. M. Pirkle (2011). "Moving beyond behaviour: Advancing HIV risk prevention epistemologies and interventions (A report on the state of the literature)." *Global Public Health* 6(6): 577-592.

*Overlooked in error.*

Robertson, S. (2008). "Review of 'The Viagra adventure: Masculinity, media and the performance of sexual health'." *Men and Masculinities* 11(2): 253-255.

*The overarching thrust of the book is to explore the relations between Viagra and performances of masculinity.*

Ruxton, S. (2002). *Men, masculinities, and poverty in the UK*, Oxford: Oxfam GB; distributed by Stylus, Sterling, Va.

*Book*

Scott, J., G. W. Dowsett, et al. (2010). "Growing men's health: Broadening the conceptual and practical agenda." *Health Sociology Review* 19(4): 403-408.

*A general editorial discussing the following pieces in the journal*

Seidler, V. J. (2006). *Transforming masculinities: men, cultures, bodies, power, sex, and love*. London, Routledge.

*Book*

### **Papers marked as RQ3 but moved to RQ2**

Exner, T. M., P. S. Gardos, et al. (1999). "HIV Sexual Risk Reduction Interventions With Heterosexual Men: The Forgotten Group." *AIDS and Behavior* 3(4): 347-358.



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