

# Characteristics, sexual behaviour and access to health care services for sex workers in South Africa and Kenya

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Doctoral Thesis submitted to the Faculty of Medicine and Health Sciences, Ghent University

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## Preface

Across the globe, many people make a living from supplying sexual services for reward. This is in spite of the heavy tolls that sexual moralism, religious fervour, criminalisation, harsh health services and abusive security services extract from them; sex work is hard and the dangers numerous. Many women, men and transgender people in Sub-Saharan Africa have few or no other choices available to earn an income, while others weigh up the risks and benefits of sex work, and decide that that the risks are worth it in the short- and/or long-term.

Of the various hazards that sex workers face, the human immunodeficiency virus (HIV) and other sexually transmitted infections (STIs) have been a major focus of health research and concern. Frustratingly, little of the knowledge generated about what is effective and necessary to make sex work and sex workers safer, has been translated into practice, or brought to sufficient scale. Evidence indicating the need for the decriminalisation of sex work has not transformed the much outdated legal and policy landscape associated with the criminalisation of sex work that is characteristic of most countries in Sub-Saharan Africa. Despite a growing body of evidence and improved programmatic responses to sex work, the political will, the necessary funding and the urgency needed to implement an effective response to the context of sex work in Sub-Saharan Africa are mostly absent. It is hoped that, as the voices of sex workers and sex worker advocates become stronger and as sex workers are supported to engage with policy makers, law enforcement agencies, and health service providers, the changes needed to make sex work safer will be made.

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## List of Abbreviations:

AOR	Adjusted Odds Ratio
CI	Confidence Interval
DALYs	Disability-adjusted life years
FSW	Female sex worker
HIV	Human Immunodeficiency Virus
Kshs	Kenya Shillings
MSM	Men who have sex with men
RDS	Respondent Driven Sampling
STIs	Sexually transmitted infections
SSA	Sub-Saharan Africa
SWEAT	Sex Worker Education and Advocacy Taskforce
TLS	Time Location Sampling
WHO	World Health Organization

## Chapter 1: Introduction

Throughout recent history, sex workers - and other groups marginalised under a particular period's political or social system - have been blamed for the spread of disease, corruption, immorality, witchcraft and death (Bolin and Whelehan, 2009, Alcabes, 2009, Kempadoo, 1996, Ditmore, 2006). The twentieth and twenty-first centuries have been no different, and sex workers in particular have been held responsible for the spread of sexually transmitted infections (STIs), with the Human Immunodeficiency Virus (HIV) receiving particular focus in the last three decades. A number of studies have designated sex workers, "vectors" or "sources" of disease (Open Society Institute, 2006, p.14, Delany and Nielson, 2000, p.1), "a core reservoir of STDs and HIV" (Pettifor et al., 2000, p.36), or "a potential hazard to society" (Wolffers and van Beelen, 2003, p.1981). Core group theory holds that those with high rates of sexual partner change are central to the transmission of HIV and other STIs (Watts et al., 2010). Implementation of this theory therefore considers sex workers (and less so their clients) as the main target of prevention activities to reduce the transmission of STIs, including HIV (Hanenberg et al., 1994). Talbott, for example, notes the "unusual power of CSW's [commercial sex workers] to spread a sexually transmitted illness like HIV/AIDS" and attributes this "power" to the high number of annual sexual partners and high rates of STIs amongst this population group, and considers that many sex workers are injecting drug-users (Talbott, 2007, p.1). While many sex work settings contain features that facilitate the spread of HIV – including multiple sexual partners, the pre-existence of STIs, possible exposure to contaminated needles and high levels of sexual violence – it does not follow that sex workers themselves are responsible for the HIV epidemic, which is often implied by the terminology above, and the implementation and approach of some public health programmes. One aspect of the impact that an overriding concern with the association

between HIV and sex work has on sex workers, is described by Kempadoo in the following way:

“This relatively new sexually transmitted disease [HIV] and identification by world health authorities of a concentration of the epidemic in developing countries has led to government interventions. The attention has produced contradictions for sex workers around the world. As in the past, with state concern for public health matters, prostitutes are placed under scrutiny, subject to intense campaigning, and roped into projects that define them as the vectors and transmitters of disease. Sex workers are continually blamed for the spread of the disease, with Eurocentric racist notions of cultural difference compounding the effect for Third World populations. Consequently, inappropriate methods of intervention have been introduced and sex workers burdened with having to take responsibility for the prevention and control of the disease” (Kempadoo, 2003, p.145).

Instead of examining and addressing the social and economic factors that underlie the high risk of contracting and transmitting diseases through commercial sex, many governments have historically responded by enacting or strengthening repressive criminal and public health laws against sex work. Current examples of such laws and policies include: the criminalization of some, or of all, aspects of the selling or buying of sex (for example South Africa) (Boudin and Richter, 2009, South African Law Reform Commission, 2009); forceful closure of brothels (India) (Shahmanesh et al., 2009); arresting and administering mandatory HIV-tests on sex workers and publicly disclosing their results (Malawi) (Southern African Litigation Centre, 2010); interning sex workers in rehabilitation camps (China) (Goodyear, 2008); and, the death penalty (Iran) (Schreiber, 1996). With the rise of sex worker rights and advocacy movements initially in the United States and Western Europe in the 1970s, and then further afield (Kempadoo, 1998), rights-based approaches to sex work and sex worker health have been implemented in selected places, often with great success (Evans et al., 2010, Jana et al., 2004, Basu et al., 2004, Prostitution Law Reform Committee, 2008, Harcourt et al., 2010). For example, the decriminalisation of sex work in New Zealand after sustained advocacy (Abel and

Fitzgerald, 2010, Laverack and Whipple, 2010) and on-going programmes focusing on community mobilisation, sex worker human rights and dedicated sex worker clinics in India (Laga et al., 2010, Laga and Vuylsteke, 2011, Steen et al., 2006) have had a far-reaching positive impact on sex worker health and on health promotion in these countries.

Within the context of the AIDS epidemic, a human rights-based approach to sex work has been recommended by UNAIDS and the World Health Organization (WHO) (UNAIDS, 2002, UNAIDS, 2009, UNAIDS Advisory Group on HIV and Sex Work, 2011, WHO, 2005, WHO, 2011, Kempadoo, 2003). International guidelines and documented Best Practices have called on states to remove the criminal law from sex work - and to remove any laws criminalising other vulnerable groups such as men who have sex with men (MSM) and intravenous drug-users - but few governments have responded.

In Africa, most countries approach sex work from within a criminal framework (Ngwena, 2011). These frameworks are often remnants of laws implemented under colonial rule and are based on sexual moralism, or from the starting point that sex work “is a problem” (Legal Assistance Centre, 2002). Historians have shown how public health, hygiene and sanitation laws have constructed the “African prostitute” as one of the main sources of STIs on the continent (van Heyningen, 1984, Jochelson, 2001). A number of medical texts and studies have reflected this sentiment (as suggested in the terms quoted above) or have studied sex workers only in relation to the HIV risk they pose to others.<sup>1</sup> Such texts often perpetuate stereotypes of female sex workers (FSWs) as “malicious women attempting to have dangerous, unprotected sex with as many men as possible” and who wilfully spread disease (Richter, 2012a, p.9). As a consequence, legal

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<sup>1</sup> Writing of migrant sex workers, Agustin notes: “People selling sex were dealt with and normalised in AIDS research, but there the interest was reduced to condom use and other aspects of ‘risk behaviour’. Nowhere did I find these migrants treated as having a range of interests, occupations and desires – as being people who read newspapers, cook, go to church, films and parties or who count themselves as activists in any political or social cause” AGUSTÍN, L. 2007a. *Sex at the Margins: Migration, Labour Markets and the Rescue Industry*, New York & London, Zed Books. p.6

and biomedical responses often focus on the individual sex worker and her “blame-worthiness”, and overlook the wider context and power structures in which sexual transactions takes place.

A PhD project attempting to describe the “characteristics, sexual behaviour and access to health care services for sex workers in South Africa and Kenya” therefore needs to be cognisant of the history, representations, politics and social vulnerabilities of its subject matter so as not to replicate stereotypes or simplistic analyses of the complex interplay of social, economic and medical phenomena.<sup>2</sup> This PhD utilises the theoretical framework provided by a social determinants of health framework and structural violence to approach sex worker vulnerability to ill-health. A number of harmful social and structural factors impact on the sex work setting, inhibit sex worker agency and prevent the establishment of a constructive work and living environment for sex workers and their commercial and non-commercial partners.

A useful theoretical tool that encompasses human rights abuses and barriers to good health is that of structural violence. Galtung coined the term in 1969 and described it in the following way:

“We shall refer to the type of violence where there is an actor that commits the violence as personal or direct, and to violence where there is no such actor as structural or indirect. In both cases individuals may be killed or mutilated, hit or hurt in both senses of these words, and manipulated by means of stick or carrot strategies. [With structural violence] the violence is built into the structure and shows up as unequal power and consequently as unequal life chances” (Galtung, 1969, p.170).

Medical anthropologist Paul Farmer subsequently applied structural violence more specifically to the health context, and has written extensively about the impact of social

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<sup>2</sup> Vanwesenbeeck writes “[...] the strong focus on disease and infection when sex workers in the developing worlds are studied must be criticized for the same reasons as has been done for the Western world. The body of literature creates a discourse that is often moralizing, categorizing, unifying, and stigmatizing.” VANWIESENBECK, I. 2001. Another decade of social scientific work on sex work: a review of research 1990-2000. *Annual Review of Sex Research*, 12, 242–89. p.247.

injustice and global inequalities on the AIDS epidemic in Haiti and other resource poor settings. He defined structural violence in the following way:

“The term “structural violence” is one way of describing social arrangements that put individuals and populations in harm’s way. The arrangements are structural because they are embedded in the political and economic organization of our social world; they are violent because they cause injury to people (typically, not those responsible for perpetuating such inequalities).” (Farmer et al., 2006, p.1686).

Farmer draws the following links between the growth of the AIDS epidemic and pre-existing social, economic and political inequalities:

“Much of the spread of HIV [...] moved along international ‘fault lines’, tracking along steep gradients of inequality, which are also paths of migrant labor and sexual commerce.”(Farmer, 1996, p.264)

Sex workers experience high levels of direct violence (Watts and Zimmerman, 2002) which increase their risk of ill-health and STIs. In addition, the structural violence inherent in much of their working and living conditions, expose them to disease, inhibit their ability to protect themselves against infections, and limit coping and help-seeking strategies to mitigate disease.

The WHO employs the concept of social and structural determinants of health to describe the interplay between structural violence and health and well-being. Figure 1 describes this complex interaction

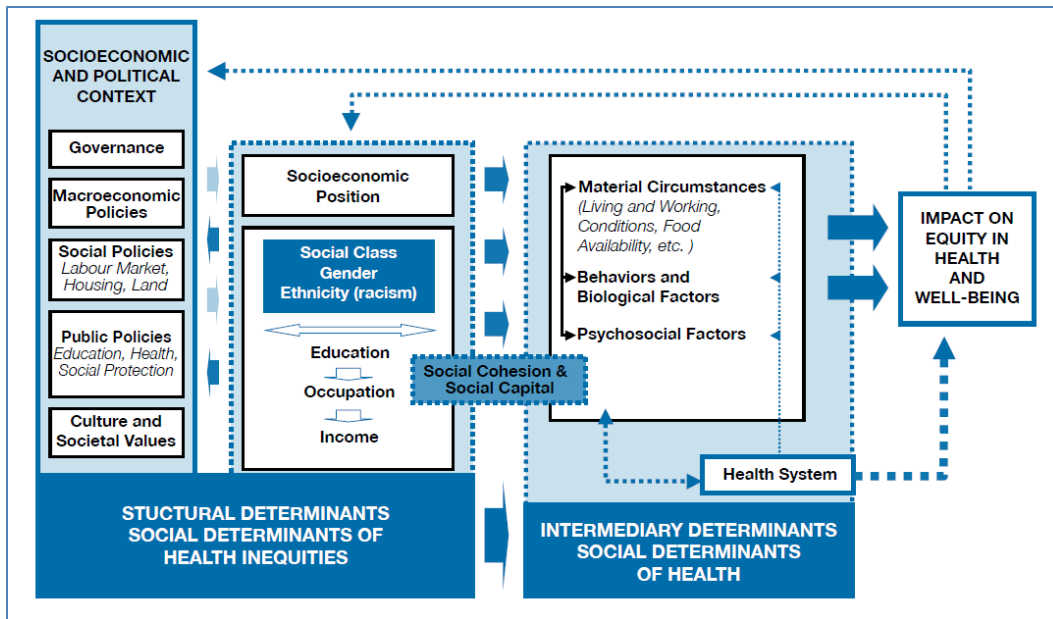


Figure 1 Conceptual Framework of the World Health Organization Commission on Social Determinants of Health (Solar and Irwin, 2011)

Drawing on the concepts of structural violence and on social determinants of health, this thesis will focus on four factors that mitigate or compound sex worker vulnerability to ill-health – migration, health care responses to sex work, legal responses to sex work, and international sporting events. Drawing on the literature on sex work and emerging issues on sex work and HIV transmission, these four factors formed the basis of enquiry.

The sections that follow in this Introduction aim to provide an overview of pertinent issues relating to sex work and the partners of sex workers in Sub-Saharan Africa (SSA) and then describe a number of factors that may mitigate or enable the transmission of HIV and other STIs, with a specific focus on the four factors noted above. This will form the background to the research questions that will be set out in chapter two of this thesis.

At the outset it should be noted that SSA<sup>3</sup> is made up of close to 50 countries, thousands of different language and cultural groupings, and is highly diverse. Sex work in one region of a country may have little in common with sex work in another region of the same country. The literature review that follows below is thus necessarily limited, draws mainly on biomedical literature and should be read to only describe some aspects of sex work in very specific areas of SSA.

## 1.1 Sex work in Sub-Saharan Africa

Sex work in SSA is understudied and limited information on sex workers exists outside of the biomedical literature, with the latter mainly focusing on sex work in relation to STIs (Vanwiesenebeck, 2001). Where data on sex work exists, attention is mainly focused on FSWs with little information available on male and transgender sex workers (Scorgie et al., 2012, WHO, 2011). Indeed, Chipamaunga and colleagues warn of the dangers to public health programmes and the theoretical frameworks that guide them, if sex workers are viewed as a homogenous population, in the following way:

“Sex work like much other human behaviour is a complicated experience, and reductionist approaches, in which researchers and public health intervention implementers assume that sexual intercourse is always heterosexual, penile-vaginal, that all clients seek services of sex workers without the knowledge of their spouses, and that sex work is motivated by poverty, may not be as meaningful as when the actual practices are understood.”(Chipamaunga et al., 2010, p.49).

Before exploring some of the main forms of sex work in SSA, it is necessary to provide some clarifications on definitions used in this thesis.

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<sup>3</sup> This thesis follows the United Nations classification of regions of the world. Sub-Saharan Africa refers to countries in Africa that exclude those in Northern Africa but include Sudan. UNITED NATIONS 2011. World Population Prospects: The 2010 Revision. POP/DB/WPP/Rev.2010/04/F03B ed.: United Nations Population Division: Department of Economic and Social Affairs.



### 1.1.1 Definitions

Difficulties in establishing clear definitions of sex work<sup>4</sup> have plagued descriptions of the phenomenon in both legal instruments and in the socio-medical field. For example, colonial Britain's enactment of various Contagious Diseases Acts in Britain and its colonies centred on the registration, periodic examinations and forced treatment of "common prostitutes", but definitions of who this referred to were unclear (van Heyningen, 1984, Gaum, 2003, Levine, 1994). A central challenge indicated in the literature is associated with attempts to separate "sex work" from "transactional sex" with some authors arguing that these occur on a spectrum of "sex for reward" interactions, rather than comprising clearly delineated phenomena (Hunter, 2002, Busza, 2006a). Figure 1 (below) depicts such a continuum. It is necessarily imprecise and not responsive to cultural-specificities, which highlights the problems inherent in definitions of sex work that simply focus on sex in exchange for reward, and questions at what point on the continuum should those involved in sex-for-reward behaviour be criminalised (if at all).

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<sup>4</sup> This thesis 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 2011b. UNAIDS Terminology Guidelines. *In*: UNAIDS (ed.). 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*: KEMPADOO, K. & DOEZEMA, J. (eds.) *Global sex workers - Rights, resistance, and redefinition*. New York: Routledge.p.3.

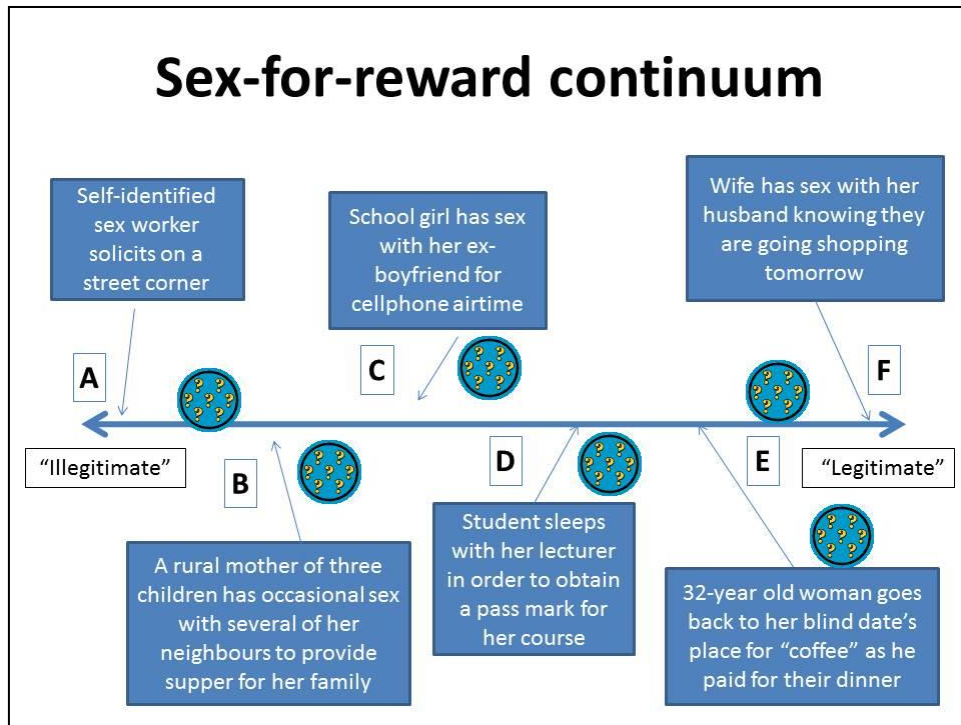


Figure 2: Continuum of possible sex-for-reward transactions (adapted from (Richter, 2012b))

Scorgie and colleagues argue:

“Conceptually—but also programmatically—some of the biggest challenges for policy makers and researchers in Africa in addressing this vulnerability [of STIs] are the diverse forms of sex work and their overlap with sexual networks in the general population. The difficulty of distinguishing ‘sex work’ from transactional sex in all its various manifestations demonstrates this vividly. Writing on sex work in Uganda, one author claimed, “there is no clear line between commercial sex and “ordinary” sexual relationships” [35]—a description that holds true for much of the continent, and which suggests that a Western understanding of sex work cannot easily be applied to sub-Saharan Africa [16, 19].” (Scorgie et al., 2012, p.8)

Much writing on sex work applies the UNAIDS definition that considers sex workers to be:

“[...] female, male and transgender adults and young people who receive money or goods in exchange for sexual services, either regularly or occasionally” (UNAIDS, 2009, p.3).

I consider this definition to be too broad in its scope as it does not define “sexual services”, whether “young people” include children, and whether “regularly or occasionally” means that this definition explicitly includes transactional sex. A more illustrative definition was coined by a regional UNAIDS workshop in Cote d’Ivoire:

“Sex work is any agreement between two or more persons in which the objective is exclusively limited to the sexual act and ends with that, and which involves preliminary negotiations for a price. Hence there is a distinction from marriage contracts, sexual patronage and agreements concluded between lovers that could include presents in kind or money, but its value has no connection with the price of the sexual act and the agreement does not depend exclusively on sexual services.”(UNAIDS, 2001, p.13)

In this definition, the contractual relationship between client and service provider, and the upfront negotiation of price that generally characterise sex work transactions, is clear. Yet, such a description would be unworkable in the field while collecting data in sex work settings as it would require lengthy explanations to a prospective participant to ascertain if s/he is a sex worker, and might inhibit participation.

For the purposes of this thesis – in attempt to avoid the challenges outlined above - a definition provided by previous studies on sex work in the African context was adopted, whereby sex work is defined as: “the exchange of sexual services for financial reward” (Gould and Fick, 2008, p.5).

Similar to the difficulties in defining sex work, attempts to draw clear distinctions between different types of sex work are challenging and – as a result - much overlap occurs between definitions. Harcourt and Donovan classified 25 different types of sex work globally according to “worksite, principal mode of soliciting clients, or sexual practices” and concluded that sex work varies greatly according to context and demand (Harcourt and Donovan, 2005, p.201). A number of studies draw distinctions based on the places where sex workers solicit, such as indoors or outdoors, inside brothels or on the street (Abel and Fitzgerald, 2012, Shaver, 2005) or via cell phone, online or in

newspapers (Mahapatra et al., 2012). Some studies draw a distinction between direct and indirect sex work (Harcourt and Donovan, 2005, Busza, 2006a, Vuylsteke et al., 2009). In such analyses, a “direct” sex worker typically self-identifies as a sex worker, while an “indirect” sex worker generally does not work in known sex work venues, may not self-identify as a sex worker and may regard the income from sex work as a supplement to other work they do. Some studies also classify sex workers according to part-time or full-time status. Ward and Day noted that FSWs often combined jobs (Ward and Day, 2006); even if sex work is one of a number of income strategies, it is often the most lucrative or important income-generating activity for sex workers. In her Durban study, Varga noted sex work was the main source of income for 90% of the FSW respondents based in that city (Varga, 1997). Various authors have pointed out that part-time sex workers may not identify with the term, concept or identity associated with sex work (Scorgie et al., 2012, Harcourt and Donovan, 2005, Agustín, 2005) and may not be exposed to sex work-specific health promotion campaigns or know about the risks associated with sex work. Indeed, a study among part-time FSWs in Mombasa found low use of condoms, inadequate knowledge of HIV/STIs and a high number of reported STIs among the group (Hawken et al., 2002).

In summary, sex work can be classified according to a range of criteria based, for example, on place of solicitation, duration of work, dependency on sex work, and how sex workers define themselves. Different types of sex work may have higher risk profiles than others and may require different public health programmatic approaches.

Another important set of definition is that of risk and vulnerability. In this thesis, the UNAIDS definition of risk and vulnerability is used:

“In the context of HIV, risk is defined as the probability that a person may acquire HIV infection. Certain behaviours create, enhance and perpetuate such risk, for example unprotected sex with a partner whose HIV status is unknown, multiple unprotected sexual partnerships, lack of adherence to infection-control guidelines in the health-care setting, repeated blood transfusion, especially of untested blood, and injecting drug use with shared needles and syringes.” (UNAIDS, 1998, p.4)

While this conception of risk focuses on an individual's actions, "vulnerability" in contrast emphasises broader factors such as structural inequalities that could impair a person's health and well-being:

"In the context of HIV/AIDS, vulnerability is influenced by the interaction of a range of factors including (i) personal factors; (ii) factors pertaining to the quality and coverage of services and programmes aimed at prevention, care, social support and impact-alleviation; and (iii) societal factors. In combination, these factors may create or exacerbate individual vulnerability, and as a result, collective vulnerability to HIV/AIDS; others may have a positive effect on reducing vulnerability."(UNAIDS, 1998, p.6)

Migration and mobility are also important terms. The definition of migration employed by the International Organization for Migration is broad, encompasses mobility and does not specify residence or a permanent living arrangement:

"The movement of a person or a group of persons, either across an international border, or within a State. It is a population movement, encompassing any kind of movement of people, whatever its length, composition and causes; it includes migration of refugees, displaced persons, economic migrants, and persons moving for other purposes, including family reunification."(IOM, 2004, p.41)

While technical definitions of mobility vary greatly (Deane et al., 2010) it broadly refers to the ability to move, often frequently. In this thesis, the meanings of "migration" and "mobility" are used in line with SSA regional policy documents on migration and health:

"Population **mobility** refers to movement of people from one place to another, temporarily, seasonally or permanently for either voluntary or involuntary reasons. It is a broad term that describes the full range of mobility from short-term movement (e.g. truck drivers) to longer term or permanent relocation. Internal mobility refers to movement of people from their homes to other places within the same country e.g. from rural to urban areas. External mobility refers to movement of people who cross international borders to a foreign country. **Migration** is a more specific term that is used for those mobile people who take up residence or remain in another place for an

extended period of time, including seasonal migrants” (SADC, 2009, p.4 - my emphasis)

### 1.1.2 Female sex workers in Sub Saharan Africa

In 2006, Vandepitte and colleagues reviewed the prevalence of FSWs globally and found that in SSA it ranged from 0.7% - 4.3% of the total female adult population in capitals, and 0.4% - 4.3% in other urban areas (Vandepitte et al., 2006) (see Table 1 to compare to other regions). United Nations calculations for total female population (aged 15-49) in SSA were 207 772 000 in 2011 (United Nations, 2011), and the total number of females (aged 15-49) living in urban areas was estimated at 76 252 324 (36.7% urban in 2011)(United Nations, 2012). Applying Vandepitte’s prevalence figures, it means that there were between 305 009 – 3 728 850 FSWs in urban areas in SSA in 2011. While these estimations have a range of limitations and are necessarily imprecise, it does provide some background to the population size of FSWs in urban areas – and the significance of this population - in our region of interest.

Region	FSW prevalence (%)
Asia	0.2-2.6%
Eastern Europe	0.4- 1.4%
Latin America	0.2-7.4%
Sub-Saharan Africa	0.4-4.3%
West Europe	0.1-1.4%
Ex-Russian Federation	0.1-1.5%

Table 1: National FSW prevalence in country by region.<sup>5</sup>

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<sup>5</sup> Adapted from VANDEPITTE, J., LYERLA, R., DALLABETTA, G., CRABBE, F., ALARY, M. & BUVE, A. 2006. Estimates of the number of female sex workers in different regions of the world. *Sex Transm Infect*, 82 Suppl 3, iii18-25. Note that estimates from rural areas were available from one country only, while no data

In a recent review of the social and behavioural aspects of FSW in SSA, Scorgie and colleagues described the commonalities and differences of FSWs in the region (Scorgie et al., 2012). They found that FSWs in SSA usually work on their own and that there are seldom intermediaries (like pimps or controllers), large-scale brothels or organised businesses operating. About two thirds of FSWs in the region report being responsible for dependents (Scorgie et al., 2012). Stigma, human rights violations and discrimination were a common experience for FSWs, and high levels of violence perpetrated by clients and police have been reported (Boyce and Isaacs, 2011, Scorgie et al., submitted). Entry into sex work could be precipitated by food insecurity, poverty, and being responsible for a number of dependents; additional motivations such as an escape from traditional gender roles or domestic expectations were also documented (Scorgie et al., 2012, Harcourt and Donovan, 2005, Platt et al., 2011). Other studies have described factors influencing entry into sex work as including: seeking independence (Mgalla and Pool, 1997, Campbell and Mzaidume, 2001) and the flexibility offered by sex work (Grove and Zwi, 2006) having debt (Mgalla and Pool, 1997) or other financial reasons (Grove and Zwi, 2006, Binagwaho et al., 2010, Chipamaunga et al., 2010, Brown et al., 2006); family or relationship problems (Agha and Chulu Nchima, 2004, Campbell, 2000) social mobility (Harcourt and Donovan, 2005); drugs and alcohol (Harcourt and Donovan, 2005); survival and not being able to find another job (Pettifor et al., 2000, Rees et al., 2000, Stadler and Delany, 2006); financing studies (Platt et al., 2011); travelling (Agustín, 2007a, Agustín, 2002); or various combinations of these factors.

Reasons for entering or staying in sex work impact directly on the ability of individual sex workers to mitigate the risks associated with sex work such as unprotected sex and exposure to violence (Harcourt and Donovan, 2005). A number of studies in South Africa

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existed for North America, Australia, Northern Africa, and the Middle East. FSW prevalence is expressed as the proportion of FSW in the adult female population (15–49 years).

for example have found that sex work offers higher earnings than other work available (Posel, 1993, Peltzer et al., 2004b, Hoffman et al., 2011, Gould and Fick, 2008, Karim et al., 1995, Gould, 2011). A cohort study in London showed that sex work was a positive choice as a number of women who had completed additional training and post-graduate study chose to remain in sex work although other options were available (Ward et al., 1999). While many sex workers view sex work as a temporary occupation only (Posel, 1993, Agustín, 2007b), the stigma and discrimination associated with sex work impose additional barriers to finding “more socially acceptable jobs” (Binagwaho et al., 2010, p.94). Obtaining a criminal record because of the criminalisation of sex work poses additional obstacles if a sex worker chooses to seek alternative forms of employment (South African Law Reform Commission, 2009).

Scorgie and colleagues note that FSWs in SSA reported having worked in the industry for an average of 3-4 years, and that mobility and migration is high. In areas where sex workers are poorly organised and have limited alternate livelihood options, negotiating condom use with clients is complicated and FSWs may not be able to insist on protected sex. Various studies have documented the abuse of alcohol and drugs in sex work settings, while only a very limited number of studies included questions on anal or oral sex with clients (Scorgie et al., 2012), or non-sexual services rendered by sex workers which have been documented in other settings (Sanders, 2006).

In the hierarchy of dangers associated with sex work, street-based sex workers are often designated the most vulnerable. Street-based sex workers are often independent operators and are not tied to obligations and commissions associated with brothel-based sex work, and work flexibility and autonomy are prized (Abel and Fitzgerald, 2012). Yet, their visibility in public spaces increases their exposure to police arrest, harassment and abuse by the general public (Campbell, 1991, Agustín, 2007b, Shaver, 2005). Attempts at keeping their profession a secret (Hubbard and Sanders, 2003), while having sex in cars or public places, may impose time and security pressures which impede the negotiation



and execution of safer sex (Alexander, 1998). Recent mapping of FSWs found that 88% of FSWs from Nairobi work from venues and only 7% on the streets (Ministry of Health, 2012). In Cape Town, just over a fifth of sex workers (245/1 209) were street-based in 2007 (Gould and Fick, 2008).

### **1.1.3 Male and transgender sex workers**

With the exception of research in Kenya and Côte d'Ivoire among male sex workers and other smaller projects on transgender and male sex workers elsewhere (Arnott and Crago, 2009, Boyce and Isaacs, 2011, Vuylsteke et al., 2012), limited information is available on these populations in Africa (Scorgie et al., 2012). Studies with male sex workers in Kenya focused on Mombasa and Nairobi. A capture-recapture enumeration study in 2006 found 738 MSMs sold sex in Mombasa (Geibel et al., 2007). Other studies have described the powerful stigma and social ostracism that male sex workers experience, and how their health needs are overlooked (Okal et al., 2009). Among a group of 285 MSMs in Mombasa, sex work was associated with greater sexual risk-taking (Sanders et al., 2007). Geibel and colleagues conducted a cross-sectional study of 425 males who sold sex to males in Mombasa in 2006, and found the participants were generally mobile, 57.0% provided financially for their families or others, just over 55.0% had been counselled or tested for HIV, 35.0% of respondents did not know that HIV could be transmitted through anal sex and that 42.1% did not have protected sex with their last male client (Geibel et al., 2008). Two years later, Luchters and colleagues performed a similar study of 442 males who sold sex to males in Mombasa, and found high levels of hazardous alcohol-use, and inconsistent condom-use among participants who were frequent drinkers (Luchters et al., 2011). A related study evaluating a peer outreach intervention, concluded that it was an effective strategy to reach male sex workers as it increased their use of condoms during anal sex with male clients, the use of water-based lubricants, and general HIV knowledge (Geibel et al., 2012). In Mombasa, male sex workers reported high levels of anal sex with female partners, and low levels of protected

sex during anal sex (Mannava et al., 2013), while another found high levels of STIs among HIV-negative male sex workers (Sanders et al., 2010).

A *Pubmed* and *Ebsco Host* search of articles on transgender sex work in Africa located no articles.<sup>6</sup> Yet, studies on transgender sex workers in other settings have pointed to their heightened vulnerability to HIV, their lack of access to health care services and the powerful stigma that is attached to transgender sex work (Operario et al., 2008, Infante et al., 2009). One article currently submitted for publication and a report on sex work in SSA described the humiliation and violence transgender sex workers experience by police because of their gender non-conformity, the dearth of targeted transgender HIV prevention and health programmes, and being treated as peculiarities by health care workers (Scorgie et al., submitted, Arnott and Crago, 2009).

#### **1.1.4 Clients and non-commercial partners of sex workers**

Modelling based on 2008-2012 data on the distribution of new HIV infections in adults by modes of transmission from 25 countries globally, estimated that sex worker clients constituted 3.0-13.2% of the total number of adult males or females (aged 15-49) in Southern Africa, and 2.9-4.0% in East Africa (Gouws and Cuchi, 2012). Regrettably, few studies describe the characteristics and behaviour of clients or other sexual partners of sex workers in SSA (Scorgie et al., 2012). A recent household survey with 1654 adult men conducted by Jewkes and colleagues in two provinces in South Africa, found that 18.0% of men reported ever having sex with a sex worker (Jewkes et al., 2012b). There was little variation between the socio-demographics of men who had sex with a sex worker, but it was less widespread among unwaged men or those who earned very little (Jewkes et al.,

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<sup>6</sup> The following MESH terms were submitted for the Pubmed search: ("transsexualism"[MeSH Terms] OR "transsexualism"[All Fields] OR "transgender"[All Fields]) AND ("prostitution"[MeSH Terms] OR "prostitution"[All Fields] OR ("sex"[All Fields] AND "work"[All Fields]) OR "sex work"[All Fields]) AND ("africa"[MeSH Terms] OR "africa"[All Fields]). It produced four results, none of which contained information on Africa (executed on 10/10/2012). A similar search was done on Ebsco Host with no results returned.

2012b). Among men who reported ever having sex with a sex worker, 29.4% also reported having ever raped a women, 20.0% owned an illegal gun, a quarter had been a member of a gang, 64.0% had used illicit drugs in the last year, and more than half had been involved in three or more incidents of theft or robbery (Jewkes et al., 2012a). A number of studies have documented client violence against sex workers in the South African context (Pauw and Brener, 2003, Varga, 1997, Pettifor et al., 2000, Karim et al., 1995). From these studies it would seem that some sex worker clients exhibit anti-social and often dangerous behaviour.

A large number of studies – many of them conducted in South Africa - have noted client resistance to using condoms during the transaction (Karim et al., 1995, Pauw and Brener, 2003, Pettifor et al., 2000, Campbell, 2000, Shannon et al., 2009, Peltzer et al., 2004a, Peltzer et al., 2004b, Delany and Nielson, 2000, Ramjee and Gouws, 2002) and either offered to pay more for unprotected sex (Agha and Chulu Nchima, 2004, Varga, 1997, Varga, 2001, van Haastrecht et al., 1993) or demanded paying less for protected sex (Pettifor et al., 2000, Karim et al., 1995, Blankenship et al., 2008). Abdool-Karim and colleagues found that FSWs servicing male truck drivers in Kwazulu-Natal, South Africa who insisted on protected sex, received only a quarter of the average price for a transaction without a condom (Karim et al., 1995). Thomsen and colleagues studied male clients of FSWs in Mombasa to explore the resistance against condom-use during commercial sex, and encountered at least 50 different explanations offered by the male clients. The authors classified these into the following six themes: “condoms are not pleasurable, condoms are defective, condoms are harmful, condoms are unnecessary, condoms are too hard to use, and external forces prohibit using condoms” (Thomsen et al., 2004, p.430). Yet, a recent prospective cohort study in Kenya and South Africa found that paying for sex was inversely associated with being HIV-positive (Price et al., 2012). The authors noted that this “unexpected finding” may have been associated with greater protective behaviour during commercial sex (Price et al., 2012).

While little data exists on sex worker clients, even less is available on the non-commercial partners of sex workers in SSA. In their review, Scorgie and colleagues found that sex worker condom-use with non-commercial partners was generally lower than with non-regular clients (Scorgie et al., 2012). A number of studies have documented how unprotected sex with non-commercial partners, or “sex at home” (Tassiopoulos et al., 2009) were not perceived as being risky by sex workers (Day et al., 1993). Unprotected sex signified trust among partners (Mgalla and Pool, 1997) and was an important mechanism to distinguish between commercial and non-commercial (or romantic) sex or relationships (Pisani, 2008); condom-use was therefore low in such settings (Grayman et al., 2005, Karim et al., 1995, Varga, 1997, Platt et al., 2011, Day et al., 1993). Chacham and colleagues note the following in their study with FSWs in Brazil:

“On the other hand, they [FSWs] felt they only needed to take care of themselves when with clients (“inside” [sex work]<sup>7</sup>). With their partners (“outside”) there was no perception of risk, since they were not acting in their role as sex workers with them”.(Chacham et al., 2007, p.112).

This “risk perception bias” (Kayembe et al., 2008) makes non-commercial relationships seem “safe”, but is in fact a source of danger to sex worker health in increasing their risk of contracting STIs from these partners (Campbell, 1991, Stoebenau et al., 2009). This is of particular concern as non-commercial partners of sex workers may have concurrent sexual relationships with others. Pettifor and colleagues found that 71.0% of FSWs in inner-city Johannesburg reported that their partners had sex with others (Pettifor et al., 2000). Day and colleagues, in a study in London with FSWs, found that half of the participants reported that their non-commercial partners had sex with others, while

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<sup>7</sup> “The women described their sexual activity as falling into two categories, “inside” and “outside”, to construct the logic of vulnerability and prevention. These categories were used to differentiate themselves as sex workers from women who did not engage in commercial sex and also to differentiate themselves from sex workers when they were not engaging in commercial sex. In this way of thinking, the vulnerability of women “outside” sex work was bigger than their own “inside”. As sex workers they knew the risks and how to protect themselves; they were “street smart” and well-informed, unlike other women and clients, who needed to be educated about prevention.” (p112)

about 10.0% of participants noted that their non-commercial partners were having sex with other sex workers (Day et al., 1993).

Section 1.1 described some of the most pertinent characteristics of sex work settings in SSA, with a specific focus on South Africa and Kenya. The section that follows will focus on the implications of HIV and other STIs to SSA, and relate it to sex work.

## **1.2 HIV/AIDS in Sub-Saharan Africa**

### **1.2.1 STIs including HIV/AIDS**

Limited data is currently available on the prevalence and incidence of STIs globally (WHO, 2006). The WHO's best estimates (drawing on 2001 data) are that there are 340 million new cases of syphilis, gonorrhoea, chlamydia and trichomoniasis in men and women (aged 15–49) globally, and that STI prevalence continues to rise in most countries (WHO, 2006). Population-based surveys in SSA have shown high prevalence of STIs, such as syphilis (5-10% of adults infected), *Trichomonas vaginalis* (20-30% of women and 10.0% of men) and bacterial vaginosis (up to 50.0% of women)(Mabey, 2010).

More accurate and detailed data is available for HIV/AIDS - an infection that is the leading cause of burden of diseases in Africa (Regional Office for Africa WHO, 2011). A UNAIDS World AIDS Day Report showed that in 2010, more than two thirds of the people with HIV/AIDS globally lived in SSA, while this region also contained 70.0% of all new HIV infections globally in 2010 (UNAIDS, 2011c). 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 et al., 2011).

The WHO found that the leading global risks for burden of disease as measured in disability-adjusted life years (DALYs) are underweight (6.0% of global DALYs) and unsafe sex (5.0%), followed by alcohol use (5.0%) and unsafe water, sanitation and hygiene (4%)(WHO, 2009). The dangers that all STIs (HIV and non-HIV STIs) pose to morbidity and mortality are summarised in the risk factor term “unsafe sex”. Indeed, almost 75.0% of

the global burden of unsafe sex occurs in SSA, and it is the leading risk factor for mortality in African women (WHO, 2009). A million women in Africa are killed annually by HIV, human papillomavirus and other STIs (WHO, 2009).

### 1.2.2. Sex work and HIV

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). Indeed, HIV prevalence among sex workers and sex worker clients is about 10– 20 times higher than among the general population in SSA (WHO, 2011). For example, HIV prevalence in Benin among adults in the general population was an estimated 2.3% in 2002, compared to the 44,7% among sex workers; in Guinea, HIV prevalence among the general population was 2.8% in contrast to 42% among sex workers in 1999, while in Senegal, HIV prevalence in the general population was 0.5% compared to the prevalence of 14.3% -29.8% of sex workers in different areas in 2001 (WHO, 2011). The 2010 UNAIDS Global AIDS report noted that paid sex was a key factor in the AIDS epidemics in Western, Central and Eastern Africa and that close to “one third (32%) of new HIV infections in Ghana, 14% in Kenya and 10% in Uganda are linked to sex work (HIV infection among sex workers, their clients, or their other sex partners)”(UNAIDS, 2011a, p.30). A systematic review and meta-analysis of 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. A 2011 WHO/UNAIDS/UNICEF report noted:

“Between 9% and 25% of surveyed male sex workers have tested HIV-positive in China, Indonesia and Thailand, for example, as have 34% of transgender (*hijra*)

sex workers in Jakarta (Indonesia), 16% of their peers in Mumbai (India) and 14% of transgender people in Bangkok (Thailand).”(WHO et al., 2011, p.30)

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 is less than 50.0% of sex workers<sup>8</sup> (UNAIDS, 2011c, Shannon and Montaner, 2012).

In 2000, the WHO and UNAIDS suggested the classification of HIV epidemics into “concentrated” or “generalised” epidemics (see Box 1).

WHO/UNAIDS classification of HIV epidemics

Concentrated

- Principle: HIV has spread rapidly in a defined sub-population, but is not well-established in the general population. This epidemic state suggests active networks of risk within the sub-population. The future course of the epidemic is determined by the frequency and nature of links between highly infected sub-populations and the general population.
- Numerical proxy: HIV prevalence consistently over five percent in at least one defined subpopulation. HIV prevalence below one percent in pregnant women in urban areas.

Generalized

- Principle: In generalized epidemics, HIV is firmly established in the general population. Although sub-populations at high risk may continue to contribute disproportionately to the spread of HIV, sexual networking in the general population is sufficient to sustain an epidemic independent of sub-populations at higher risk of infection.
- Numerical proxy: HIV prevalence consistently over one percent in pregnant women”

**Box 1: Classification of HIV epidemics (from UNAIDS/WHO working group on global HIV/AIDS and STI surveillance, 2000, p.24).**

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<sup>8</sup> Note that these figures are based on Country Progress Reports in which only 54 countries submitted data on this item.

According to this classification, it was recommended that HIV prevention programmes be prioritised for key populations in a “concentrated” epidemic, and for the general population in a country with a “generalized” epidemic (UNAIDS/WHO working group on global HIV/AIDS and STI surveillance, 2000, Mishra et al., 2012). This has resulted in many programmes overlooking sex workers in countries where the epidemic is classified as generalised (if indeed sex work had ever received specific health care attention when the country was regarded as having a concentrated epidemic). The generalised/concentrated dichotomy, and its concomitant programme implications, have been criticised for being insufficiently responsive to the complexities of HIV epidemics in various settings, and some researchers have called for urgent - and on-going - attention to sex work settings in generalised epidemics (Pettifor et al., 2011, Chen et al., 2007). This would be particularly important in SSA where the epidemic is generalised, and where sex work generally receives little constructive policy or programmatic attention.

### **1.3 Factors mitigating or compounding sex worker vulnerability**

Various elements in the sex work setting and beyond may increase or mitigate sex worker vulnerability to HIV and other STIs (Rekart, 2005). In what follows, four factors will be explored in greater detail: migration and mobility, health care responses, legal responses and international sporting events.

#### **1.3.1 Migration and mobility**

Similar to other continents, globalisation has resulted in increased internal (movement within a country) and cross-border population movements in Africa (Segatti and Landau, 2011b, Segatti and Landau, 2011a). Cross-border migration often receives more consideration than internal migration, which means that the impact of the latter is often overlooked. Segatti notes that “migration within Southern Africa is now far more numerically significant than migration to Europe” (Segatti and Landau, 2011b, p.11). While some studies have shown that migration has been an important factor in the HIV



epidemics in SSA urban areas (Voeten et al., 2010), others have emphasised that the link between migration and HIV is not always straightforward (Vearey, 2012, Deane et al., 2010). Studies in South Africa have challenged assumptions that migrants in Africa move from their homes to other countries to access better health care (Vearey, 2012). This is in keeping with the documented “healthy migrant phenomenon” where new immigrants to a country are generally healthier than citizens (Razum et al., 1998, Malmusi et al., 2010). A number of reasons have been proposed for this phenomenon, such as that immigrants come from countries where lifestyle diseases are less prevalent (if migrating to a developed country for example); that migration is a stressful and complex process and that only younger and better educated migrants would therefore consider taking it on; and, that in countries where immigration health screening is conducted, migrants with existing illnesses could be refused entry to the country (Gushulak, 2007). In addition, it is often the poor living and working conditions experienced by migrants at destination points – or what Williams et al and Vearey term “spaces of vulnerability” - such as barriers to accessing health care and social services, experiencing xenophobia or having to make a living in an hostile environment, that may predispose migrants to ill-health and HIV after arrival in a country (Vearey, 2012, Vearey et al., 2010, Vearey, 2008, Williams et al., 2002).

#### ***1.3.1.1 Sex work and migration***

Current literature highlights the links between migration and sex work (Bujra, 1975, Busza, 2006b, Vanwiesenbeeck, 2001) and that sex workers are a highly mobile population (Ramjee et al., 1998, Day and Ward, 1997, van Haastrecht et al., 1993). There are numerous reasons why sex work is a viable livelihood strategy in many settings, it: pays better than other service work; has flexible working hours; often means an individual is self-employed; and, requires no formal qualifications, documentation or sizable initial capital outlay (Oliviera, 2011, Gould, 2011, Flak, 2011, Campbell, 2000, Gould and Fick, 2008, Posel, 1993). Particularly in the context of migration, an individual’s

social networks may assist in introducing her/him to the industry and facilitating entry to popular sex work venues (Nyangairy, 2010, Gould, 2011). Alternatively, individuals currently engaged in sex work in their place of origin may migrate to another country or province seeking improved economic opportunities or better working conditions in the sex industry (Busza, 2004, Robinson and Rusinow, 2002).

Scorgie and colleagues documented the following reasons for sex workers' mobility in SSA: access to different client bases; improved work conditions; following seasonal trade opportunities; services mobile populations like truckers or trails the pay days of miners; and, to avoid violence or stigma (Scorgie et al., 2012). Saggurti and colleagues studied 5498 mobile FSWs in India, and found that participants with higher mobility experienced more physical violence, were more likely to consume alcohol before sex, and reported more inconsistent condom use than those who were less mobile (Saggurti et al., 2011). While mobility is a complex phenomenon and not a straightforward driver of HIV (Deane et al., 2010), sex workers who migrate - or who are highly mobile - may experience problems accessing health care, may actively be excluded from services and may have limited support structures (UNAIDS, 2009). In Kenya, migrant FSWs experience marginalisation because of irregular migration status and language and cultural barriers (Ministry of Health, 2012). Migrant sex workers are often less identifiable than other sex workers (Ghys et al., 2001) and have traditionally been overlooked in sexual and reproductive health services (Overs and Hawkins, 2011). Sex workers self-identifying as sex workers is an important factor to the success and reach of public health campaigns focusing on sex work. Agustin warns

“Many migrants and non-migrants alike who sell sex do not consider themselves workers but rather people temporarily engaging in an advantageous but stigmatized occupation that is nothing to build an identity on” (Agustín, 2007b, p.529).

In contexts where sex work carries a potent stigma and is illegal, people engaged in sex work may be less inclined to identify themselves with the sex work industry. Cross-border migrants whose stay in a host country may be precarious – due to a restrictive immigration policy which may result in an irregular documentation status, or the presence of hostile anti-foreigner sentiments, for example - may be even more likely to distance themselves from a sex worker identity. This would make cross-border migrant sex workers the least accessible group for sex-work specific health care and health promotion. This could, ultimately, impact on their ability to protect themselves against STIs (Vearey et al., 2011).

### **1.3.2 Health care responses to sex work**

Various international health agencies and best practice guidelines have recommended the need to pay particular attention to sex work when developing responses to address HIV, including: outreach to sex worker communities; clinic-based services including sex work-specific services; peer education with active involvement of sex workers in all programmes and planning; non-discrimination; programmes to address structural issues<sup>9</sup>; and, the creation of a safe working environment to safeguard health within the sex work setting and beyond (WHO, 2005, UNAIDS, 2002, UNAIDS Advisory Group on HIV and Sex Work, 2011, WHO, 2011, Grover, 2010, WHO, 2012). Health care services targeting sex workers that have flexible hours, employ non-judgemental staff who offer a confidential service, and include outreach have been shown to be successful in reducing the incidence of HIV and STIs amongst sex workers (Day and Ward, 1997, Vuylsteke et al., 2009). A systematic review of HIV and STI interventions in resource-poor settings by Shamanesh and colleagues showed that the combination of sexual risk reduction,

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<sup>9</sup> Blankenship and colleagues describe a structural intervention as "interventions that work by altering the context within which health is produced or reproduced. Structural interventions locate the source of public-health problems in factors in the social, economic or political environments that shape and constrain individual, community, and societal health outcomes." BLANKENSHIP, K. M., BRAY, S. J. & MERSON, M. H. 2000. Structural interventions in public health. *AIDS*, 14 Suppl 1, S11-21.p.S11.

condom promotion and improved access to STI treatment reduced HIV/STI acquisition in sex workers receiving these programmes, while structural interventions, policy change or the empowerment of sex workers<sup>10</sup>, reduced the prevalence of HIV and other STIs (Shahmanesh et al., 2008). More data is needed on the models of sex work programming (WHO, 2011) and on the coverage of sex work health interventions in SSA (UNAIDS, 2001, WHO et al., 2011). A recent systematic review on HIV prevention in sex work settings in SSA concluded that there is adequate evidence to show the effectiveness of targeted interventions for FSWs, and recommended a focus on increasing access to HIV testing and anti-retroviral therapy for sex workers (Chersich et al., 2013).

An ethical health sector response to sex work would aim to create a safe, effective and non-judgemental space that would attract sex workers to its services. Unfortunately, the clinical setting is often the site of human rights abuses and the unethical treatment of sex workers by healthcare providers. Research with male, female and transgender sex workers in Uganda, South Africa, Kenya and Zimbabwe has documented a range of problems with health care provision in these countries: poor treatment and discrimination by health care workers; having to pay bribes to obtain services or treatment; being humiliated by health care workers; and, the breaching of confidentiality (Boyce and Isaacs, 2011, Scorgie et al., 2013). Other studies in South Africa and elsewhere confirm that sex workers' negative experiences with health care services act as a barrier to effective STI provision and care (Pauw and Brener, 2003, Binagwaho et al., 2010); positive interactions with health care providers and health services would

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<sup>10</sup> Evans and Jana draw a distinction between individual empowerment which “motivate[s] and enable[s] individual sex workers to protect their own health (by practising safer sex and making use of health services to treat sexually transmitted infections promptly)” and the empowering of sex workers as a community which “through the development of group solidarity [...] enables workers to collectively enforce safer sex norms among their clients (rather than acting as rivals in a demand-led market), and to pursue collective action to improve their lives” 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. *Glob Public Health*, 5, 449-61. p.452.

empower sex workers, and assist in cultivating healthy behaviour (Nairne, 1999, Stadler and Delany, 2006, Khonde and Kols, 1999).

### **1.3.3 Legal responses to sex work**

#### ***1.3.3.1 Legislation and policy***

With the notable exceptions of Senegal and Mali where sex work has been legalised, criminal penalties apply to sex work or associated activities in Africa (Ngwena, 2011).

The criminalisation of sex work as a punitive attempt by governments to eradicate sex work within societies, has historically had no success. Harcourt and Donovan note that

“only in the most extreme social situations, such as the Cultural Revolution in 1960s China and the Taliban regime in Afghanistan, has commercial sex probably been quantitatively suppressed” (Harcourt and Donovan, 2005, p.201).

The basis of the criminalisation of sex work is premised on sexual moralism that views sex work as promoting promiscuity, extra-marital sex, and a type of sex that is non-procreative and is for financial reward (Posel, 1993). Historians have shown that sex work (and child prostitution) is often related to a lack of alternative income generating opportunities available in communities, and is frequently shrouded in moral panics or ideological concerns about promiscuity or “laxity” (Kropiwnicki, 2012). Of this, Kropiwnicki writes that

“the response [...] was legislation and law enforcement to control female’s migration, agency and sexuality, rather than policies and interventions to provide alternative options for adolescent girls and women.” (Kropiwnicki, 2012, p.247)

This political approach persists in most countries, with criminal law favoured as the most appropriate legislative tool to manage sex work. Various legal frameworks have been developed internationally; the most prominent are summarised in Box 2 below.

Popular legal frameworks on sex work

- a) *Total criminalisation* – involves penalties for all or most parties involved in sex work, including the sex worker, the client and anyone facilitating the commercial transaction. Examples include South Africa and Kenya;
- b) *Partial criminalisation* – the transaction between sex worker and client is not criminalised, but typically any third party is, and sometimes the client. The sex worker does not attract criminal sanction, and is typically regarded as a victim. Sweden and Germany are examples of this model;
- c) *Legalisation* – sex work is not criminalised, but regulated and licensed. For example, sex workers may have to register with the police, undergo mandatory health checks (such as HIV-tests) and/or work in specifically designated zones (such as so-called ‘red lights districts’). Senegal, Mali and the Netherlands are examples; and
- d) *Decriminalisation* – all forms of the criminal law are removed from sex work, sex work is regarded as a legitimate form of labour and regulated by occupational health and safety laws, and labour laws. New Zealand is an example of decriminalised model of sex work.

**Box 2: Legal frameworks associated with the regulation of sex work (adapted from South African Law Reform Commission, 2009, Prostitution Law Reform Committee, 2008)**

Globally, several studies have documented the harms of applying criminal law to the sex industry. It has been shown to drive sex workers underground and away from services (Gable et al., 2008), increasing stigma and creating obstacles to accessing programmes (UNAIDS, 2009, UNAIDS Advisory Group on HIV and Sex Work, 2011); and, to reduce sex workers’ power, rendering them vulnerable to violence, human rights violations (Scorgie et al., 2012) and corruption (Harcourt and Donovan, 2005). Shamanesh and colleagues studied the impact of attempts to abolish sex work in Baina, India following a court order in 2003 that provided for the demolition of brothels in a red light district, and the subsequent rehabilitation of sex workers (to mental asylums) (Shahmanesh et al., 2009). They documented how sex workers were scattered and subsequently lost their collective identity, while reducing their negotiating power, increasing competition among sex workers, creating a more hostile environment with less community support, an increase of police raids, and limiting access to HIV prevention tools and health care (Shahmanesh et al., 2009). These harms and the need for an evidence-based approach to sex work have prompted various international bodies - like

UNAIDS (UNAIDS, 2002), the WHO (WHO, 2011, WHO, 2012), the UN Special Rapporteur on Health (Grover, 2010) and the Global Commission on HIV and the Law (Secretariat: The Global Commission on HIV and the Law, 2012), prominent publications like the *Lancet* and the *Canadian Medical Association Journal* (Goodyear et al., 2005, *Lancet*, 2005), and various researchers (Abel et al., 2009, Harcourt et al., 2010, Scorgie et al., 2012) to call for the decriminalisation of sex work, and to approach sex work from within a human rights framework. Regrettably, governments in SSA and elsewhere have paid little attention to the adverse effects that the criminal law has on health in the sex work setting, and on public health generally; national governments have not acted on calls to reform criminal laws and discriminatory sex work policies in line with human rights principles (Secretariat: The Global Commission on HIV and the Law, 2012).

### **1.3.3.2 Police interaction**

For most sex workers, direct contact with the criminal law is through police officers. In South Africa, for example, while the police have a mandate to apprehend criminal offenders, the difficulties involved in establishing evidence of sex-for-reward transactions - and the procedural challenges associated with arresting people involved in such transactions - translates into few sex workers being prosecuted under the criminal law provisions associated with sex work (Fick, 2006a). Municipal by-laws relating to loitering or creating a public disturbance are often employed to arrest sex workers (Fick, 2006b, Gould and Fick, 2008, Fick, 2005). Many countries allow police officers wide powers over sex workers, who often use public by-laws and other regulations to harass sex workers without following required procedures; this creates a hostile and violent environment for sex workers (Secretariat: The Global Commission on HIV and the Law, 2012). Indeed, Scorgie and colleagues note that police violence and harassment is “a pervasive theme” in the lives of sex workers in SSA (Scorgie et al., 2012, p.1). Documented police abuse of sex workers include rape and gang rape (Pettifor et al., 2000, Pauw and Brener, 2003, Gould and Fick, 2008); unlawful arrest, for example, when walking to the shops (Fick,

2006b); demanding bribes such as money or sex (Pettifor et al., 2000, Fick, 2005, Fick, 2006a, Fick, 2006b, Biradavolu et al., 2009); finding condoms on sex workers and using that as “evidence” that sex work has taken place (Posel, 1993, Pauw and Brener, 2003, Secretariat: The Global Commission on HIV and the Law, 2012, Open Society Foundations, 2012) and sometimes confiscating these (Alexander, 1998); and, not believing sex workers when they report crimes - for example, such as having been raped (Brown et al., 2006, Scorgie et al., 2012). In Kenya, research has shown how sex workers are arrested, often detained between a week and six months, forced to pay bribes to police, and are humiliated by police when reporting rape (Scorgie et al., submitted).

Arresting sex workers as an attempt to abolish sex work is counterproductive; when released, sex workers often have to work harder to make up for the time they spent in jail (Fick, 2006b, Binagwaho et al., 2010, Harcourt and Donovan, 2005, Meerkotter, 2012). Alexander showed how the fear of arrest encourages sex workers to limit the time negotiating with clients in public places, therefore increasing the odds of engaging in unprotected sex or more dangerous forms of intercourse such as anal sex (Alexander, 1998). Shannon and colleagues investigated environmental and structural barriers to the negotiation of condoms between FSWs and clients in Vancouver, Canada. In a multivariate analysis, they found that FSWs being pressured into having unprotected sexual intercourse was independently associated with having had previous charges by police for soliciting or drugs (odds ratio [OR]=3.39; 95% confidence interval [CI]=1.00,9.36), working away from main streets because of policing (OR=3.01; 95% CI=1.39, 7.44), and contracting with clients in cars or in public spaces (OR=2.00; 95% CI=1.65, 5.73) (Shannon et al., 2009). This clearly indicates the negative impact of the criminal law and its enforcement on sex worker and client health and protection from STIs.

This section has highlighted that the imposition of criminal penalties on sex work, and the concomitant wide discretion and power given to police, endanger the lives of sex



workers and inhibit the prevention and mitigation of STIs – including HIV, violence and corruption in the sex work setting and beyond.

#### **1.3.4. International sporting events**

A perhaps unexpected catalyst for increased attention to sex work and health in SSA, was the first hosting of megasport event, the FIFA Soccer World Cup on the African continent in 2010. With rapid globalisation, and the expansion of technology, and the power and diffusion of different forms of media, international sports tournaments have grown in size and popularity. Sociologists Horne and Manzenreiter argue that “mega sports events” are characterised by two main features: they have a far-reaching impact on the city or country that hosts the event, and that they will draw considerable media attention (Horne and Manzenreiter, 2006). Since the 1980s, international sports events like the Winter and Summer Olympics, FIFA football tournaments and the Commonwealth Games have expanded in size, sponsorship and spectators and are now classified as mega sports events (Horne and Manzenreiter, 2006). In her research on sport and gender, Terberge traces how sport is traditionally "organised as a male preserve" (Theberge, 2000, p.322) while advertising and the production of mega sports events are often tailored specifically to the male spectator, masculine norms and associated with alcohol consumption and sexual titillation (Michael A. Messner and Oca, 2005). Attendance of popular sports events is often constructed as a male-orientated leisure activity, and as an expression of heterosexual hyper-masculinity, may be coupled in popular consciousness with the demand for sex services. Buckley argues that the modern Olympic Games have always been associated with sex work, and that all host cities have endeavoured to suppress it.<sup>11</sup>

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<sup>11</sup> “While sex work has always been synonymous with the Olympics, albeit not necessarily in the public eye, prostitution does not have the blessing of Games organisers. For almost the entire history of the modern Olympics, host cities have tried to crack down on sex workers, even in countries where prostitution is legal. Underlying this unusually consistent attitude to the industry is a belief that it will degrade the moral standing of the Olympics, which have always been promoted as a pure amateur competition where

In 2004, South Africa was awarded the bid for the 2010 Soccer World Cup. In the run-up to and intense preparation for the 2010 World Cup, media speculation focused on the dangers that the sex industry in South Africa held for the spread of HIV, a predicted mass migration of sex workers from other countries to South Africa for the World Cup, a substantial increase in sex work and human sex trafficking, and even that South Africa will run out of condoms during the event (Getchell, 2008, Glatz, 2010, Khoabane, 2009, Kwinika, 2010, Lakaje, 2009, Raftopoulos, 2010, Ridge, 2009, Smith, 2010, Telegraph, 2010, Richter and Massawe, 2009, Bird and Donaldson, 2009). Links were drawn between the festive atmosphere during big soccer matches, the excessive use of alcohol and unprotected sex (Langenberg, 2010, Gould, 2010, Bird and Donaldson, 2009) while problematic assumptions about masculinity dominated: "Crowds are assumed to be predominantly male crowds demanding commercial sex, and women are only visible as targets for men's 'demand'" (Ham, 2011, p.31). Much popular and media attention turned on sex workers in the run-up to the 2010 World Cup (and little to clients or the assumptions about sport and sex) and sex workers expressed fears about an increase in arrests, raids and human rights abuses (Sex Worker Education & Advocacy Taskforce and South African National AIDS Council, 2009). Fears about HIV transmission were particularly pertinent, and media reports quoted an HIV clinician calling for the mandatory registration and HIV-testing of sex workers before the World Cup.<sup>12</sup>

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athletes strive for perfection and success through sportsmanship. Off-field sexual behaviour has always threatened to tarnish the Games' healthy reputation. Crackdowns on the sex industry have been justified in more recent decades as necessary to prevent the spread of HIV/AIDS and other sexually transmitted diseases (STIs). Since the 2004 Games in Athens, Olympic organisers have also argued that cracking down on prostitution is important in the fights against the criminal sex trade operators" BUCKLEY, J. 2012. *Sex & the Olympics: The unauthorised guide*, Canberra, Collaborative Publications. p.22

<sup>12</sup> "A leading health specialist told the Observer that the World Cup presented a huge risk and said there was an urgent need to start registering prostitutes and screening them for the virus. It is estimated that 50% of the country's sex workers are infected." MCVEIGH, T. & KWINIKA, S. 2009. Call to legalise World Cup sex trade. *The Observer*, 11 October. The doctor quoted in the article was approached by sex worker advocates about his recommendations, and subsequently clarified his statements and noted he was quoted out of context.

Before the World Cup, public health researchers and sex work activists pointed out that analogous fears about sex work and human trafficking circulated before the 2006 World Cup held in Germany and other international sporting events such as the 2004 Olympic games, and were subsequently shown to be unsubstantiated (Hennig et al., 2007, Loewenberg, 2006, Richter and Massawe, 2009, Gould, 2010, Landler, 2006, Richter and Massawe, 2010, The German Delegation to Multidisciplinary Group on Organised Crime, 2007).

At the time of the 2010 World Cup, no data was available that contained baseline information for specific sex work settings and then monitored the sex industry over time during a major international sporting event. Similarly, limited information was available on the impact that such a large-scale event would have on the number of sex work clients serviced, whether it would reconfigure the sex work industry, how health services and police responses to sex work would be affected by international scrutiny and possible increased funding, the impact on sex worker health, and whether such changes would persist after the sporting event. After the 2006 Germany World Cup, the International Organization for Migration found that there were five potential cases of trafficking linked to that World Cup (Hennig et al., 2007), some anecdotal evidence noted an increase in the number of sex workers in Germany (Loewenberg, 2006) while newspaper articles reported that sex workers in Germany were disappointed with the number of clients they had during the World Cup (Landler, 2006). No research was available to demonstrate whether of a mega sport event had a systematic effect on local sex industries, and such evidence could assist in shaping governmental, non-governmental and donor responses to the sex industry during large-scale events. Indeed World Cup health priorities articulated by the South African government and some short-term, donor-driven campaigns focused on the combatting of human trafficking, food safety; anti-smoking initiatives, cardio-vascular problems and disaster management (Tshabalala-Msimang and

Pillay, 2007, The Salvation Army, 2010, Yancey et al., 2008) and little to no attention was paid to the sex industry and possible health implications.

In this broad review of the literature on sex work and SSA, a number of research gaps emerged. These are discussed briefly in the next section.

#### **1.4 Knowledge gaps**

Perhaps the most prominent gap identified in this literature review, is the lack of research on male and transgender sex workers in SSA. While studies in other settings, as well as some in Eastern Africa underscore the risk of STIs to these populations, little research and programmatic work have focused on these groups in SSA.

While there is comparatively more data available on FSW in SSA, the research on FSWs is still limited and in many instances outdated. The overlap of migration and sex work has been well described in Europe and South America, but knowledge gaps remain about the relationship between migration and sex work in southern Africa in particular. Similarly, the international literature on sex work risk factors is robust and well documented, but the various factors that impact on FSW vulnerability to HIV/STIs, and their interlocking nature are under described in SSA. In addition, the impact of non-commercial partners of FSWs on their health, experiences of violence and their risk-taking behaviour in SSA was identified as an important research gap.

Finally, the breadth and intensity of the media's speculation and predictions on the impact of international sporting events on local sex industries was brought into sharp contrast with the dearth of research available to inform evidence-based programmes and policy.

This thesis therefore endeavoured to address some of these research gaps, and the next chapter will go on to describe the objectives of the research, and the methods employed.

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## Chapter 2: Objectives & Methods

### 2.1 General Objective

This thesis aims to evaluate the impact of social and behavioural factors on the health of sex workers. To achieve this objective I examine the effects of sex worker characteristics, migration status, and their relationships with commercial and non-commercial partners on sexual behaviour and access to services. Such information may assist in designing more effective health policies, in addition to providing insights into the structural factors that affect sex work settings and heighten sex worker vulnerability to ill-health.

Tables 2 and 3 (below) summarise the sub-objectives of the thesis, the justification for the research projects, and the methodology of specific objectives 1 and 2 of the PhD project.

Specific Objective	Sub-Objective	Justification	Methodology	Paper details	Section
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	<ul style="list-style-type: none"> <li>Limited information available on sex worker characteristics, sexual behaviour and health needs within South Africa</li> <li>Little local data available to inform South Africa's AIDS response in light of new funding and 'Key Population' priorities</li> <li>Enlarging the knowledge base on sex work in South Africa could inform these responses</li> </ul>	Repeat cross-sectional surveys among male, female and transgender sex workers during May-September 2010	Richter <i>et al</i> (2013) "Characteristics, sexual behaviour and risk factors of female, male and transgender sex workers in South Africa" <i>South African Medical Journal</i> 103(4) 246-251.	3.1
	b.) To describe the migration status, work conditions and utilization of health services of female sex workers in South Africa	<ul style="list-style-type: none"> <li>The intersection of sex work and migration has been demonstrated in other regions, but is under-researched in the southern African region.</li> <li>If shown that there is substantial overlap between migrancy and sex work in South Africa, and that migrant sex workers require specific health care interventions, such information could inform appropriate health responses</li> </ul>	Cross-sectional surveys with self-identified female sex workers during May-September 2010	Richter <i>et al</i> (2012) "Migration status, work conditions and female sex work in three South African cities." <i>Journal of Immigrant and Minority Health</i> Dec 13.	3.2

Table 2: Details of Specific Objective 1 of PhD project

Specific Objective	Sub-Objective	Justification	Methodology	Paper details	Section
2.) To assess the impact of relational and societal factors on sex worker vulnerability in South Africa and Kenya	a) To assess the contribution of non-commercial partners to female sex worker experiences of violence and sexual risk-taking in Mombasa, Kenya	<ul style="list-style-type: none"> <li>The role of men has not been adequately explored in HIV transmission dynamics on the African continent.</li> <li>Limited involvement of male clients and non-commercial partners in programmatic attempts to mitigate the risk of HIV and violence within the sex work setting.</li> <li>If non-commercial partners contribute significantly to FSW risk, such insights could shape appropriate policy and programmatic responses for the region.</li> </ul>	Cohort study of female sex workers with quarterly follow-up visit over 12-months	Luchters, Richter <i>et al</i> (in press) "The contribution of emotional partners to sexual risk taking and violence among female sex workers in Mombasa, Kenya: a cohort study" <i>PLoS One</i>	4.1
	b.) To assess changes in the supply of and demand for sex work services during the 2010 FIFA World Cup.	<ul style="list-style-type: none"> <li>The media sensationalism associated with international sporting events has formed the popular impression that such events will expand the local sex industry and increase sex trafficking.</li> <li>Tracking the supply and demand of paid sex before, during and after a large sporting event could provide data to counter or support such claims and help shape evidence-based campaigns and programmes.</li> </ul>	<ul style="list-style-type: none"> <li>Cross-sectional surveys with self-identified female sex workers during May-September 2010</li> <li>Three wave telephonic surveys of female sex workers advertising online and in local newspapers, in the last week of May, June and July 2010.</li> </ul>	<ul style="list-style-type: none"> <li>Richter <i>et al</i> (2012) "Female sex work and international sport events - no major changes in demand or supply of paid sex during the 2010 Soccer World Cup: a cross-sectional study" <i>BMC Public Health</i> 12:763</li> <li>Delva, Richter <i>et al</i> (2011) Sex Work during the 2010 FIFA World Cup: Results from a Three-Wave Cross-sectional Survey. <i>PLoS One</i> 6(12): e28363.</li> </ul>	4.2  4.3

Table 3: Details of Specific Objective 2 of PhD project

## 2.2 Specific Objectives:

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.*

Limited information on sex worker characteristics, sexual behaviour and health needs is available for the South African context. Sex workers are regarded as a “Key Population” within South Africa’s national AIDS plan (Department of Health, 2011), and increased funding and targeted policy and programmes have recently been initiated for this population, with little local data available to inform these responses. Enlarging the knowledge base on sex workers in South Africa could inform these responses.

*b) To describe the migration status, work conditions and utilization of health services of female sex workers in South Africa.*

The intersection of sex work and migration has been demonstrated in other regions, but is under-researched in South Africa and the southern African region. If it shown that there is substantial overlap between migrancy and sex work in South Africa, and that migrant sex workers require specific health care interventions, such information could inform appropriate health responses.

2.) To assess the impact of relational and societal factors on sex worker vulnerability in Kenya and South Africa.

*a) To assess the contribution of non-commercial partners to female sex worker experiences of violence and sexual risk-taking in Mombasa, Kenya.*

The role of men – either as non-commercial partners or as commercial clients of FSWs – has not been adequately explored in relation to HIV transmission on the African continent. In programmatic responses to sex work, there is limited involvement of male

clients and non-commercial partners in attempts to mitigate the risk of HIV and violence within the sex work setting. If non-commercial partners contribute significantly to FSW risk, such insights could shape appropriate policy and programmatic responses for the region.

*b) To assess changes in sexual behaviour among sex workers and in supply and demand for their services during a major international sporting event.*

The media sensationalism associated with international sporting events has created the popular impression that such events will expand the local sex industry and even increase the incidences of sex trafficking. Tracking the supply and demand of paid sex before, during and after a large sporting event could provide evidence to counter or support such claims and help shape evidence-based campaigns and programmes.

Drawing on the summary included in tables 2 and 3, the following section provides details of the methods applied for each study. The sections that follow will set out the study period, study setting, study design, ethical considerations and data dissemination for the three studies conducted to achieve the objectives of this thesis.

## **2.3 Methods**

This PhD project consisted of three independent but related research studies. Two of the studies were conducted in South Africa. One consisted of surveys administered by fieldworkers in sex worker settings in four field sites (“face-to-face surveys” – see chapters 3.1, 3.2 and 4.2), while the second was conducted telephonically with sex workers who advertised online and in newspapers in three cities (“telephonic surveys” – see chapter 4.3). The third was a cohort study situated in Mombasa, Kenya (the “prospective cohort study” – see chapter 4.1).



Map 1: Map of Africa

### 2.3.1 Study Sites & Population

The international attention to sex work in preparations for the 2010 World Cup created propitious opportunities for research collaboration between sex work NGOs, researchers and funders in South Africa. Data from a feasibility study for microbicide clinical trials in Mombasa presented a chance to explore the relationships between sex workers and their non-commercial partners in particular. Therefore, following the knowledge gaps identified in chapter one, South Africa and Kenya were selected as countries of focus to describe the characteristics of sex workers in selected sites of these countries, and to explore the key determinants of their vulnerability to ill-health.

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.

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). Input data required for mathematical modelling for modes of transmission calculations<sup>13</sup>, employed Vandepitte's estimates on FSW prevalence and assumed that there were 132 000 FSWs in South Africa in 2009 (assuming a 1% prevalence of FSWs) (SACEMA, 2009). In 1998, HIV prevalence among different FSW groups in South Africa ranged between 46% and 69% (Ramjee et al., 1998, Rees et al., 2000, Williams et al., 2003). In a 2004 - 2005 Durban study, 775 women at high risk for HIV infection – 78.8% of whom self-identified as sex workers – were screened, and 59.6% were found to be HIV-positive (van Loggerenberg et al., 2008). More recent estimates for South Africa are not available.

In South Africa, the buying and selling of sex is criminalised under the Sexual Offences Act of 1957<sup>14</sup> and the Criminal Law (Sexual Offences and Related Matters) Amendment Act of 2007<sup>15</sup>.

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<sup>13</sup> "Modes of Transmission of HIV" is described in the following way: "In order to prioritize and design prevention efforts, countries need information to design effective prevention programs, to monitor and to subsequently verify if these programs are successful. Given this need for information, the Joint United Nations Programme on HIV/AIDS (UNAIDS) has developed the epidemiological model, Modes of HIV Transmission (MOT), which allows countries at the global level to use national prevalence and behavioral data to model the distribution of the incidence in key populations at risk of HIV infection. This epidemiological model is intended to provide a simple message; it uses sources from different studies to generate an estimation indicating which populations will contribute most to the incidence of HIV in the short term; thus helping the country to 'Know its HIV Epidemic'."UNAIDS/DOMINICAN REPUBLIC, CONSEJO PRESIDENCIAL DE SIDA (COPRESIDA) & DIRECCIÓN GENERAL DE CONTROL DE INFECCIONES DE TRANSMISIÓN SEXUAL Y SIDA (DIGECITSS) 2010. HIV Modes of Transmission - Analysis of the distribution of new HIV infections in the Dominican Republic and recommendations for prevention. Santo Domingo: UNAIDS.p. 7.

<sup>14</sup> Act No 23 of 1957

<sup>15</sup> Act No 32 of 2007



Map 2: Map of South Africa

For the face-to-face and telephonic survey components, four cities that hosted 2010 Soccer World Cup games and where sex worker organisations were active were selected as study sites: Johannesburg, Rustenburg, Durban and Cape Town (see Map 2). From available research it was clear that these sites contained different sex work populations and would be useful for purposes of comparison.

Johannesburg is the largest city in South Africa and situated in Gauteng province. Rustenburg is in a predominantly rural province. This site comprised informal settlements<sup>16</sup> within a platinum mine area about 15 kilometres outside the city; its sex work industry mainly serves the local mining community (Akileswaran and 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. An enumeration study in 2007 found 1209 sex workers of which 80% were brothel-based and 20% street-based sex workers (Gould and Fick, 2008). FSWs were the majority of sex workers (89%).

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<sup>16</sup> Informal residential area comprised of shacks or shanty towns.



Sex workers experienced high levels of violence often perpetuated by the police (Pauw and Brener, 2003, Gould and Fick, 2008, Fick, 2005, Fick, 2006a, Fick, 2006b).

Similarly, Durban contains a busy port, an active tourism industry and is attractive to domestic and international travellers. The literature available on this city's sex industry focus in particular on the history of sex work at the port area, police harassment of sex workers, and the various difficulties sex workers face in practicing safer sex (Posel, 1993, Trotter, 2008, Varga, 1997, Varga, 2001, Trotter, 2009).

Participants for the telephonic survey were selected from a website advertising sexual services and from advertisements in newspapers that are circulated in greater Johannesburg and in Cape Town and Durban. The face-to-face surveys were conducted in four research sites in the cities of Johannesburg, Rustenburg and Cape Town. 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 (Stadler and Delany, 2006, Wojcicki and Malala, 2001, Richter, 2008, Vearey et al., 2011, Nairne, 1999, Nairne, 2000). Sandton, by contrast, is a wealthy suburb and business district (Bähr and Jürgens, 2006) with a visible outdoor sex industry.

Kenya is situated on the eastern coast of Africa (see Map 1) and had a population of more than 41 million in July 2011. The World Bank classifies Kenya as a low income country. It consists of eight provinces and has two official languages (Swahili and English). Nairobi is the capital and the largest city in Kenya, with Mombasa in second place. Drawing on studies conducted in the late 1990s, Vandepitte *et al* suggested that FSW prevalence ranged from 3.0 - 6.9% in Kenyan provincial towns. Recent mapping in Kenya has produced validated estimates of 27 630 FSWs in Nairobi and 16 465 FSWs on the coast of Kenya (where Mombasa is situated) in 2011-2012 (Ministry of Health, 2012), and HIV prevalence among FSWs was 29.3% in 2011 (National AIDS Control Council, 2012). In December 2011, Kenya had 1.6 million people living with HIV and an estimated

6.2% of all adults between 15 and 49 years had acquired HIV (National AIDS Control Council, 2012).

Under the Kenyan Penal Code<sup>17</sup>, selling sex is not explicitly criminalised, but the buying thereof, keeping a brothel or living off the earnings of a sex worker is a criminal offence.



Map 3: Map of Kenya

Mombasa is located on the east coast of Kenya (see Map 2) and contains a busy sea port – Kenya’s largest – and is a tourism hub within Kenya. Mombasa’s sex industry has been well documented by a number of studies on male and FSWs (Gallo et al., 2007, Luchters et al., 2008a, Luchters et al., 2008b, Mannava et al., 2013, Thomsen et al., 2004, Thomsen et al., 2006, Geibel et al., 2008, Geibel et al., 2007a, Geibel et al., 2007b). The prospective cohort study in this thesis was conducted to estimate the annual HIV incidence and evaluate the feasibility of establishing a new site for microbicide clinical trials in Mombasa, Kenya. It was based within two divisions<sup>18</sup> of the city of Mombasa– in

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<sup>17</sup> Chapter 63

<sup>18</sup> Administratively, Kenya is divided into 46 districts (*wilaya*), which are then sub-divided into 262 divisions (*tarafa*).

the Chaani and Kisauni divisions. These areas were chosen as they were popular FSW sites in Mombasa, research staff had established relationships with the community and research infrastructure in place. FSWs were recruited from their homes and guesthouses in two divisions of the city, which were divided into 11 zones; each zone was allocated a fieldworker. Fieldworkers were familiar with their respective areas and responsible for inviting women to enrol in the study and maintain contact with them throughout the study period. The research team conducted study assessments at two research locations in Chaani (a primary health centre) and Kisauni division (a FSW drop-in centre). To be eligible to participate in the study, FSWs had to be HIV-uninfected, aged 16 years or older, not currently pregnant as assessed by self-report and laboratory screening, able and willing to provide written informed consent for study participation, and willing and able to provide adequate locator information for tracing<sup>19</sup>. Those planning to travel or relocate from the study areas, or participating in other HIV intervention studies were excluded from participation.

### **2.3.2. Study Period**

The face-to-face surveys and telephonic surveys were administered between May - September 2010 in South Africa. The prospective cohort study was conducted between May 2006 - September 2007 in Kenya.

### **2.3.3 Study Design & Sampling Procedures**

The study design of these three observational studies were selected according to established research methodologies for so-called “hard-to-reach populations” (under which sex workers fall), and logistical, resource and contextual constraints.

In order to assess any changes to the sex industry in South Africa as a result of the World Cup, the face-to-face and telephonic surveys employed a repeat cross-sectional

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<sup>19</sup> This included street addresses and telephone numbers of participants. Participants were also requested to provide the telephone number of a contact person whom study staff can contact if the volunteer misses a visit.

study design. Surveys were conducted in three phases (before the World Cup, during the World Cup and after the World Cup). While a prospective cohort study may have been suitable for assessing if there were some changes to the sex industry, such a strategy would not have been able to capture any new sex workers who moved into the research sites during or after the World Cup. The context in which the research would be conducted was also a notable factor in considering the study design. The sensationalism surrounding the World Cup, the focus on the sex industry and calls for the registration and mandatory HIV-testing of sex workers in South Africa (McVeigh and Kwinika, 2009), induced fear and apprehension in the sex worker community (Richter and Massawe, 2009, Mentor-Lalu, 2011). At the time the research was conducted, police raids on the sex industry were taking place and levels of suspicion amongst sex workers were high (Mtyala, 2009, Jooste, 2010). Researchers anticipated that requesting potential participants to provide unique identifiers or to identify themselves to research staff for a linked cross-sectional study or prospective cohort might have reduced willingness to participate in research. Consequently, in the latter two phases of the face-to-face study, participants were asked to indicate whether they had completed a survey in a previous phase, but these surveys could not be linked.

In research with sex worker populations, sampling is often problematic. Some authors contend that it is impossible to obtain a random sample of sex workers as it is very difficult to establish a sampling frame (Platt et al., 2011, Shaver, 2005) and to ensure that potential participants have an equal chance of being selected for the study (Ramjee et al., 1998). Studies on sex work that have been effective in reaching the target population utilising non-probability sampling techniques include snowball sampling (Sanders, 2006, Varga, 1997, Zhang et al., 2012), while methods that attempt to adopt probability sampling such as Respondent Driven Sampling (RDS) (Blankenship et al., 2008, International Organization for Migration, 2011) and Time Location Sampling (TLS) have also had success (Cai et al., 2010, Zhao et al., 2011).

In the prospective cohort and the face-to-face survey, non-probability convenience sampling was employed that relied on fieldworkers identifying sex workers from their own experience of the research sites.

For the telephonic survey, a sampling frame was constructed by listing all sex worker profiles published on [www.sextrader.co.za](http://www.sextrader.co.za), a website with national coverage containing over 1000 profiles of sex workers. Additionally, researchers listed sex worker profiles published in the adult section of the Classifieds in local newspapers in the greater Johannesburg, Durban and Cape Town areas through the website [www.iol.co.za](http://www.iol.co.za). Researchers assumed that some tourists would use the internet to locate sex workers, and these two websites were the most popular hits when using the internet search engine Google with terms such as “sex services South Africa”. In each research phase, after discarding duplicate profiles, random number tables were used to select sex workers, who were then telephonically contacted until at least 220 respondents had agreed to participate in the study. Each phone call was preceded by a cell phone text message to the sex worker explaining the purpose of the study, and made it clear that participation was entirely voluntary and anonymity could be assured. Researchers used the offices and landline phone of the well-known sex worker NGO - the Sex Worker Education and Advocacy Taskforce (SWEAT) - to contact participants. The NGO telephone number would appear on prospective participants’ phones when called, thus potentially reassuring them of the authenticity of the study. In the telephone call, as a preamble to the invitation to participate, the research assistants explained the purpose of the study again, and emphasised its voluntary and anonymous nature. Exclusion criteria were: insufficient English language skills to understand or answer the questions, or being a male or transsexual sex worker. Eligible sex workers were asked to provide oral informed consent to survey participation. A cell phone airtime voucher of 25 South African Rands (3.5 US\$) was offered to participants, to compensate for their time spent on the interview. Participants were asked seven questions in English based on a

structured questionnaire. Questions gathered information on their age; their country of origin; their current geographical work area; the number of clients in the past seven days; the country of origin of their last client; and whether a condom was used with their last client. Responses were recorded real-time in Epi-Info 3.5.1 by research assistants. The airtime voucher was transferred electronically to the cell phone number of the participant after participation.

In the face-to-face survey, self-identified female, male and transgender sex workers in Hillbrow, Sandton, Rustenburg and Cape Town were interviewed by trained sex worker fieldworkers. University-based researchers collaborated with two non-governmental organisations – SWEAT and Sisonke Sex Worker Movement. SWEAT and Sisonke introduced the researchers to peer educators known to them in the three research sites who were requested to invite other peer educators or sex workers to a half-day research training workshop. Forty-five participants attended training on ethics, participant selection and interviewing. They received a certificate of attendance after workshop completion. Following role-play of participant selection, consent procedures and questionnaire completion with other workshop attendees, and a review of completed study questionnaires, the 10 best performing fieldworkers were selected in each research site.

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 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. At the end of each research phase, the principal investigator and an assistant researcher had individual debriefing sessions with each fieldworker where problems were discussed and completed surveys reviewed.

Questionnaires were based on previous studies with sex workers in Mombasa, Kenya (Luchters et al., 2008a), and research on migration history and access to health care in Johannesburg (Vearey, 2008). Questionnaires were translated from English into four local languages (isiZulu, isiXhosa, Afrikaans and Setswana) and administered during three periods: pre-World Cup (May-early June 2010); during the World Cup (mid June - mid July 2010); and post-World Cup (September 2010). A cell-phone airtime or grocery voucher of 20 South African Rand (~US \$3) was provided for time spent in the interview. Fieldworkers referred participants to local counselling, health and legal assistance organizations, as required. During the World Cup period, fieldworkers distributed female condoms and information about the toll-free sex worker helpline<sup>20</sup> to participants.

A prospective cohort study design was chosen for the Mombasa site in order to assess risk-taking and experiences of violence by FSWs over a period of a year. Eligible women were followed over 12 months, with quarterly study visits. The sample size and follow-up duration were selected for the purposes of quantifying the HIV incidence in this population, and thus to inform sample size estimations for future HIV prevention trials in this population. A structured questionnaire was administered at each visit by a trained research assistant to collect data on socio-demographics (baseline), sexual behaviour with different types of sexual partners (quarterly), and relationship information (baseline and endline). Local staff translated the English questionnaires into Swahili, which were field tested before use. Questionnaires were held in English or Swahili.

HIV and pregnancy testing was done at each visit. HIV status was determined by using two negative HIV rapid tests performed in parallel with Uni-Gold<sup>TM</sup> HIV (Trinity Biotech

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<sup>20</sup> A telephone service that was provided free-of-charge staffed by trained counsellors to provide appropriate sex work advice and referrals.

plc, Bray, Ireland) and Determine™ HIV-1/2 (Abbott Laboratories by Abbott Japan Co Ltd, Minato-Ku, Tokyo, Japan). If the result of these were discordant, an HIV ELISA was performed at a laboratory at Coast Provincial General Hospital for confirmation. For participants sero-converting during the study, a polymerase chain reaction (PCR) HIV test was done on the last antibody negative blood sample to improve estimation of the timing of infection. HIV-infected women were referred for free antiretroviral treatment and care services.

Gynaecological examination and STI screening by trained clinicians were done at baseline, after 12 months, and at other visits if clinically indicated. Syphilis infection was detected with a rapid plasma reagin test (Human GmbH, Wiesbaden, Germany). Infection with *Trichomonas vaginalis* was determined by wet mount.

Participants received STI treatment according to local guidelines or were referred to health services when needed. Voluntary HIV testing and counselling, and contraceptive and risk-reduction counselling were provided. Contraceptives, including male and female condoms, were offered free of charge.

#### **2.3.4 Data collection, management and analysis**

For the face-to-face survey, data were entered in duplicate into Microsoft Access by separate data clerks. Following data checking and cleaning, analysis was done using Intercooled Stata, version 11 (Stata Corporation, College Station, TX, USA). The responses to the telephonic survey were recorded using Epi Info 3.5.1. For the prospective cohort study, data were double entered by separate clerks and analysed using Stata SE 11.0 (Stata Corporation, College Station, TX, USA).

#### **2.3.5 Research ethics**

The studies contained in this PhD received clearance from the appropriate ethics committees and adhered to ethical guidelines for research. Ethics approval for the telephonic survey study, including the verbal informed consent procedure, was granted



by the ethics committees at Ghent University (B67020108182) and Stellenbosch University (N10/03/074), while the research protocol for the face-to-face survey was approved by the University of the Witwatersrand Ethics Committee (Protocol no. H100304). Participants in the latter study and the prospective study were asked to provide written informed consent. The Kenyatta National Hospital Ethics and Research Committee approved the study protocol (P199/11/2005). External monitoring was conducted, verifying available source documentation with study-specific clinical record forms.

### 2.3.6 Data dissemination

From the data generated by the three studies described above, the following papers have been published or are in press (ordered according to the research objectives):

1. M. Richter, Chersich MF, Temmerman M, Luchters S (2013) "Characteristics, sexual behaviour and risk factors of female, male and transgender sex workers in South Africa" *South African Medical Journal* 103(4):246-251. [2011 Impact Factor: 2.042], Type of publication: A1
2. M. Richter, Chersich MF, Vearey J, Sartorius B, Temmerman M, Luchters S. (2012) "Migration status, work conditions and female sex work in three South African cities." *Journal of Immigrant and Minority Health* Dec 13. (Epub ahead of print) [2011 Impact Factor 1.164], Type of publication: A1
3. S Luchters\*, Richter M\*, Bosire W, Nelson G, King'ola N, Zhang X, Temmerman M, Chersich, MF (in press) "The contribution of emotional partners to sexual risk taking and violence among female sex workers in Mombasa, Kenya: a cohort study" *PLoS One* [2011 Impact Factor: 4.092], Type of publication: A1 (\*combined first author)
4. M. Richter, Luchters S., Ndlovu D., Temmerman M, Chersich MF (2012) "Female sex work and international sport events - no major changes in demand or supply of

paid sex during the 2010 Soccer World Cup: a cross-sectional study" *BMC Public Health* 12:763, [2011 Impact Factor 1.997], Type of publication: A1

5. W Delva, Richter M, De Koker P, Chersich M, Temmerman M (2011) Sex Work during the 2010 FIFA World Cup: Results from a Three-Wave Cross-sectional Survey. *PLoS One* 6(12): e28363. [2011 Impact Factor: 4.092], Type of publication: A1

The articles follow in chapters 3 and 4, while Chapter 5 contains commentaries on policy recommendations relating to sex work settings and health.

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## **Chapter 3 Results: Characteristics, behavioural and other risk factors as well as health care contact among sex workers in South Africa**

The aim of this chapter is to describe the socio-demographic characteristics and sexual behaviour, and identify HIV risk factors among female, male and transgender sex workers in South Africa.

### **3.1 Characteristics, sexual behaviour and risk factors of female, male and transgender sex workers in South Africa**

# Characteristics, sexual behaviour and risk factors of female, male and transgender sex workers in South Africa

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**Background.** In South Africa, information on sex workers' characteristics, sexual behaviour and health needs is limited. Current social, legal and institutional factors impede a safe working environment for sex workers and their clients.

**Objectives.** To describe characteristics and sexual behaviour of female, male and transgender sex workers, and assess their risk factors for unprotected sex.

**Methods.** Repeat cross-sectional surveys among sex workers were conducted in Hillbrow, Sandton, Rustenburg and Cape Town in 2010. Sex workers were interviewed once; any re-interviews were excluded from analysis. Unprotected sex was defined as any unprotected penetrative vaginal or anal sex with last two clients.

**Results.** Trained sex worker-research assistants interviewed 1 799 sex workers. Sex work was a full-time profession for most participants. About 8% (126/1 594) of women, 33% (22/75) of men, and 25% (12/50) of transgender people had unprotected sex. A quarter of anal sex was unprotected. Unprotected sex was 2.1 times (adjusted odds ratio (AOR), 95% CI 1.2 - 3.7;  $p=0.011$ ) more likely in participants reporting daily or weekly binge drinking than non-binge drinkers. Male sex workers were 2.9 times (AOR, 95% CI 1.6 - 5.3;  $p<0.001$ ) more likely, and transgender people 2.4 times (AOR, 95% CI 1.1 - 4.9;  $p=0.021$ ) more likely, than females to have unprotected sex. 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.

**Conclusion.** Tailored sex work interventions should explicitly include male and transgender sex workers, sex work-specific clinics, focus on the risks of unprotected anal sex, and include interventions to reduce harm caused by alcohol abuse.

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There is no estimate of sex worker numbers in South Africa (SA),<sup>[1]</sup> and little is known about the characteristics and health needs of sex workers in the country. Mathematical modelling has estimated that approximately 20% of new HIV infections in SA are attributable to sex work (sex workers, their clients, and the partners of their clients contribute 5.5%, 11.5% and 2.8% to new infections, respectively).<sup>[2]</sup> Even though these figures should be treated with caution because they were based on limited data and a number of assumptions,<sup>[2]</sup> they point to the significance of sex workers as a key population. Recently, attention and funding has shifted to HIV prevention and treatment within this population, and their occupational health and safety. While some studies have focused on female sex workers (FSWs) in urban centres along major transport routes and in mining areas in SA, these studies are mostly a decade old.<sup>[3,4]</sup> Moreover, besides

research among male sex workers in Kenya and other smaller studies on transgender and male sex workers elsewhere, limited information is available on these populations in Africa.<sup>[5]</sup>

## Sex work and risk behaviour

In 1998, HIV prevalence among different FSW groups in SA ranged between 46% and 69%.<sup>[3,4,6]</sup> In a 2004 - 2005 Durban study, 775 women at high risk for HIV infection – 78.8% of whom self-identified as sex workers – were screened, and 59.6% were found to be HIV-positive.<sup>[7]</sup> More recent estimates are not available. A recent meta-analysis emphasised the considerable risk that HIV poses to FSWs. They have an almost 13 times higher risk of acquiring HIV infection than other women of reproductive age in low- and middle-income countries.<sup>[8]</sup> Some clients, forcefully, insist on sex without

protection, refuse to use condoms, or offer higher fees for sex without condoms.<sup>[9]</sup> Given the nature of their work, sex workers are often involved in several concurrent sexual partnerships and exposed to a number of risk factors for STIs. Anal sex – a risk factor for HIV – often attracts a higher fee than other sex acts.<sup>[5]</sup> Excessive alcohol use, often associated with sex work, is a risk factor for unprotected sex.<sup>[10]</sup> Promotion of consistent condom use is the core prevention strategy for sexually transmitted infections (STIs) among sex workers and their partners. Female condoms are one of the few female-controlled HIV prevention technologies available, with some FSWs even using them without clients' knowledge.<sup>[11]</sup> Sex workers have advocated for greater availability of female condoms in sex work settings, with little success. The National Department of Health distributed around 5 million female condoms in 2010 - 2011 (target: 6 million) – which is 1% of the half-a-billion male condoms distributed (target: 1 billion) during the same period.<sup>[12]</sup>

Much of what we know about sex work and STI risk in SA relies on international literature and outdated data. Research gaps compound misunderstandings of sex workers and their marginalisation within health and policy structures. Updated information on sex worker characteristics, sexual behaviour and risk factors for unprotected sex could provide insights for policymakers about the needs of these populations, and guide the formulation of appropriate and sensitive health, social and legal responses.

## Methods

Self-identified female, male and transgender sex workers in Hillbrow, Sandton, Rustenburg and Cape Town were interviewed by trained sex worker-research assistants in May - September 2010. University-based researchers collaborated with two non-governmental organisations – the Sex Worker Education and Advocacy Taskforce (SWEAT) and Sisonke Sex Worker Movement. Research sites were chosen according to 2010 Soccer World Cup host cities.<sup>[13]</sup> Johannesburg, the largest city in SA, had two sites: Hillbrow and Sandton. The inner-city area of Hillbrow was selected as it has an active, long-established sex trade. Sandton, a wealthy suburb and business district in Johannesburg, has a visible sex work industry. The Rustenburg site – in a predominantly rural province – comprises informal settlements within a platinum mining area about 15 kilometres outside the city, where its sex work industry mainly serves the local mining community. The coastal city of Cape Town is a popular international tourist destination, with a visible sex work industry.

Female, male and transgender sex workers (defined as 'having exchange of sexual services for financial reward') who were 18 years and older were eligible. In sex work venues, sex worker research assistants approached every third individual known to them as a sex worker and invited her/him to participate. Each assistant administered a 43-item semi-structured questionnaire to around 60 sex workers. Questionnaires were adapted from studies with sex workers in Mombasa, Kenya,<sup>[14]</sup> and research on migration and access to health care in Johannesburg.<sup>[15]</sup> Questionnaires were translated from English into isiZulu, isiXhosa, Afrikaans and Setswana. More detailed study methods are described in a paper on the 2010 Soccer World Cup and its impact on the sex industry, which documented few changes in FSW demographics over that time.<sup>[13]</sup>

The study was approved by the University of the Witwatersrand Human Research Ethics Committee (Protocol number H100304). Participants provided written informed consent and were offered a cell phone airtime or grocery voucher of 20 South African Rands (~US\$3) for their interview time. Research assistants referred participants to local counselling, health and legal assistance organisations, as required. Participants were given female condoms

and information about a toll-free sex worker helpline. As all aspects of sex work are criminalised in SA, no identifying information was collected.

## Study measures and statistical analysis

Socio-demographics, sexual behaviour and condom use are described for the three study groups: females, males and transgender sex workers. Participants were asked if they had other income-generating activities aside from sex work and to specify such activities. Current weekly income from sex work was calculated by multiplying the total number of clients seen in the preceding week by the mean monetary payments from the last two clients. Participants provided information on their last two commercial sex interactions, including type of sex, condom use and whether the sex workers perceived themselves to be drunk during intercourse. We assessed factors associated with unprotected penetrative sex, defined as any unprotected vaginal or anal sex with the last two clients. Questions about female condom use and their acceptability were included. Participants reported their frequency of binge drinking (having five or more alcoholic drinks on one occasion).

Data were double-entered by separate clerks and analysed using Intercooled Stata 11.0 (Stata Corporation, College Station, USA). Descriptive analysis of the population characteristics assessed the distribution of continuous variables and the frequency distribution of categorical variables in contingency tables. Data from repeat interviews with participants who had more than one interview were excluded from analysis. Multivariate logistic regression assessed associations between unprotected sex, and socio-demographics, binge drinking and use of female condoms, controlling for measured confounders. Variables associated with the primary outcome in bivariate analysis ( $p < 0.1$ ) or in similar studies were forced into the initial model and retained if their removal markedly altered model fit.

## Results

### Socio-demographics and occupational setting

Participants were a mean of 30 years old: females 29.7 (SD 6.5), males 30.7 (SD 6.3), and transgender 28.7 years (SD 5.6) (Table 1). Just over half (53.7%; 878/1 636) of female and male (55.3%; 48/87) participants, and just over a third (37.9%; 22/58) of transgender subjects, were born in SA. A third (555/1 626) of females, 25% (21/87) of males, and 15.8% (9/57) of transgender participants noted that they had a permanent partner ( $p = 0.003$ ). Females were responsible for a median of 4 adult and/or child dependants – twice that of male or transgender participants ( $p < 0.001$ ). Age of sex work debut was similar across the genders: an average of about 24 years. More than 40% of all participants had been doing sex work for more than 5 years. Among female (44.8%; 698/1 558) and transgender (36.8%; 21/57) participants, indoor venues such as hotels, brothels and massage parlours were the most common locations for soliciting clients. Just over a third of males (36.6%; 30/82) and transgender people (35.1%; 20/57), and a quarter of females (24.6%; 383/1 558) worked at a combination of venues that included a mix of street work and/or some indoor venues.

Sex work was a full-time profession for as many as two-thirds of each group. Hairdressing was the most popular other occupation for women (26.3%; 118/449) and transgender people (50%; 8/16) who were part-time. For males, 25% (7/27) reported hawking or selling goods to supplement their income. One in 5 women (20.3%; 91/449) noted that their partner or spouse provided financial support, in contrast with 3.7% (1/27) of men and none of the transgender group. A substantial number reported never having had a job before sex



**Table 1. Characteristics of female, male and transgender sex workers at 4 sites in South Africa (N=1 799)**

Variables	Female (N=1 653)	Male (N=87)	Transgender (N=59)
Age, mean (SD)	29.7 (6.5)	30.7 (6.3)	28.7 (5.6)
Education, n (%)	N=1 587	N=79	N=54
Incomplete primary school	299 (18.8)	12 (15.2)	6 (11.1)
Completed primary school	812 (51.2)	25 (31.7)	26 (48.2)
Completed secondary school	373 (23.5)	34 (43.0)	18 (33.3)
Received tertiary training	103 (6.5)	8 (10.1)	4 (7.4)
Site, n (%)	N=1 653	N=87	N=59 <sup>  </sup>
Hillbrow	584 (35.3)	4 (4.6)	0 (0)
Sandton	271 (16.4)	3 (3.5)	19 (32.2)
Cape Town	360 (21.8)	64 (73.6)	22 (37.3)
Rustenburg	438 (26.5)	16 (18.4)	18 (30.5)
Migration status, n (%)	N=1 636	N=87	N=58 <sup>  </sup>
Cross-border migrant	758 (46.3)	22 (25.3)	19 (32.8)
Internal migrant (migration between provinces)	638 (39.0)	48 (55.2)	22 (37.9)
Non-migrant	240 (14.7)	17 (19.5)	17 (29.3)
Relationship status, n (%)	N=1 626	N=87	N=57 <sup>  </sup>
Single	1 071 (65.9)	66 (75.9)	48 (84.2)
Regular partner	555 (34.1)	21 (24.1)	9 (15.8)
Lives with regular partner, n/N (%)	221/555 (39.8)	9/21 (42.9)	2/9 (22.2)
Number of dependants, median (IQR; range)	4 (2 - 6; 0 - 37)	2 (1 - 4; 0 - 12)	2 (0 - 3; 0 - 8) <sup>  </sup>
Age at sex work debut (years), mean ( $\pm$ SD)	24.2 ( $\pm$ 5.3)	23.6 ( $\pm$ 4.5)	24.3 ( $\pm$ 5.0)
Duration in sex work (years), n (%)	N=1 503	N=69	N=50
<1	246 (16.4)	11 (15.9)	5 (10.0)
1 - 5	597 (39.7)	27 (39.1)	21 (42.0)
>5	660 (43.9)	31 (44.9)	24 (48.0)
Main venue solicits clients, n (%)	N=1 558	N=82	N=57 <sup>  </sup>
Indoors*	698 (44.8)	21 (25.6)	21 (36.8)
Outdoors <sup>†</sup>	477 (30.6)	31 (37.8)	16 (28.1)
Combination of venues <sup>‡</sup>	383 (24.6)	30 (36.6)	20 (35.1)
Part-time sex worker, n/N (%)	449/1 556 (28.9)	27/83 (32.5)	16/55 (29.1)
Other part-time work, <sup>§</sup> n (%)	N=449	N=27	N=16
Waiting tables/dancer	62 (13.8)	4 (14.8)	2 (12.5)
Tailor/seamstress/fashion	29 (6.5)	1 (3.7)	2 (12.5)
Hairdresser/barber	125 (27.8)	5 (18.5)	8 (50)
Partner/spouse provides income	91 (20.3)	1 (3.7)	0 (0)**
Hawking/selling goods	66 (14.7)	7 (25.9)	0 (0)
Work before sex work, <sup>§</sup> n (%)	N=1 653	N=87	N=59
Waiting tables/dancer	191 (11.6)	7 (8.1)	5 (8.5)
Tailor/seamstress/fashion	67 (4.1)	3 (3.5)	4 (6.8)
Hairdresser/barber	182 (11.0)	15 (17.2)	15 (25.4)**
Hawking/selling goods/cashier	180 (10.9)	14 (16.1)	6 (10.2)
No previous work	738 (44.7)	28 (32.2)	19 (32.2) <sup>  </sup>
Binge drinking, n (%)	N=1 566	N=82	N=54 <sup>  </sup>
Daily	284 (18.1)	34 (41.5)	16 (29.6)
Weekly	408 (26.1)	19 (23.2)	20 (37.0)

**Continued...**

**Table 1 (continued). Characteristics of female, male and transgender sex workers at 4 sites in South Africa (N=1 799)**

Variables	Female (N=1 653)	Male (N=87)	Transgender (N=59)
Never	380 (24.3)	10 (12.2)	4 (7.4)
Full-time weekly income (Rands), median (IQR; range) <sup>†</sup>	1 500 (665 - 3 740; 0 - 64 000)	2 000 (1 000 - 5 850; 0 - 56 250)	2 750 <sup>  </sup> (1 275 - 4 200; 0 - 25 650)

SD = standard deviation; IQR = interquartile range.

\* Indoors includes working from brothels, bars or massage parlours.

<sup>†</sup> Outdoors includes street-based sex workers.

<sup>‡</sup> Indoor and/or outdoor venues. §

Multiple-response question.

<sup>||</sup> US\$1=7.5 South African Rands.

<sup>||</sup>  $p < 0.05$ , testing distribution of variables with mutually-exclusive categories.

\*\*  $p < 0.05$ , testing distribution of each category of variables with multiple responses (may have >1 significant finding per variable).

**Table 2. Sexual behaviour and condom use of female, male and transgender sex workers at 4 South African sites (N=1 799)**

Variables	Female (N=1 653)	Male (N=87)	Transgender (N=59)
Number of clients, median in last week, <i>n</i> (IQR)	12 (6 - 20)	10 (5 - 20)	8 (4 - 15)
Penetrative sex with last client, <i>n/N</i> (%)	1 522/1 653 (92.1)	71/87 (81.6)	48/59 (81.4)
Any penetrative sex with last two clients, <i>n/N</i> (%)	1 614/1 653 (97.6)	77/87 (88.5)	53/59 (89.8)
Type of intercourse with last client, <i>n</i> (%)	N=1 653	N=87	N=59
Vaginal	1 456 (88.1)	8 (9.2)	9 (15.3)
Anal	87 (5.3)	61 (70.1)	39 (66.1)
Oral	207 (12.5)	20 (23.0)	8 (13.6)
Masturbation	49 (3.0)	12 (13.8)	4 (6.8)
Drunk during last paid sex, <i>n/N</i> (%)	651/1 603 (40.6)	49/82 (59.8)	37/56 (66.1)
Unprotected penetrative sex with last client, <i>n/N</i> (%) <sup>*</sup>	82/1 498 (5.5)	19/69 (27.5)	9/45 (20.0)
Any unprotected penetrative sex with last two clients, <i>n/N</i> (%) <sup>*</sup>	126/1 594 (7.9)	22/75 (29.3)	12/50 (24.0)
Ever used female condoms, <i>n/N</i> (%)	446/1 006 (44.3)	4/46 (8.7)	8/39 (20.5)

IQR = interquartile range.

<sup>\*</sup>Information is unavailable for condom use for 20 women, 2 men and 3 transgenders. All *p*-values <0.05.

work: 33% (28/87) of men and of transgender people (19/59), and 44.7% (738/1 653) of women. Median weekly income from full-time sex work differed across the genders: R1 500 (~US\$200) for females (IQR 665 - 3 740, range 0 - 64 000), R2 000 (~US\$266) for males (IQR 1 000 - 5 850, range 0 - 56 250) and R2 750 (~US\$366) for transgender people (IQR 1 275 - 4 200, range 0 - 25 650;  $p < 0.001$ ).

About 20% (284/1 566) of females, 33% (16/54) of transgenders and >40% (34/82) of males reported daily binge drinking. Only 25% (380/1566) of females, 12.2% (10/82) of males, and 7.4% (4/54) of transgenders said they never did any binge drinking.

### Sexual behaviour, condom use and alcohol use

The median number of clients in the week preceding study enrolment was 12, 10 and 8 for females, males and transgender persons respectively (Table 2). More women had penetrative sex with last client (92.1%; 1 522/1 653) than males (81.6%; 71/87;  $p < 0.001$ ) or transgenders (81.4%; 48/59;  $p < 0.001$ ), while women were less likely to have unprotected sex: 5.5% (82/1 498) of women had unprotected sex with last client in contrast with 27.5% (19/69;  $p = 0.01$ ) of men, and 20.0% (9/45;  $p < 0.001$ ) of transgenders.

Close to 8% (126/1 594) of women, 33% (22/75) of men and 25% (12/50) of transgenders reported any unprotected sexual intercourse with last 2 clients. In multivariate analysis, males were 2.9 times (AOR 95% CI 1.6 - 5.3;  $p < 0.001$ ; data not shown) more likely, and transgender people 2.4 times (AOR, 95% CI 1.1 - 4.9;  $p = 0.021$ )

more likely, than females to have unprotected anal/vaginal sex with last clients. In univariate analysis, having fewer dependants was associated with unprotected sex, but this association did not persist in multivariate analysis. Cape Town sex workers were 5.5 times (AOR 95% CI 3.0 - 10.0;  $p < 0.001$ ), those in Rustenburg 2.9 times (AOR 95% CI 1.6 - 5.3;  $p < 0.001$ ) and those in Sandton 2.7 times (AOR 95% CI 1.4 - 5.1;  $p = 0.04$ ) more likely to engage in unprotected sex than those in Hillbrow. Women soliciting clients outdoors were 0.59 times less likely to have unprotected sex than those working indoors (AOR 95% CI 0.3 - 0.8), who had similar levels to those working at a combination of venues.

Nine out of 10 (1 456/1 653) female sex workers had vaginal, and 5.3% (87/1 653) had anal, sex with their last client. Seventy per cent of males (61/87) had anal sex with last client – as did 66.1% (39/59) of transgenders. Of all sexual encounters with last clients, 73.0% (149/204) of participants who had anal sex used condoms; 94.0% used them (1 419/1 508) with vaginal sex, 76.9% (186/242) with oral sex, and 65.2% (45/69) during masturbation (data not shown).

More than 40.0% of females (651/1 603) were drunk during sex with last client, in comparison with 59.7% (49/82) of males and 66.1% (37/56) of transgenders. Feeling drunk during sex with any of their last two clients was reported by 13.2% (113/858) of all participants. In univariate analysis, women who reported being drunk with any of their last two clients, were 2.6 times (95% CI 1.7 - 3.8;  $p < 0.001$ ) more likely to have unprotected sex than those women who were

not drunk. Participants who reported daily or weekly binge drinking were 2.1 times (AOR 95% CI 1.2 - 3.7;  $p=0.011$ ) more likely than those who never engaged in binge drinking, to have unprotected sex.

Slightly less than half (446/1 006) of female participants had ever used a female condom. Of these, close to a third (116/413) 'liked' them, and almost half (189/413) 'liked them a lot' (data not shown). Only 7.5% (31/413) disliked female condoms, with 77/413 (18.6%) being neutral. Among those female participants who did not use female condoms and provided reasons for non-use, about a fifth (99/560) each noted that they had never been given female condoms, did not know how to use them (111/560) or did not like them (129/560). A further approximate tenth (66/560) noted either that they were unfamiliar with female condoms or that clients precluded their use (47/560).

## Discussion

Sex work was the major livelihood strategy adopted by the study populations: more than 40% had been in the industry for more than 5 years; approximately two-thirds worked full-time, while over a third had no prior work experience. When comparing full-time sex workers' income with data from *Statistics South Africa* (national statistics board) on monthly earnings by occupation, sex workers in this study, though most had never completed secondary schooling, were earning more than clerks, sales and services, crafts and related trades, and up to 6 times more than domestic workers.<sup>16</sup> This echoes a previous study, which found that Cape Town-based sex workers' earning capacity was 2.6 - 4 times higher in sex work than their previous employment.<sup>17</sup> This is pertinent for some ideology-based health and social interventions aiming to 'rehabilitate' sex workers or focus solely on 'exit programmes'.

The high levels of binge drinking found among all gender groups in our study support findings in a Pretoria study where sex workers had high levels of alcohol consumption and alcohol dependency.<sup>18</sup> Daily or weekly binge drinking was linked with unprotected sex. Other studies confirmed that alcohol interventions with this population are vital for improving the safety of this occupation.<sup>19</sup>

Under half (44.3%) of female participants had ever used a female condom. Of these, 75% favoured such condoms. Studies in SA have demonstrated acceptability of female condoms<sup>20</sup> and their re-use<sup>21</sup> and cost-effectiveness.<sup>22</sup> As a female-controlled infection prevention strategy, this should be a vital component of sex work interventions.

It is of concern that males were 2.9 times more likely, and transgenders 2.4 times more likely, than female sex workers to engage in unprotected sex. This could reflect the dearth of programmes focusing on males and transgender sex workers or the general lack of information on anal sex,<sup>23</sup> and is an area needing action. Of all participants, 27% had unprotected sex for anal intercourse with last client – the most risky sex act for acquiring HIV. Public health interventions with female, male and transgender sex workers and their clients should emphasise the risks associated with anal sex and ensure that condoms and lubrication are accessible and freely available within the sex industry.

Sex workers in the Sandton, Rustenburg and Cape Town sites were significantly more likely to engage in unprotected sex than those in Hillbrow. Hillbrow had the only sex work-specific clinic and mobile outreach clinical services for sex workers at the time of the study. A cadre of sex work peer educators disseminate information and condoms within hotels and clubs from where sex workers operate, while male community health workers provide HIV/STI education and referrals to clients in bars and nightclubs. This model should be replicated in other areas of sex work concentration in SA.

The study included self-reported data only and was based on a non-random sampling design. Surveys were, however, conducted by trained peer interviewers, which may have reduced the social-desirability bias in respondents' answers. Though trained, some interviewers omitted noting data on some key questions. Almost all peer interviewers were female, which may have affected the number of male and transgender subjects who were approached for participation. Selected research sites included 2 urban centres and 1 semi-rural site adjacent to a mine and were purposively selected, based on the presence of sex worker advocacy groups and peer education work. Although we aimed to obtain data on diverse sex work settings, these findings may not apply to other sex work areas in SA.

In conclusion: sex workers in SA remain at high risk of HIV and other STIs. This risk has been acknowledged by SA AIDS policies and sex work-specific programmes proposed since the first National AIDS Plan in 1994, yet little action has been taken. The National Strategic Plan for HIV and AIDS, STIs and TB, 2012-2016 contains a number of sex work-specific health and non-discrimination provisions, and should be implemented as a matter of urgency.

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### 3.2 Migration Status, Work Conditions and Health Utilization of Female Sex Workers in Three South African Cities

## Migration Status, Work Conditions and Health Utilization of Female Sex Workers in Three South African Cities

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**Abstract** Intersections between migration and sex work are underexplored in southern Africa, a region with high internal and cross-border population mobility, and HIV prevalence. Sex work often constitutes an important livelihood activity for migrant women. In 2010, sex workers trained as interviewers conducted cross-sectional surveys with 1,653 female sex workers in Johannesburg (Hillbrow and Sandton), Rustenburg and Cape Town. Most (85.3%) sex workers were migrants (1396/1636): 39.0% (638/ 1636) internal and 46.3% (758/1636) cross-border. Cross-border migrants had higher education levels, predominately worked part-time, mainly at indoor venues, and earned more per client than other groups. They, however, had 41% lower health service contact (adjusted odds ratio = 0.59; 95% confidence interval = 0.40–0.86) and less frequent condom use than non-migrants. Police inter-action was similar. Cross-border migrants appear more tenacious in certain aspects of sex work, but require

increased health service contact. Migrant-sensitive, sex work-specific health care and health education are needed.

**Keywords** Sex work · Condoms · Health care utilization · Migration status · South Africa

### Background

Southern Africa is home to the largest population of people with HIV globally [56]. A meta-analysis showed that sex workers in sub-Saharan Africa were 12.4 times more likely than the general population to acquire HIV, with 95% confidence interval (CI) estimates ranging from 8.9 to 17.2 [6]. Further, female sex workers (FSWs) who are migrants in lower-income countries have higher HIV risks than non-migrants [37]. Despite this, appropriate legal, policy and programmatic responses to HIV, migration and sex work

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are lacking in Africa [42, 44, 48, 57, 64] and sex work remains mostly criminalised across the continent [50, 64].

Internationally, studies have highlighted clear linkages between migration and sex work [2, 10, 11, 58]. In southern Africa, whilst several studies have documented associations between migration and informal livelihood activities [1, 27, 36, 38, 64], little research has focused specifically on the overlap between sex work and migration.

This study therefore assessed selected structural determinants of vulnerability of migrant FSWs (economic environment and working conditions) and whether access to health services varies between non-migrants, internal migrants and cross-border migrants. The study, in four sites in South Africa, evaluates outcomes based on a conceptual framework (Fig. 1). This framework draws on previous evidence showing that health status and HIV risk among sex workers is contingent on sole economic dependence on sex work, safety of the work environment and degree of responsiveness of health services [8, 13, 40, 46, 67]. Clients often demand unprotected sex [12, 35, 39], and the ability of sex workers to negotiate safer sex depends on their degree of economic vulnerability, and the prevailing power relations between sex workers and clients, and between sex workers and law enforcement agencies [7, 16, 67]. In South Africa, cross-border migrants face high levels of police harassment [25] and difficulties in accessing health services because of language problems or xenophobic health care workers [23]. We hypothesise that these

experiences extend to migrant sex workers, and influence their economic dependence on sex work, safety of work conditions and contact with health services.

Methods

Study Setting

Cross-sectional surveys with self-identified FSWs were conducted around the time of the 2010 Soccer World Cup, during which few changes in FSW demographics were documented [43]. Two contrasting areas of Johannesburg, the largest city in South Africa, 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 [32, 33, 42, 51, 62, 69]. Sandton, by contrast, is a wealthy suburb and business district [5] with a visible outdoor sex industry. The Rustenburg site, in a predominantly rural province, comprised informal settlements within a platinum mine area about 15 km outside the city. Its sex work industry mainly serves the local mining community [4]. The coastal city of Cape Town is a popular international tourist destination [45], with a relatively well documented sex work industry [17– 20, 35]. Commercial sex work, for purposes of this study, was defined as the exchange of sexual

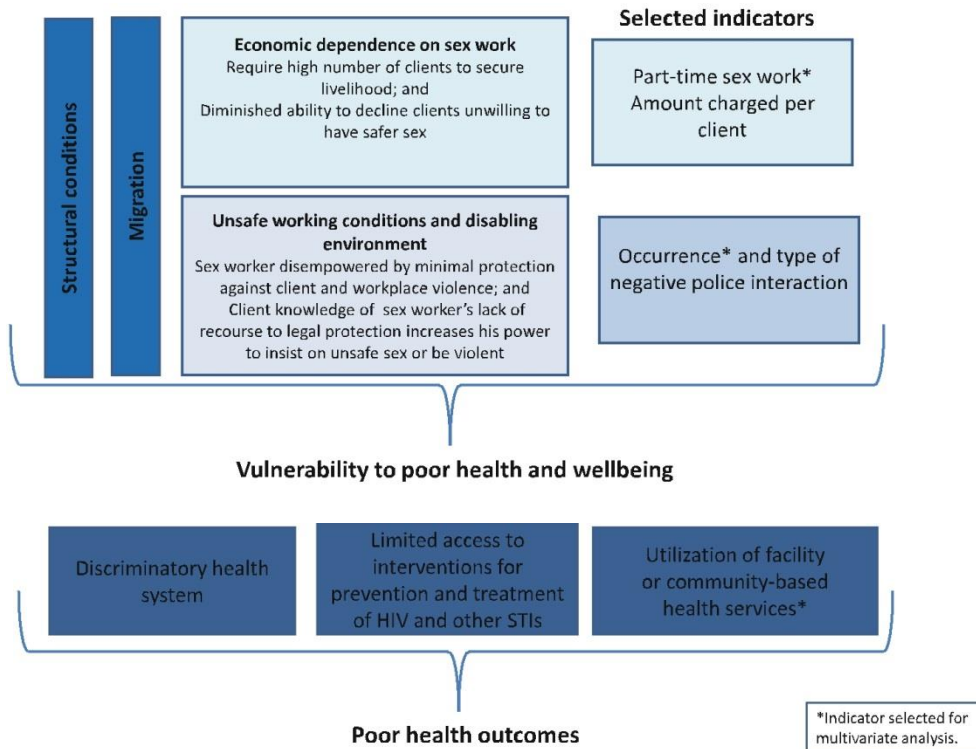


Fig. 1 Factors influencing health outcomes of non-migrant, internal migrant and cross-border migrant sex workers

services for financial reward in women above 18 years. Detailed methods are described elsewhere [43].

### Data Collection

Between May and September 2010, university-based researchers collaborated with two non-governmental organisations—the Sex Worker Education and Advocacy Taskforce (SWEAT) and Sisonke Sex Worker Movement [68]. Sex worker peer educators and other sex workers attended a training workshop addressing research ethics, participant selection and interviewing. Ten research assistants were selected per site, with those in Hillbrow also collecting data in Sandton.

Research assistants administered a 43-item semi-structured questionnaire to approximately 60 sex workers each. To minimise selection bias, they approached every third woman known to them as a sex worker and invited her to participate. Questionnaires were adapted from tools used in previous studies with sex workers in Mombasa, Kenya [29] and research on migration and access to health care in Johannesburg [59]. Study tools were translated from English into Afrikaans, isiXhosa, isiZulu and Setswana.

### Ethical Considerations

Participants provided written informed consent and were offered a cell-phone airtime or grocery voucher of 20 South African Rand (\*US\$3) for time taken in interview. Women were referred to local counselling, health and legal assistance organizations, when required. Participants were given female condoms and information about a newly established toll-free sex worker helpline. As sex work is criminalized in South Africa [9], no identifying information was collected. Study databases were password-protected, with access restricted to the research team. The University of the Witwatersrand Human Research Ethics Committee approved the protocol (Protocol no. H100304).

### Study Measures & Data Analysis

Data were entered in duplicate in Microsoft Access by separate data clerks. Participants were asked to indicate if they had been interviewed previously and data from repeat interviews (356 of 1,696 women) was excluded from analysis. We compared socio-demographic characteristics and study outcomes between three study groups: (1) non-migrant females working in the province of their birth, (2) internal migrants, born in different province from where they work, and (3) cross-border migrants, women born in another country.

Based on previous evidence, three categories of risk factors were defined, each measured as a binary outcome: economic dependence on sex work [8] (earns income outside

sex work, i.e. part-time sex workers), unsafe work environment [7] (had negative interaction with law enforcement in past year) and health services contact [8] (contact in past month with facility- or community-based health services such as peer education or outreach). Part-time sex work was defined as having any other income aside from sex work [22]. Free text descriptions about contact with the police in the preceding year were coded as a “negative interaction” if it concerned police violence, arrest, harassment, theft, bribery or fines. Conversely, “positive interaction” denoted police assistance with, for example, laying a complaint or warning a participant about potential danger. Weekly income was calculated from the mean amount charged with last two clients, and multiplying that by the number of clients in past week (7.5 South African Rand = 1 US Dollar).

Chi square tests were used to detect differences between categorical variables. For continuous variables, The Kruskal-Wallis test compared those with a non-normal distribution, and ANOVA test those with a normal distribution. Bivariate analysis was conducted to assess possible confounding by site. Associations between migration group and the three study outcomes were assessed in multivariable logistic regression analysis, controlling for site of enrolment, socio-demographic and sex work confounders. Variables associated with the primary outcome in bivariate analysis or in similar studies were included in the initial model and retained if their removal from the model markedly altered the model fit.

## Results

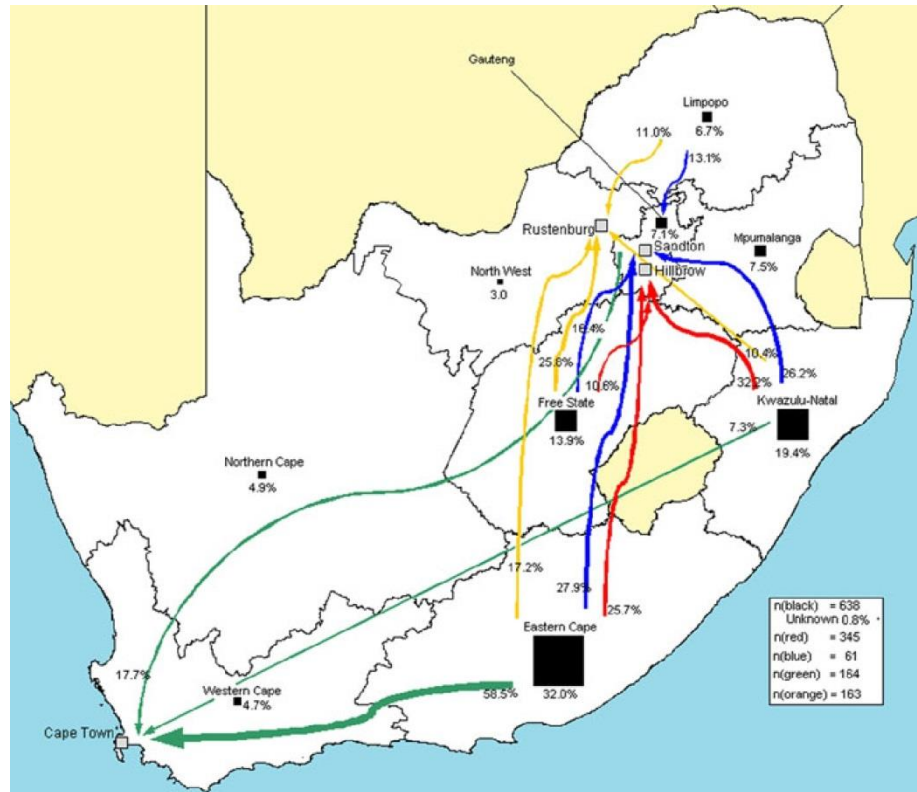
### Population Description

Of 1,653 participants, 17 did not state birthplace and were excluded from analysis, while 240 (14.7%) were non-migrants, 638 (39.0%) internal migrants and 758 (46.3%) cross-border migrants. Participants were a mean 29.7 years, similar in the three study groups. Across groups, more than 40% of participants had spent five or more years in sex work. There was a difference in number of dependents (child and adult) between the groups: a median two for non-migrants, three for internal migrants and four for cross-border migrants ( $P < 0.001$ ). More cross-border migrants (39.6%) had a regular partner than internal migrants (30.6%;  $P < 0.001$ ) or non-migrants (27.9%;  $P = 0.01$ ). However, cross-border migrants who had a regular partner were less likely to live with him/her (34.1%) than their internal migrant (43.2%;  $P < 0.001$ ) or non-migrant (54.5%;  $P = 0.01$ ) counterparts.

Over one-third (276/733) of cross-border migrants had completed secondary school or some tertiary training, 2.2 fold more than the other two groups (95% CI odds ratio [OR] = 1.5–3.1). These levels were similar between internal



Fig. 2 Place of origin of internal migrants according to research site



migrants and non-migrants (OR = 1.1; 95%CI = 0.8–1.6). Cross-border migrants took up sex work at an older age (mean = 24.9 years, standard deviation [SD] = 5.3) than non-migrants (mean = 23.0 years; SD = 5.4;  $P < 0.001$ ). Approximately 60% of all migrants—similar among internal (332/551) and cross-border migrants (357/600)—started sex work within two years of arrival in the city. Notably, a quarter of cross-border participants (152/626) were sex workers before leaving their place of birth compared to only about 10% of internal migrants (58/539,  $P < 0.001$ ; data not shown).

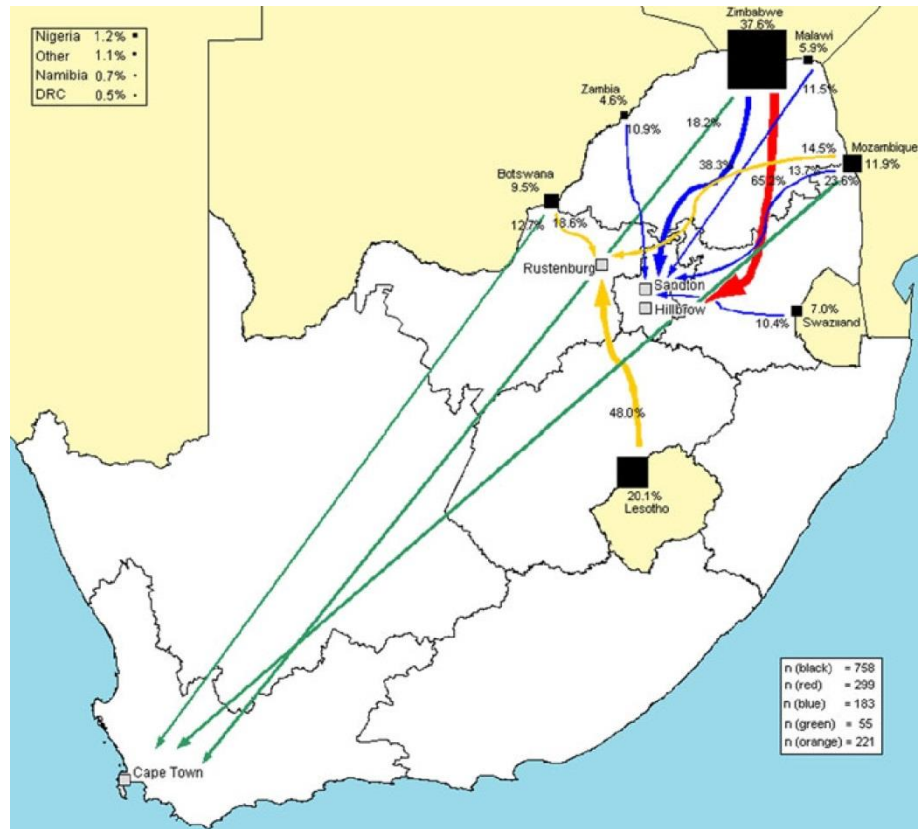
Eastern Cape province was the biggest contributor of internal migrants (204) to the four sites, exceeding the 124 internal migrants from KwaZulu-Natal and 89 from the Free State (Fig. 2). This echoes recent findings that the Eastern Cape is one of South Africa's poorest provinces, with high rates of outmigration [41, 52]. Hillbrow and Sandton had the highest proportion of cross-border migrants (51.9%, 308/594 in Hillbrow and 66.1%, 193/292 in Sandton). For all sites, most cross-border migrants hailed from South Africa's neighbouring countries—notably Zimbabwe (Fig. 3). Participants from Zimbabwe had a greater number of total dependants (median = 5), than South Africans (median = 3) or those born in other countries (median = 4;  $P < 0.001$ ). Half of non-migrants (117/233) and a third of internal migrants solicited outdoors (195/600;  $P < 0.001$ ), compared to only

22.8% of cross-border migrants ( $P < 0.001$ ). The latter group predominately worked indoors (52.0%, 372/715), especially in Hillbrow where two-thirds worked indoors (186/282) Table 1.

#### Economic Dependence on Sex Work

More than a third (256/723) of cross-border migrants worked as part-time sex workers, in contrast to a quarter of internal migrants (150/606;  $P < 0.001$ ; Table 2), and a fifth of non-migrants (40/213;  $P < 0.001$ ). In bivariate analysis assessing this outcome in each site, patterns of part-time work across the study groups were similar to overall findings, except in Rustenburg. Here, for each migrant group, about 20% worked part-time. After adjusting for confounding factors including site, cross-border migrants were 2.3 times more likely to work as part-time sex workers than non-migrants (95% CI adjusted-OR [AOR] = 1.5–3.7; Table 3). Similarly, women with some tertiary training compared to those who had not completed primary school had a twofold odds of being a part-time sex worker (95% CI AOR = 1.1–3.6). Women who had a permanent partner were 2.8 times more likely to be a part-time sex worker than those who were single (95% CI AOR = 2.1–3.6). Consistent with this, in a univariate analysis, women who actually lived with their partner were 3.1 fold (95% CI OR = 2.3–4.2) more likely to be part-

Fig. 3 Place of origin of cross-border migrants according to research site



time sex workers than those not living with their partners, or who were single (data not shown).

Cross-border migrants charged a median \$7 more with their last client (\$20), than internal migrants ( $P < 0.001$ ) or non-migrants ( $P = 0.01$ ). Median number of clients in the past week was 14 for cross-border and 15 for internal migrants, double the median number of clients of non-migrants ( $P < 0.001$ ). Zimbabwean women had a considerably higher median number of clients per week ( $n = 18$ ), than their counterparts from South African ( $n = 11$ ) or elsewhere ( $n = 12$ ;  $P < 0.001$ ). Among full-time sex workers only, non-migrants received the lowest weekly income at \$126.70 (IQR = 65.3–280) compared to internal migrants’ \$200 (IQR = 88–466.7) and the \$233.33 (IQR = 116.7–554.6;  $P < 0.001$ ) of cross-border migrants (data not shown).

### Unsafe Work Conditions

More than 40% of participants had some contact with police in the past year, with almost a third having a negative experience. Occurrences were similar across study groups, including in multivariate analysis, though the nature of police interaction differed. Cross-border migrants had more experience of police bribes (5.2%) or issues relating to immigration (5.5%) than the internal migrants (3.2 and 0.2%, respectively) and non-migrants (2.5 and 0.5%, respectively). In Hillbrow, 9.8% of cross-border

sex workers had interacted with police on immigration, as opposed to 4.9% in Sandton, 0.6% in Rustenburg and 0% in Cape Town. Sex workers in outdoor settings were 1.6 fold (AOR, 95% CI = 1.2–2.4) more likely to have adverse interactions, than women in indoor settings. Also, negative police interaction was more than twice as likely among those in the industry for 1–5 years than those who had just started sex work (AOR = 2.2; 95% CI = 1.4–3.4), and such encounters were almost three times as likely among those in the industry for more than 5 years (95% CI = 1.8–4.5). FSWs in Rustenburg were much less likely to experience negative police interaction than those in Cape Town (AOR = 0.06; 95% CI = 0.03–0.13), though levels in Sandton were 1.82-fold higher than the latter city (95% CI AOR = 1.15–2.88).

### Health Care Utilization

Close to 60% of participants in each group interacted with health service in the last month. However, in a sub-analysis of utilization in Cape Town, non-migrants had more contact than cross-border sex workers (72.8 vs. 50.0%;  $P = 0.002$ ), and 81.8% of non-migrants had contact in the past month in Hillbrow versus 75.0% of cross-border migrants ( $P = 0.38$ , data not shown). In multivariate analysis controlling for site and other confounders, cross-border migrants were less likely to access health care

Table 1 Description of socio-demographics, sex work and migration characteristics of female sex workers in four sites in South Africa (N = 1636)

Variables	Non-migrant n = 240	Internal migrant n = 638	Cross-border migrant; n = 758	P value <sup>b</sup>
Age, mean years (SD)	29.6(6.8), n = 240	29.9(6.5), n = 633	29.7 (6.4), n = 757	0.78 <sup>c</sup>
Site, n/N (%)				
Hillbrow, Johannesburg	35/240(14.6%)	246/638(38.6%)	299/758 (39.5%)	
Sandton, Johannesburg	20/240(8.3%)	64/638(10.0%)	183/758 (24.1%)	0.001
Cape Town	134/240(55.8%)	164/638(25.7%)	55/758 (7.3%)	
Rustenburg	51/240(21.3%)	164/638(25.7%)	221/758 (29.2%)	
Education, n/N (%)				
Primary incomplete	45/228(19.7%)	117/614(19.1%)	134/733 (18.3%)	0.001
Completed primary	133/228(58.3%)	350/614(57.0%)	323/733 (44.1%)	
Completed secondary school	42/228(18.4%)	106/614(17.3%)	223/733 (30.4%)	
Some tertiary training	8/228(3.5%)	41/614(6.7%)	53/733 (7.2%)	
Median number of dependants,(IQR)	2(1–4)	3(2–6)	4 (2–6)	0.001 <sup>d</sup>
Relationship status, n/N (%)				
Single	170/237(71.7%)	435/626(69.5%)	451/747 (60.4%)	0.001
Regular partner	66/237(27.9%)	190/626(30.6%)	296/747 (39.6%)	
Lives with regular partner	36/66(54.5%)	82/190(43.2%)	101/296 (34.1%)	
Age at sex work debut, mean years (SD); n	23.0(5.4); n = 212	24.0(5.1); n = 585	24.9 (5.3); n = 684	0.001 <sup>c</sup>
Duration in sex work, n/N (%)				
<1 year	33/217(15.2%)	78/583(13.4%)	134/692 (19.4%)	0.03
1–5 years	81/217(37.3%)	232/583(39.8%)	278/692 (40.2%)	
≥5 years	103/217(47.5%)	273/583(46.8%)	280/692 (40.5%)	
Main place solicit clients <sup>a</sup> , n/N (%)				
Indoors	64/233 (27.5%)	259/600(43.2%)	372/715 (52.0%)	0.001
Outdoors	117/233 (50.2%)	195/600(32.5%)	163/715 (22.8%)	
Combination of venues	52/233 (22.3%)	146/600(24.3%)	180/715 (25.2%)	
Sex work initiation, n/N (%)				
Before arrival in city	–	105/551(19.1%)	177/600 (29.5%)	0.001
Within 2 years of arrival in city		332/551(60.3%)	357/600 (59.5%)	
2 or more years of arrival in city		114/551(20.7%)	66/600 (11.0%)	
Median months since leaving birthplace, (IQR)	–	79.2(28.2–131.2)	47.2 (18.1–111.0)	0.001 <sup>d</sup>
Median months since arrival in current workplace, (IQR)	–	67.7(24.2–123.8)	41.0 (16.2–90.0)	0.001 <sup>d</sup>

SD standard deviation, IQR inter-quartile range

a. Indoors includes working from brothels, bars or massage parlours; outdoors includes street-based sex workers; and women reporting both these were classified as combination venues

b. Chi square test unless indicated

c. ANOVA test

d. Kruskal-Wallis test; All tests compare distribution across all three study groups apart from time since leaving birthplace and arrival in workplace

(AOR = 0.6; 95% CI = 0.4–0.9; Table 3) than non-migrants. Health contact was considerably higher in Hill-brow than other sites. Non-migrants were more likely to use a condom during penetrative sex with last client (217/ 230; 94.6%) than internal (558/626; 89.1%; P = 0.02, data not shown) or cross-border migrants (677/747; 90.6%; P = 0.08).

## Discussion

In this survey, nearly half of FSWs were cross-border migrants. Two-thirds of the cross-border sex workers in Hillbrow migrated from neighbouring Zimbabwe, mirroring the escalation in Zimbabwean migration to South Africa in search of improved livelihood opportunities

Table 2 Association between migrant type and economic dependence on sex work, work conditions and health contact among female sex workers in four sites in South Africa (N = 1636)

Variables	Non-migrant n = 240; A	Internal migrant n = 638; B	Cross-border migrant; n = 758; C	P value A vs C <sup>a</sup>	P value B vs C <sup>a</sup>
Economic dependence on sex work					
Part-time sex work, n/N (%)	40/213 (18.8%)	150/606 (24.8%)	256/723 (35.4%)	\0.001	\0.001
Median amount charged with last client US\$ (IQR, range), n	13.3 (13.3–24; 2.7–458.4), n = 233	13.3 (6.7–26.7; 1.5–466.7), n = 629	20.0 (10.7–40; 0.3–466.7), n = 754	0.01 <sup>b</sup>	\0.001 <sup>b</sup>
Unsafe working conditions <sup>c</sup>					
Police interaction, last year, n/N (%)	86/197 (43.6%)	217/537 (40.4%)	277/624 (44.4%)	0.86	0.17
Positive <sup>d</sup>	2/197 (1.0%)	2/537 (0.4%)	10/624 (1.6%)	0.55	0.04
Negative <sup>e</sup>	59/197 (30.0%)	140/537 (26.1%)	192/624 (30.7%)	0.83	0.08
Nature of negative police interaction in last year, n/N (%) <sup>f</sup>					
Physical/sexual assault	9/197 (4.6%)	24/537 (4.5%)	24/624 (3.8%)	0.65	0.60
Bribe	5/197 (2.5%)	197/537 (3.2%)	33/624 (5.2%)	0.11	0.08
Immigration issues	1/197 (0.5%)	1/537 (0.2%)	34/624 (5.5%)	0.003	\0.001
Arrest	40/197 (20.3%)	96/537 (17.8%)	109/624 (17.5%)	0.37	0.86
Other	24/197 (12.2%)	39/537 (7.3%)	57/624 (9.1%)	0.21	0.25
Contact with health services					
Received facility or community-based services in last month, n/N (%)	131/216 (60.7%)	352/595 (59.2%)	421/718 (58.6%)	0.60	0.85
Condom-use with last client during penetrative intercourse, n/N (%)	217/230 (94.6%)	558/626 (89.1%)	677/747 (90.6%)	0.08	0.36

1US\$ = 7.5 South African Rand

a. Chi square test unless indicated

b. Mann-Whitney U test

c. Post-coding free-text answers. Some participants gave insufficient information to classify interaction as positive or negative

d. Police assistance with laying a complaint or warning a participant about potential danger

e. Police violence, arrest, harassment, theft, bribery or fines

f. Multiple-response question

following political and economic instability in Zimbabwe since the early 2000s [21, 63].

Our data challenges prevailing assumptions that position cross-migrants as the most disempowered sub-group within the sex industry [15, 34]. Compared to their internal or non-migrant colleagues, cross-border sex workers in this study had spent less time in the industry, had additional income-generating activities, worked mostly in the relatively safer indoor venues, and were older when they made their sex work debut. Cross-border migrants were also better educated than internal or non-migrants, similar to other studies in South Africa [26, 28]. Finally, this population had a higher client number than non-migrants, and charged more per client than internal or non-migrants.

Surprisingly few differences were observed in police interaction amongst the migrant groups. More cross-border migrants reported police requesting a bribe, possibly

reflecting police's practice of extorting money or favours from cross-border migrants in relation to their status as non-nationals [49, 66]. Likely over time, police become familiar with sex workers in an area, explaining why interaction with police increases with duration in the industry.

Higher levels of contact with health services in Hillbrow could be attributed to the only sex work-specific clinic in South Africa operating there [42]. Overall, cross-border migrants had considerably less contact with health services than the other groups in multivariate analysis. Similarly, a study in Nairobi, Kenya found only 55% of migrant FSWs had ever accessed a health facility for an HIV-test in comparison to 78% of FSWs born in Kenya [24]. This may reflect an unwillingness of cross-border migrants to engage with public facilities due to fear of arrest in the case of an irregular legal status, or as a result of prior negative

Table 3 Multivariate analysis of factors associated with part-time sex work, negative police interaction and health care utilization among female sex workers in South Africa

Variable	Part-time sex work		Negative police interaction		Health care utilization	
	Univariate OR (95% CI)	Multivariate OR (95% CI)	Univariate OR (95% CI)	Multivariate OR (95% CI)	Univariate OR (95% CI)	Multivariate OR (95% CI)
<b>Age</b>						
18–24	1.0	1.0	1.0	–	1.0	1.0
25–30	1.14 (0.83–1.56)	1.38 (0.94–2.04)	1.20 (0.85–1.69)		1.26 (0.94–1.69)	1.00 (0.72–1.39)
30–35	1.11 (0.80–1.56)	1.62 (1.08–2.45)	1.38 (0.97–1.96)		0.89 (0.66–1.20)	0.82 (0.58–1.15)
35?	1.18 (0.85–1.65)	1.72 (1.11–2.68)	1.00 (0.69–1.45)		0.87 (0.64–1.18)	0.77 (0.54–1.11)
<b>Site</b>						
Cape Town	1.0	1.0	1.0	1.0	1.0	1.0
Hillbrow, Johannesburg	0.95 (0.71–1.28)	0.44 (0.29–0.67)	0.86 (0.63–1.17)	1.04 (0.68–1.57)	1.87 (1.39–2.50)	1.75 (1.21–2.52)
Rustenburg	0.65 (0.46–0.90)	0.38 (0.25–0.60)	0.10 (0.06–0.18)	0.06 (0.03–0.13)	0.43 (0.32–0.58)	0.48 (0.34–0.69)
Sandton, Johannesburg	1.18 (0.83–1.67)	0.54 (0.34–0.86)	2.12 (1.47–3.05)	1.82 (1.15–2.88)	0.81 (0.58–1.14)	0.82 (0.56–1.21)
<b>Migration status</b>						
Non-migrant	1.0	1.0	1.0	1.0	1.0	1.0
Internal migrant	1.42 (0.96–2.10)	1.47 (0.93–2.31)	0.82 (0.58–1.18)	0.88 (0.56–1.38)	0.94 (0.68–1.29)	0.65 (0.45–0.93)
Cross-border migrant	2.37 (1.63–3.45)	2.34 (1.47–3.71)	1.04 (0.73–1.47)	1.27 (0.80–2.02)	0.92 (0.67–1.25)	0.59 (0.40–0.86)
<b>Education</b>						
Primary incomplete	1.0	1.0	1.0	1.0	1.0	1.0
Completed primary	1.30 (0.94–1.79)	1.34 (0.89–2.01)	1.15 (0.83–1.60)	0.95 (0.61–1.46)	1.40 (1.06–1.85)	0.85 (0.62–1.18)
Completed secondary school	1.41 (0.98–2.02)	1.29 (0.82–2.02)	1.11 (0.76–1.61)	0.91 (0.56–1.48)	1.26 (0.92–1.74)	0.77 (0.53–1.11)
Some tertiary training	2.39 (1.46–3.91)	2.00 (1.12–3.59)	0.50 (0.27–0.92)	0.46 (0.22–0.94)	1.45 (0.90–2.33)	1.03 (0.61–1.74)
<b>Number of dependants</b>						
0	1.0	–	1.0	1.0	1.0	1.0
1–3	1.13 (0.73–1.76)		1.03 (0.66–1.61)	0.89 (0.52–1.55)	1.81 (1.25–2.64)	1.60 (1.04–2.44)
C4 or more	1.78 (1.16–2.72)		1.20 (0.78–1.86)	0.78 (0.45–1.35)	2.79 (1.93–4.03)	2.09 (1.35–3.25)
<b>Relationship status</b>						
Permanent partner	1.0	1.0	1.0	–	1.0	1.0
Single	3.41 (2.71–4.30)	2.77 (2.13–3.60)	1.24 (0.97–1.58)		1.62 (1.30–2.01)	1.48 (1.16–1.89)
<b>Main place solicits clients<sup>a</sup></b>						
Indoors	1.0	1.0	1.0	1.0	1.0	1.0
Outdoors	0.59 (0.45–0.78)	0.52 (0.37–0.74)	2.09 (1.58–2.76)	1.64 (1.15–2.36)	0.75 (0.59–0.96)	0.83 (0.62–1.10)
Combination of venues	1.14 (0.87–1.50)	1.04 (0.76–1.42)	1.60 (1.18–2.16)	1.35 (0.95–1.91)	0.95 (0.73–1.23)	1.04 (0.77–1.39)
<b>Duration in sex work</b>						
<1 years	1.0	1.0	1.0	1.0	1.0	–
1–5 years	0.84 (0.60–1.16)	0.71 (0.49–1.04)	1.93 (1.27–2.94)	2.15 (1.36–3.39)	0.99 (0.73–1.36)	
≥5 years	0.70 (0.51–0.98)	0.63 (0.42–0.95)	1.65 (1.09–2.51)	2.83 (1.78–4.53)	0.81 (0.60–1.10)	

OR odds ratio, CI confidence interval

<sup>a</sup> Indoors includes working from brothels, bars or massage parlours; outdoors includes street-based sex workers

experiences [23, 47, 61], or as peer education services do not adequately reach this group. Migrant sex workers, compared to non-migrants, face greater discrimination and additional barriers to health, as well as social and legal services [53– 55, 64]. Alternatively, it may point to the ‘healthy migrant effect’, where immigrants to a new community may on average be healthier on arrival than the

host population [14, 30]. Regardless of the reason(s), strategies are required to ensure cross-border migrant sex workers can utilize health services, and in particular HIV and STI prevention and treatment services, when needed [31, 59, 60].

The study has several limitations. It used a non-random sampling design and includes only self-reported data.

Surveys were, however, conducted by trained peer interviewers—many migrants themselves—which may have minimised social-desirability bias. Multiple comparisons were made between study groups, increasing the chances of spurious findings. Even though questionnaires were available in five of the most widely spoken languages, some cross-border migrants may not be conversant in these, precluding their participation. Research sites were purposively selected and may not be generalizable to other sex work settings within the country. The three outcome variables selected describe only a limited number of risk factors associated with sex worker ill health and several others should have been assessed. In particular, workplace safety encompasses several factors other than negative police contact, such as exploitative managers or controllers, a violent neighbourhood and no condom supplies within sex work venues [3, 65]. Also, additional factors such as irregular immigration status, ethnic or racial discrimination and ghettoised work conditions are pertinent to migrant sex workers, as shown elsewhere [37]. Similarly, there may be instances where women elected to be full-time sex workers because of its comparative higher earnings (not because of lack of alternatives) and they may make sufficient money to resist client overtures for unprotected sex.

In conclusion, our data illustrate the preponderance of migrants in sex work and the relative tenacity of cross-border migrants in South Africa. It illustrates the need for further sex work-specific health services, which specifically address health needs of migrant sex workers, especially around HIV/STI prevention. Such services should actively involve migrant sex workers in their design and planning, and as peer educators and outreach workers.

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## **Chapter 4 Results: Assessing the impact of relational and societal factors on sex worker vulnerability in Kenya and South Africa**

To aim of this chapter is to assess the impact of relational and societal factors on sex worker vulnerability in Kenya and South Africa.

### **4.1 The contribution of emotional partners to sexual risk taking and violence among female sex workers in Mombasa, Kenya: a cohort study**

**Full Title: The contribution of emotional partners to sexual risk taking and violence among female sex workers in Mombasa, Kenya: a cohort study**

**Running head: Sex work risk behaviour with emotional partners**

**Submitted to Plos One**

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## **Abstract**

**Objectives:** To assess sexual risk-taking of female sex workers (FSWs) with emotional partners (boyfriends and husbands), compared to regular and casual clients. Experiences of violence and the degree of relationship control that FSWs have with emotional partners are also described.

**Design:** Cohort study with quarterly follow-up visit over 12-months.

**Methods:** Four hundred HIV-uninfected FSWs older than 16 years were recruited from their homes and guesthouses in Mombasa, Kenya. A structured questionnaire assessed participant characteristics and study outcomes at each visit, and women received risk-reduction counselling, male and female condoms, and HIV testing.

**Results:** Four or more unprotected sex acts in the past week were reported by 21.3% of women during sex with emotional partners, compared to 5.8% with regular and 4.8% with casual clients ( $P<0.001$ ). Total number of unprotected sex acts per week was 5-6-fold higher with emotional partners (603 acts with 259 partners) than with regular or casual clients (125 acts with 456, and 98 acts with 632 clients, respectively;  $P<0.001$ ). Mostly, perceptions of “trust” underscored unprotected sex with emotional partners. Low control over these relationships, common to many women (36.9%), was linked with higher partner numbers, inconsistent condom use, and being physically forced to have sex by their emotional partners. Half experienced sexual or physical violence in the past year, similarly associated with partner numbers and inconsistent condom use.

**Conclusions:** High-risk sexual behaviour, low control and frequent violence in relationships with emotional partners heighten FSWs’ vulnerability and high HIV risk, requiring targeted interventions that also encompass emotional partners.

**Keywords:** HIV, sexual behaviour, sex work, prostitution, sexual partners, violence, Kenya

## Introduction

In sub-Saharan Africa an estimated 0.7% to 4.3% of women exchange sex for money, goods or favours [1]. In low-income and middle-income countries in particular, these women carry a disproportionate burden of HIV and other sexually transmitted infections (STIs), with HIV risk about 12-fold higher than women in the general population [2]. Though the exact extent of the contribution is contested, sex workers, their clients and emotional partners play an important role in HIV transmission in sub-Saharan Africa [3, 4]. Importantly, studies have also shown that it is possible to have multiple sexual partners, and not contract HIV or other STIs, if condoms are used consistently [5]. Thus, the factors that enable or hinder unprotected sex with commercial and emotional partners are key to understanding the HIV risk that sex workers face.

HIV prevention initiatives in sex work settings overwhelming focus on sex workers, with few efforts to target sex worker clients, and virtually none addressing their emotional partners [6]. This is mostly because sex workers are easier to locate than their sexual partners, but reinforces notions of sex workers as disease vectors. Further, it locates responsibility for condom use in this group, who may not be the main decision-makers in their sexual relations, and may have low control over partner behaviour. Emotional partners of female sex workers (FSWs) are of particular concern due to their high levels of sexual risk behaviour [7-9] and they may contribute considerably to HIV transmission in the context of sex work [10]. Additional evidence for the role played by emotional partners of FSWs, and the often complex interaction between FSWs and these partners may stimulate research and programmatic interventions in this area.

Few studies have directly examined the role of emotional partners in FSWs' HIV risk [11-13]. This prospective cohort study among women with high-risk behaviour for HIV infection was conducted to estimate the annual HIV incidence and evaluate the feasibility of establishing a new site for microbicide clinical trials in Mombasa, Kenya. The analysis presented here compared sexual behaviour of FSWs with different partner types within this cohort, specifically emotional partners, and regular and casual clients. In addition, we assess the level of control that FSWs have in their relationships with emotional partners, and describe experiences of violence within these relationships.

## **Methods**

### **Study setting and population**

The study enrolled FSWs in Mombasa, a major economic centre in Kenya and East Africa, with busy port, rail and industrial enterprises, and also host to tourists from around the world. A capture-recapture enumeration of FSWs in 2010 estimated that there were over 18,000 FSWs in Mombasa (unpublished data). Convenience sampling was used, with FSWs recruited from their homes and guesthouses in two divisions of the city, which were divided into 11 zones; each was allocated a field worker. Field workers were familiar with their respective areas and responsible for inviting women to enrol in the study and maintain contact with them throughout the study period. The research team conducted study assessments from two research locations in Chaani (primary health centre) and Kisauni division (FSW drop-in centre). To be eligible, FSWs had to be HIV-uninfected, aged 16 years or older, not currently pregnant as assessed by self-report and laboratory screening, able and willing to provide written informed consent for study participation, and provide adequate locator information for tracing. Those planning to travel or relocate from the study areas, or participating in other HIV intervention studies, were excluded from participation.

### **Data collection and assessments**

Eligible women were followed over 12 months, with quarterly study visits. The sample size and follow-up duration were selected for the purposes of quantifying the HIV incidence in this population, and thus to inform sample size estimations for future HIV prevention trials in this population. A structured questionnaire was administered at each visit by a trained research assistant to collect data on socio-demographics (baseline), sexual behaviour with different types of sexual partners (quarterly), and relationship information (baseline and endline). Local staff translated the English questionnaires into Swahili, which were field tested before use. Questionnaires were held in English or Swahili.

HIV and pregnancy testing was done at each visit. HIV status was determined by using two negative HIV rapid tests performed in parallel with Uni-Gold™ HIV (Trinity Biotech plc, Bray, Ireland) and Determine™ HIV-1/2 (Abbott Laboratories by Abbott Japan Co Ltd, Minato-Ku, Tokyo, Japan). If the result of these were discordant, an HIV ELISA was performed at a

laboratory at Coast Provincial General Hospital for confirmation. For participants sero-converting during the study, a polymerase chain reaction (PCR) HIV test was done on the last antibody negative blood sample to improve estimation of the timing of infection. HIV-infected women were referred for free antiretroviral treatment and care services.

Gynaecological examination and STI screening by trained clinicians were done at baseline, after 12 months, and at other visits if clinically indicated. Syphilis infection was detected with a rapid plasma reagin test (Human GmbH, Wiesbaden, Germany). Infection with *Trichomonas vaginalis* was determined by wet mount.

Participants received STI treatment according to local guidelines or were referred to health services when needed. Voluntary HIV testing and counselling, and contraceptive and risk-reduction counselling were provided. Contraceptives, including male and female condoms, were offered free of charge. The Kenyatta National Hospital Ethics and Research Committee approved the study protocol (P199/11/2005). External monitoring was conducted, verifying available source documentation with study-specific clinical record forms.

### **Study measures**

A FSW was defined as a woman reporting to having had sexual intercourse at least once in the past three months, and having received money in exchange for it as part of her livelihood in the last six months. The questionnaire categorized each of the sexual partners of FSWs as a casual client (an occasional client or stranger who pays to have sex), a regular client (someone with whom the woman does not have an emotional relation, but who does not necessarily have to pay for sex each time), or an emotional partner (a boyfriend or husband, with whom the woman has an emotional attachment and who does not have to pay for sex every time).

For each partner type, women reported the total number of sex acts in the past week and condom use at each act. Condom use in the past three months was classified as inconsistent when women reported “never”, “sometimes”, or only using condoms “most of the time”. We also report the proportion of women who never used condoms, a subset of the inconsistent category. Other measures of sexual behaviour were: reasons for condom use, age-discordance with partner; and being physically forced to have sex by a boyfriend or husband.

We administered an adaptation [14] of the Relationship Control Subscale from the Sexual Relationship Power Scale [15]. The 12-item questionnaire assessed women's subjective experiences of being controlled by an emotional partner. Participants responded to each item on a four-point Likert scale, ranging from 1 (strongly agree) to 4 (strongly disagree). Total cumulative scores ranged from 12 (lowest perceived relationship control) to 48 (highest perceived relationship control). Scores were categorized as low relationship control (score 12-24), medium control (score 25-36) and high control (37-48). Experience of violence from any partner was assessed through a 19-item questionnaire, used by Dunkle et al [14, 16], which drew on the WHO violence against women instrument [17]. Information was collected on six different types of sexual, physical and other forms of violence, whether this had occurred in the past 12 months and, if so, how often (once, few, many times). Additional details about the perpetrator were obtained when women reported being physically forced to have sex when she didn't want to.

#### **Data management and analysis**

Data were double entered by separate clerks and analysed using Stata SE 11.0 (Stata Corporation, College Station, TX, USA). Descriptive analysis of population characteristics assessed the distribution of continuous variables and the frequency distribution of categorical variables in contingency tables. For each partner type, generalized estimating equations were used to assess changes in condom use over the five study visits.

Sexual behaviour outcomes were analysed both at the FSW level and for all the partners she reported (partner-level analysis for each partner type). Sexual behaviour outcomes with emotional partners were compared with regular and casual clients, using a Poisson regression analysis for discrete count variables or ordinal regression analysis for ordered categorical variables, and controlled for multiple measures on the same subject. To assess associations between the three levels of relationship control and behavioural outcomes, Pearson Chi-square tests for trend were used for binary outcomes, and Kruskal Wallis tests for non-normal distribution of continuous variables.

## Results

In total, 400 women enrolled over a four-month accrual period and were followed-up for 12 months from May 2006 to September 2007. The mean age of participants was 25.1 years (SD=5.2) and a third of women (34.8%, table 1) followed the Muslim religion. There was little evidence of migration or mobility as nearly all women were Kenyan (97.5%), and three quarters (76.3%) of participants had stayed at the same residence for the past two years. Only 11 women (2.8%) were currently married or cohabiting, 72.0% (288/400) were single, and 25.3% were divorced, separated or widowed (101/400). Having one or more children was reported by about 80% of women, and nearly three quarters of respondents (71.6%; 285/398) had an emotional partner at study enrolment. Of enrolled participants, 91.8% were retained in the study over 12 months (367/400).



**Table 1: Characteristics of 400 FSWs at enrolment in the prospective cohort study in Mombasa, Kenya (2006-2007)**

Variable	% (n/N)*
<b>Age</b> , mean years (sd)	25.1 (5.2)
<b>Nationality</b>	
Kenyan	97.5% (390/400)
Tanzanian/Ugandan	2.5% (10/400)
<b>Mobility in last 2 years</b>	
Never changed residence	76.3% (302/396)
Changed residence once	13.6% (54/396)
Changed residence twice or more times	10.1% (40/396)
<b>Religious affiliation</b>	
Catholic	25.5% (102/400)
Protestant/other‡	39.8% (159/400)
Muslim	34.8% (139/400)
<b>Highest education level</b>	
None or primary incomplete	42.3% (169/400)
Primary school	27.8% (111/400)
Secondary or tertiary level	30.0% (120/400)
<b>Marital status</b>	
Single	72.0% (288/400)
Married or cohabiting	2.8% (11/400)
Separated, divorced or widowed	25.3% (101/400)
<b>Currently has emotional partner</b>	71.6% (285/398)
<b>Duration of sex work</b> , median years (IQR) n=398	4 (2-7)
<b>Part-time sex worker</b>	49.8% (199/400)
<b>Weekly income from sex work</b>	
≤500 Kenya Shillings^	23.9% (95/397)
501-1000	30.2% (120/397)
1001-2000	26.2% (104/397)
>2000	19.7% (78/397)
<b>Number of live children</b>	
0	19.8% (79/400)
1	38.0% (152/400)
2-3	34.0% (136/400)
≥4	8.3% (33/400)
<b>Substances use (ever use - multiple response)</b>	
Alcohol	72.3% (289/400)
Cannabis	12.8% (51/400)
Khat	35.8% (143/400)
<b>Perceived risk of acquiring HIV</b>	
No risk	22.4% (89/398)
Small risk	19.6% (78/398)
Moderate risk	12.3% (49/398)
Great risk	29.4% (117/398)
Don't know	16.3% (65/398)

IQR inter-quartile range. sd standard deviation. \* % (n/N) unless otherwise stated. ‡ Five participants indicated 'other' religion. ^ Exchange rate of 500 Kenya Shillings=4.12 Euro.

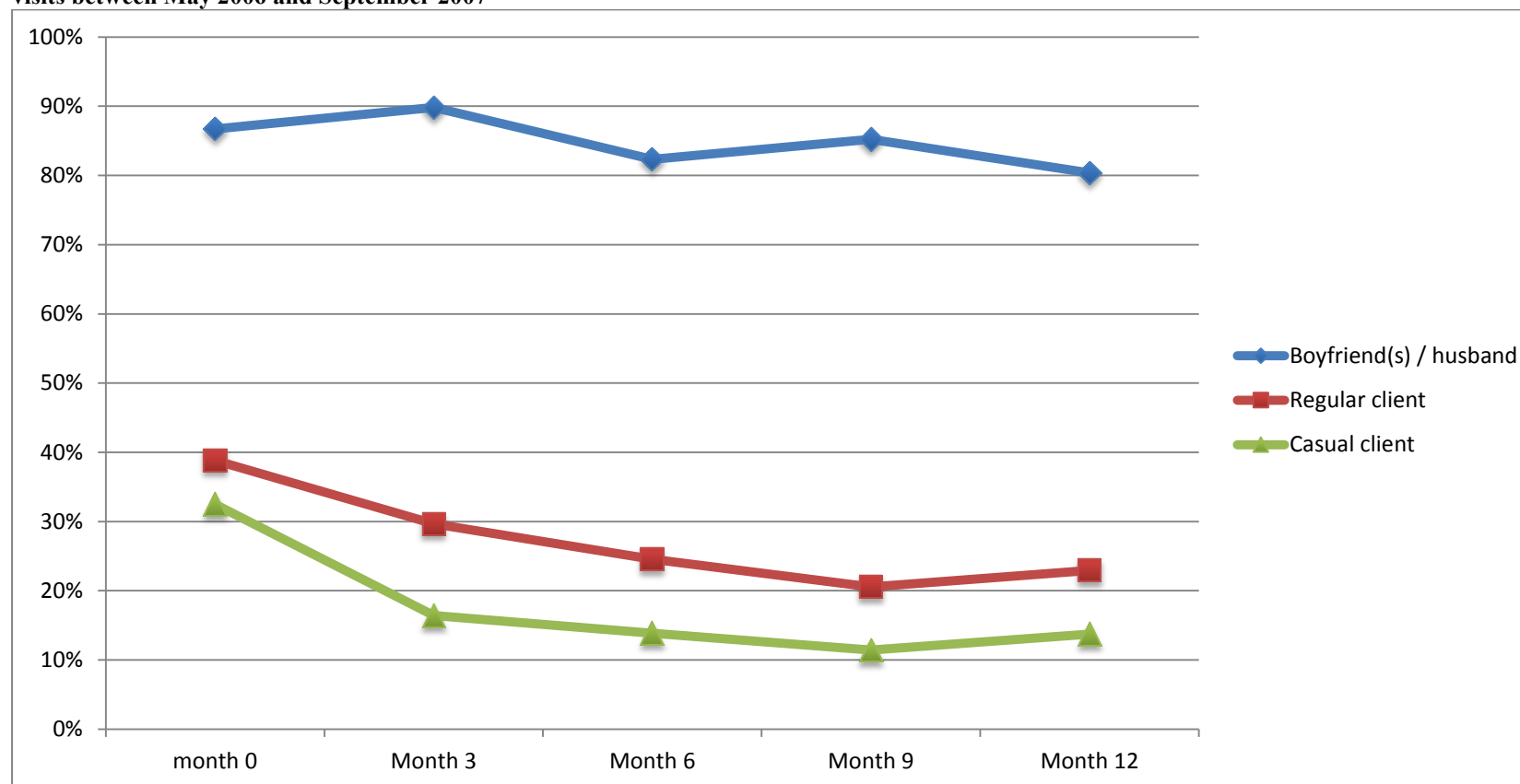
### **HIV/STI incidence and sexual behaviour according to partner type**

At study enrolment, 62.9% (180/286) of women reported never using a condom during sex with their emotional partners, while only 5.8% (23/394) and 3.6% (13/360) of women had never used a condom with their regular clients and casual clients, respectively (data not shown). Over the 12-month study period, the proportion of sex workers reporting inconsistent condom use (three month recall period) with emotional partners decreased from nearly 90% to about 80% ( $P=0.007$ , figure 1). Even more marked reductions in inconsistent condom use were seen with regular clients (from 39% at baseline to 23% after 12 months;  $P<0.001$ ) and with casual partners (from 33% at baseline to 14% after 12 months;  $P<0.001$ ; figure 1). After 12 months follow-up, respondents had had sex with a median of one emotional partner, two regular clients and two casual partners in the preceding week (table 2). Four or more unprotected sex acts in the past week was mentioned by 21.3% (51/239) of women during sex with emotional partners, while this was cited by 5.8% (12/208) and 4.8% (11/228) of women for sex with regular and casual clients, respectively ( $P<0.001$ ; data not shown).

At endline, 239 women with emotional partners reported sex in the past week with 259 emotional partners, leading to a total of 603 unprotected sex acts. Despite having a larger total number of regular clients ( $n=456$ ), and casual clients ( $n=632$ ), the corresponding total number of reported unprotected sex acts in the past week with these clients was 125 and 98, respectively. Age difference between the sexual partner and the sex worker was not associated with unprotected sex acts (table 2).

HIV incidence for all study participants was 2.6 infections per 100 person years (95% confidence interval [CI]=1.4-4.9), and incidence of any STI (HIV, syphilis or *Trichomonas vaginalis*) was 8.7/100 years (95%CI=6.2-12.3). Women with an emotional partner had a similar incidence of HIV to other women, but the hazard ratio (HR) of acquiring any STI was 2.2-fold that of other women (95%CI=0.76-6.4;  $P=0.15$ ). At study end, 0.8% of women reporting consistent condom use with emotional partners had acquired HIV (1/134), while acquisition of HIV occurred in 2.6% of other women ( $P=0.22$ ). Pregnancy was 2.0 fold more common in women with an emotional partner, than other women (95%CI HR=1.1-3.4;  $P=0.021$ ). Level of relationship control was not associated with biological outcomes.

**Figure 1: Percentage of FSWs who reported inconsistent condom use in the past 3 months with emotional partners, regular clients and casual clients at 3-monthly visits between May 2006 and September 2007**



**Data supporting figure 1**

	Month 0	Month 3	Month 6	Month 9	Month 12	P*
<b>Inconsistent condom use in past 3 months, % (n/N)</b>						
With boyfriend(s) / husband	86.7% (248/286)	89.8% (274/305)	82.3% (228/277)	85.2% (236/277)	80.3% (233/290)	0.007
With regular client	38.8% (153/394)	29.7% (105/354)	24.6% (82/334)	20.6% (65/316)	22.9% (61/266)	<0.001
With casual client	32.5% (117/360)	16.4% (54/329)	13.9% (43/310)	11.5% (34/297)	13.7% (38/277)	<0.001

\* Generalized estimating equations (GEE) were used to assess changes in condom use over time, accounting for repeat measures.

### **Reasons for non-use of condoms and perceived risk of HIV**

Sixty one per cent of participants (143/233) attributed trust in their partner as the main reason for not using condoms with their emotional partner. This reason was seldom cited with regular or casual clients, where main barriers to condom use were partners' refusal (70.5% [43/61] of women with a regular client and 84.2% [32/38] with casual clients), and increased financial gain for unprotected sex (mentioned by 23.0% [14/61] and 34.2% [13/38] of women with regular and casual clients, respectively). Women who perceived themselves to be at moderate or high risk for HIV infection (n=166), were asked to explain this in an open-ended question. The majority (77.7%; 129/166) reported this risk to be associated with clients' behaviour, and provided reasons illustrating this. For example, a 19-year old single Protestant woman who, in the past three months, always used condoms with clients but never with her boyfriend, perceived herself to be at great risk and said:

*'I have multiple sex partners. Even though I use condoms with them, the condoms can break, tear or even slip off, putting me at high risk.'*

Similarly, a 21-year old, recently separated woman who, in the past three months always used condoms with clients but never with her boyfriend, recognized herself to be at high risk and reported:

*'Sex work in itself is risky, even with condom use because condoms can burst'.*

Only 9 (5.4%) women mentioned HIV risk related to an emotional partner, with an additional 7 women reporting feeling at risk from both clients and emotional partners. A 31-year old married FSW who saw herself to be at moderate risk of becoming infected with HIV due to the behaviour of her husband provided the following reason:

*'Because I don't know how many people my husband has sex with, so even if I protect myself he might infect me because he doesn't like to use condoms.'*

**Table 2: Number of partners and sex acts, condom use and age discordance between FSWs and their emotional partners and clients after a 12-month cohort study (2006-2007)**

Variable	Boyfriend(s) or husband A (n=239)	Regular clients B (n=208)	Casual clients C (n=228)	<i>P</i> value A vs B	<i>P</i> value A vs C
Female sex worker level analysis					
Number of partners in past week, median (IQR)	1 (1-1, 1-4)	2 (1-3, 1-7)	2 (2-3, 1-17)	<0.001 <sup>a</sup>	<0.001 <sup>a</sup>
Number of unprotected sex acts in past week, median (IQR, range)	2 (0-3, 0-28)	0 (0-0, 0-10)	0 (0-0, 0-12)	<0.001 <sup>a</sup>	<0.001 <sup>a</sup>
<b>Reasons for inconsistent condom use in past 3 months</b> (multiple-response question), n/N <sup>§</sup>					
Partner looked healthy	0/233	0/61	1/38		
Partners pays more without condom	2/233	14/61	13/38		
Forgot, had too much alcohol/drugs	1/233	2/61	1/38		
Embarrassed	0/233	0/61	1/38		
Fear for violence if using condom	2/233	0/61	0/38		
Child wish	6/233	0/61	0/38		
Trust the partner	143/233	8/61	1/38		
Partner refused	85/233	43/61	32/38		
Partner tested for HIV	18/233	1/61	0/38		
Partner-level analysis					
Total number of partners in past week	259	456	632	<0.001 <sup>a</sup>	<0.001 <sup>a</sup>
Number of sex acts per partner in past week, median (IQR, range)	3 (2-4, 1-28)	2 (1-3, 1-14)	1 (1-2, 1-7)	<0.001 <sup>a</sup>	<0.001 <sup>a</sup>
Total number of unprotected sex acts in past week	603	125	98	<0.001 <sup>a</sup>	<0.001 <sup>a</sup>
Number of unprotected sex acts per partner in past week, median (IQR, range)	2 (0-3, 0-28)	0 (0-0, 0-7)	0 (0-0, 0-5)	<0.001 <sup>a</sup>	<0.001 <sup>a</sup>
<b>Proportion of partners having unprotected sex acts with sex worker in past week, % (n/N)</b>					
0 unprotected sex acts	27.1% (70/258)	86.6% (395/456)	91.0% (574/631)		
1 unprotected sex act	18.6% (48/258)	6.8% (31/456)	5.1% (32/631)		
2-3 unprotected sex acts	35.7% (92/258)	4.4% (20/456)	3.3% (21/631)		
4 or more unprotected sex acts	18.6% (48/258)	2.2% (10/456)	0.6% (4/631)	<0.001 <sup>b</sup>	<0.001 <sup>b</sup>
<b>Proportion of partners having unprotected sex acts with sex worker in past week, by age-discordance, % (n/N)¥</b>					
Partner 3 age groups older	0	20.0% (1/5)	9.1% (1/11)		
Partner 2 age groups older	57.1% (12/21)	14.3% (8/56)	6.4% (5/78)		
Partner 1 age group older	74.2% (89/120)	12.4% (24/193)	9.5% (24/254)		
Partner, sex worker same age group	74.1% (80/108)	14.0% (23/164)	10.0% (25/250)		
Partner 1-2 age groups younger	75% (6/8)	14.7% (5/34)	6.3% (2/32)		

¥ Age groups consist of <25 years; 25-34 years; 35-44 years; 45 years and older. § Information was obtained using a 3 month recall period in which female sex worker reported sex with boyfriend(s)/husbands (n=290), regular clients (n=266) and casual clients (n=277). <sup>a</sup> Poisson regression controlled for multiple measures on the same subject. <sup>b</sup> Ordinal logistic regression controlled for multiple measures on the same subject.

### Level of relationship control

More than a third of women (108/293) perceived themselves as having low control over their relationships with emotional partners, while only 10.6% of women (31/293) reported high relationship control (table 3). The median score on the relationship control scale was 28 (IQR=20-34). Women with no or incomplete primary education were significantly more likely to have low control over their relationships compared to women with primary or higher education ( $P<0.001$ ; data not shown). The level of relationship control was also associated with condom use in emotional partnerships. In a stepwise manner, inconsistent condom use in the past three months rose as relationship control decreased ( $P<0.001$ ). Similarly, no women with high relationship control had been physically forced to have sex by their emotional partners. Conversely, this was reported by 3.9% (6/154) and 9.3% (10/98) of women who had medium or low control, respectively ( $P=0.063$ ).

**Table 3: Association between level of control that FSWs perceive in their relationship with their emotional partners (n=293), and sexual behaviour and sexual violence at the final visit of the 12-month cohort study (2006-2007)**

Variable	Level of control in relationship with boyfriend(s)/husband <sup>‡</sup>			P value <sup>§</sup>
	High (score 37-48) n=31	Medium (score 25-36) n=154	Low (score 12-24) n=108	
<b>Total number of sexual partners in past week, median (IQR)</b>	3 (1-6)	3 (1-5)	4 (1-6)	0.052 <sup>§</sup>
<b>Inconsistent condom use with boyfriend(s)/husband in past 3 months, z% (n/N)</b>	53.6% (15/28)	79.2% (118/149)	89.7% (96/107)	<0.001
<b>Refused sex in past week because boyfriend(s)/husband declined to use condom, % (n/N)</b>	22.6% (7/31)	10.4% (16/154)	13.9% (15/108)	0.17
<b>Ever physically forced by boyfriend(s)/husband to have sex, % (n/N)</b>	0/31	3.9% (6/154)	9.3% (10/98)	0.063

Pearson  $\chi^2$  test for trend unless otherwise indicated. <sup>§</sup>Kruskal Wallis. <sup>‡</sup>12 questions used, each scored from 1 (strongly agree) to 4 (strongly disagree). Total cumulative scores range from 12 (lowest relationship control) to 48 (highest relationship control)

## **Experience of violence**

Sexual and/or physical violence by an emotional partner was experienced by over half (55.0%; 202/367) of FSWs over the 12-month study period and was associated with a higher number of partners ( $P=0.045$ ) and inconsistent condom use ( $P<0.001$ ; data not shown). Over a quarter (94/367) reported being slapped or having something thrown at them by any partner in the preceding 12 months, and 5.7% (21/367) had experienced this 'many times' (table 4). Nearly a quarter of participants had ever been physically forced to have sex by any partner when they did not want sex (79/367). Eleven participants (3.0%) reported being physically forced to have sex 'many times' in the preceding year, while 16.1% (59/367) had been physically forced to have sex once or a few times. In 43.0% (34/79) of women reporting to have been physically forced to have sex, this was by a stranger; in 38.0% (30/79) it was by someone she knew, and in 21.5% (17/79) it was by an emotional partner (data not shown).

**Table 4. FSWs' experience of violence from current boyfriend or husband, or any other partners in the 12 months prior to cohort entry and during the 12 months cohort (2006-2007)**

Variable assessing occurrence in past 12 months	Baseline, % (n/N)	After 12 months, % (n/N)
<b>Physical violence</b>		
<b>Pushed or shoved by partner</b>		
Yes, at least once	31.8% (127/399)	26.7% (98/367)
once	13.3% (53/399)	10.6% (39/367)
a few times	13.3% (53/399)	8.4% (31/367)
many times	5.3% (21/399)	7.6% (28/367)
<b>Slapped by partner or something thrown at her that could hurt</b>		
Yes, at least once	23.5% (94/400)	25.6% (94/367)
once	9.3% (37/400)	12.8% (47/367)
a few times	10.3% (41/400)	7.1% (26/367)
many times	4.0% (16/400)	5.7% (21/367)
<b>Hit with a fist or something else, kicked, or beaten up by partner</b>		
Yes, at least once	14.3% (57/400)	13.6% (50/367)
once	4.3% (17/400)	4.6% (17/367)
a few times	7.0% (28/400)	4.9% (18/367)
many times	3.0% (12/400)	4.1% (15/367)
<b>Sexual violence</b>		
<b>Physically forced to have sex with partner</b>		
Yes, at least once	22.3% (89/400)	19.1% (70/367)
once	11.3% (45/400)	12.0% (44/367)
a few times	9.8% (39/400)	4.1% (15/367)
many times	1.3% (5/400)	3.0% (11/367)
<b>Had sex with partner as was afraid of what he might do</b>		
Yes, at least once	17.8% (71/398)	31.3% (115/367)
once	7.3% (29/398)	13.9% (51/367)
a few times	8.0% (32/398)	11.7% (43/367)
many times	2.5% (10/398)	5.7% (21/367)
<b>Forced by partner to do something sexual which she found degrading or humiliating</b>		
Yes, at least once	10.8% (43/397)	12.0% (44/366)
once	5.8% (23/397)	7.4% (27/366)
a few times	2.8% (11/397)	3.0% (11/366)
many times	2.3% (9/397)	1.6% (6/366)

## Discussion

Sex workers' relations with their boyfriends or husbands were characterised by high-risk sexual behaviour, low levels of control over these relationships and frequent violence, each discussed further hereafter.

### Sexual behaviour and condom use

While number of unprotected sex acts [18, 19] and having multiple partners [20, 21] are critical factors influencing the transmission of HIV, other contributing factors include sexual networks, type of sex, HIV-status of partner, HIV disease stage, presence of STIs and circumcision [22, 23]. The hierarchy of these risk factors within an African sex work setting is not definitively known, but unprotected sex is of key importance. Over the course of our study, only 10-20% of women consistently used condoms with emotional partners, while more than



70% reported consistent use with their clients, similar to other studies in the region [8, 9, 24]. A study in Kenya, as in our research, found that the median number of unprotected sex acts was much greater for emotional partners than for clients, thus supporting the premise that unsafe sex between FSWs and their emotional partners may contribute more to HIV transmission than unsafe sex with clients [10]. Our participants reported a six-fold higher number of unprotected sex acts per week with emotional partners (with as many as 600 contacts), as compared to those with regular clients or casual clients.

There are further risks in FSWs' interactions with emotional partners, as these men often engage in other high-risk behaviours [7]. Almost half of the FSWs interviewed in a study in Pretoria, South Africa, reported that their emotional partners had concurrent partners [25]. High levels of concurrency were also found in Guinea and Benin, where 70% of emotional partners of FSWs noted that they were also clients of one or more sex workers [26]. Further, HIV prevalence among emotional partners of FSWs has been shown to be higher than that among FSW clients [27, 28]. In assessing HIV risk, these patterns suggest that sex work in sub-Saharan Africa cannot be viewed narrowly, or single dimensionally as sex worker and client interactions, but must specifically target the emotional partners of FSWs too.

### **Relationship control**

A third of women in our study had low control of their relationships with emotional partners, which was linked to higher numbers of partners, inconsistent condom use, and being physically forced to have sex by their emotional partners. A study with 15-24-year old women in South Africa concluded that women with low relationship control were twice as likely to use condoms inconsistently, and that those who had been forced into sex were nearly six times more likely not to use condoms consistently with that partner [29]. Similarly, a study among antenatal attendees in Soweto, South Africa found intimate partner violence and high levels of male control in a woman's current relationship were associated with her being HIV positive [16].

It is of concern that only 13.0% (38/293) of women in our study turned sex down because their intimate partners did not want to use condoms – this is either because the women did not perceive the sexual act to be sufficiently risky, or felt that they could not refuse sex. Studies have offered several reasons for sex worker reluctance to use condoms with their emotional partners, including a desire to distinguish between interactions with clients and those with emotional partners; the belief that a steady partner is HIV negative or 'trustworthy'

(perhaps a more nuanced description of 'trust' recorded in our study); and the wish to avoid appearing suspicious in emotionally significant relationships, as would be implied by a request for condom use in a context where cultural norms of intimacy and trust suggest that one is protected [30-32]. Moreover, emotional partners and regular clients are also often regarded by FSWs as 'clean' and 'safe', in contrast to unknown casual clients, who may be viewed as 'dirty' and 'unsafe' [33, 34]. Although sex workers generally perceive themselves to be at very high risk of HIV, many consider this risk emanating from clients, rather than from emotional partners [35]. This 'risk perception bias' with intimate partners should be targeted in public health interventions relating to sex work [24].

### **Experienced physical and sexual violence**

Power within the relationship has a clear causal link with violence (or the threat thereof), which impacts on health [36]. Partner violence experienced by this cohort was high in comparison with women from the general population in Kenya. The Kenyan Demographic and Health Survey of 2003 found that 38.5% (1662/4312) of women ever experienced physical violence and 14.1% (606/4312) were ever subjected to sexual violence by an intimate partner – our study found close to double these figures. The latter is in line with other studies on FSWs in a variety of contexts [37-39].

### **Working with men**

Ward et al. point out that the health risks of sex work are two-fold – direct and indirect – and that services and programmes cannot be limited to the risks posed directly by clients [5]. Our results point to the urgent need for interventions targeting all males who are sexually associated with FSWs to take responsibility for protective sexual intercourse, reducing sexual entitlement, and promoting gender equality within relationships [40] – and particularly to focus on the emotional partners of sex workers.

### **Study limitations**

Study participants were enrolled through peer networks (non-random convenience sampling) in two divisions of Mombasa town and may therefore not fully represent the total sex worker population, although characteristics are similar to other studies in the region [8, 41, 42]. The study only enrolled HIV uninfected women and findings may not apply to women already infected with HIV. Information obtained on the sexual and other behaviours of

emotional partners was through interview with the FSWs. Increased reliability of the data could be obtained with direct information from emotional partners and clients. It would be particularly pertinent to assess relationship control from the perspective of the partners. Further, the distinctions drawn between regular clients, casual clients and emotional partners are possibly an over-simplification, and possibly men move between these groups over time. Sexual risk behaviour in our study was assessed by describing condom use with each of the different types of partners, but information regarding the emotional partner's HIV status would more clearly determine HIV risk. At the same time, the study enquired about 'sex acts' and did not assess the type of sex involved. Some sex acts may have included masturbation or oral sex, where a condom may not be deemed necessary and HIV risk is low. Finally, repeated risk reduction counselling at clinic visits may have heightened social desirability bias in participants over time, and thus might account, in some part, for the reduction in reported inconsistent condom use.

In conclusion, frequent violence, low control and high-risk sexual behaviour in relationships with emotional partners highlight FSWs' vulnerability and high HIV risk, particularly through sexual interactions with their emotional partners. Sex worker risk in sub-Saharan Africa cannot be limited to sex worker and client interactions, but should explicitly include the emotional partners of sex workers. Programmes raising awareness of HIV risk within the sex work community should focus on all unprotected sexual intercourse – not on the type of sexual partner or emotional connection with a sex partner – and strategies for mediating that risk. At the same time, sex worker empowerment and structural interventions should include components that focus on power and control within intimate relationships, and negotiation strategies of protected sex with emotional partners.

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4.2 Female sex work and international sport events - no major changes in demand or supply of paid sex during the 2010 Soccer World Cup: a cross-sectional study

RESEARCH ARTICLE

Open

# Female sex work and international sport events - no major changes in demand or supply of paid sex during the 2010 Soccer World Cup: a cross-sectional study

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## Abstract

**Background:** Important unanswered questions remain on the impact of international sporting events on the sex industry. Speculation about increased demand and supply of sex work often generates significant attention, but also additional funding for HIV programmes. This study assessed whether changes occurred in the demand and supply of paid sex during the 2010 Soccer World Cup in South Africa.

**Methods:** Trained sex worker interviewers conducted face-to-face semi-structured interviews among consenting female sex workers during May-September 2010. Using bivariate analyses we compared supply, demand, sexual risk-taking, and police and health services contact pre-World Cup, to levels during the World Cup and after the event.

**Results:** No increases were detected in indicators of sex work supply, including the proportion of sex workers newly arrived in the city (< 2.5% in each phase) or those recently entering the trade ( $\leq 1.5\%$ ). Similarly, demand for sex work, indicated by median number of clients (around 12 per week) and amount charged per transaction (\$13) remained similar in the three study periods. Only a third of participants reported observing any change in the sex industry ascribed to the World Cup. Self-reported condom-use with clients remained high across all samples

(> 92.4% in all phases). Health-care utilisation decreased non-significantly from the pre- to during World Cup period (62.4% to 57.0%;  $P = 0.075$ ). Across all periods, about thirty percent of participants had interacted with police in the preceding month, two thirds of whom had negative interactions.

**Conclusions:** Contrary to public opinion, no major increases were detected in the demand or supply of paid sex during the World Cup. Although the study design employed was unable to select population-based samples, these findings do not support the public concern and media speculation prior to the event, but rather signal a missed opportunity for public health action. Given the media attention on sex work, future sporting events offer strategic opportunities to implement services for sex workers and their clients, especially as health service utilisation might decrease in this period.

**Keywords:** HIV, Sex work, Prostitution, Sport, South Africa

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## Background

International sporting events are increasing in frequency and magnitude. Much media attention, especially prior to these events, highlights the presumed links between spectators and sex work during large sports tournaments [1- 4]. These concerns were again raised in the recent preparations for the 2012 London Olympics [5- 8]. In the months preceding the 2010 FIFA Soccer World Cup in South Africa, media speculation focused on an anticipated increase in the number of sex workers, [9] the supposed migration of sex workers to South Africa from other African countries, [1] an alleged upsurge of trafficking in women and children, [10] the increased risk of HIV transmission [9] and even that South Africa would run out of condoms [11].

During June-July 2010, about 1.4 million foreign tourists arrived in South Africa, almost a quarter travelling primarily for the World Cup [12]. South Africa has the highest number of people with HIV worldwide and carries a substantial portion of the total global burden of sexually transmitted infections (STIs) [13]. Leading health organizations, including the World Health Organization, UNAIDS and South Africa's National Institute for Communicable Diseases urged World Cup travellers to take special precautions against STIs, including HIV [14- 16].

The World Cup saw a plethora of short-term health and safer sex campaigns. There was, however, no government or FIFA-led public health programme on sex work during the World Cup, with safer sex materials distributed largely by sex work non-governmental organisations (NGOs) [17]. These included female condoms and information provided to sex workers and their clients in Cape Town. In addition, a Sex Work Crisis Help-line was established to provide information, counselling and referrals for sex workers [17].

There was little evidence to guide the health-sector response, which appears, at least in part, to have been based on speculation and public fear [18]. A number of anti-trafficking drives were initiated or expanded during this period. They were driven, amongst others, by The Salvation Army, Free Generation International, and a non-profit Christian coalition called STOP, as well as an alliance between an international network of women's religious orders and the Southern African Catholic Bishops' Conference [19- 22].

Overall, at the time of the 2010 World Cup, little research had been conducted on the effects of major sporting events on the demand and supply of paid sex [23- 25]. Existing research had focused on human trafficking for the purposes of sexual exploitation, rather than on adult, consensual sex work [26]. Evidence from the 2006 German World Cup did not support the concerns raised about human trafficking during the event

[23,25]. Newspapers after the 2006 event reported that sex workers and brothel-owners were disappointed that the number of customers buying sex during that event was lower than expected [27]. While Germany legalized sex work four years before hosting the event, calls for the South African government to reform its criminal laws on sex work before the 2010 World Cup were not implemented [28].

Underpinning many of the campaigns in South Africa, was the assumption that World Cup soccer supporters (whether international tourists or locals) would require paid sex, and that this spike in demand would be matched by an increase in the supply of sex workers, or the trafficking of women and children [29]. Evidence on the impact of this event on the sex industry could assist future planning for mass entertainment events and in-form better targeting of health resources and other opportunities that become available during these events. The study therefore aimed to assess whether there was a change in demand or supply of sex work during and after the South African World Cup. We also examined changes in sexual behaviour, police contact and health services for sex workers across these phases to gauge how the World Cup affected sex workers' working conditions and interaction with services.

## Methods

Cross-sectional surveys with self-identified female sex workers were conducted in three time points. Academia-based researchers collaborated with the Sex Worker Education and Advocacy Taskforce (SWEAT) and Sisonke Sex Worker Movement (two sex worker NGOs) to identify three South African cities that hosted World Cup matches where Sisonke operated [30]. Johannesburg, the largest city in South Africa, hosted 15 matches, the most of any World Cup city [31,32]. The inner-city area of Hillbrow was selected as the research site within Johannesburg since it has a vibrant, long-standing sex trade [33- 36]. Rustenburg, the second city, hosted six matches. It is in a predominantly rural province of the North West. This site comprised slums within a platinum mine area about 15 km outside Rustenburg city, the closest town to the soccer stadium. Its sex work industry mainly serves the local mining community [37]. The third site, Cape Town, was host to the second most World Cup matches (eight games). This coastal city is a popular inter-national tourist destination [31,32] with a relatively well-documented sex work industry [38- 42]. Commercial sex work was defined as 'the exchange of sexual services for financial reward' and only women 18 years and above were eligible [39].

SWEAT and Sisonke introduced the researchers to peer educators known to Sisonke in the three research sites who were requested to invite other peer educator

or sex workers to a half-day research training workshop. Forty-five participants attended training on ethics, participant selection and interviewing. They received a certificate of attendance after workshop completion. Following role-play and review of completed study questionnaires with other workshop attendees, ten research assistants were selected in each site.

To ensure comparable procedures across phases, each research assistant was 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. Research assistants approached every third woman known to them as a sex worker in a particular sex work venue and invited her to participate, in order to minimize bias. During each phase, research assistants administered a 43-item semi-structured questionnaire to 20 sex workers. Questionnaires were based on previous studies with sex workers in Mombasa, Kenya [43], and research on migration history and access to health care in Johannesburg [44]. Questionnaires were translated from English into four local languages (isiZulu, isiXhosa, Afrikaans and Setswana) and administered during three periods: pre-World Cup (May-early June 2010); during the World Cup (mid June- mid July 2010); and post-World Cup (September 2010). Questionnaires from the sites were couriered or personally delivered to the principal investigator (MR) for data entry at the central Johannesburg site.

#### Ethical considerations

The research protocol was approved by the University of the Witwatersrand Ethics Committee (Protocol no. H100304). Sex workers willing to participate were asked to provide written informed consent. A cell-phone air-time or grocery voucher of 20 South African Rand (~US \$3) was provided for time spent in the interview. Research assistants referred participants to local counselling, health and legal assistance organizations, as required. During the World Cup period, research assistants distributed female condoms and information about the toll-free sex worker helpline to participants.

All aspects of sex work are criminalized in South Africa [45] and care was taken not to collect any identifying information from participants. Data were password-protected with access restricted to the project's data analysts.

#### Study measures and statistical analysis

The impact of the World Cup was measured by comparing the characteristics of the samples we obtained in the three phases. This was based on the assumption that any changes detected in the samples would reflect the impact of the World Cup on the broader sex work population. Fluctuations in characteristics of the sex worker samples were used to indicate whether a change had

occurred in the supply of sex work. Changes in sex work supply could result from an increase in the number of sex workers (more women entering sex work, movement into South Africa from elsewhere, or internal migration with women moving to the cities hosting matches) or in the time spent on sex work (increase in full-time sex workers). Indicators of sex work supply were thus: proportion of women under 24 years; nationality; arrival in the city within the last month; entry into sex work within the last month; and the proportion of sex workers who were full-time. Sex workers' reported number of clients and the amount earned with last client specified sex work demand. Only monetary payment and not payment-in-kind was included in the analysis. To measure whether the World Cup impacted on sexual risk behaviour by sex workers, we contrasted unprotected sexual intercourse with last client, as well as whether sex workers perceived themselves to have "felt drunk" during sex with last client. Measures of heavy episodic or binge drinking (having more than five drinks every day or almost every day in the past month) are also reported. Health services contact with sex workers during the three phases was compared to assess whether there was an increase in coverage of services during the World Cup. Participants described their most recent interaction with health care in open-ended questions, which researchers classified according to type of service received. Similarly, participants were asked about contact with the police in the preceding month to assess any changes in law enforcement within the sex industry. Free text answers to police interaction in the last month were coded as a "negative interaction" if it related to police violence, arrest, harassment, theft, bribery or fines. Conversely, "positive interaction" denoted police assistance with, for example, laying a complaint or warning a participant about potential danger. Changes in supply, demand, sexual risk-taking and police and health services contact were assessed by comparing pre-World Cup indicators within these domains, to levels during the World Cup, and post-World Cup.

Participants during and after the World Cup were asked whether the event had led to changes in the sex work industry, and if so, to describe such changes in an open-ended question. Researchers coded these free-text responses as "negative" (more competition, less clients, less income, or increased police harassment); "positive" (more foreign currency, more business, could charge more, or improved relationship with police); or "mixed experiences", both positive and negative. Finally, in the surveys during and after the World Cup, participants were asked whether they had previously completed a similar survey.

Data were entered in duplicate by separate data clerks. Following data checking and cleaning, analysis was

done using Intercooled Stata, version 11 (Stata Corporation, College Station, TX, USA). Chi-square tests were used to detect differences between categorical variables. For continuous variables that had a normal distribution we used the Student's t test and Anova test (for comparing means from three groups), while the Mann-Whitney U test was used for comparing data with a non-normal distribution.

## Results

Our analysis was based on 601 pre-World Cup participants, 508 during the World Cup and 538 after the event. A fifth (18.2%) of participants during the World Cup reported that they had completed a study survey previously, and a third (36.6%) noted the same post-World Cup. Table 1 shows that participants in each phase were age about 30 years on average and close to half had been in the sex work industry for five or more years. In each of the study samples, approximately two thirds were single, and 15% lived with their regular partner. Differences were detected in education level in the three samples, with fewer women sampled during the World Cup having tertiary qualifications (3.5%) compared to pre-World Cup (8.6%), though in each phase about a fifth had not completed primary school. Similarly, some differences were detected in the number of dependents and main venue where women solicited clients (higher proportion reported working in a combination of venues during and after the event). Indicators of supply and demand for sex work are presented in Table 2 and described below.

### Sex work supply

Few differences were detected in the indicators of supply of sex work. The proportion of women under the age of 24 was 20.6% during the World Cup, comparable to before the World Cup (17.9%;  $P = 0.25$ ), but these levels post-World Cup were 5% higher than before the event (22.9%,  $P = 0.037$ ). Only 12.9% of participants in the pre-World Cup period had entered sex work in the last year, while 1.3% began the trade in the last month (Table 2). Similarly, only a fraction of women in the during and post-World Cup samples reported having recently begun sex work. Few had arrived in the city in the last month, though more pre-World Cup than after the event (2.4% vs. 0.4%;  $P = 0.011$ ). No changes were detected in the proportion of non-South African women in each sample, which remained close to 40% in each phase. A similar proportion of women reporting being full-time sex workers before (75.6%) and during the World Cup (73.0%,  $P = 0.33$ ), however, among sex workers sampled after the event, fewer reported being full-time sex workers (64%;  $P < 0.001$  compared to before and  $P = 0.02$  compared to after the World Cup) Similar findings were obtained when data was stratified according to city,

while no significant interaction was observed within cities in supply or demand (data not shown).

### Sex work demand and sexual risk behaviour

No difference was detected in the median number of clients in the last week before and during the World Cup (12 clients and 11 clients respectively), but slightly higher client numbers were reported post-World Cup (13 clients,  $P = 0.04$  comparing during and post-World Cup). The median amount charged per client did not fluctuate, remaining a median \$13 per client in all phases. Also, no differences were detected in unprotected sexual intercourse with last client across the three periods, which remained below 7.6%. The proportion of women who were drunk at last sex also did not fluctuate across the samples, remaining at around 43%. Also, the proportion reporting frequent binge drinking was similar before (94/577, 16.3%) and during the World Cup (83/451, 18.4%;  $P = 0.37$ ), but higher among women in the period after the event (118/505, 23.4%;  $P = 0.06$  for the after during comparison and  $P = 0.003$  comparing after and with before the event).

### Working conditions and health service utilisation

Only a third of participants (322/1046) reported that the sex industry had been altered by the World Cup (94 noting a negative change, 222 a positive change, 6 had mixed experiences). Descriptive analysis of qualitative data on these changes is presented in Table 3. In their free-text responses, a few reported observing a larger number of sex workers, while others remarked on an increase in the business and income earned. Most, however, had experienced the contrary, and noted the adverse impact of the cold weather and of supporters' absorption with soccer matches on demand for sex work. Some said that working conditions had improved with the World Cup, such as refurbishments to the hotels where they worked and more assistance from peer educators.

Table 4 shows that across each study period, about a third of participants reported contact with the police. Among those who had police contact, nearly two thirds reported this as a negative experience before the event, compared to half during or after the event (a not significant difference).

Throughout the research period, just under two thirds had contact with health care in the preceding month (Table 4). The proportion of respondents who had contact with health care was 5% lower during the World Cup phase (57%) than before the event (62.4%;  $P = 0.075$ ). Levels of contact with peer educators were disappointingly low in each period, even decreasing from 3.7% before the event to 1.1% during the World Cup ( $P = 0.007$ ).

Table 1 Socio-demographic characteristics of female sex workers before, during and after the 2010 Soccer World Cup in three cities of South Africa

Variables	Study period			P-value <sup>#</sup>
	Pre-WC (May-June; n = 601), I	During WC (June-July; n = 508), II	Post-WC (Sept; n = 538), III	
Age, mean yrs (sd); n	30.3 (6.4) n = 599	30.4 (6.8) n = 505	30.2 (7.0) n = 529	0.94 <sup>¥</sup>
Highest education level, n/N (%)				
None or primary incomplete	116/572 (20.3%)	97/487 (19.9%)	105/507 (20.3%)	
Primary	298/572 (52.1%)	277/487 (56.9%)	245/507 (48.3%)	
Secondary	109/572 (19.1%)	96/487 (19.7%)	131/507 (25.8%)	
Tertiary	49/572 (8.6%)	17/487 (3.5%)	26/507 (5.1%)	0.001
City, n/N (%)				
Johannesburg	234/601 (38.9%)	197/508 (38.8%)	212/538 (39.4%)	
Cape Town	161/601 (26.8%)	137/508 (27.0%)	161/538 (29.9%)	
Rustenburg	206/601 (34.3%)	174/508 (34.3%)	165/538 (30.7%)	0.62
Relationship status n (%)				
Single	405/592 (68.4%)	336/502 (66.9%)	343/526 (65.2%)	
Regular partner, lives alone	98/592 (16.6%)	93/502 (18.5%)	107/526 (20.3%)	
Lives with regular partner	89/592 (15.0%)	73/502 (14.5%)	76/526 (14.5%)	0.62
Number of child dependants n/N (%)				
0	104/601 (17.3%)	125/508 (24.6%)	121/538 (22.5%)	
1	153/601 (25.5%)	145/508 (28.5%)	153/538 (28.4%)	
2-3	231/601 (28.4%)	175/508 (34.5%)	201/538 (37.4%)	
4+	113/601 (18.8%)	63/508 (12.4%)	63/538 (11.7%)	0.001
Main venue solicits clients n/N (%)				
Hotel/brothel or massage parlour	196/563 (34.8%)	151/472 (32.0%)	165/513 (32.2%)	
Street	198/563 (35.2%)	123/472 (26.1%)	126/513 (24.6%)	
Shebeen/bar/club or home	100/563 (17.8%)	40/472 (8.5%)	59/513 (11.5%)	
Combination of venues	69/563 (12.3%)	158/472 (33.5%)	163/513 (31.8%)	<0.001
Duration in sex work industry, n/N (%)				
<1 year	72/558 (12.9%)	81/465 (17.8%)	64/498 (12.9%)	
1-5 years	211/558 (37.8%)	165/456 (36.2%)	175/498 (35.1%)	
5+ years	275/558 (49.3%)	210/456 (46.1%)	259/498 (52.0%)	0.11

WC World Cup; yrs years; sd standard deviation; <sup>#</sup> chi-square test; <sup>¥</sup> Anova test; Shebeen is an informal/unlicensed bar; Denominator below N in each period due to some incomplete questionnaires.

## Discussion

Results, based on bivariate analysis of cross-sectional surveys administered before, during and after the World Cup, do not provide evidence of large changes in sex work supply or demand in the sex workers surveyed. Few substantial changes were noted across the indicators used to assess changes in sex work supply, demand or sexual behaviour during the event. These findings echo those of a related project that entailed a three-wave cross-sectional telephonic survey of female sex workers advertising online and in local newspapers in South Africa during the same event [46]. Similarly, a before-

and-after study of local sex work settings during the 2010 Winter Olympics in Vancouver found no evidence of an influx of sex workers, new sex workers, youth or reports of trafficking [47]. Unlike in our study, however, the Vancouver research team did find that sex workers perceived a heightening of police harassment during the Olympic period.

Evidence from our study does not show an increase in cross-border migrant sex workers during the World Cup, with the proportion of sex workers born in South Africa remaining about 60%. Only about one in forty sex workers reported arriving at their place of work in

Table 2 Female sex work supply and demand, and changes in sexual behaviour in three South African cities during and after the 2010 Soccer World Cup using serial cross-sectional surveys

Variables	Study period			P-value I vs II <sup>#</sup>	P-value I vs III <sup>#</sup>	P-value II vs III <sup>#</sup>
	Pre-WC (May-June; n = 601), I	During WC (June-July; n = 508), II	Post-WC (Sept; n = 538), III			
<b>Female sex work supply</b>						
Proportion of women under 24, n/N (%)	107/599 (17.9%)	104/505 (20.6%)	121/529 (22.9%)	0.25	0.037	0.38
Born in South Africa, n/N (%)	358/599 (59.8%)	312/507 (61.5%)	321/536 (59.9%)	0.55	0.97	0.59
Arrival in city in last month, n/N (%)	12/548 (2.2%)	5/455 (1.1%)	2/506 (0.4%)	0.18	0.011	0.20
Entered sex work in last month, n/N (%)	7/558 (1.3%)	7/456 (1.5%)	2/498 (0.4%)	0.70	0.13	0.07
Full-time sex work, n/N (%)	431/570 (75.6%)	343/470 (73.0%)	323/505 (64.0%)	0.33	<0.001	0.02
<b>Female sex work demand</b>						
Client number, median in last week (IQR)	12 (5-20)	11 (5-20)	13 (5-23)	0.50 <sup>¥</sup>	0.14 <sup>¥</sup>	0.04 <sup>¥</sup>
Amount charged with last client, median US\$ (IQR; range)	13 (7-24; 0-160)	13 (7-27; 1-458)	13 (8-27; 0-200)	0.20 <sup>¥</sup>	0.26 <sup>¥</sup>	0.88 <sup>¥</sup>
<b>Sexual risk behaviour</b>						
Unprotected sexual intercourse with last client, n/N (%)	29/582 (5.0%)	27/486 (5.6%)	40/524 (7.6%)	0.68	0.069	0.19
Drunk during sex with last client, n/N (%)	239/594 (40.2%)	211/483 (43.7%)	229/516 (44.4%)	0.25	0.16	0.83

WC World Cup; IQR inter-quartile range; sd standard deviation; vs versus; <sup>#</sup> chi-square test; <sup>¥</sup> Mann-Whitney U test. Denominator below N in each period due to some incomplete questionnaires.

the last month, while even fewer had entered the industry in the past month. Similarly, the proportion of sex workers in the study samples who were below 24 years remained relatively constant throughout the research period. These findings challenge claims that many women, particularly young women, would enter the sex industry for the World Cup. There was no change noted in the median number of clients over the World Cup period, suggesting that there was no marked spike in sex work demand. While some sex workers reported benefiting materially from the World Cup, this was not a uniform experience for all, with the median amount charged per client remaining unchanged across the research period. It is noteworthy that only a third of participants reported any change in their industry because of the World Cup. The wide range of descriptions about how the sex industry had been altered by the World Cup is striking, suggests large variation in individual sex workers' experiences.

Unprotected sexual intercourse with last client remained below 7.6%. It is, however, of concern that approximately 40% of sex workers reported being drunk with their last client across the phases and binge drinking was very common. This study again demonstrates the need for alcohol interventions, as a rapidly expanding body of evidence links hazardous alcohol use, especially binge drinking, with unsafe sex and HIV acquisition [48,49]. Strategies to reduce alcohol's burden and its effects on sexual behaviour include screening for alcohol use, referrals to programmes that reduce alcohol

dependence, multi-level structural interventions and sex work venue-based programmes [50,51].

Findings on police contact and high proportions of negative experiences are consistent with other studies that report frequent harassment and sex worker human rights violations by police in South Africa, [39,40,52,53] as elsewhere on the continent [54,55]. These experiences compound the marginalisation of this group, [56,57] and impact adversely on health. For example, studies in South Africa note police confiscation of condoms from sex workers as 'evidence' that commercial sex had taken place [38,58], while recent reports from Cape Town describe police harassment of outreach teams engaged in health promotion and HIV education with sex workers [59,60]. Police rape of sex workers has also been widely documented [38,39]. A 28 year respondent in Johannesburg in our study recounted: "I remember when they [the police] arrested me in my hotel for loitering and they find me while I was sleeping and they rape me first before they arrest me".

The decreased contact with health care workers during the World Cup period signals a major missed opportunity. Contact with peer educators was consistently below 4%, despite the fact that research sites were selected because of sex worker organisations or peer educator presence, and is in stark contrast with India where close to two thirds of sex workers report regular contact with burden peer educators [61]. This indicates the general lack of interest in sex worker support and programmes in South Africa, and specifically during the World Cup period.

Table 3 Female sex workers' perceptions of changes in the sex industry due to the World Cup

Description of changes in sex industry as a result of the World Cup (n=328)			
	Negative changes* (n=100)		Positive changes* (n=228)
More competition During WC: n=1 Post-WC: n=6	-“I saw a lot of new faces [female sex workers] around. There was competition. Everyone wanted to benefit” (Post-WC, CT)  - Many Sowetan [urban township] girls joined the industry before the World Cup. They thought that there will be dollars, so we are now sharing our few customers. That is why we think there are no customers” (Post-WC, JB)	More gifts/foreign currency During WC: n=15 Post-WC: n=8	-“I did get dollars. It was R1000 [\$131]. It was a lot for me. To compare the whole night of here is maybe R300 [\$40]” (During WC, CT)  -“The people I sold to, one of them bought me a ticket to go to the stadium to watch soccer. It was my first time to watch soccer. I don't even wish for that day to pass” (During WC, RB)
Less clients During WC: n=3 Post-WC: n=6	- “The business is not working. Our clients just come to the bar and watch the ball. There's no time for us. Even in the street there are few of them. Others there are busy watching the ball” (During WC, JB) - “There is no client at all because of police” (Post-WC, CT)	More clients/business During WC: n=25 Post-WC: n=31	-“Business was burning, we made a killing” (Post-WC, CT) -“I saw a lot of change because I was able to sell a lot. So much that I wish that the World Cup could come back again so that I can buy myself two big blankets (Post-WC, RB)
Less income During WC: n=18 Post-WC: n=24	-“I've seen the problem of money. We don't have money since the World Cup started” (During WC, JB)  -“I didn't have any money from this. Worse is to not meet one client from other country” (During WC, CT)	Can charge more During WC: n=38 Post-WC: n=40	-“I saw change because they gave us more money than what our clients used to give us” (During WC, RB)  -“I found too much money during the World Cup. More especially when Bafana Bafana [South African team] was playing. I make too much money” (During WC, JB)
Expectations not realised During WC: n=7 Post-WC: n=10	-“During the World Cup I was expecting too much business than ever before, but to my surprise it is only after the World Cup that I see the business improve” (Post-WC, RB) -“There is no money, but they say World Cup 2010 will bring money. But I think they take money with them.” (Post-WC, JB)	Meet new people During WC: n=26 Post-WC: n=11	-“I've met different people from different parts of the world. Some gave me their phone numbers and email address for networking” (During WC, JB) -“Mostly I met clients who treated me very differently comparing to those from here. They never treated me like a prostitute. They were very kind (During WC, CT)
Increased police harassment During WC: n=8 Post-WC: n=10	-“The World Cup didn't make me happy because the police were very angry with us.” (During WC, CT) -“The police harassment is too much. Every day they disturb us asking many questions and use spray guns to spray us while we are walking” (During WC, JB)	Improved relationship: police During WC: n=12 Post-WC: n=9	-“Cops are no longer after us. They are busy with the World Cup” (During WC, JB) -“Because the police were not interrupting us. They were busy with drug dealers and corrupt people (Post WC, JB)

Table 3 Female sex workers' perceptions of changes in the sex industry due to the World Cup (Continued)

<p>Challenging work conditions During WC: n=2 Post-WC: n=0</p>	<p>-“It is cold and we stand on the streets cold as it is, and leave without money. This soccer came with bad luck” (During WC, JB)</p> <p>-“I never found many clients like before the ball started. Because people are watching the World Cup match they don't want to come to the hotels. Some they say it is too cold” (During WC, JB)</p>	<p>Improved work conditions During WC: n=2 Post-WC: n=3</p>	<p>-“The best part was to do our business without being scared of anybody” (During WC, RB)</p> <p>-“The hotels have been renovated and there is more security than before” (Post-WC, JB)</p>
<p>Personal circumstances/fears During WC: n=2 Post-WC: n=3</p>	<p>-“The World Cup was not so good for me because my son was very sick. I couldn't go to work like before. It was a bad month for me” (During WC, CT)</p> <p>-“I was scared that I might contract diseases from foreign countries which we may not have treatment for here in our country” (Post-WC, RB)</p>	<p>Misc. positive remark During WC: n=5 Post-WC: n=3</p>	<p>-“Many peer educators from different organisations were busy distributing condoms” (Post-WC, JB)</p> <p>-“I've seen a lot of changes during the World Cup. I'm in a hurry I can't tell you all. But the truth is I'm very excited” (During WC, JB)</p> <p>-“It was better than the normal days” (Post-WC, CT)</p>

\*Open-ended question asked during the World Cup (During WC) and thereafter (Post-WC); CT Cape Town, multiple responses possible; JB Johannesburg; RB Rustenburg; 1USD = 7.66 South African Rand.

Table 4 Changes in police contact and provision of health services for sex workers during the World Cup study period

Variables	Study period			P-value <sup>#</sup> I vs II	P-value <sup>#</sup> I vs III
	Pre-WC (May-June; n = 601) I	During WC (July-Aug; n = 508) II	Post-WC (Sept; n = 538) III		
Measures of police contact					
Police contact in the last month, n/N (%)					
Any police contact	167/575(29.0%)	144/464(31.0%)	156/509(30.7%)	0.49	0.56
Negative police interaction <sup>#</sup>	101/575(17.6%)	70/464(15.1%)	80/509(15.7%)	0.28	0.42
Positive police interaction <sup>#</sup>	7/575(1.2%)	2/464(0.4%)	5/509(1.0%)	0.17	0.71
Measures of health services contact					
Health services contact in last month, n/N (%)					
Any health services contact	358/574(62.4%)	270/474(57.0%)	300/497(60.4%)	0.075	0.50
Contact for physical and sexual violence*	5/574(0.9%)	2/474(0.4%)	6/497(1.2%)	0.37	0.59
Contact for HIV testing*	30/574(5.2%)	19/474(4.0%)	15/497(3.0%)	0.35	0.072
Contact for any STI testing including HIV*	52/574(9.1%)	34/474(7.2%)	26/497(5.2%)	0.27	0.016
Contact with peer educators*	21/574(3.7%)	5/474(1.1%)	16/497(3.2%)	0.007	0.70

<sup>#</sup> chi-square test; WC World Cup; vs versus. Denominator below 601 due to some incomplete questionnaires; <sup>#</sup> Coded from free-text descriptions that participants provided about police contact in the preceding month; \*Coded from free-text descriptions that participants provided about their most recent health care experience.

In preparing for the World Cup, the then South Africa Minister of Health stated that the health sector priorities were: food safety; anti-smoking legislation; “acute cardiovascular problems resulting from stress and excitement” and disaster management [62]. In this and other documents by government officials, no mention was made of the sex industry, STIs or measures to prevent HIV transmission [63]. Calls were made to the South African government and FIFA before the World Cup to focus on sex work and to make paid sex safer, including appeals to decriminalise sex work, [64] or to implement sex work-specific health interventions in areas of concentrated sex work activity [65,66]. These were disregarded [17,67]. Only after some controversy [68], did FIFA permit the distribution of male condoms inside World Cup stadiums and Fan Parks during matches, which subsequent commentators noted were unavailable or insufficient [69]. The World Health Organization’s “Report on WHO support to the 2010 FIFA World Cup South Africa™” contains no reference to “sexually transmitted infections” or “sex work”, and mentions “condoms” only once in an Appendix [70].

The study has several limitations which restrict the ability to draw inferences about the findings or to generalise them to other settings. The sampling methods used were unable to collect true population-level samples. To obtain more representative samples of this hidden population, future studies should consider employing Respondent-driven sampling (RDS) or weighting of samples [71]. Also, methods of linking participants over different time periods could be used, such as asking women to take a unique identifying number, which they then provide to an interviewer in a

subsequent phase. This study was unable to link sex workers across phases and to thus account for having repeated measures on the participants who enrolled in more than one phase. We believed that collecting identifying information from participants might infringe participant confidentiality and decrease acceptability of the study, particularly at a time of reports of increased police attention to sex work [72]. Also, absence of data from clients limits the ability to draw conclusions about sex work demand. Further, use of only bivariate analyses does not enable us to control adequately for potential confounding factors. Though only self-reported data were collected, the study is strengthened by having used trained peers to conduct interview, which may have reduced the social-desirability bias in respondents’ answers. Qualitative data on World Cup changes were grouped according to themes and are represented as such, but rigorous thematic content analysis was not conducted. Although we selected three cities aiming to obtain data on diverse sex work settings, these findings may not apply to other host cities or sporting events. Research sites were purposively selected, based on the presence of sex worker advocacy groups and peer education work. Findings on the availability of health care services thus may not apply to other cities of South Africa, where sex workers may have had even lower levels of health care access. The semi-rural site may only include data on local sex work clientele as women here might not have had the same access to tourist clients as the urban sites. A further study limitation is that pre-World Cup data were collected one month before the World Cup, and thus changes in sex work supply that might have occurred prior to May 2010 in anticipation of an increase in the demand for sex work, would not have



been captured. Only about 10% of sex workers had entered the trade in the year preceding the event, reassuring the research team that few long-term changes had occurred. Moreover, a longer interval between the baseline assessment and World Cup may have incurred other temporal changes (policy changes occur frequently in the country), also hindering comparison.

## Conclusion

This study found that considerable opportunities were missed to implement targeted STI and education interventions for sex workers and their clients. This oversight should be addressed in future international sporting events. Mass sport events provide health services and advocacy groups with an opportunity to capitalise on increased international scrutiny and resources to provide services for sex workers and other traditionally under-served communities.

### Competing interests

The authors declare that they have no competing interests.

### Authors' contributions

Conceived and designed the study: MR MC SL MT. Administered the study: MR DN. Analysed the data: MR MC SL. Wrote the paper: MR MC SL DN MT. All authors read and approved the final manuscript.

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### 4.3 Sex Work during the 2010 FIFA World Cup: Results from a Three-Wave Cross-Sectional Survey

# Sex Work during the 2010 FIFA World Cup: Results from a Three-Wave Cross-Sectional Survey

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## Abstract

**Background:** In the months leading up to the 2010 FIFA World Cup in South Africa, international media postulated that at least 40,000 foreign sex workers would enter South Africa, and that an increased HIV incidence would follow. To strengthen the evidence base of future HIV prevention and sexual health programmes during international sporting events, we monitored the supply and demand of female sex work in the weeks before, during and after the 2010 FIFA World Cup.

**Methodology/Principal Findings:** We conducted three telephonic surveys of female sex workers advertising online and in local newspapers, in the last week of May, June and July 2010. The overall response rate was 73.4% (718/978). The number of sex workers advertising online was 5.9% higher during the World Cup than before. The client turnover rate did not change significantly during (adjusted rate ratio [aRR] = 1.05; 95%CI: 0.90–1.23) or after (aRR = 1.06; 95%CI: 0.91–1.24) the World Cup. The fraction of non-South African sex workers declined during (adjusted odds ratio [aOR] = 0.50; 95%CI: 0.32–0.79) and after (aOR = 0.56; 95%CI: 0.37–0.86) the World Cup. Relatively more clients were foreign during the World Cup among sex workers advertising in the newspapers (aOR = 2.74; 95%CI: 1.37–5.48) but not among those advertising online (aOR = 1.06; 95%CI: 0.60–1.90). Self-reported condom use was high (99.0%) at baseline, and did not change during (aOR = 1.07; 95% CI: 0.16–7.30) or after (aOR = 1.13; 95% CI: 0.16–8.10) the World Cup.

**Conclusions/Significance:** Our findings do not provide evidence for mass-immigration of foreign sex workers advertising online and in local newspapers, nor a spike in sex work or risk of HIV transmission in this subpopulation of sex workers during the World Cup. Public health programmes focusing on sex work and HIV prevention during international sporting events should be based on evidence, not media-driven sensationalism that further heightens discrimination against sex workers and increases their vulnerability.

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**Competing Interests:** The authors have declared that no competing interests exist.

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## Introduction

In the months leading up to the 2010 FIFA World Cup in South Africa, international media postulated that between 40,000 and 100,000 sex workers from all over the world would enter South Africa, lured by the prospects of close to half a million – many male – football fans [1,2,3]. Many of these fears focused on the intensification of human trafficking. A similar media hype accompanied the 2006 Soccer World Cup in Germany [4,5]. This time, however, the speculation was augmented by fears of an increase in the incidence of HIV [6,7], given that South Africa has amongst the highest prevalence of HIV and other sexually transmitted infections in the world [8,9]. Consequently, numerous national and international gender, health and development agencies invested large sums of money in the provision of free

condoms, HIV information campaigns for visitors and the roll-out of anti-trafficking awareness campaigns.

Yet, with the exception of a single debate in the travel medicine literature [10,11], there has been no research published on the relationship between sex work, big sporting events, and the need for intensified HIV prevention during such events. In light of this research gap, and to strengthen the evidence base for future planning, the United Nations Population Fund (UNFPA) commissioned two studies to monitor the supply and demand of female sex work in the weeks before, during and after the 2010 Soccer World Cup. The first is a mixed-methods study focusing on street-and brothel-based female, male and transgender sex workers in three host cities, and the second is a telephonic survey among female sex workers advertising online and in local newspapers. Here, we report the findings of the latter study.

## Methods

### Design and study participants

We conducted a three-wave telephonic survey of female sex workers in the last weeks of May (pre-World Cup), June (during the World Cup) and July (post-World Cup) 2010. A sampling frame was constructed, by listing all sex worker profiles published on [www.sextrader.co.za](http://www.sextrader.co.za), a website with national coverage containing over 1000 profiles of sex workers. Additionally, we listed sex worker profiles published in the adult section of the Classifieds in local newspapers in the greater Johannesburg, Durban and Cape Town areas through the website [www.iol.co.za](http://www.iol.co.za). In each wave, after discarding duplicate profiles, random number tables were used to select sex workers, who were then telephonically contacted until at least 220 respondents had agreed to participate in the study. Each phone call was preceded by an SMS to the sex worker explaining the purpose of the study, and that making it clear participation was entirely anonymous and voluntary. In the telephone call, as a preamble to the invitation to participate, the research assistants explained the purpose of the study again, and emphasised its voluntary and anonymous nature. Exclusion criteria were: insufficient English language skills to understand or answer the questions, or being a male or transsexual sex worker. Eligible sex workers were asked to provide oral informed consent to survey participation. A cell phone airtime voucher of 25 ZAR (3,5 US\$) was offered to participants, to compensate for their time spent on the interview. Responses were recorded using Epi Info 3.5.1. [12]. Participants were asked about their age; their country of origin; their current geographical work area; the number of clients in the past seven days; the country of origin of their last client; and whether a condom was used with their last client. Ethical approval for this study, including the verbal informed consent procedure, was granted by the ethics committees at Ghent University (B67020108182) and Stellenbosch University (N10/03/074).

### Statistical analysis

In the initial, descriptive data analysis, unadjusted binomial fractions, rates and means were computed, as well as surrounding exact confidence intervals, based on the Clopper-Pearson method, the chi-square distribution and the Student's *t* distribution respectively [13,14,15]. As some sex workers participated in more than one wave of the survey, we used generalized estimating equations (GEE) to test null hypotheses of no temporal changes in the weekly client turnover rate (log link function), the fractions of non-South African sex workers, and non-South African clients (logit link functions), the average age of sex workers (identity link function) and the fraction of condom-protected last sex acts with clients (logit link function) [16]. The GEE regression models took into account the effect of advertising platform (online versus newspaper) if this effect was statistically significant. All analyses were performed using the statistical package R version 2.9.0. [17].

## Results

Two weeks before the World Cup kick-off, [www.sextrader.co.za](http://www.sextrader.co.za) listed 1098 unique profiles of female sex workers, and a total of 270 sex workers were advertising in three leading newspapers in Johannesburg, Durban and Cape Town. By the end of June, the number of unique profiles on the sextrader website had increased by 5.9% to 1163 and at the end of July, 1271 sex workers were advertising via this website, a further increase of 9.3%. Due to changes in the structure of the [www.iol.co.za](http://www.iol.co.za) website, we were unable to monitor the number of advertisements published in the three major newspapers from Johannesburg, Durban and Cape Town.

Of 1053 sex workers contacted, 978 were eligible as 75 were excluded due to insufficient English language skills (58), or gender criteria (16 male and 1 transgender). In 260 cases, either the sex worker (239) or the receptionist/manager answering the phone (21) did not want to participate in the study, hence the overall response rate of the survey was 73.4% (718/978). Forty-seven sex workers participated in two waves of the survey while another four participated in all waves of the survey, resulting in a total sample of 663. Half of the participants (330/663) were from Johannesburg or Pretoria, while Durban (170/663) and Cape Town (163/663) each represented about a quarter of the surveyed sex workers.

At baseline, the weekly client turnover rate was 14.3 (95% CI: 13.6–15.1) for sex workers advertising in the newspapers and 11.0 (95% CI: 10.4–11.7) for sex workers advertising through the sextrader website. During the World Cup, these rates shifted slightly, to 14.6 (95% CI: 13.9–15.4) and 12.3 (95% CI: 11.7–13.0) respectively. Two weeks after the end of the event, the respective client turnover rates were 14.3 (95% CI: 13.6–14.9) and 12.6 (95% CI: 12.0–13.3). Figure 1 shows the distribution of clients in the last week for each of the waves of the survey.

The GEE Poisson regression model suggested no significant change in the client turnover rate during (adjusted rate ratio [aRR] = 1.05; 95% confidence interval: 0.90–1.23; *P* = 0.52) or after (aRR = 1.06; 95% confidence interval: 0.91–1.24; *P* = 0.47) the World Cup. Compared to sex workers advertising in the newspapers, those who advertised through sextrader had fewer clients per week (aRR = 0.83; 95% CI: 0.73–0.94; *P* = 0.003).

A relative decline of more than 40% in the fraction of non-South African sex workers was observed between the end of May and the end of June for both advertising platforms (Cf. Figure 2A). GEE logistic regression showed that the decline during and after versus before the tournament was significant (adjusted odds ratio [aOR] = 0.50; 95%CI: 0.32–0.79; *P* = 0.003) and aOR = 0.56; 95%CI: 0.37–0.86; *P* = 0.008 respectively), and that non-South African origin was associated with advertising on sextrader (aOR = 1.93; 95%CI: 1.31–2.84; *P*,0.001).

At baseline and after the World Cup, the fraction of non-South African clients was twice as high for sex workers advertising on sextrader compared to their counterparts who used newspaper advertising. Halfway the World Cup month, however, sex workers from both advertising platforms reported similar frequencies of non-South African origin of clients (Cf. Figure 2B). According to the regression model, the fraction of non-South African clients of sex workers advertising on sextrader did not change significantly during (aOR = 1.06; 95%CI: 0.60–1.90; *P* = 0.83) and after (aOR = 1.81; 95%CI: 0.99–3.30; *P* = 0.055) the World Cup, while among sex workers advertising in the newspapers, the relative increase in foreign clients during the World Cup was significant (aOR = 2.74; 95%CI: 1.37–5.48; *P* = 0.004).

The average age of sex workers decreased slightly from 28.6 years at baseline to 26.9 years during and after the World Cup (Cf. Figure 2C). In the unadjusted GEE model (the effect of advertising platform was not significant [*P* = 0.13]), this decrease was significant (*P*,0.01). In 2.5% of the interviews (18/718), the sex worker reported that no intercourse had taken place with her last client, and in another 14 cases, the sex worker terminated the interview before the question about condom use was asked. In six interviews, the respondent admitted not having used a condom. Four of these events were reported by respondents advertising on sextrader, but the unprotected sex acts were evenly spread over the three waves of the survey (2/210 at wave 1, 2/230 at wave 2 and 2/246 at wave 3), resulting in non-significant temporal changes in the GEE model for condom use during (aOR = 1.07; 95% CI: 0.16–7.30; *P* = 0.95) or after (aOR = 1.13; 95% CI: 0.16–8.10; *P* = 0.90) the World Cup.

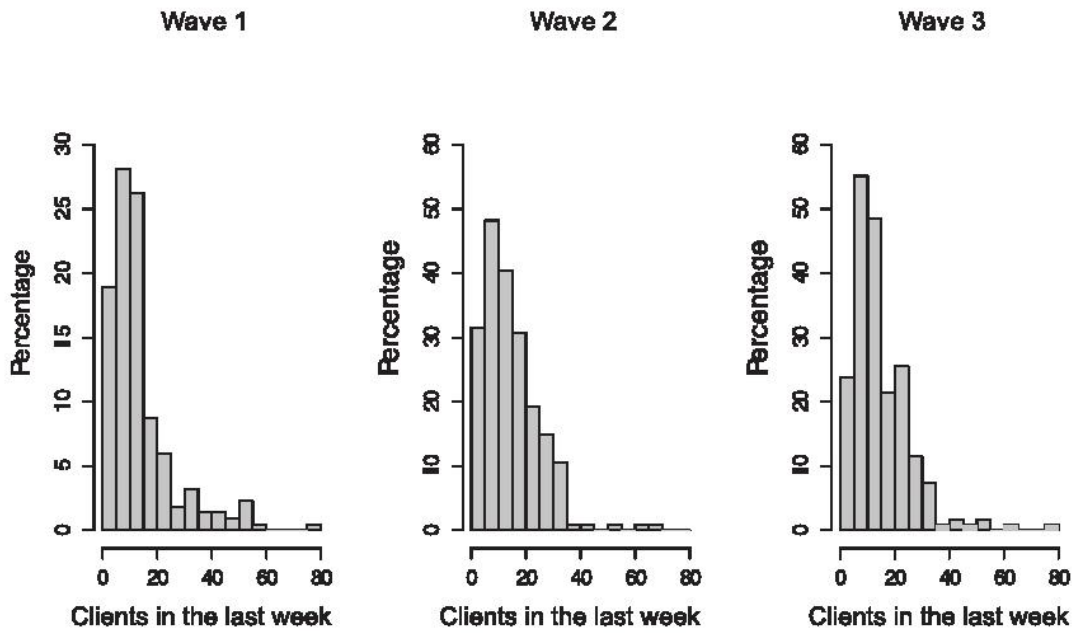


Figure 1. Distribution of clients in the last week before, during and after the 2010 FIFA World Cup.  
doi:10.1371/journal.pone.0028363.g001

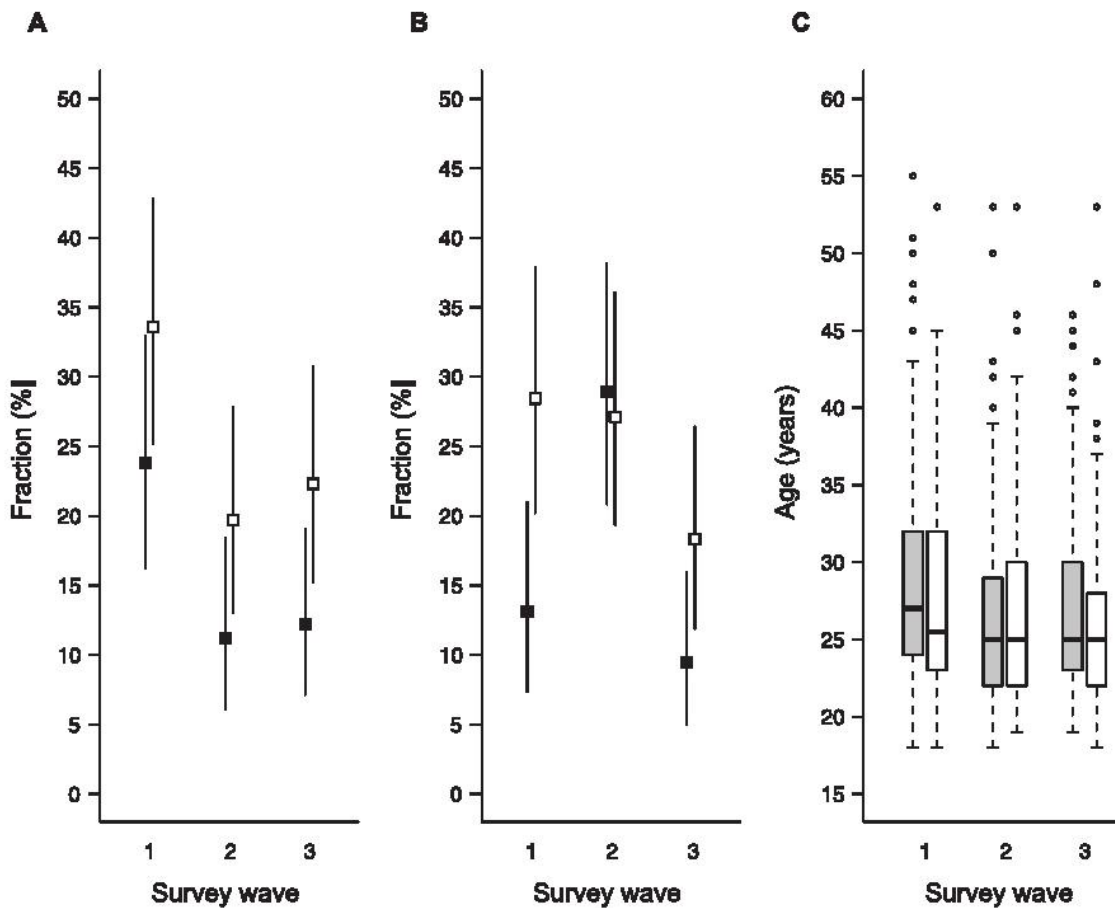


Figure 2. A. Fraction of non-South African sex workers, with 95% confidence intervals; B. Fraction of non-South African clients, with 95% confidence intervals; C. Box-and-whiskers plot of the age of sex workers. Black squares and gray boxes indicate sex workers advertising in the newspapers, white squares and white boxes indicate sex workers advertising on the sex trader website. doi:10.1371/journal.pone.0028363.g002



## Discussion

Our survey revealed a small increase in the number of sex workers advertising online during (+5.9%) and shortly after (+9.3%) the FIFA World Cup. As these changes fall well within the normal variability in the number of sex work profiles that are published on the website, our findings do not provide evidence for the massive increase in supply of sex work around the World Cup predicted by the media. Neither do the data support the widely disseminated hypothesis that thousands of foreign women and children entered South Africa – be it voluntarily or forced – to meet the increased demand in paid sex. The average age of sex workers was 1.7 years lower during the World Cup, a relatively small decrease with little or no public health or legal implications. Further, a decrease rather than an increase in the percentage of non-South African sex workers was observed in the mid-World Cup wave of the survey. During the 2006 FIFA World Cup, there was anxiety over suggestions that 40,000 women and children would be trafficked into Germany [4]. Subsequent reports found five possible cases of trafficking [18]. Similarly, South Africa feared up to 100,000 trafficking victims for 2010, but statistics recently released by the South African government included not one case of human trafficking during that World Cup [19]. The client turnover rate in our survey did not change significantly during or after the World Cup, yet the fraction of foreign clients doubled during the event among sex workers advertising in the newspaper. This may mean that a part of the local clientele of this subgroup of sex workers was temporarily replaced by foreign clients.

Besides well-known validity constraints related to self-reported outcomes, especially sexual behaviour, the main limitation of our study concerns the generalisability of the findings, given that the sampling frame only included sex workers advertising online and in newspapers. We believe that many of the respondents were brothel-based sex workers, as the telephone calls were often answered by receptionists or managers of brothels, and 48 telephone numbers were shared by a total of 115 sex workers. However, the fraction of brothels advertising online and in newspapers is unknown. Street-based sex workers are most likely

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underrepresented in our survey. The mixed-methods study that ran parallel to the telephonic survey, was targeted at street- and brothel-based sex workers in three World Cup host cities and complements our survey. The paper-based repeated cross-sectional survey component included face-to-face questionnaires with 1647 self-identified female sex workers. This survey found no significant changes in the demand or supply of paid sex with sex workers during the World Cup period, nor did it find significant changes in their sexual behaviour [20,21].

As reported condom use was nearly universal throughout the study in both newspaper and online advertising sex workers, we estimate it unlikely that the slight increase in sex work during the World Cup has resulted in a considerable acceleration in transmission of HIV and other sexually transmitted infections in this subpopulation of sex workers. While the distribution of condoms and messages about safer sex might have contributed towards this success, future public health programmes focusing on sex work and HIV prevention during international sporting events such as the 2012 Olympic Games in London and the 2014 FIFA World Cup in Brazil should be based on evidence, not media-driven sensationalism that further heightens discrimination and vulnerability of sex workers.

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## Author Contributions

Conceived and designed the experiments: WD MR MC MT. Performed the experiments: WD PDK. Analyzed the data: WD. Contributed reagents/materials/analysis tools: WD. Wrote the paper: WD MR PDK MC MT.



## Chapter 5: Policy implications

This chapter will analyse the impact of the South African criminal legal framework on sex work and document its public health and human rights implications within the context of the 2010 Soccer World Cup.

It includes the following articles:

M. Richter, Chersich MF, Scorgie F, Luchters S, Temmerman M, Steen R (2010) "Sex work and the 2010 FIFA World Cup: time for public health imperatives to prevail" *Globalization and Health* 6:1 [2011 Impact Factor: 2.65], Type of publication: A1

M. Richter & D. Massawe (2010) "Did South Africa's soccer bonanza bring relief to sex workers in South Africa? The 2010 FIFA World Cup and the impact on sex work" *Agenda* No.50, 105-115. [no impact factor], Type of publication: A3

### 5.1 Sex work and the 2010 FIFA World Cup: time for public health imperatives to prevail

DEBATE

Open Access

# Sex work and the 2010 FIFA World Cup: time for public health imperatives to prevail

Marlise L Richter<sup>1,2\*</sup>, Matthew F Chersich<sup>1,3</sup>, Fiona Scorgie<sup>4</sup>, Stanley Luchters<sup>1</sup>, Marleen Temmerman<sup>1</sup>, Richard Steen<sup>5</sup>

## Abstract

**Background:** Sex work is receiving increased attention in southern Africa. In the context of South Africa's intense preparation for hosting the 2010 FIFA World Cup, anxiety over HIV transmission in the context of sex work has sparked debate on the most appropriate legal response to this industry.

**Discussion:** Drawing on existing literature, the authors highlight the increased vulnerability of sex workers in the context of the HIV pandemic in southern Africa. They argue that laws that criminalise sex work not only compound sex workers' individual risk for HIV, but also compromise broader public health goals. International sporting events are thought to increase demand for paid sex and, particularly in countries with hyper-endemic HIV such as South Africa, likely to foster increased HIV transmission through unprotected sex.

**Summary:** The 2010 FIFA World Cup presents a strategic opportunity for South Africa to respond to the challenges that the sex industry poses in a strategic and rights-based manner. Public health goals and growing evidence on HIV prevention suggest that sex work is best approached in a context where it is decriminalised and where sex workers are empowered. In short, the authors argue for a moratorium on the enforcement of laws that persecute and victimise sex workers during the World Cup period.

## Background

Although a subject not usually broached by mainstream media or politicians, sex work has recently received increased attention in southern Africa. A Swaziland senator sparked public debate by suggesting sex work be legalised [1]. In Malawi, human rights non-governmental organisations (NGOs) are taking up a case against the police after they arrested 14 sex workers, forcibly tested them for HIV and reported their HIV results in the media [2]. The women were fined 1000 Malawian Kwacha for trading in sex while having a sexually transmitted infection (STI). In the build-up to the FIFA 2010 World Cup in South Africa, alongside concerns about crime and the coaching of the South African football team, there has been consternation over an anticipated increase in demand for paid sex during the tournament [3,4]. Some have called for the temporary legalisation of sex work, while others have advocated a forceful crack-down on sex workers, involving mandatory HIV testing

and sex worker registration with a regulatory authority [3- 7].

Sex work is currently a criminal offence in most southern African countries [8] - as indeed it is in most of the world. Few health professionals have openly questioned whether criminalisation of sex work is a sound public health notion. These questions are particularly pertinent in southern Africa, a region with hyper-endemic HIV [9]. Rather than directly challenging legal frameworks, some health workers have sought to provide HIV prevention services for sex workers. This indirect approach has been encouraged by international funding agencies such as the US Presidential Emergency Plan for AIDS Relief (PEPFAR), which make funding conditional on a pledge by recipient organisations that they will not advocate for the legalisation of sex work [10- 12]. Given the legal and funding impediments to the work of NGOs and the lack of government support for these initiatives, health care programmes have only managed scattered and broadly ineffective attempts at preventing HIV in sex workers in southern Africa, their clients and by extension, the general population [13,14].

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## Discussion

### The laws of demand and supply

Sex work will not go away. A narrow market perspective suggests that demand for paid sex will be met by supply

This may be especially true of settings with marked economic and gender inequities, as research by the International Labour Organisation indicates: "poverty has never prevented men from frequenting prostitutes, whose fees are geared to the purchasing power of their customers"

Sociologists, economists and psychologists have argued for recognition of a number of factors that render the demand-supply approach to sex work more complex. These factors include: the social construction of sexuality; (female) bodies being available for (male) consumption; the existence of viable alternative employment opportunities for sex workers; the social stigma that attaches to sex work; and the role of global consumerism [17].

Sex work is not regarded as the oldest profession for nothing and demand will almost certainly grow with increased globalisation [6], regardless of the legal framework a country adopts. Among other things, demand is driven by the expansion of cultural conceptions of sex as a commodity, the increased movement of people and capital, and the rapid expansion of Information and Communication Technology [6].

### Sex worker vulnerability to HIV

Much of the vulnerability of sex workers to HIV in southern Africa stems directly from the criminalisation of their work and the patriarchal context in which they operate.

### Limited access to services

Sex workers are often marginalised and face multiple barriers to accessing the health and social services they need: STI screening and treatment, HIV testing and tailored counselling, post-exposure prophylaxis after rape, access to male and female condoms, antiretroviral treatment, as well as mental health support and substance abuse treatment [18]. Health care workers with negative or prejudiced attitudes towards sex workers further restrict access to services [19- 21] and drive sex workers away from treatment and support.

### Sexual and gender-based violence

Sex workers commonly experience violence [22,23]. Criminalisation prevents sex workers from reporting abuse to the police or from seeking legal recourse after rape or sexual assault, which in turn serves to strengthen clients' power and dominance over them. Police harassment of sex workers is well-documented, and can take the form of assault, unlawful arrests, rape, extortion, and demands for sex or money as bribes [24- 29].

### Unsafe work conditions

The illegal nature of their work means that sex workers operate in risky and often crime-laden areas [30]. Such

spaces are inherently dangerous, diminishing the likelihood that services and support structures for vulnerable populations will be established [31- 33]. Their illegal position makes it near-impossible for sex workers to mobilise and form trade unions to effect collective change to their material conditions.

### Difficulties with negotiating safer sex

Sex workers often report that it is difficult to persuade clients to use condoms and that they fear a violent reaction if they insist on condom use [24,34,35]. Some clients pay more for sex without a condom [24] or threaten to hire other sex workers who do not expect condom use [36]. With intense competition for clients weakening the bargaining power of individual workers, these factors all too often culminate in unsafe sex.

### Stigma

Sex work is highly stigmatised in southern Africa - as it is elsewhere - and discrimination, violence and abuse against sex workers are often publicly condoned [28]. Health care and HIV programmes that focus solely on sex workers and overlook the role of clients, reinforce stigmatising discourses that sex workers are "vectors of the epidemic" and that safer sex should be the sole responsibility of sex workers themselves [37,38].

Not surprisingly, in the current stigmatising milieu of criminalisation, health interventions have had a limited effect on the lives of sex workers and, indeed, on the HIV epidemic. In contrast to the successful use of legal mechanisms to control public health hazards like tobacco, for example, few attempts have been made to use similar tactics to mitigate the HIV epidemic where it relates to sex work. This is surely a missed opportunity: history tells us that sensibly applied, legislative pro-cesses can be a most powerful public health ally. Equally, harmful laws may obstruct and hinder public health. From the onset of the HIV epidemic, wherever marginalised groups have been criminalized and stigmatised, be they men who have sex with men, intravenous drug users or people with HIV, these groups have been driven underground, away from essential health and social services, and towards HIV risk [19,39]. The same holds true for sex work, as illustrated by Table 1, which details the potential effects of decriminalisation on sex worker vulnerabilities, taking into account the current context in South Africa. The table summarises our main argument, namely, that where the control of criminal law and sexual moralism over sex work diminishes, so the reach of health, social and legal services to this population expands and positive public health benefits follow.

### International sporting events and sex work

International sporting events are increasing in frequency and magnitude. It is estimated that the FIFA World Cup

**Table 1 Vulnerabilities of sex workers due to criminalisation: a situation analysis of South Africa and potential effects of decriminalisation**

Vulnerabilities	Current situation in South Africa	Potential effects of decriminalisation and provision of public-sector services for HIV prevention in sex work settings
Restricted access to health services	<p>Lack of specialized services targeting sex workers</p> <p>Scanty and ineffective public and donor funding for HIV prevention in sex work settings</p> <p>Condom availability in general primary health clinics, but limited promotion of condoms in sex work settings</p> <p>Syndromic treatment of symptoms within general STI services</p> <p>Limited access to health information and family planning counselling.</p> <p>High rates of unintended pregnancy, increasing number of dependents</p>	<p>Formal sex worker clinics and outreach, with active follow-up services</p> <p>Public funding for HIV prevention in sex work settings, and government-led coordination of services</p> <p>Targeted condom promotion and provision in sex work settings</p> <p>Targeted STI control programmes with STI screening at pre-specified intervals, periodic presumptive treatment and syndromic management</p> <p>Planned health promotion activities, with information provision, family planning counselling and contraceptive services</p>
Restricted access to legal protection	Laws against gender-based violence are seldom enforced and police do not act on sex worker complaints	Sex workers have legal recourse to redress violence Enhanced ability of police to improve the safety of sex work settings
Unsafe work conditions	<p>Unsafe venues</p> <p>Obtaining clients and negotiation often occurs in alcohol settings</p> <p>Difficulties in negotiating safe sex</p>	<p>Enhanced ability to secure and control sex work settings</p> <p>Alcohol and paid sex can be delinked</p> <p>More empowered sex workers enables condom negotiation and client refusal</p>
Stigma	Judgemental health care workers	Specialized health care workers, trained in sensitive provision of services
Economic Vulnerabilities	Despite the threat of fines or imprisonment, women enter sex work in response to demand for paid sex and pressures of providing for dependents, as they have few alternatives	No evidence that decriminalisation will increase supply of sex workers or demand for sex work

will bring 450 000 visitors to South Africa in 2010 [40] - the country with the highest number of people with HIV in the world [9]. Surprisingly little research has been conducted into the demand and supply of paid sex during big sporting events [41], and where the topic has been explored, the focus tends to fall on human trafficking for the purposes of sexual exploitation rather than on adult, consensual sex work. A recent report setting out recommendations for the 2010 Winter Olympics to be held in Vancouver, Canada, reviewed the available data and found that "[t]he commonly held notion of a link between mega sports events, TIP (Trafficking in Persons) and sex work is an unsubstantiated assumption." [41]. As evidenced by the media hype over trafficking in Germany during the 2006 World Cup [41,42], however, the sensationalism associated with human trafficking often dwarfs the more mundane, everyday concerns of consensual, adult sex work - demand for which tends to increase in host countries during big sporting events.

While there appears to be little evidence of increased trafficking during big sporting events, it is anticipated in South Africa that a number of tourists will combine soccer and tourist attractions with paid sex. We should not be surprised, therefore, when countries begin to warn their citizens travelling for the World Cup that sex in

South Africa equates HIV. The press in England has already done so [5,43], while the Netherlands' State Secretary for Health, Welfare and Sport has warned Dutch football fans to bring their own condoms to South Africa as there may be a shortage during the World Cup [44]. Reducing transmission of HIV during this period, and the concerns of tourists and foreign governments around this, should thus be a priority for the tournament organisers. Our view is that reducing HIV transmission during this period would be best achieved in an environment where sex work is decriminalised. A pragmatic and human rights-based approach drawing on sound public health principles - not criminal and punitive sanction - is appropriate and timely.

**Decriminalisation and the 2010 FIFA World Cup**  
 Many international bodies have already recognised the value of decriminalisation[45,46]. This approach has been supported by policy makers, legislators and scientific researchers alike [21,47,48]. Countries like Senegal, the Netherlands, Belgium, Australia and New Zealand have moved away from total criminalisation of sex work (see Figure 1). Yet, only New Zealand has explicitly decriminalised sex work, choosing instead to adopt a human rights and public health framework. The New Zealand Prostitution Reform Act was passed in 2003 and the effects of legislative change measured five years

later. Contrary to public fears, no increase was found in the number of people entering sex work during this period [49,50]. Sex workers reported improved working conditions and wellbeing, feeling safer under the new legal framework, and being able to negotiate safer sex and report abuse to police [49].

Importantly, South Africa's HIV & AIDS and STI Strategic Plan (2007-2011) [51] recognises that several higher-risk groups, such as sex workers and drug users, face barriers to accessing HIV prevention and treatment services, and explicitly recommends the decriminalisation of sex work. And for almost a decade, the country has been reviewing its sexual offences legislation and considering reform of sex work laws [52,53]. It would have been prudent for these processes to have been concluded before the 2010 World Cup, but the South African Law Reform Commission will reportedly only release its recommendations on law reform and sex work in 2011 [54]. South Africa has missed an important opportunity: Germany, by contrast, proactively reformed its laws on sex work in 2002 - four years before hosting the FIFA World Cup.

Sporting events provide an opportunity to create a long-term legacy. In South Africa, for example, this will

be improved road infrastructure and public transport. The groundswell of South African support for the World Cup likely has made the public more accepting of social change and the considerable short-term inconvenience caused by these legacy projects. It is still not too late to utilise the political capital afforded by the World Cup to galvanise policy processes that will approach sex work pragmatically and place public health benefits above ideological interests.

Given the limited time before kick-off, in lieu of decriminalisation we recommend a Parliamentary-sanctioned moratorium on the enforcement of laws that persecute and victimise sex workers during the World Cup period. This should be accompanied by initiatives that empower and support sex workers to insist on safer sex, such as the formation of collectives to assist sex workers in protecting themselves and their clients. Strong public health messages on safer sex, directed at the general population and incoming tourists in particular, should underlie these initiatives. This strategy would draw on lessons learnt during the Germany FIFA World Cup in 2006: distribution of free male and female condoms, and raising awareness on safer sex and sex worker rights during World Cup games are critical [55]. A moratorium

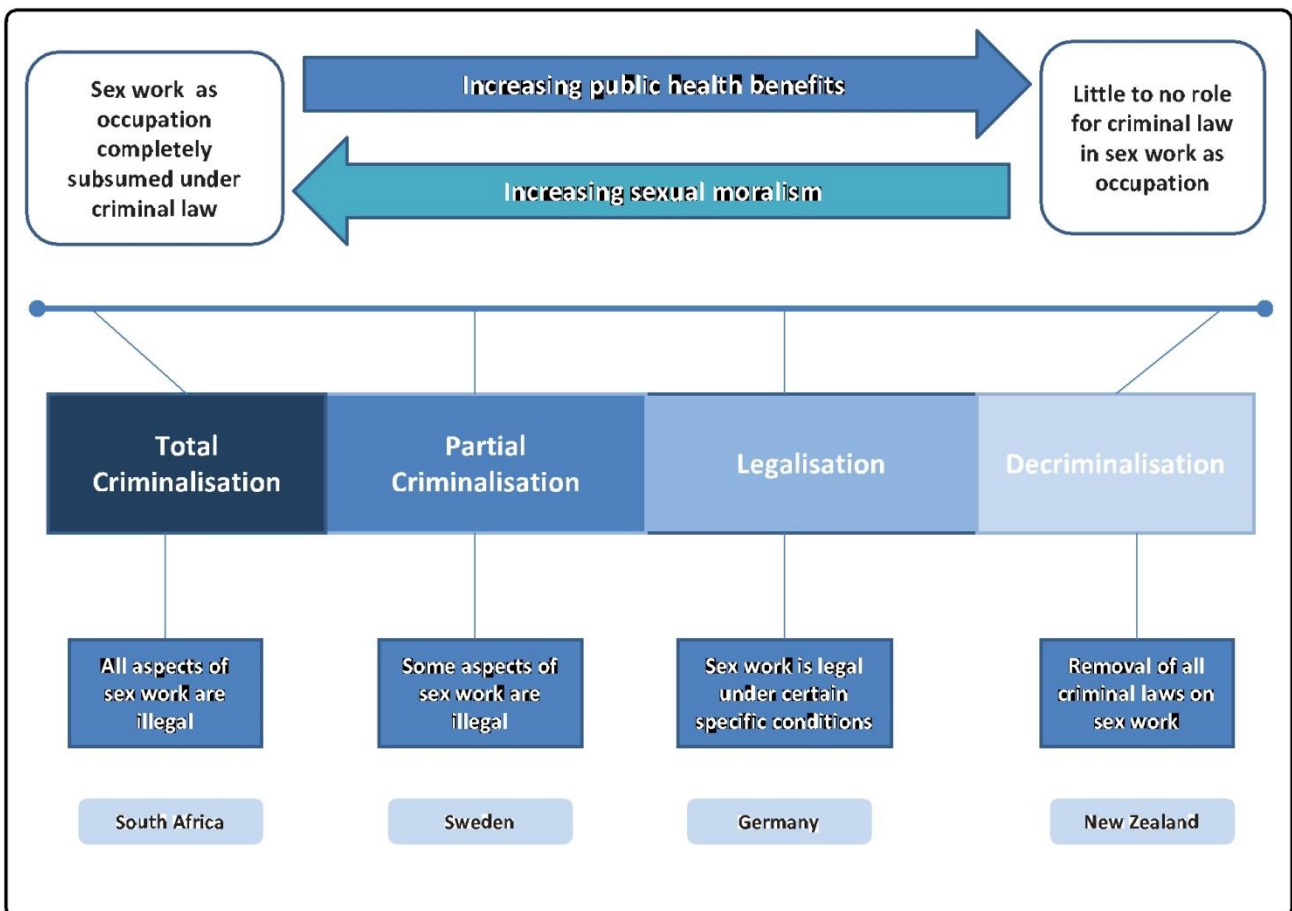


Figure 1 Sex work and the role of criminal law. As the role of criminal law diminishes in the control of sex work, so the public health benefits increase.

on enforcing sex work laws and an implementation of sex work-specific programmes during the World Cup would provide important lessons that could inform long-term legal strategies around sex work, HIV and human rights in South Africa.

Following the World Cup, pressure should be increased on the South African Law Reform Commission to recommend full decriminalisation of sex work in South African law. These recommendations were echoed at a recent intersectoral consultation on sex work and the FIFA World Cup, held in Cape Town and attended by government, sex worker organisations, human rights advocates and public health researchers, during which various approaches to the World Cup were considered and a subsequent plan of action drafted [56].

## Conclusion

Decriminalising sex work is at odds with the sensibilities of many political and religious leaders and often raises their indignation and ire. Yet watching a population being decimated by HIV should evoke similar responses and elicit strong action based on evidence. We hope the post-Mbeki administration will attribute more weight to public health goods than an ideology based on sexual moralism - an ideology which, time and again, has been proven ineffective in preventing HIV in South Africa and beyond. Public discourses lamenting the "immorality" of sex work should be substituted for action that prioritises public health measures and legal frameworks which secure the long-term health of South Africans.

In conclusion, the FIFA World Cup presents a strategic opportunity for South Africa to respond to challenges posed by the sex industry in a strategic and rights-based way. Public health goals and available evidence suggest that sex work is best approached in a context where it is decriminalised and where sex workers are empowered, not victimised or persecuted (Table 1). Attention to improving sex worker access to the health and social services they need to prevent infection will do more to prevent HIV transmission than misguided attempts to legislate sex work out of existence. A sensible South African response to sex work in the context of a global celebration of soccer could inspire long-term progressive changes to its legal framework and encourage the rest of southern Africa to follow suit.

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## Authors' contributions

MR presented some of the initial ideas on legal frameworks and sex work at an Inter-Agency Consultation on HIV prevention in the context of Sex Work, hosted by the United Nations Population Fund (5-7 October 2009, Esibayeni lodge, Manzini, Swaziland). MC conceived of this article and engaged MR, FS, SL, RS and MT in dialogue and correspondence on the ideas. MR outlined the article in point format and MC and FS contributed feedback and substantive intellectual input in developing the argument. MR and MC then drafted the manuscript and received input from FS, SL, RS and MT. All authors edited and proofread the final manuscript.

## Author information

Fiona Scorgie and Richard Steen are independent consultants.

## Competing interests

The authors declare that they have no competing interests.

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5.2 Did South Africa's soccer bonanza bring relief to sex workers in South Africa? The 2010 FIFA World Cup and the impact on sex work



# Did South Africa's soccer bonanza bring relief to sex workers in South Africa? The 2010 FIFA World Cup and the impact on sex work<sup>1</sup>

Marlise Richter and Dianne Massawe

## abstract

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Sex workers are an exceptionally vulnerable group in South Africa. Ongoing criminalisation of the sex work industry fuels the AIDS epidemic by precluding effective prevention and education strategies, and infringes human rights. The 19th FIFA World Cup was held in South Africa in June – July 2010 and was expected to attract 450 000 or more visitors. Intense attention was focused on HIV transmission and public health in a country that has the highest number of people with HIV/AIDS in the world. The soccer bonanza offered a rich opportunity for advocacy and education. Members of civil society and the South African National AIDS Council (SANAC) engaged government, FIFA organisers and the media on strategies to ensure the safety and rights of sex workers and international tourists. A number of practical strategies were drafted in a broad-based forum and submitted to these governing bodies. Yet very few – if any – of these strategies were implemented by the South African government or the FIFA Local Organising Committee. This *Reportback* will describe the advocacy initiatives undertaken by SANAC and sex worker organisations in the run-up and duration of the World Cup and the lessons learnt about the impact of an international event on already-marginalised groups.<sup>2</sup>

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## keywords

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Sex work, prostitution, soccer, World Cup, human rights, HIV

### Introduction

*This World Cup is just a World Cup for other people. Not for us sex workers* (Female sex worker, Focus Group Discussion, Hillbrow (June 2010).

South Africa's hosting of the 2010 Soccer World Cup has generally been lauded as a great success

(FIFA, 2010; W Johwa, 13 July 2010, *Business Day*, "World Cup was a success – Zuma"). Popular opinion has emphasised the good will, nation-building and the legacy that this international event has generated (Editor, 11 July 2010, *TimesLive*, "World Cup success shows that SA can tackle its challenges"). South Africa should be proud of itself in many ways

Yet, a much marginalised population had been overlooked despite civil society attempts to bring it into mainstream concern. Sex workers have borne the brunt of city “clean-up” drives (Sapa, 18 May 2010, TimesLive, “SA removes the poor and prostitutes from streets”), increased violence and unsuitable public health campaigns, while falling victim to government-created “Vice Squads” (City of Cape Town, 2009). The World Cup has left many sex workers in a weaker position than before, and resulted in the popular misconception that sex work and human trafficking are the same phenomenon (Gould and Richter, 2010). The conflation of sex work and trafficking often occurs in popular consciousness, but should be guarded against. Sex work relates to the sale of sex for financial reward, and is a job or a livelihood strategy for a large number of women in South Africa. The vast majority of sex workers choose

**Research has shown how poorly conceptualised and implemented counter-trafficking campaigns have violated sex worker rights**

to take on sex work, albeit that this choice is constrained in many instances. Just as no person wants to be sold into slavery, so no person would choose to be trafficked. Trafficking is a gross violation of human rights and involves elements of force, deception, movement and exploitation.<sup>3</sup> Conflating sex work and trafficking denies the agency of sex workers and often casts sex workers as poor victims who require saving. Research has shown how poorly conceptualised and implemented counter-trafficking campaigns have violated sex worker rights (Busza, 2004; Butcher, 2003; VAMP Collective and SANGRAM, 2008).

The majority of sex workers globally are female (UNAIDS, 2002), and the little research available in South Africa reflects that sex work is highly gendered here (Gould and Fick, 2008). Feminists and gender activists vigorously debate the most appropriate feminist responses to sex work – should sex workers

be treated as “prostituted women” who have fallen victim to a patriarchal and heteronormative system; or are they rational adults who exercise choices about their lives, engage in legitimate work and render a service (see Spector, 2006; Jackson and Scott, 1996; Ssewakiryanga, 2002)? The authors of this Reportback regard themselves as African, sex-positive feminists who hold the latter view. This Reportback is written from the perspectives that the current moralising and patronising attitudes towards sex work collude with a brutal criminal legal framework to place sex workers in a particularly vulnerable position. Further, the authors saw the World Cup as an opportunity to highlight that sex workers require “Rights, not Rescue”.<sup>4</sup>

South Africa’s growing anticipation and anxiety to host the World Cup had been closely tied to a preoccupation with sex work, and was often conflated with trafficking (see the article by Chandre Gould in this edition). Fears about the spread of HIV often formed the backdrop to this fixation, while mounting anxiety was expressed about violations of South African women and children by tourists (Skinner, 2010).

**Civil Society responses**

In light of the concerns about HIV, the South African National AIDS Council (SANAC)<sup>5</sup> Women’s Sector raised the World Cup and sex work as an important issue that SANAC had to tackle. In August 2009, the Women’s Sector led the establishment of an “Intersectoral Working Group on Sex Work” to canvass the issue of decriminalisation of sex work and the preparations for the 2010 Soccer World Cup within SANAC. In addition, an electronic reference group consisting of international and South African-based researchers, health practitioners, lawyers, sex workers and advocates was established to advise the Working Group on sex work, public health and human rights in view of the World Cup.

In November 2009, with support from the United Nations Population Fund (UNFPA), SANAC

and the Sex Worker Education and Advocacy Taskforce (SWEAT) hosted a consultation on sex work and the World Cup ('the Consultation'). Fifty delegates representing sex worker organisations, human rights advocates, public health researchers, government and the media attended (Richter and Massawe, 2009). The aim of the Consultation was to draw upon good practice models and the experience of those who had held major sports events in Africa and other parts of the world, and learn from how they address sex worker concerns.

Consultation delegates noted the anxiety about sex work, HIV and the increase in international tourists to South Africa during the World Cup period and discussed the dangers that attach to the conflation of sex work and trafficking, and other common misconceptions. The theme for the consultation was 'Human Rights, Public Health, Soccer and Beyond'. International guest speakers from New Zealand, Ghana and Germany provided expert input on pragmatic strategies on sex work, the law and large sporting events. Sex worker delegates drew attention to the on-going abuse of human rights in the context of the criminalisation in South Africa, and were apprehensive that harassment of sex workers would increase before and during the World Cup period.

The Consultation forged a number of strategies that could address fears surrounding the World Cup, and have a long-term impact on sex worker rights in South Africa (see Box 1).

### **Implementation of the November Consultation Recommendations – or not**

After the Consultation, the recommendations were disseminated throughout SANAC and the media. The Women's Sector and the Intersectoral Working Group worked closely with the SANAC Sports & Entertainment Sector (SES) to engage FIFA on its recommendations. When there was little response to the Consultation recommendations, letters were sent in March 2010 to Deputy President Kgalema Motlanthe, SANAC Deputy-chairperson Mr Mark Heywood and SANAC CEO, Dr Nono Simelela, to urge them to act. These leaders were urged to support the call for a moratorium on sex work-related arrests during the World Cup period, adopt the recommendations of the Consultation as well as deal with the outstanding issues within SANAC on sex workers in relation to the National Strategic Plan 2007-2011 (the NSP). Sadly, no response was received nor any action taken.

What follows is a brief description of specific

#### Recommendations drafted by the "Consultation on HIV/AIDS, sex work and the 2010 Soccer World Cup – human rights, public health, soccer and beyond" Cape Town, 26 - 27 November 2009

- Implement Human Rights training and public health messaging in the context of sex
- Lobby government and FIFA on calling a moratorium on sex worker arrests during the World Cup period
- Monitor sex worker abuse and recourse during the World Cup period
- Create a sex worker Hotline
- Continue the pressure on South African Law Reform Commission to decriminalise sex work
- Conduct rigorous research on the impact of the World Cup on sex workers

*Box 1: Recommended strategies for sex work in the context of the 2010 World Cup*

recommendations, and the advocacy initiatives that were undertaken to implement them:

### **Moratorium on sex work related arrests**

On 18 March 2010, the Director of SWEAT wrote to the Minister of Justice and Constitutional Development and the Minister of Safety and Security urging them to call a moratorium on sex work related arrests during the World Cup. This followed a legal opinion drafted by the Women's Legal Centre that it was within the Ministers' power to institute such a moratorium within the existing law and would protect sex workers and their clients during the World Cup. This letter was endorsed by some civil society organisations and highlighted the dangers of unlawful arrest and harassment of sex workers. Neither of the ministers responded to the moratorium.

### **SANAC and the recommendations by the November consultation and the National Strategic Plan**

At every available opportunity after the November Consultation, SANAC Plenary and the Programme Implementation Committee (PIC) were requested to adopt the Consultation recommendations. These were regrettably never officially discussed or adopted.

Furthermore, South Africa's national AIDS Plan – the National Strategic Plan 2007-2011 (NSP) - explicitly recommends the decriminalisation of sex work, the implementation of sex work-specific programmes and non-discrimination as an effective response to HIV/AIDS (Department of Health, 2007). Yet, as the NSP Mid-term Review shows (Health Development Africa, 2010) no progress had been made on these provisions. This is despite civil society pressure to do so and mounting evidence that implementation of these components of the NSP would fulfil public health and human rights goals in a South African context (Grover, 2010; Harcourt *et al*, 2010; Richter *et al*, 2010).

### **FIFA and the SANAC Sports and Entertainment Sector recommendations**

SANAC Plenary mandated the SES to coordinate and manage a multi-sector approach towards HIV/AIDS for the World Cup. The SES consulted widely and submitted a set of recommendations and plans to FIFA. FIFA did not implement any of the recommendations, except the distribution of (male) condoms at the stadiums where World Cup matches would be played.

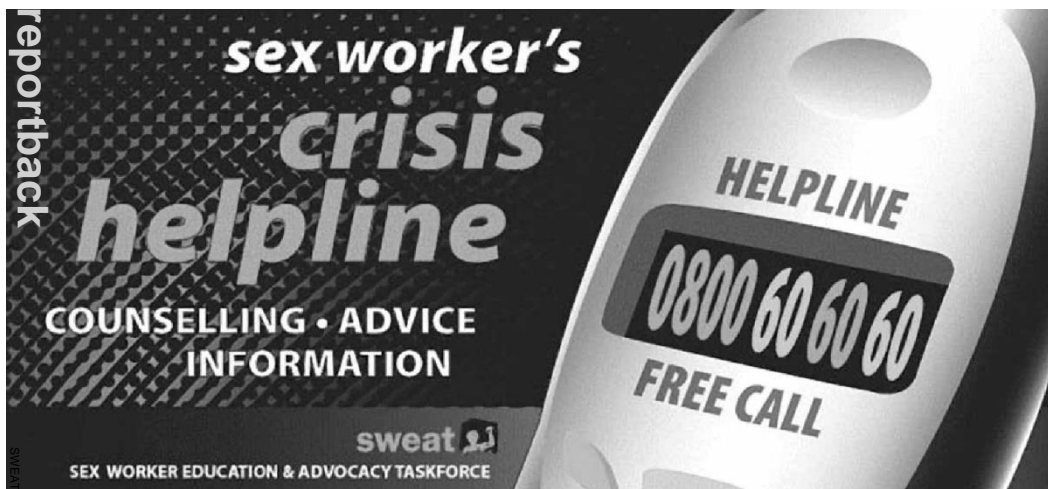
### **Impact on sex workers**

The inaction described above meant that sex workers had little protection against ongoing harassment before and during the World Cup period and, at times, could not access the few services that were available to them. Preliminary findings of a World Cup/Sex Work research study, conducted in sex work communities in Rustenburg, Hillbrow, Sandton and Cape Town during the period May – September 2010, point towards the far-reaching impact of police harassment on sex worker lives.<sup>6</sup> Some common themes follow below with examples from Focus Group Discussions that were conducted for the World Cup/Sex Work research project.

### **Police arrests of sex workers without being formally charged**

While sex work is currently a criminal offence in South Africa, providing sufficient evidence that a "sex for reward" transaction had taken place, is very difficult (South African Law Reform Commission, 2009; Richter, 2008). Police therefore often arrest sex workers under municipal by-laws on indecency or loitering, but do not formally charge sex workers with a crime (Gould and Fick, 2008; Tshwaranang Legal Advocacy Centre *et al*, 2010; Fick, 2006).

*[T]he police were already arresting the ladies saying they are making South Africa dirty so those people who come from the other countries, they wouldn't like South Africa*



Sex workers were trained as councillors for the Crisis Helpline Pilot Project

because it would be dirty from the sex workers (Female sex worker, Focus Group Discussion, Cape Town, May 2010).

### Police extortion of sex workers and extraction of bribes

The unequal power relationship between police and sex workers, and the fact that sex workers do not have legal recourse against abuse, create ample opportunity for police corruption, extortion and violence.<sup>7</sup>

*Respondent: Some of them when they find us, they sleep with us forcefully and not even give us the money.*

*Facilitator: You mean the police?*

*Respondent: Yes.*

*Facilitator: Has it happened before? Respondent:*

*Yes. They did that to me last of last week, Sunday.*

(Female sex worker, Focus Group Discussion, Hillbrow, June 2010).

This is against the background of a Western Cape High Court victory in April 2009, where the Court interdicted the police from arresting

sex workers while knowing they would not be charged or prosecuted (The Sex worker Education and Advocacy Taskforce v Minister of Safety and Security and Others, 2009).

### Client intimidation and extortion by police

Recent amendments to the Sexual Offences Act make it an express crime to buy sex<sup>8</sup>. As such, the police could prosecute sex worker clients, but the same problems with providing sufficient evidence applies. Some members of the police abuse their power by intimidating and harassing clients, which impacts on sex workers' ability to earn a living.

*They [the police] arrived where we were working from, when they got there the client was on top of me, when they got there they said [incomplete statement]... the client was scared already, because they were already here threatening to arrest us, so they said to him "Continue what you have been doing". He did it in front of them watching. Then they beat him up so bad. Then they pulled him down the stairs and they took his money.*

*They told him that he doesn't give them the money, they will arrest him, so he had to take all the money he had in the wallet and gave it to them. They went and left him like that with nothing on him (Female sex worker, Focus Group Discussion, Hillbrow, July 2010)*

## **Sex worker health**

The harassment of sex workers by the police does not only have an immediate impact on the psychological and physical well-being of sex workers, but also inhibits access to health care, sexual and reproductive health rights and practising safer sex:

*When they [the police] see me they are like [...] "Oh, you come here" and they search my bag in front of everybody and they are like "What?" they found condoms in my bag. They say to me: "I don't want to see you with condoms in your bag. What do you use it for? You use it to do drugs. To do heroin. And he says "I am going to lock you up when I see condoms in your bag" (Transgender sex worker, Focus Group Discussion, Cape Town, July 2010).*

While male, female and transgender sex workers were included in the study above, the vast majority of respondents were female. The power differentials between female sex workers and their male clients and male police increased their vulnerability to gender based violence – and in particular rape. The disregard for female condoms (Raftopoulos, 2010), and therefore, a female-controlled method of safer sex, in view of the overemphasis on the distribution of male condoms, meant that female sex workers were dependent on the client's agreement to using male condoms to protect them from HIV.

## **Civil society programmes**

In view of government and FIFA inaction on sex work and the World Cup, civil society organisations had to raise money for, and implement, programmes

that could partially mitigate the impact of the World Cup on sex workers.<sup>9</sup>

Some of the activities include the following: SWEAT and Sisonke<sup>10</sup> increased their outreach activities in Cape Town during the World Cup and distributed safer sex materials, in particular female condoms, and information to sex work 'hot spots' and pubs for sex workers and their clients. Sex workers' leaders from Sisonke Johannesburg and Cape Town were trained as Human Rights Defenders, while a media training workshop was run in collaboration with the Open Society Institute and the Open Society Initiative for Southern Africa. Sex workers and sex work advocates were trained to engage effectively with the media as it is imperative that the voices of sex workers in particular are heard. A number of press, radio and television interviews were conducted by sex workers. A sex worker hotline pilot project was launched in June 2010. Sex workers were trained as helpline counsellors and provided telephonic assistance to sex workers. The helpline calls over this period confirmed an increase in intimidation from the police and in particular from the 'Vice Squad' in Cape Town (City of Cape Town, 2010).

In May 2010, a strategy workshop on sex worker arrests was held in Johannesburg in collaboration with SWEAT, Sisonke, Tswaranang Legal Advocacy Centre and the Women's Legal Centre. Human rights organisations, NGOs and CBOs gathered to discuss the on-going harassment of sex workers by police, the implications of the judgment given in the Western Cape High Court against the police and what legal recourse sex workers may have. A memorandum was sent to the Gauteng Premier Nomvula Mkonyane and the MEC for Community Safety urging them to stop the unlawful arrest of sex workers contravening municipal by-laws (Tshwaranang Legal Advocacy Centre, Women's Legal Centre and the Sex worker Education and Advocacy Taskforce, 2010). There was no response to the memorandum.



SWEAT staff members Kholi, Jackie and Moegamat with the SWEAT outreach van.

## Reflection on World Cup advocacy and programmes

The World Cup generated much international interest in South Africa, and sex work received ample curiosity and media coverage. This attention was strategically harnessed at times. A number of sex workers agreed to undertake interviews with the media and this built their confidence in their ability to engage the media. Sex work advocates received a deluge of requests for interviews and it became clear that a greater number of spokespeople who could comment on the issue were required to deal with the media demand.

The November 2009 Consultation was a useful and strategic forum for engagement. Yet, it did not generate sufficient momentum for a robust partnership

on sex work and human rights issues amongst a broad range of stakeholders and organisation. Civil society organisations should have invested more energy into building this coalition in relation to law reform in the post-World Cup period. Where SANAC was originally viewed as a supportive partner, it subsequently became clear that it was only certain sectors within the larger structure that would lend their support. Official recognition that sex workers required specific interventions during the World Cup was lacking.

More work should have been done to link the World Cup to the delay in law reform processes on sex work, and to put public pressure on government to take up the moratorium on sex work-related arrests. Potentially useful strategies

that should have been taken up include public marches, more focused media attention, building a stronger coalition and involving well-known people such as human rights activists.

In juxtaposition to the government's apathy towards sex work, much government-sanctioned attention and resources were expended on fears of a dramatic increase in human trafficking during the World Cup<sup>11</sup>. Sensational figures of 40 000 women and children victims of trafficking were circulated in the media (see article by Chandre Gould in this edition). Yet, much of these anxieties were misplaced as subsequent reports show: the Department of Justice and Constitutional Development reported at a Parliamentary meeting in August 2010 that it did not find one single case of human trafficking during the World Cup (Portfolio Committee on Justice, 2010a).

## Conclusion

The 2010 World Cup created an opportunity to highlight the on-going victimisation of sex workers under a criminalised system in South Africa, and to mitigate some of the health and social consequences of these abuses. Government, World Cup organisers and the HIV/AIDS community should have responded in a proactive and effective way to safeguard public health and human rights. Yet, none of these structures adequately rose to the challenge, and opportunities for engaging the sex work sector and building coalitions were lost.

A handful of civil society organisations and sectors of the international donor community responded proactively to the challenge of soccer mania and paid sex, and provided sex work-specific health programmes and activities. Yet, these were very limited in scope and were unable to reach all the host cities or all the places where sex work takes place in South Africa. While these efforts should be lauded, they were not sufficient.

It is hoped that other countries that host large-scale, international sporting events in future would be able to benefit from the lessons learnt in South

Africa and pressurise their governments as well as international sporting bodies well in advance to include sex worker rights into their strategy, planning and most importantly, implementation of programmes.

South African sex workers suffer daily under a criminalised system that makes them vulnerable to abuse, exploitation, rape, extortion and HIV. The World Cup intensified these harms in many ways. Yet, the South African Law Reform Commission works with little urgency to modernise the apartheid laws that criminalise sex work in South Africa. More than ten years have passed since the Commission first began investigating different legal models for sex work in South Africa. At the time of writing at the end of 2010, the Commission still had to make a recommendation on what type of legal framework should apply to sex work. Lessons learnt during the World Cup advocacy campaigns should be strategically applied to ensure that South Africa decriminalises sex work as soon as possible.

## Footnotes

1. This *Reportback* is based on various reports, presentations and correspondence compiled by SWEAT and the SANAC's Women Sector during 2009 and 2010. The original documents are available from <http://groups.google.com/group/sex-work-2010-reference-group>
2. The authors would like to thank Tim Barnett, Eric Harper, Mabalane Mfundisi, Brett Davidson and Katharine Bagshaw for comments on earlier versions of this paper.
3. The United Definition of trafficking is contained in the "Palermo Convention" and reads as follows:  
*Trafficking in persons shall mean the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation.* The Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, was adopted by United Nations General Assembly resolution 55/25.
4. Rights, Not Rescue is a slogan employed by SWEAT, Sisonke and the African Sex Worker Alliance (ASWA) to emphasise the agency of sex workers and the imperative that human rights guarantees apply to everyone (Also see Arnott & Crago, 2009).



5. SANAC was created to advise the South African government on HIV/AIDS issues and since its inception in 2000, has been restructured several times. Its highest decision-making body is SANAC High Plenary which is chaired by South Africa's Deputy President. SANAC has 18 special-interest sectors that are regarded as 'partners' within SANAC. They advise the Programme Implementation Committee (a technical committee within SANAC) and provide input to Plenary. See South African Government Information (2006).
  6. Researchers from Ghent University (Belgium), Wits University (South Africa) and University of Stellenbosch (South Africa) teamed up with SWEAT and Sisonke to conduct research into the demand and supply of paid sex during the 2010 World Cup. At the time of writing, the findings had not been released yet (see UNAIDS, 2010).
  7. See the narration of Felicia and Muchaneta in "Sex workers' stories" (2009).
  8. Section 11 of the Criminal Law (Sexual Offences and Related Matters) Amendment Act of 2007 provides as follows:
 

*Engaging sexual services of persons 18 years or older -*

11. A person ('A') who unlawfully and intentionally engages the services of a person 18 years or older ('B'), for financial or other reward, favour or compensation to 'B' or to a third person ('C') -

    - a. for the purpose of engaging in a sexual act with 'B', irrespective of whether the sexual act is committed or not; or
    - b. by committing a sexual act with 'B', is guilty of engaging the sexual services of a person 18 years or older.
  9. The Department of Health in the Western Cape was a notable exception. SWEAT reports that it was a supportive partner in enabling sex work outreach work and providing safer sex materials in Cape Town.
  10. Sisonke is a sex worker-led movement in South Africa.
  11. See for example. Portfolio Committee on Justice (2010b) "Trafficking in persons during 2010 FIFA World Cup: relevant Departments on measures in place" 21 April 2010 Available: <http://www.pmg.org.za/report/20100421-relevant-departments-existing-legislation-measures-place-deal-traffic>
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## Chapter 6: Discussion & Conclusions

This PhD project aimed to describe the characteristics, sexual behaviour and access to health care services for sex workers in South Africa and Kenya, and some key factors influencing these. In this chapter, I will discuss some of the PhD project's main findings in relation to its objectives and to other studies in the field. This will be followed by recommendations on health, legal and policy responses to sex work, and suggested areas for future research.

Table 4 provides a short summary of the three studies for ease of reference.

Study name	Country	Location	Study design	Thesis chapter
The Prospective Cohort study	Kenya	Mombasa	Prospective cohort	4.1
The Face-to-face study	South Africa	Cape Town Rustenburg Sandton Hillbrow	Cross-sectional	3.1 3.2 4.2
The Telephonic survey	South Africa	Greater Johannesburg Cape Town Durban	Cross-sectional	4.3

Table 4: Summary of the three studies conducted to address the thesis objectives

### 6.1 Key findings

#### 6.1.1 Description of the characteristics, behavioural and other risk factors as well as health care contact among sex workers in sub-Saharan Africa (Objective 1)

##### a.) Sex work is a key livelihood strategy for participants in the South African studies.

Sex work was a full-time profession for two-thirds in the face-to-face survey, while a substantial number reported never having had a job before sex work. The data (chapter 3.1) 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). The South African findings are in line with other studies that found that sex work often offers higher earnings than other work available (Posel, 1993, Peltzer et al., 2004, Hoffman et al., 2011, Gould and Fick, 2008, Karim et al., 1995, Gould, 2011, Campbell, 2003). In a 2007 study in Cape Town for example, sex workers with an incomplete high school education were able to earn four times more in sex work than they did in previous jobs (Gould, 2011). This should be interpreted against the background of high unemployment rates in South Africa. During July-September 2012, the unemployment rate was 25.5% (Statistics South Africa, 2012b). This meant that 4.7 million people were looking for work in that period, of which two thirds (3.1 million) had been looking for work for a year or more (Statistics South Africa, 2012b).

In addition, study participants in South Africa 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 spouse - and the relatively robust earnings that could be secured by sex workers.

In Mombasa however, wages earned from sex work in 2006-2007 seem less lucrative (chapter 4.1). The Kenya Integrated Household Budget Survey in 2005/2006 found that 47.0% of Kenya's population lived in poverty, with the urban poverty line set at 2 913 Kenya Shillings (Kshs) per person per month (or \$1.4 per day, or \$9.8 per week) during that time (World Bank, 2008). Close to a quarter of FSWs in the prospective cohort study

earned less than \$70.00 (500 Kshs) a week, with just under a third earning \$7.10-14.30 a week from sex work. In view of the fact that in this study, more than 80% of FSWs had one or more children, it could be postulated that a number of FSWs and their dependents were living close to, or under, the poverty line (the study did not gather data on the number of adult and child dependents of the participants or how much FSWs earned from income-generating activities aside from sex work).

**b.) More than 85% of sex workers in the South African study were migrants**

In the face-to-face study, the vast majority of sex workers were migrants (see Chapters 3.1 and 3.2). 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. In Mombasa, very few cross-border migrants were present in the prospective cohort study – only 2.5% (chapter 4.1 – internal migration was not captured). Research, to date, that explores both sex work and migration in South Africa contains data on two geographical areas only: Johannesburg and Cape Town. Studies in Hillbrow in 1998 showed that 11.0% of FSWs were cross-border migrants and 64.9% were internal migrants (Reproductive Health Research Unit et al., 2002). Research in Cape Town found that 5.0% of indoor sex workers were from other countries in 2007 (Gould and Fick, 2008). While the data from these studies are not directly comparable, the higher number of cross-border migrants in this study is in line with current census trends in South Africa. In 2007 it was estimated that 2.8% (1.2 million) of the population were foreign-born (Landau and Wa Kabwe Segatti, 2009), while the 2011 census noted 3.3% (1.7 million) were born outside of South Africa (Statistics South Africa, 2012a).

**c.) Cross-border sex workers may be more tenacious in negotiating the sex industry, but access to health care is low**

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 (Chapter 3.2). 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 (Oliviera, 2011, Nyangairy, 2010, Flak, 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 and Richter, 2010, Ham, 2011, Richter and Monson, 2010).

We originally hypothesised that cross-border migrants would experience greater police harassment than their South African counterparts. Conversely, the face-to-face study showed that police interaction in the last year was similar across migration groups – approximately 40.0% amongst internal, cross-border and non-migrants (Chapter 3.2). 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 (Chapter 3.2). Studies have documented that recent immigrants are often healthier than the host population because of positive self-selection or the “healthy migrant effect” (Razum et al., 1998, Deane et al., 2010, Malmusi et al., 2010). 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 (Vearey, 2012, Scorgie et al., 2012, Human Rights Watch, 2009, Scorgie et al., 2013). 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 (Shahmanesh et al., 2008, Rekart, 2005, Luchters et al., 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.

**d.) Female sex workers are more likely to practice safer sex than transgender or male sex workers**

In the face-to-face study, 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 et al., 2002) (see Chapter 3.1). At the same time, more men had anal sex than women, which is 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).<sup>21</sup> Direct comparison to similar studies in South Africa is difficult, partly as research on male and transgender sex workers is very limited and partly because studies on FSWs and condom-use in South Africa did not report on sex with last client. Some studies did note that overall condom-use with clients was low or irregular (Karim et al., 1995, Rees et al., 2000, Williams et al., 2003). At baseline, more than a third of FSWs reported inconsistent condom-use with their regular and casual clients in the last three months in Mombasa (chapter 4.1).

**e.) Levels of daily binge drinking are high**

Another factor that increases a sex worker's risk of HIV, is excessive use of alcohol. Chapter 3.1 noted the high levels of binge drinking among participants in South Africa. Close to a fifth of females, more than 40.0% of males and a third of transgender sex workers reported daily binge drinking. While the prospective cohort study did not capture binge drinking, close to three quarters of FSWs in Mombasa noted that they have ever used alcohol. The links between alcohol and risky sex in the African context have been well-established in the literature (Kalichman et al., 2007, Luchters et al., 2011, Chersich et al., 2009, Schneider et al., 2012, Chersich et al., 2007, Chersich and Rees, 2010a). In the face-to-face survey, 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.

**f.) 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). The findings presented here support this assertion. Sex workers in Hillbrow - where the only sex work-

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<sup>21</sup> The survey did not capture whether the intercourse consisted of receptive anal or insertive anal intercourse.



specific clinic was operational - were less likely to have unprotected sex than those in other sites in South Africa in the face-to-face survey (Chapter 3.1). The Wits Reproductive Health and HIV Institute initiated FSW-specific health services in Hillbrow in 1996 (Sibanyoni et al., 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 has shown that the programme is acceptable and popular with the Hillbrow sex worker community (Stadler and Delany, 2006, Nairne, 1999). Non-judgmental and sensitive health care workers and services that are sex worker-centred have been key to the programme's success (Richter et al., 2008, Sibanyoni et al., 2012, Richter, 2008). 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 et al., 2004, Vuylsteke et al., 2009, Laga and Vuylsteke, 2011).

**g.) 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 et al., 2009). The face-to-face survey data showed that just under half of FSWs ever had used a female condom (Chapter 3.1). 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 (Yimin et al., 2003, Busza and Baker, 2004); a study with FSWs in rural South Africa showed female condoms to be highly cost-effective (Marseille et al., 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).

### **6.1.2 To assess the impact of relational and societal factors on sex worker vulnerability in Kenya and South Africa (Objective 2)**

#### **a.) Condom-use with non-commercial partners of FSWs is low**

The prospective cohort study in Kenya also supports the findings of other studies that condom-use by FSWs and their non-commercial partners were low or non-existent (Grayman et al., 2005, Karim et al., 1995, Varga, 1997, Platt et al., 2011, Day et al., 1993, Pettifor et al., 2000, Tassiopoulos et al., 2009). In the prospective cohort, four or more unprotected sex acts in the past week was mentioned by more than a fifth of women during sex with non-commercial partners, while this was reported by 6.0% and 5.0% of women for sex with regular and casual clients respectively. In fact, the total number of unprotected sex acts per week was 5-6 times higher with non-commercial partners than with regular or casual clients. Almost two thirds of respondents noted that they did not use condoms with their non-commercial partners because of trust in them.

Just over 10.0% of respondents in the prospective cohort study felt they were at “moderate risk” of contracting HIV, while almost a third perceived themselves at “great risk”. Close to 80.0% of the FSWs in Mombasa who saw themselves at moderate to great risk noted that their risk was attributable to their clients’ behaviour. These findings could relate to what Varga termed “the ideological barrier”, which she describes in the following way:

“Sex workers viewed condoms as a means of maintaining the ideological barrier between professional sex with clients and personal sex with private

partners. Most women described the conceptual necessity of dividing work and personal life, and of reaffirming their membership in conventional society outside of working hours. Condoms were seen as being in direct opposition to this, and associated with impersonal, professional, and usually unpleasant sexual interactions". (Varga, 1997, p.11).

In his anthropological work in southern Africa, Hunter documents how condoms are associated with "unfaithfulness", in contrast to "flesh-to-flesh sex" which symbolises "true love" (Hunter, 2002). Within this cultural or social context, it may be necessary for sex workers to construct a dichotomy between risky, impersonal and therefore protected sex with clients on the one hand, and sex in a safe and personal environment with non-commercial partners where condoms are deemed unnecessary or inappropriate, on the other. Yet, the findings from the prospective cohort study highlight the paradox inherent in these beliefs: many respondents were not in personal relationships that could be deemed safe or indeed harmless. More than half of participants in Mombasa had suffered sexual or physical violence by their non-commercial partner in the preceding 12 months. Close to a quarter of respondents had experienced rape in the preceding year, of which 22.0% (thus 5.0% of all respondents in the study) had been raped by their non-commercial partner. This should be interpreted against the background that HIV-prevalence of non-commercial partners of sex workers in SSA are generally higher than among clients (Scorgie et al., 2012).

In addition, a third of participants in the prospective cohort study perceived themselves to have low control over their relationships. Nine out of every ten of these FSWs reported inconsistent condom-use with their non-commercial partner in the preceding three months. Regardless of whether the FSWs who participated believe in maintaining an ideological barrier between commercial and non-commercial partners, it might be difficult for them to insist on consistent protected sex with non-commercial partners because of power imbalances.

### **b.) No significant increases in the demand or supply of sex work during the World Cup**

During the World Cup period, study findings showed no significant increases in sex work demand or supply in South Africa (Chapters 4.2 and 4.3). Only a third of participants reported observing any change in the sex industry attributed to the World Cup, and perceptions of the type of changes attributable to the World Cup ranged widely. Sex worker health-care utilisation decreased slightly from the pre- to during World Cup period. Across all periods, about a third of participants had experienced contact with police in the preceding month, two thirds of whom had negative interactions.

### **c.) Self-reported condom-use remained high during the 2010 World Cup**

Self-reported condom-use with last client remained high in the face-to-face and telephonic studies. Reported condom-use with clients in the face-to-face survey was approximately 92.0% (Chapter 4.2) and 99.0% in the telephonic survey (Chapter 4.3). This finding challenges the disquiet that were expressed before the World Cup that international spectators would return home after contracting HIV in South Africa, with sex workers posing a particular threat (Ridge, 2009, Telegraph, 2010). The anxiety and media attention generated over concerns of increased sex work activity during this major sporting event and concomitant fears about an increase in HIV transmission appear to be unfounded. These findings are supported by recent publications on the 2010 Winter Olympics in Vancouver (Deering et al., 2012), the 2012 London Olympics (Deering et al., 2012), and others (Ham, 2011, Deering and Shannon, 2012) where fears about an increase in sex work and trafficking around international sporting events have been shown to be groundless, and likened to “moral panics”(Deering and Shannon, 2012, Gould, 2010, Bonthuys, 2012).

## **6.1.3 Policy implications**

### **a.) Legal and policy changes are key to enhance sex worker and public health**

In chapter 5.1 arguments were provided - based on evidence and public health goals - that the best approaches to sex work are in a context where it is decriminalised and

where sex workers are empowered, not prosecuted. Chapter 5.2 described civil society processes and recommendations in South Africa that endeavoured to make the World Cup safer for sex workers and their clients. Yet, the indifference and lack of political will of the South African national AIDS Council, the government and FIFA to accelerate law reform processes or to initiate sex work-specific interventions during the World Cup, was striking. The lack of government action on sex work and public health is a pattern that has been documented in the South African context (Richter and Chakvinga, 2012, Wojcicki, 2003, Richter and Massawe, 2010, Gardner, 2009, Petzer and Isaacs, 1998) and elsewhere (UNAIDS Advisory Group on HIV and Sex Work, 2011)

The 2010 FIFA World Cup presented a strategic opportunity for South Africa to respond to the challenges that the sex industry posed in a strategic and rights-based manner, to potentially capitalise on increased international attention and funding, and to make legal and policy changes that would have long-term public health effects. Regrettably, these opportunities were lost.

The studies contained in this thesis have a number of limitations. The following section highlights some of the main limitations.

## **6.2 Limitations**

The face-to-face, telephonic and prospective cohort studies relied on self-reported data only. Data gathered by self-report may incur several limitations. Respondents may distrust the researcher, and their answers could be influenced by the participants' social desirability bias - therefore impacting on the participant's willingness to answer truthfully (Crutzen and Goritz, 2010, Barker et al., 2005). "Self-presentation bias" is a particular issue with participant self-report on condom-use and number of sexual partnerships; over-reporting of condom-use and under-reporting of sexual partners have been documented (Weir et al., 1999). These biases may have been pronounced in the World

Cup research studies because of the high media attention given to HIV transmission and sex work, and may have led to an overestimation of condom-use.

Researchers involved in the three studies attempted to mitigate these limitations in the following way: the face-to-face surveys were conducted by trained sex worker interviewers who were familiar to the sex work community in the study site, which may have decreased suspicion. Similarly, participants in the prospective cohort were likely familiar with the fieldworkers who recruited them into the study, while frequent contact with research staff may have increased trust over the duration of the study (one year with quarterly visits). The telephonic survey was limited to seven questions only and did not include any identifying information. The interview was conducted over the phone, which may have provided a greater sense of anonymity, and thus opportunity for candour, to the participant. Researchers in the telephonic survey utilised the offices and landline phone of a well-known sex worker NGO to contact participants. The NGO telephone number would appear on participants' phones when being phoned, thus potentially reassuring them of the authenticity of the study.

The face-to-face survey relied on a non-probability sampling approach that is influenced by the social networks of seeds (Cohen and Arieli, 2011) and can introduce sampling biases<sup>22</sup>. Errors arising from systematic differences in characteristics of those people who participate in the study and those who do not - selection bias (Last, 2001) - are also at issue. In particular, sex workers who did not solicit in the venues where fieldworkers recruited research participants would not have been included in the study. For example, sex workers who solicit over the internet, cellphones or other social networking platforms like Facebook or Twitter may not have been included. Similarly, while sex workers who do not work, or engage, with other sex workers or who work with a pimp/controller may not have been reached, given the reliance on social networks

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<sup>22</sup> Last defines sampling bias as a "systematic error due to the study of a non-random sample of a population" LAST, J. 2001. *The Dictionary of Epidemiology*, Oxford, Oxford University Press. p.34

inherent in the sampling methods used. In the context of chapter 4.2 of this thesis, this means that new sex workers who did not have the chance, or resisted, networking with an established sex worker community may have been overlooked and that changes in sex work supply may have been underestimated. Similarly, chapters 3.1 and 3.2 may have overestimated the true health care contact as it is plausible that sex workers who are more hidden may not have been included in the study, and are also unlikely to be reached by existing peer education or health care services (many of the fieldworkers were also peer educators).

In the context of chapter 3.2, the findings that cross-border sex workers are more tenacious in certain aspects of sex work may be an overestimation. The cross-border sex workers surveyed may have been more successful in negotiating administrative and immigration processes, while those unsuccessful, may have already returned to their countries of origin, either by deportation by authorities<sup>23</sup> or because of financial necessity.

Increased reliability of the data in all three studies could have been attained by surveying direct information from all sexual partners of sex workers. For example, sexual risk behaviour in the prospective cohort study was assessed describing condom use with each of the FSWs' sexual partners. A more reliable indicator would have been the HIV status of the sex partner. Likewise, the ideal study would have included biological markers such as testing for HIV and STIs at the same time as administering the surveys to sex workers. In addition, the inclusion of qualitative data into the thesis would have shed more light on sex worker perceptions of the World Cup and would have allowed for more detailed descriptions of the World Cup's impact on sex work, and thus greater nuances.

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<sup>23</sup>For the deporting of cross-border migrants and irregularities at the Department of Home Affairs in South Africa, see FMSP REPORT SERIES 2010. *Lost in the Vortex: Irregularities in the Detention and Deportation of Non-Nationals in South Africa*. In: FORCED MIGRATION STUDIES PROGRAMME; UNIVERSITY OF THE WITWATERSRAND; JOHANNESBURG (ed.). Johannesburg: FMSP Research Report. AMIT, R. 2012. No way in - Barriers to Access, Service and Administrative Justice at South Africa's Refugee Reception Offices. Johannesburg: African Centre for Migration & Society.

The research would also have been strengthened by measuring the experiences of stigma by participants in the research sites.

A longitudinal study design may have been more appropriate for addressing some of the objectives of the face-to-face and telephonic surveys in relation to the World Cup. This would have had the advantage of measuring differences in the work and lives of particular sex workers over the time period. Yet, given the measure of participant trust required for such a study, and that such a study design would not be able to capture any new sex workers to a particular area, it was not deemed appropriate for the studies measuring the impact of the World Cup.

In the face-to-face survey, the majority of fieldworkers were female, which could have impacted on the number of male transgender participants approached for participation and could partly explain the small numbers of male and transgender participants. Selected research sites for the face-to-face study included two urban centres and one semi-rural site adjacent to a mine, and were purposively selected, based on the presence of sex worker advocacy groups and peer education work.

It should be noted that not all findings presented in this thesis was supported by multivariate analysis, and confounding may account, in part, for some of the results. For example, a re-analysis was done to determine whether the overall finding in chapter 3.2 that income varies by migrant group is true across all four research sites, or if this finding stems from confounding by city. The analysis showed that non-migrants earned considerably less than other migrant groups in Cape Town and in Sandton, while no differences were detected in income between the these groups in Hillbrow and Rustenburg.

Similarly, the sampling frame for the telephonic survey only included sex workers advertising online and in newspapers, and only female sex workers. Therefore, while we aimed to obtain data on diverse sex work settings, the findings of the face-to-face and



telephonic survey cannot be generalised to all sex workers in South Africa, while the telephonic survey only apply to the female sex workers.

Comparably, the prospective cohort incurred selection and sampling biases and its findings may not be representative of the total sex worker population in Kenya, although characteristics are similar to other studies in the region. The distinctions drawn between regular clients, casual clients and emotional partners in this study may also be an over-simplification. Finally, repeated risk reduction counselling at clinic visits may have led to actual behaviour changes or have heightened social desirability bias in participants over time, and thus might account, in some part, for the reduction in reported inconsistent condom use.

### **6.3 Recommendations**

In view of the findings of the studies of this thesis, the following recommendations are put forward:

#### **6.3.1. Roll out tailored sex work interventions**

Chapters 3.1 and 3.2 showed the sex 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 highlights the importance of such facilities. A key recommendation from this thesis 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., 2006, Jana et al., 2004) 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 of on the levels of

unprotected sex among male and transgender sex workers (chapter 3.1) and the lower exposure to health care services by cross-border sex workers (chapter 3.2), such interventions should explicitly include male and transgender sex workers, and be cognisant of the needs of migrant sex workers. The data presented in this thesis suggests that female condoms should be made freely and widely available in sex work settings (chapter 3.1), 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 - (Venter et al., in press, Steinbrook, 2012), microbicides (Mertenskoetter and 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.” (Chersich and Rees, 2008, p.35)

This is of particular importance for FSWs in South Africa and Kenya 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 and Delany, 2006). An emphasis on peer education is key (Sanders, 2006, Vuylsteke et al., 2009, Luchters et al., 2008, Campbell and Mzaidume, 2001). 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 (Scorgie et al., 2012). These should be community-led (Evans et al., 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 and 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.

Following the findings of chapter 4.1 on the importance of non-commercial partners and the low levels of relationship control of FSWs, targeted interventions aimed at the clients and non-commercial partners of sex workers will challenge conventional approaches that focus solely on FSWs and infection, and overlook the role of men (Delany and Nielson, 2000). There have been various calls for increased attention to research and programmes that engage with the clients and non-commercial partners of sex workers (Scorgie et al., 2012, Ghys et al., 2001, van Haastrecht et al., 1993, Ahmed et al., 2012, Shannon and Montaner, 2012). Accessing clients of sex workers poses particular programmatic and research challenges; because of the stigmatised (and criminalised) nature of sex work, and many clients may resist identification and participation in programmes or projects. Yet, some studies have had success and have documented an increase in condom-use (Raman, 1992). A reduction in STIs by targeting male clients (Lowndes et al., 2007) has been shown to be feasible (Lowndes et al., 2000). Similarly, the findings presented in chapter 4.1 point to the importance of developing health care interventions for the non-commercial partners of sex workers. Work with non-commercial partners could reduce the risk of HIV/STIs and violence for sex workers, and have an impact on HIV/STI transmission in the sex work setting.

Sex worker education programmes also need to emphasise the dangers of unprotected sexual intercourse, particularly with non-commercial partners, and encourage protected sex with all sex partners, regardless of the nature of the

relationship (chapter 4.1). The increased danger of unprotected anal sex should be foregrounded – particularly for male and transgender sex workers – and lubrication should be distributed with condoms (chapter 3.1). Similar awareness-raising is needed on the impact of alcohol on risk-taking behaviour, and the negotiation and implementation of safer sex in the sex work setting and beyond (Chersich et al., in press, Chersich and Rees, 2010b). Appropriate alcohol-dependency and support programmes should be available, and tailored to the sex work setting.

### **6.3.2 Law reform – the decriminalisation of sex work**

More than 15.0% of FSWs reported negative interactions with police in the last month including police violence, arrest, harassment, theft, bribery or fines (chapter 4.2). As argued in chapters 5.1 and 5.2, the legal framework that criminalises sex work also disempowers sex workers, limits access to services and makes them particularly vulnerable to police abuse. Arguably, one of most influential structural interventions in the African sex work context would be sex work law reform in line with a health and human rights framework. Removing the criminal law from sex work, and placing sex work within an occupational health and safety and labour law framework will not only make sex work safer, but also increase sex worker agency and is likely to mitigate the stigma that is attached to sex work (chapter 5.1).

While little evidence is available on the impact of the decriminalisation of sex work because so few countries have adopted such a system, research from New Zealand and some areas of Australia is informative. New Zealand decriminalised sex work in 2003 and acknowledged selling sex as service work (Abel and Fitzgerald, 2010a). In a review five years after the implementation of the new legislation, sex workers reported that their working conditions and well-being had improved, that they felt safer, and that they were more likely to report abuse to the police (Prostitution Law Reform Committee, 2008). Researchers also found that sex workers were generally practicing safer sex (Prostitution Law Reform Committee, 2008, Abel and Fitzgerald, 2010b) and that there was no

increase in the number of sex workers in the industry – a popular public fear associated with decriminalisation (Abel et al., 2009). A study in Australia showed better coverage of health promotion programmes for sex workers in a city that had a decriminalised legal framework as compared to cities with a legalised or criminalised<sup>24</sup> framework (Harcourt et al., 2010).

Decriminalisation of sex work in the African context is likely to improve the well-being of individual sex workers and population health; this would honour the international human rights commitments of African countries, and bring policy and law in line with international best practice guidelines. Equally important, it would facilitate greater protection of sex workers and their partners against HIV and other STIs.

### **6.3.3 Harness opportunities posed by international sporting events**

The recommendations made in the sections above are equally applicable to major international sporting events, and public health workers and sex work advocates should strategically utilise the attention to the sex industry during times of international attention. Sensationalist media reports and civil society campaigns that link surges in paid sex and trafficking with large-scale sporting events, should be countered with current evidence (chapters 4.2 and 4.3). Such media and popular attention provide opportunities and platforms to highlight the impact of repressive policy and law on sex work, and could leverage more resources and political will to implement services for sex workers and their clients, especially since sex worker health service utilisation might decrease in this period.

## **6.4 Priorities for future research**

In contrast to Kenya where sex work research is relatively varied, current, and has a long tradition, South Africa has a limited and quite dated knowledge base. This should be urgently addressed. South Africa's current AIDS Plan (Department of Health, 2011)

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<sup>24</sup> See Box 2 for the differences between legalisation, decriminalisation and criminalisation of sex work. Briefly, in a decriminalised legal framework, the criminal law is removed from sex work, while within a legalised system, sex work is only legal under a number of narrowly prescribed conditions.

envisions progressive programmes with sex workers but in lieu of a robust estimation of the size of the sex worker population in South Africa and mapping of where sex work is concentrated, the proposed programmes may not be correctly targeted, implemented, or brought to scale. Enumeration studies and the identification of sex worker “hot spots” are key to programme success. Similarly, research into the sex worker client base, how clients are solicited, and client risk perceptions of unprotected sex is urgently required. An understanding of the impact of new communication technologies and social networking on the character of the sex industry (Mahapatra et al., 2012), how sex workers and clients are brought together, and the potential of these technologies to access otherwise hard-to-reach populations will be key to future interventions. An enquiry into the intersection of migration, livelihood strategies, urbanisation and trajectories into sex work should ideally be undertaken by a multi-country, interdisciplinary team that could track sex worker movement across the region and be able to identify site-specific risk factors and health needs.

The Kenyan study reported in this thesis (chapter 4.1) highlighted the difficulties of distinguishing between different categories of sex worker partners, and the overlap between clients, regular sex partners, casual sex partners and non-commercial partners - also noted elsewhere (Reproductive Health Research Unit et al., 2002, Scorgie et al., 2012). Research into sex worker perceptions of commercial and non-commercial sex and relationships could provide important insights into sex work/transactional sex definitions, who is identified as a sex worker or not, and how this relates to risk perception, condom-use and exposure to health promotion campaigns. Similarly, studies in the United Kingdom have documented the emotional labour that FSWs perform, and have noted that not all services provided by sex workers necessarily contain a sexual component (Sanders, 2006, Sanders, 2008). Such studies should be initiated in the African context to deepen understanding of the transactions negotiated between sex workers and their clients/partners, and how these relate to physical and mental well-being.

## 6.5 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 and 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 thesis aimed to provide insight into a set of factors that characterise sex workers, their work conditions, and their interaction with services in two countries in SSA. 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 in SSA. 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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## Chapter 7: Summation

### 7.1 Summary

Sex workers in Sub-Saharan Africa are vulnerable to a range of factors that dispose them to poor health outcomes. In particular, they are at high risk of violence, injury, rape, discrimination and a spectrum of human rights abuses. 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, and particularly in Africa, are not adequately responsive to the needs of sex workers. As a result, 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, as well as on the intersections of migration and sex work.

Mega-sport events have been associated with increased anxiety about sex work and human trafficking, with few studies tracking the impact of such events on local sex work industries over time. These fears were prominent during the 2010 FIFA Soccer World Cup.

This PhD project consisted of three research projects based in South Africa and Kenya. It aimed to evaluate the impact of social and behavioural factors on the health of sex workers. To achieve this objective, it examined the effects of sex worker characteristics, migration status, and their relationships with commercial and non-commercial partners on sexual behaviour and access to services. Such information may assist in designing more effective health policies in addition to providing insights into the structural factors that affect sex work settings and heighten sex worker vulnerability to ill-health.

The first research project consisted of face-to-face surveys with 1799 male, female and transgender sex workers in Johannesburg, Rustenburg and Cape Town. The second research project involved telephonic interviews in three waves with 663 female sex workers who advertised online or in newspapers in South Africa. The

third component was a prospective cohort of 400 female sex workers in Mombasa, Kenya.

The research findings indicate the diversity of the sex industry and the people who work in it. Sex work is an important livelihood strategy that provides an income for sex workers and their extended network of dependents. Migration is a vital component for exploring and understanding how many sex worker lives and work are structured in South Africa. Sex workers are subject to violence from their non-commercial partners as well as from police, while unprotected sex with non-commercial partners emerges as an important risk factor for HIV.

The PhD research detected little significant changes in the sex industry due to the 2010 Soccer World Cup, and documents how strategic opportunities were lost to alter some of the structural conditions of sex work during a time of heightened sex work awareness, funding and scrutiny.

Moreover, this thesis highlights the shortcomings of health care services in responding to the needs of sex workers. It recommends the rolling-out of specialised, 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 lower sex work concentration. Non-judgemental and empathetic health workers are a key component of responsive services. Lastly and perhaps most importantly, it underscores the importance of decriminalising sex work in order to safeguard sex worker rights and to protect individual and public health.

## **7.2 Samenvatting**

Sekswerkers in sub-Sahara Afrika zijn kwetsbaar voor een aantal factoren die hun gezondheid kunnen bedreigen. Meer bepaald lopen ze een hoog risico op geweld, verwonding, verkrachting, discriminatie en mensenrechtenschendingen. Hun kwetsbaarheid voor HIV en andere seksueel overdraagbare aandoeningen (SOAs) is vele malen groter dan die van niet-sekswerkers in dezelfde leeftijdsgroep.

Gezondheidssystemen wereldwijd, maar zeker in Afrika, komen onvoldoende tegemoet aan de noden van sekswerkers, en veel sekswerkers krijgen geen adequate



gezondheidszorg, educatie of HIV preventiemiddelen. De literatuur over vrouwelijke sekswerkers in Afrika is vrij uitgebreid, maar er zijn duidelijk zorgwekkende hiaten in het onderzoek naar mannelijke en transgender sekswerkers, en ook naar de relatie tussen migratie en sekswerk.

Grootschalige, internationale sportevenementen zijn in verband gebracht met een verhoogde bezorgdheid over sekswerk en mensenhandel, al zijn er weinig studies naar de impact op termijn van dergelijke evenementen op de lokale seksindustrie. Deze bezorgdheid was prominent aanwezig tijdens het FIFA wereldkampioenschap voetbal in 2010.

Dit doctoraatsonderzoek bestond uit drie onderzoeksprojecten in Zuid-Afrika en Kenia. Het had tot doel de karakteristieken van sekswerkers en hun kwetsbaarheid voor HIV en andere SOAs te beschrijven, en hun interactie met gezondheidssystemen, politie en commerciële en niet-commerciële partners te onderzoeken. Het project ging ook de impact na van het wereldkampioenschap voetbal op vrouwelijke sekswerk in Zuid-Afrika. Het eerste onderzoeksproject bestond uit face-to-face surveys met 1799 mannelijke, vrouwelijke en transgender sekswerkers in Johannesburg, Rustenburg en Kaapstad. Het tweede onderzoeksproject omvatte telefonische interviews in drie golven met 663 vrouwelijke sekswerkers die online of in Zuid-Afrikaanse kranten adverteerden. De derde component betrof een prospectieve cohorte van 400 vrouwelijke sekswerkers in Mombasa, Kenia.

De onderzoeksresultaten wijzen in het algemeen op de grote diversiteit van de seksindustrie en de mensen die erin werken. Sekswerk bleek een belangrijke overlevingsstrategie te zijn die sekswerkers en hun uitgebreide netwerk van afhankelijke personen voorzag van een inkomen. Migratie is een vitale component in het begrijpen hoe het leven en het werk van sekswerkers gestructureerd is. Sekswerkers waren slachtoffer van geweld vanwege de politie en hun niet-commerciële partners, terwijl onbeschermd seks met niet-commerciële partners een belangrijke risicofactor voor HIV besmetting bleek te zijn. Ons onderzoek vond weinig significante veranderingen in de seksindustrie naar aanleiding van het wereldkampioenschap voetbal in 2010, en documenteerde hoe strategische kansen

werden gemist om iets te veranderen aan de structurele condities van sekswerk gedurende een periode van verhoogde bewustwording, financiering en belangstelling voor sekswerk.

Bovendien beklemtoont deze thesis de tekortkomingen van gezondheidsdiensten om adequaat tegemoet te komen aan de noden van sekswerkers, en beveelt ze aan om gespecialiseerde gezondheidsdiensten voor sekswerkers op te zetten in gebieden met een hoge sekswerkconcentratie, en sekswerkvriendelijke diensten in mainstream gezondheidsinstellingen in gebieden met lagere sekswerkconcentraties. Niet-veroordelende en empathische gezondheidswerkers zijn een sleutelcomponent in goede dienstverlening. Tenslotte – en misschien het belangrijkste – onderstreept ons onderzoek het belang van decriminalisering van sekswerk voor het veiligstellen van de rechten van sekswerkers en voor het beschermen van de individuele en de volksgezondheid.

### 7.3 Acknowledgements

“This book suggests that you ponder some basic questions before embarking on a course of study leading to the PhD degree. Do you want to spend three to four years of your life doing research on one topic? Will you be satisfied to live on a student grant for that time? Are you committed to a PhD or would a professional doctorate suit you better? Are you able to tolerate regular periods of intellectual loneliness when only you are responsible for producing ‘creative thoughts’?”

It is vital that you give a firm ‘yes’ in answer to all those questions. [...] Perhaps you don’t really know what you want to do with the rest of your life and continuing in the university system seems a good way of putting off that decision. If this is so then you have chosen an extremely difficult way of solving your particular problem.”

- *How to Get a PhD – a handbook for students and their supervisors*<sup>25</sup>

Most of the firm “Yes”es to the above questions led to equally resolute “No”s in the last three years. A PhD is never undertaken lightly and even though I thought I had mustered enough motivation, gumption, thirst for knowledge and determination to register for a PhD in Public Health in early 2010, my courage failed me more often than I would admit. There was many a time – particularly pronounced in front of STATA flashing red on my computer screen – when I wondered why I had chosen this particular path, and if a PhD it had to be, why it was not rather in feminist theory. It was during these times where the unwavering trust and support of family and friends edged me on, and forced me to stop snivelling and grumbling.

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<sup>25</sup> EM Philips and DS Pugh (2010) *How to get a PhD – a Handbook for students and their supervisors* Berkshire: McGraw-Hill House, p.2

rainforest worth of drafts never caused them to lose heart. This PhD project would still have been a vague idea in my head only were it not for their mentorship, guidance, advice, strategic direction, encouragement and good humour. An enormous thank you to the two of them – and their families - and Marleen Temmerman for assisting me on this PhD journey.

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<sup>26</sup> Warning: This sentence, unlike the *Samenvatting*, was translated by Google Translate.

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Photo of Marlise and Jo discussing last efforts to finalise thesis over tea.  
Marlise's t-shirt reads "Caution: Thesis-writing in Progress".