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Characteristics, sexual behaviour and access to health care services for sex workers in South Africa[1]

Marlise Richter

International Centre for Reproductive Health, Ghent University, Belgium
School of Public Health & Family Medicine, University of Cape Town, South Africa
African Centre for Migration & Society, University of the Witwatersrand, South Africa

Sex workers in sub-Saharan Africa are vulnerable to a range of factors that ill-dispose them to poor health outcomes. Their vulnerability to HIV and other STIs are many fold greater than the non-sex worker population of the same age. Health care systems world-wide are not responsive to the special needs of sex workers, and many sex workers do not receive adequate health services, education or HIV prevention tools. While the literature on female sex work in Africa is fairly robust, troubling research gaps are evident on male and transgender sex work, and the intersections of migration and sex work. A cross-sectional descriptive study was conducted with female, male and transgender sex workers in four sites in South Africa. The research results point towards the diversity of the sex industry and the people who work in it. Sex work is an important livelihood strategy for many, and provides an income for sex workers and their extended network of dependents. Migration is a vital component in how sex worker lives and work are structured. Moreover, the article highlights the shortcomings of health care services to respond adequately to the needs of sex workers, and recommends the rolling-out of specialized, sex work-specific health care services in areas of sex work concentration, and sex work-friendly services in mainstream health care facilities in areas of low sex work concentration.

Key words: sex work, South Africa, HIV/AIDS, STIs

Background

HIV/AIDS is the leading cause of burden of diseases in Africa (Regional Office for Africa WHO, 2011). More than two thirds of the people with HIV/AIDS globally lived in sub-Saharan Africa (SSA), while this region also contained 70.0% of all new HIV infections globally in 2010 (UNAIDS, 2011b). More women than men in SSA have HIV – in 2010, women comprised 59.0% [56–63%] of the people with HIV (approximately the same proportion as in 2000)(WHO, UNAIDS, & UNICEF, 2011).

1 This is the report of PhD research carried out at Ghent University, under the supervision of Marleen Temmerman and Matthew Chersisch.

A recent Global AIDS Response report noted that "continuing evidence indicates that unprotected paid sex and sex between men are significant factors in the HIV epidemics in several sub-Saharan African countries" (WHO, *et al.*, 2011, p.26). HIV prevalence among sex workers and sex work[2] clients is about 10–20 times higher than among the general population in SSA (WHO, 2011). A systematic review and meta-analysis of female sex workers (FSWs) in low and middle-income countries found that FSWs in SSA had the highest pooled HIV prevalence at 36.9% (95% CI 36.2-37.5) while the pooled odds ratio of FSWs in SSA having HIV compared with all women of reproductive age in low-income and middle-income countries was 12.4 (95% CI 8·9-17·2) (Baral *et al.*, 2012). Data on HIV prevalence among male and transgender sex workers is more limited than among FSWs.

In view of the immense burden of HIV that sex workers carry, it is paradoxical that less than 1.0% of global HIV prevention funding focuses on sex work (UNAIDS, 2009), while median coverage of HIV prevention programmes involves less than 50.0% of sex workers (Shannon & Montaner, 2012; UNAIDS, 2011b).

Objectives

Given the vulnerability of sex workers to HIV and other STIs, and the lack of research on sex work settings, the main objective and sub-objectives of this research component were as follow:

1) To describe the characteristics, behavioural and other risk factors as well as health care contact among sex workers in South Africa
   - a) To describe the socio-demographic characteristics and sexual behaviour, and identify HIV risk factors among female, male and transgender sex workers in South Africa; and
   - b) To describe the migration status, work conditions and utilization of health services of female sex workers in South Africa.

Methods

Study sites & population

South Africa is situated at the southernmost tip of Africa and had a population of 51.8 million in October 2011 (Statistics South Africa, 2012). The World Bank classifies it as an upper middle income country. It consists of nine provinces and has 11 official languages. Gauteng province is the most populous with 12.3 million people and produces more than a third of South Africa's Gross Domestic Product. South Africa became a democracy in 1994.

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2 This article employs the term "sex work" instead of "prostitution". UNAIDS advises against the use of the word "prostitute" and recommends "sex worker" as it is deemed non-judgemental UNAIDS. (2011a). UNAIDS *Terminology Guidelines*. Geneva. Similarly, Kempadoo notes that the employment of "sex work" "[...] suggests we view prostitution not as an identity – a social or psychological characteristic of women, often indicated by 'whore' – but as an income-generating activity or form of labour for women and men. The definition stresses the social location of those engaged in sex industries as working people" Kempadoo, K. (1998). Introduction - Globalizing sex workers' rights. In K. Kempadoo & J. Doezema (Eds.), *Global sex workers - Rights, resistance, and redefinition*. New York: Routledge.p.3.

South Africa's antenatal survey estimated South Africa's HIV prevalence among pregnant women at 29.5% (95% CI 28.7-30.2%) in 2011, with 5.6 million people living with HIV in the country (17.3% of adults between 15-49 years)(Department of Health, 2012). In 1998, HIV prevalence among different FSW groups in South Africa ranged between 46% and 69% (Ramjee, Karim, & Sturm, 1998; Rees, Beksinska, Dickson-Tetteh, Ballard, & Htun, 2000; Williams *et al.*, 2003).

In South Africa, the buying and selling of sex is criminalised under the Sexual Offences Act of 1957 and the Criminal Law (Sexual Offences and Related Matters) Amendment Act of 2007.

The study was conducted in four research sites in the cities of Johannesburg, Rustenburg and Cape Town. Johannesburg is the largest city in South Africa and situated in Gauteng province. Two contrasting areas of Johannesburg were selected: Hillbrow and Sandton. The inner-city area of Hillbrow was chosen as it has a well-known, long-standing sex trade and is a popular destination for newly-arrived migrants (Nairne, 1999, 2000; Marlise Richter, 2008; Stadler & Delany, 2006; Jo Vearey, Oliveira, Madzimure, & Ntini, 2011; Wojcicki & Malala, 2001). Sandton, by contrast, is a wealthy suburb and business district (Bähr & Jürgens, 2006) with a visible outdoor sex industry. Rustenburg is in a predominantly rural province. This site comprised informal settlements[3] within a platinum mine area about 15 kilometres outside the city; its sex work industry mainly serves the local mining community (Akileswaran & Lurie, 2010). The coastal city of Cape Town is a popular international tourist destination (SA Cities Network, 2006), with a relatively well documented sex work industry. The surveys were administered between May-September 2010.

Study design & sampling procedures

A cross-sectional study design based on non-probability convenience sampling was employed that relied on fieldworkers identifying sex workers from their own experience of the research sites. Self-identified female, male and transgender sex workers in the study sites were interviewed by trained sex worker fieldworkers. University-based researchers collaborated with two non-governmental organisations – the Sex Worker Education and Advocacy Taskforce (SWEAT) and Sisonke Sex Worker Movement. SWEAT and Sisonke introduced the researchers to peer educators known to them in the research sites who were requested to invite other peer educators or sex workers to a half-day research training workshop. Selected fieldworkers were then requested to specify popular sex work venues that they worked at or were familiar with, and where they felt comfortable recruiting prospective participants. To ensure comparable sampling procedures across phases, each fieldworker agreed to adhere to the same procedures over the three phases. Fieldworkers were requested to administer questionnaires at the same pre-specified time of day, four days of the week, and at the identical venues as in the preceding phase. Fieldworkers approached every third male, female or transgender

3 Informal residential area comprised of shacks or shanty towns.

person believed to be a sex worker in a particular sex work venue and invited her/him to participate. During each phase, fieldworkers administered a 43-item semi-structured questionnaire to 20 sex workers.

Questionnaires were based on previous studies with sex workers in Mombasa, Kenya (S. Luchters *et al.*, 2008), and research on migration history and access to health care in Johannesburg (Joanna Vearey, 2008). Questionnaires were translated from English into four local languages (isiZulu, isiXhosa, Afrikaans and Setswana) and administered during three periods. A cell-phone airtime or grocery voucher of 20 South African Rand (ffiUS $3) was provided for time spent in the interview. Fieldworkers referred participants to local counselling, health and legal assistance organizations, as required. Fieldworkers distributed female condoms and information about the toll-free sex worker helpline[4] to participants.

Selected findings

Sex work is a key livelihood strategy

Sex work was a full-time profession for two-thirds of female sex workers, while a substantial number reported never having had a job before sex work. This confirms that sex work is an important livelihood strategy for sex workers in South Africa. Around two-thirds of male, female and transgender sex workers were full-time sex workers and received no income aside from sex work. Those who were full-time sex workers earned a median of R1500 ($200; female), R2000 ($266; male) or R2750 ($366; transgender) a week. These earnings are higher than those of clerks and people working within sales, services and crafts in South Africa, and six times more than the typical earnings of a domestic worker (Statistics South Africa, 2010).

In addition, study participants were responsible for a number of dependents, while only a fifth of females, 3.7% of men and no transgender participants reported that their partners provided some financial assistance to them. Sex work will therefore remain a pragmatic livelihood strategy for many in South Africa for a number of factors – South Africa's high unemployment rates, the fact the entering sex work requires no formal qualifications, the pressing need to provide for dependents – often without the support of a spouse and the relatively robust earnings that could be secured by sex workers.

Cross-border sex workers may be more tenacious in negotiatingthe sex industry, but access to health care is low

The vast majority of sex workers were migrants. Just over 85.0% of FSWs had migrated from their place of birth, with 39.0% being internal and 46.3% cross-border migrants. A quarter of males and a third of transgender sex workers were cross-border migrants, while over half of males and more than a third (37.9%) of transgender sex workers were internal migrants.

4 A telephone service that was provided free-of-charge staffed by trained counsellors to provide appropriate sex work advice and referrals.

Cross-border female migrants in South Africa had higher education levels, predominately worked part-time and mainly at indoor venues, and earned more per client than internal or non-migrants. They were also responsible for more dependents; non-migrants had a median of two dependents, internal migrants three dependents and cross-border migrants four dependents. A quarter of female, cross-border migrants reported that they worked as sex workers before they had left their place of birth in comparison to only 10% of internal migrants. These data, together with recent studies (Flak, 2011; Nyangairy, 2010; Oliviera, 2011), resist popular assumptions that maintain that foreign-born sex workers in South Africa are victims of human trafficking and sexual exploitation (Gould, 2011). These discourses were particularly prominent and emotive during the period of the 2010 Soccer World Cup (Gould, 2010; Gould & Richter, 2010; Ham, 2011; Marlise Richter & Monson, 2010).

We originally hypothesised that cross-border migrants would experience greater police harassment than their South African counterparts. Conversely, our study showed that police interaction in the last year was similar across migration groups – approximately 40.0% amongst internal, cross-border and non-migrants. Predictably, more cross-border migrants experienced negative police interaction on immigration issues than internal migrants or non-migrants.

It is of concern that cross-border FSWs in the face-to-face study had considerably lower health service contact than internal or non-migrants. Studies have documented that recent immigrants are often healthier than the host population because of positive self-selection or the "healthy migrant effect" (Deane, Parkhurst, & Johnston, 2010; Malmusi, Borrell, & Benach, 2010; Razum, Zeeb, Akgun, & Yilmaz, 1998). It could therefore be postulated that cross-border sex workers in this study did not actively seek health services as they may not have had a need for them. Alternatively, it may reflect on cross-border migrants' unwillingness to access health facilities because of poor previous experiences, or fear of arrest or discrimination (Human Rights Watch, 2009; F. Scorgie *et al.*, 2012; F Scorgie *et al.*, 2013; J. Vearey, 2012). Yet, in either case, peer education and outreach services need to access this group regularly; the data indicates that this has not happened. This omission may partly explain why cross-border sex workers were marginally less likely to use a condom during penetrative sex with last client as compared to non-migrants.

While peer education is generally only one component in a package of interventions for sex workers and thus hard to evaluate in isolation, studies have shown that peer education increases condom-use by sex workers (S. Luchters, *et al.*, 2008; Rekart, 2005; Shahmanesh, Patel, Mabey, & Cowan, 2008; WHO, 2011). The study findings presented here signal the need for targeted, migrant-friendly peer education services that employ cross-border sex workers as peer educators, and that identify spaces in which cross-border sex workers could be accessed.

Female sex workers are more likely to practice safer sex than transgender or male sex workers

Our data showed that more women had penetrative sex with last client than males or transgender people – a substantially more risky form of intercourse than non-penetrative sex (Varghese, Maher, Peterman, Branson, & Steketee, 2002). At the same time, more men had anal sex than women, which is a more risky than vaginal or oral sex (Varghese, *et al.*, 2002). Yet, women were more likely to have safer sex as they used condoms more consistently when engaged in penetrative sex. Less than 6.0% of FSWs reported having unprotected penetrative sex with last client, in contrast to 28.0% of men, and 20.0% of transgender sex workers. In fact, male sex workers were 3 times more likely, and transgender people 2.4 times more likely, than females to have unprotected penetrative sex with any of their last two clients. It is of concern that of all sexual encounters with last client, only 73.0% of all participants used a condom during anal sex – a particularly risky form of unprotected sex (Varghese, *et al.*, 2002).[5]

Levels of daily binge drinking are high

Excessive use of alcohol increases a sex worker's risk of HIV. We found high levels of binge drinking among our study participants. Close to a fifth of females, more than 40.0% of males and a third of transgender sex workers reported daily binge drinking. The links between alcohol and risky sex in the African context have been well-established in the literature (M. Chersich *et al.*, 2007; M. Chersich & Rees, 2010; M. Chersich, Rees, Scorgie, & Martin, 2009; Kalichman, Simbayi, Kaufman, Cain, & Jooste, 2007; Stanley Luchters *et al.*, 2011; Schneider, Chersich, Neuman, & Parry, 2012). Feeling drunk during sex with any of their last two clients was reported by 13.0% of male, transgender and female participants. In fact, participants who reported daily or weekly binge drinking were twice as likely to have unprotected sex compared to those who never engaged in binge drinking.

Access to health care services and condom-use are higher among sex workers working near a sex work-specific health clinic

One of the strategies to mitigate sex worker risk to HIV and ill-health is to ensure access to appropriate and sensitive health care and education (WHO, 2012). Our findings support this assertion. Sex workers in Hillbrow – where the only sex work-specific clinic was operational – were less likely to have unprotected sex than those in other sites in South Africa. The Wits Reproductive Health and HIV Institute initiated FSW-specific health services in Hillbrow in 1996 (Sibanyoni, Mayer, & Mathiba, 2012). The programme employs nurses, community health care workers and sex worker peer educators, and includes mobile outreach to hotels where sex workers work. Research

5 The survey did not capture whether the intercourse consisted of receptive anal or insertive anal intercourse.

has shown that the programme is acceptable and popular with the Hillbrow sex worker community (Nairne, 1999; Stadler & Delany, 2006). Non-judgmental and sensitive health care workers and services that are sex worker-centred have been key to the programme's success (Marlise Richter, 2008; Marlise Richter *et al.*, 2008; Sibanyoni, *et al.*, 2012). Programmes in other settings that are tailored to sex workers' needs and include sex worker consultation, peer education and empowerment initiatives have been shown to be successful in reducing the risk of acquiring HIV (Basu *et al.*, 2004; Jana, Basu, Rotheram-Borus, & Newman, 2004; Laga & Vuylsteke, 2011; Vuylsteke, Das, Dallabetta, & Laga, 2009).

Low use of female condoms by FSWS, but high acceptability

While appropriate health care is an important component in reducing sex worker risk of HIV, knowing about and appropriately using HIV prevention tools is equally essential. Male and female condoms are currently the only barrier methods available that reduce the risk of HIV (UNFPA, WHO, & UNAIDS, 2009). Our data showed that just under half of FSWs ever had used a female condom. Of participants who had used female condoms, acceptability was high. Close to three quarters of these liked female condoms or liked them a lot. Reasons for non-use of female condoms mainly related to lack of knowledge or unavailability. Studies in China and Cambodia have shown that appropriate female condom interventions with FSWs lead to increased acceptability and use (Busza & Baker, 2004; Yimin *et al.*, 2003); a study with FSWs in rural South Africa showed female condoms to be highly cost-effective (Marseille, Kahn, Billinghurst, & Saba, 2001). Rekart points out the following advantages of female condoms in sex work settings:

Female condoms do not need an erect penis, are reusable, and can be inserted ahead of time and left in after sex. Since they are made of polyurethane, female condoms can be used with waterbased or oil-based lubricants. (Rekart, 2005, p.2127).

As a female-controlled HIV prevention strategy, this should be a vital component of sex work interventions (Thomsen *et al.*, 2006).

Recommendations

In view of the findings of the research above, the following recommendations are put forward:

Our data showed that workers in Hillbrow were more likely to access health care and to have protected sex than participants in the other three sites. At the time of the study, Hillbrow was the only site that offered sex work-specific health care services, and highlighted the importance of such facilities. A key recommendation from this research is the implementation of sex work-specific clinics in areas of concentrated sex work activity, and sex work-friendly health services in mainstream health care facilities. These are vital components in establishing comprehensive responses to sex worker health. The implementation of such services should be guided by the local sex work context and sex workers themselves should form the centre of the response (Jana, *et al.*, 2004; Jana, Rojanapithayakorn, &

Steen, 2006) as they are highly motivated to safeguard their health (Rekart, 2005) and have access to hard-to-reach populations such as other sex workers, clients and non-commercial partners (Sanders, 2006).

Following the findings on the levels of unprotected sex among male and transgender sex workers and the lower exposure to health care services by cross-border sex workers, such interventions should explicitly include male and transgender sex workers, and be cognisant of the needs of migrant sex workers. The data presented here suggests that female condoms should be made freely and widely available in sex work settings, and be accompanied with training and information about its use. In addition, other (female-controlled) HIV prevention technologies, new and developing, such as pre-exposure prophylaxis – the provision of medication to prevent HIV transmission through sex – (Steinbrook, 2012; Venter, Allais, & Richter, in press), microbicides (Mertenskoetter & Kaptur, 2011), AIDS vaccines (Western News communication staff, 2012) and the appropriate use of periodic presumptive treatment (Steen *et al.*, 2012; WHO, 2012) hold exciting opportunities for preventing HIV/STIs in sex work populations. A vital consideration in the implementation of new and existing HIV prevention approaches is the socio-legal context in which HIV/STI transmission takes place (see chapters 5.1. and 5.2). Chersich and Rees note.

Prevention approaches have largely ignored social contexts thus far, presuming a degree of individual control in decision-making that is dissonant with the reality of life for girls and women in southern Africa [154]. *There are critical characteristics of the risk environment that condition and constrain the behavioural 'choices' available to girls and women in this setting* (M. F. Chersich & Rees, 2008, p.35).

This is of particular importance for FSWs in sub-Saharan Africa whose work and living conditions are generally characterised by unequal power relations.

Mobile outreach services are particularly effective sources of health care for migrant sex workers (Platt *et al.*, 2011) or other hard-to-reach groups (Stadler & Delany, 2006). An emphasis on peer education is key (Campbell & Mzaidume, 2001; S. Luchters, *et al.*, 2008; Sanders, 2006; Vuylsteke, *et al.*, 2009). Structural interventions that aim to change the context in which sex work takes place are central components to successful health interventions and include strategies such as microfinance, legislative changes, and support in building sex worker collectives (F. Scorgie, *et al.*, 2012). These should be community-led (Evans, Jana, & Lambert, 2010).

Overs and Hawkins point out that health projects for sex workers are well positioned to document the effects of policy and laws on the lives and well-being of sex workers (Overs & Hawkins, 2011). Such projects should deliberately gather such data and ensure that it is available in the public domain and to policy-makers and advocates.

Conclusion

All too often moral debates dominate the public health response among sex workers, and science continues to take a backseat to punitive approaches and raid and rescue operations aimed at eliminating sex work (Shannon & Montaner, 2012, p.1).

Sexual moralism and notions of shame, blame and victimhood continue to inform official – and unofficial – responses to sex work. The on-going human rights violations that sex workers suffer at the hands of the police, the abuse by partners, and hostile responses by health care workers contribute and bolster the high levels of violence and antipathy that sex workers experience.

This article aimed to provide a brief insight into a set of factors that characterise sex workers, their work conditions, and their interaction with services in South Africa. The picture that emerged highlights the inadequacy of current social, legal and policy responses to sex work but at the same time stresses the potential for health care services to play a transformative role in the material conditions of sex workers. Sex workers are traditionally a much underserved population and have borne the brunt of the weight and stigma of the AIDS epidemic. A robust and growing evidence-base has provided health workers and law- and policy-makers with clear directives on how to respond to sex workers sensitively and effectively. This work should be continued and expanded, while coupled with advocacy and lobbying efforts to generate the necessary political will to implement these much-needed interventions in an urgent manner.

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References

Akileswaran, C., & Lurie, M. (2010). *Overcoming socioeconomic struggle and encountering risk: lived experiences of South African female migrants.* Annals of Anthropological Practice, 34(1), 176-194.

Bähr, J., & Jürgens, U. (2006). Johannesburg: life after apartheid. In R. Schneider-Sliwa (ed.), *Cities in transition: globalization, political change and urban development* (pp. 175-208): Springer.

Baral, S. Beyrer, C., Muessig, K., Poteat, T., Wirtz, A.L., Decker, M.R., *et al.* (2012). *Burden of HIV among female sex workers in low-income and middle-income countries: a systematic review and meta-analysis.* Lancet Infect Dis, Jul; 12(7), 538-549.

Basu, I., Jana, S., Rotheram-Borus, M.J., Swendeman, D., Lee, S.-J., Newman, P., *et al.* (2004). *HIV prevention among sex workers in India.* Journal of Acquired Immune Deficiency Syndromes, 36, 845-852.

Busza, J., & Baker, S. (2004). *Protection and participation: an interactive programme introducing the female condom to migrant sex workers in cambodia.* [research support, non-u.s. gov't]. Aids Care, 16(4), 507-518.

Campbell, C., & Zaidume, Z. (2001). *Grassroots participation, peer education, and hiv prevention by sex workers in South Africa.* [research support, non-u.s. gov't]. Am J Public Health, 91(12), 1978-1986.

Chersich, M., Luchters, S., Malonza, I., Mwarogo, P., King'ola, N., & Temmerman, M. (2007). *Heavy episodic drinking among kenyan female sex workers is associated with unsafe sex, sexual violence and sexually transmitted infections.* Int J Std Aids, 18(11), 764-769.

Chersich, M., & Rees, H. (2010). *Causal links between binge drinking patterns, unsafe sex and HIV in South Africa: its time to intervene.* Int J Std Aids, 21(1), 2-7.

Chersich, M., Rees, H., Scorgie, F., & Martin, G. (2009). *Enhancing global control of alcohol to reduce unsafe sex and hiv in sub-Saharan Africa.* Global Health, 5, 16.

Chersich, M.F., & Rees, H.V. (2008). *Vulnerability of women in southern africa to infection with hiv: biological determinants and priority health sector interventions.* [research support, non-u.s. gov't review]. Aids, 22 suppl 4, s27-40.

Deane, K.D., Parkhurst, J.O., & Johnston, D. (2010). *Linking migration, mobility and hiv.* [review]. Trop Med Int Health, 15(12), 1458-1463.

Department of Health. (2012). *The national antenatal sentinel hiv and syphilis prevalence survey, South Africa, 2011.* Pretoria: National Department of Health.

Evans, C., Jana, S., & Lambert, H. (2010). *What makes a structural intervention? Reducing vulnerability to HIV in community settings, with particular reference to sex work.* [research support, non-u.s. gov't]. Glob Public Health, 5(5), 449-461.

Flak, A. (2011). *Fictional representation of migrant women involved in sex work in inner-city, Johannesburg, how does self-representation compare?*, University of the Witwatersrand, Johannesburg.

Gould, C. (2010). *Moral panic, human trafficking and the 2010 soccer world cup.* Agenda, 85, 31-44.

—— (2011). *Trafficking? Exploring the relevance of the notion of human trafficking to describe the lived experience of sex workers in Cape Town, South Africa.* Crime, Law & Social Change, 56, 529-546.

Gould, C., & Richter, M. (2010). *The need for evidence to assess concerns about human trafficking during the 2010 world cup.* Iss Today (23 march).

Ham, J. (2011). *What it the cost of a rumour?* A guide to sorting out the myths and the facts about sporting events and trafficking: global alliance against traffic in women (gaatw),.

Human Rights Watch. (2009). *No healing here – violence, discrimination and barriers to health for migrants in South Africa.* New York: Human Rights Watch.

Jana, S., Basu, I., Rotheram-Borus, M.J., & Newman, P.A. (2004). *The Sonagachi project: a sustainable community intervention program.* Aids Educ Prev, 16(5), 405-414.

Jana, S., Rojanapithayakorn, W., & Steen, R. (2006). *Harm reduction for sex workers.* [comment letter]. Lancet, 367(9513), 814.

Kalichman, S.C., Simbayi, L.C., Kaufman, M., Cain, D., & Jooste, S. (2007). *Alcohol use and sexual risks for hiv/aids in sub-Saharan Africa: Systematic Review of empirical findings.* [review]. Prev Sci, 8(2), 141-151.

Kempadoo, K. (1998). *Introduction – globalizing sex workers'rights.* In K. Kempadoo & J. Doezema (eds.), *Global sex workers – rights, resistance, and redefinition.* New York: Routledge.

Laga, M., & Vuylsteke, B. (2011). *Evaluating Avahan's design, implementation and impact: lessons learned for the HIV prevention community.* Bmc Public Health, 11(suppl 6): s16.

Luchters, S., Chersich, M.F., Rinyiru, A., Barasa, M.S., King'ola, N., Mandaliya, K., *et al.* (2008). *Impact of five years of peer-mediated interventions on sexual behavior and sexually transmitted infections among female sex workers in mombasa, Kenya.* [comparative study research support, u.s. gov't, non-p.h.s.]. Bmc Public Health, 8, 143.

Luchters, S., Geibel, S., Syengo, M., Lango, D., King'ola, N., Temmerman, M., *et al.* (2011). *Use of audit, and measures of drinking frequency and patterns to detect associations between alcohol and sexual behaviour in male sex workers in Kenya.* Bmc Public Health, 11(1), 384.

Malmusi, D., Borrell, C., & Benach, J. (2010). *Migration-related health inequalities: showing the complex interactions between gender, social class and place of origin.* [research support, non-u.s. gov't]. Soc Sci Med, 71(9), 1610-1619.

Marseille, E., Kahn, J.G., Billinghurst, K., & Saba, J. (2001). *Cost-effectiveness of the female condom in preventing hiv and stds in commercial sex workers in rural South Africa.* Social Science & Medicine, 52(1), 135.

Mertenskoetter, T., & Kaptur, P..E. (2011). *Update on microbicide research and development – seeking new hiv prevention tools for women.* [review]. Eur J Med Res, 16(1), 1-6.

Nairne, D. (1999). *'Please help me cleanse my womb' a hotel-based std programme in a violent neighbourhood in Johannesburg.* Research for sex work, 2, 18-20.

—— (2000). *'We want the power' findings from focus group discussion in Hillbrow, Johannesburg.* Research for sex work, 3, 3-5.

Nyangairy, B. (2010). *Migrant women in sex work: trajectories and perceptions of zimbabwean sex workers in Hillbrow, South Africa.* University of the Witwatersrand, Johannesburg.

Oliviera, E. (2011). *Migrant women in sex work: does urban space impact on self-(re)presentation in Hillbrow, Johannesburg?* University of the Witwatersrand, Johannesburg.

Overs, C., & Hawkins, K. (2011). *Can rights stop the wrongs? Exploring the connections between framings of sex workers'rights and sexual and reproductive health.* Bmc Int Health Hum Rights, 11(suppl 3), s6.

Platt, L., Grenfell, P., Bonell, C., Creighton, S., Wellings, K., Parry, J., *et al.* (2011). *Risk of sexually transmitted infections and violence among indoor-working female sex workers in london: the effect of migration from Eastern Europe.* [research support, non-u.s. gov't]. Sex Transm Infect, 87(5), 377-384.

Ramjee, G., Karim, S.S., & Sturm, A.W. (1998). *Sexually transmitted infections among sex workers in Kwazulu-natal, South Africa.* Sex Transm Dis, 25(7), 346-349.

Razum, O., Zeeb, H., Akgun, H.S., & Yilmaz, S. (1998). *Low overall mortality of turkish residents in Germany persists and extends into a second generation: merely a healthy migrant effect?* [comparative study research support, non-u.s. gov't]. Trop Med Int Health, 3(4), 297-303.

Rees, H., Beksinska, M. E., Dickson-Tetteh, K., Ballard, R. C., & Htun, Y. E. (2000). *Commercial sex workers in Johannesburg: risk behaviour and hiv status.* South African Journal of Science, 96, 283-284.

Regional Office for Africa Who. (2011). *Atlas of health statistics of the african region 2011.* Brazzaville, Republic of Congo.

Rekart, M. L. (2005). *Sex-work harm reduction.* Lancet, 366(9503), 2123-2134.

Richter, M. (2008). *Sex work, reform initiatives and HIV/aids in inner-city Johannesburg.* African Journal of Aids Research, 7(3), 323-333.

Richter, M., & Monson, T. (2010). *Trafficking & migration.* Johannesburg.

Richter, M., Yarrow, J., Delany-Moretlwe, S., Jaffer, A., Matsena, T., Motloung, T., *et al.* (2008). *The women-at-risk project: providing tailored health care to sex workers in inner-city Johannesburg, South Africa.* Paper presented at the XVII International Aids Conference.

Sa Cities Network. (2006). *State of cities report, 2006.* Johannesburg.

Sanders, T. (2006). *Female sex workers as health educators with men who buy sex: utilising narratives of rationalisations.* Soc Sci Med, 62(10), 2434-2444.

Schneider, M., Chersich, M., Neuman, M., & Parry, C. (2012). *Alcohol consumption and HIV/aids: the neglected interface.* [editorial research support, non-u.s. gov't research support, u.s. gov't, p.h.s.]. Addiction, 107(8), 1369-1371.

Scorgie, F., Chersich, M.F., Ntaganira, I., Gerbase, A., Lule, F., & Lo, Y.R. (2012). *Socio-demographic characteristics and behavioral risk factors of female sex workers in sub-Saharan Africa: a systematic review.* [research support, non-u.s. gov't]. Aids Behav, 16(4), 920-933.

Scorgie, F., Nakato, D., Harper, E., Richter, M., Maseko, S., Nare, P., *et al.* (2013). *'We are despised in the hospitals': sex workers' experiences of accessing health care in four african countries.* Culture, Health and Sexuality, 15(4), 450-465.

Shahmanesh, M., Patel, V., Mabey, D., & Cowan, F. (2008). *Effectiveness of interventions for the prevention of hiv and other sexually transmitted infections in female sex workers in resource poor setting: a systematic review.* Tropical Medicine and International Health, 13(5), 659-679.

Shannon, K., & Montaner, J. S. (2012). *The politics and policies of hiv prevention in sex work.* [comment]. Lancet Infect Dis, 12(7), 500-502.

Sibanyoni, M., Mayer, M., & Mathiba, C. (2012). *The WRHI sex worker programme.* Paper presented at the national sex work symposium: *Best practice in HIV prevention, care and treatment for sex workers in South Africa.*

Stadler, J., & Delany, S. (2006). The 'healthy brothel': the context of clinical services for sex workers in Hillbrow, South Africa. Culture, Health & Sexuality 8(5), 451-464.

Statistics South Africa (2010). *Monthly earnings of South Africans, 2010*. Pretoria: statistics South Africa.

—— (2012). *Census 2011*. Pretoria: statistics South Africa.

Steen, R., Chersich, M., Gerbase, A., Neilsen, G., Wendland, A., Ndowa, F., *et al.* (2012). *Periodic presumptive treatment of curable sexually transmitted infections among sex workers: a systematic review.* [research support, non-u s gov't review]. Aids, 26(4), 437-445.

Steinbrook, R. (2012). Preexposure prophylaxis for HIV infection. jama, 308(9), 865-866.

Thomsen, S.C., Ombidi, W., Toroitich-Ruto, C., Wong, E. L., Tucker, H.O., Homan, R., *et al.* (2006). *A prospective study assessing the effects of introducing the female condom in a sex worker population in Mombasa, Kenya.* [research support, u.s. gov't, non-p.h.s.]. Sex Transm Infect, 82(5), 397-402.

Unaids (2009). *Guidance note on hiv and sex work*. Geneva: Unaids.

—— (2011a). *Unaids terminology guidelines*. Geneva.

—— (2011b). *World aids report 2011. How to get to zero: faster.smarter. better*. Geneva.

Unfpa, who, & unaids (2009). *Condoms and HIV prevention*. Geneva.

Varghese, B., Maher, J.E., Peterman, T.A., Branson, B.M., & Steketee, R.W. (2002). *Reducing the risk of sexual HIV transmission: quantifying the per-act risk for hiv on the basis of choice of partner, sex act, and condom use.* Sex Transm Dis, 29(1), 38-43.

Vearey, J. (2008). *Migration, access to art, and survivalist livelihood strategies in Johannesburg.* African Journal of Aids Research, 7(3), 361-374.

—— (2012). *Learning from HIV: exploring migration and health in South Africa.* [research support, non-u.s. gov't review]. Glob Public Health, 7(1), 58-70.

Vearey, J., Oliveira, E., Madzimure, T., & Ntini, B. (2011). Working the city: experiences of migrant women in inner-city Johannesburg. Southern Africa Gender and Media and Diversity Journal, 9, 228-233.

Venter, W.D., Allais, L., & Richter, M. (in press). *Exposure ethics: does hiv pre-exposure prophylaxis raise ethical problems for the health care provider and policy maker?* Bioethics.

Vuylsteke, B., Das, A., Dallabetta, G., & Laga, M. (2009). *Preventing HIV among sex workers.* In K. Mayer & H. Pizer (eds.), *HIV prevention: a comprehensive approach*. London: Academic Press.

Western News Communication Staff. (2012). *Human trials for hiv/aids vaccine making steady progress.* 6 november retrieved 21 january, 2013, from http://communications.uwo.ca/western_news/stories/2012/november/human_trials_for_hivaids_vaccine_making_steady_progress.html

Who (2011). *Preventing HIV in sex work settings in sub-Saharan Africa*. Geneva: Who.

—— (2012). *Prevention and treatment of hiv and other sexually transmitted infections for sex workers in low – and middle-income countries: recommendations for a public health approach*. Geneva: Who, Unfpa, Unaids and Nswp,.

Who, Unaids, & Unicef. (2011). *Global HIV response – epidemic update and health sector progress towards universal access, 2011 progress report*. Geneva: Who, Unaids & Unicef.

Williams, B.G., Taljaard, D., Campbell, C. M., Gouws, E., Ndhlovu, L., Van Dam, J., *et al.* (2003). *Changing patterns of knowledge, reported behaviour and sexually transmitted infections in a South African gold mining community.* [miscellaneous]. Aids, 17(14), 2099-2107.

Wojcicki, J.M., & Malala, J. (2001). *Condom use, power and hiv/aids risk: sex-workers bargain for survival in Hillbrow/Joubert park/Berea, Johannesburg.* Social Science & Medicine, 53(1), 99-121.

Yimin, C., Zhaohui, I., Xianmi, W., Shiying, W., Lingzhi, H., Yueying, X., *et al.* (2003). *Use of the female condom among sex workers in China.* Int J Gynaecol Obstet, 81(2), 233-239.