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A QUALITATIVE STUDY ASSESSING THE GENERAL HEALTH PROBLEMS OF STREET-BASED FEMALE SEX WORKERS IN CAPE TOWN

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THESIS SUBMITTED IN FULFILMENT OF A MASTERS DEGREE IN PUBLIC HEALTH AT THE SCHOOL OF PUBLIC HEALTH AT THE UNIVERSITY OF CAPE TOWN

AUGUST 2012
DECLARATION

I, Barengayabo Mediatrice, hereby declare that the work on which this dissertation is based is my original work (except where acknowledgements indicate otherwise) and that neither this whole work or any part of it has been, is being, or is to be submitted for another degree in this or any other university.

I have given the university the mandate to reproduce for the purpose of research either the whole or any portion of the contents in any manner whatsoever.

With the exception of the Article manuscript, where the BMC Women’s Health referencing style has been used, the other components of the dissertation (Study Protocol, and Literature Review) have been referenced using the UCT referencing format (RefWorks).

Name: _______________________
Date: ______________________
DEDICATION

I wish to express my deepest gratitude to the best and special people in my life who have walked this journey with me. A special word of appreciation to my daughter Joy Mavis; you endured loneliness, while I was pursuing this degree. You needed me most, but I was not there for you. Anne Marie Namubiru, thank you for being a mother to my daughter while I focused on my career. Thank you for your patience, support and believing in me and above all, I thank God for giving the strength to carry on and achieve this milestone.

I dedicate this work to my daughter JOY MAVIS
ACKNOWLEDGEMENT

I wish to thank my supervisor Dr. Christopher Colvin, who guided me throughout this write up. If it was not for him, this work would not have been accomplished. His support and encouragement provided me a platform to remain focused and goal oriented throughout the process. Despite all the challenges I experienced, Dr. Christopher continuously and patiently provided guidance toward the completion of this work. I would like to express my appreciation for his support, may the Lord reward him abundantly.

To the women who participated in this study, I acknowledge your commitment and precious time invested to afford me the support towards accessing relevant information. Thank you very much for prioritizing my needs.

It is also my wish to thank the German Academic Exchange Service (DAAD) and the German Federal Ministry for Economic Cooperation and Development funders who provided CIHLMU Scholarship Awards 2011-2012 for my course work. Thank you for believing in me and contributing to my bright future.
THESIS ABSTRACT

Background
Generally, sex workers are a socially marginalized group with poor physical health. Within the hierarchy of sex workers, street-based sex workers are at the bottom. Street-based sex workers face different kinds of work experiences and exposure, with varying degrees of health problems. Their health problems are more severe and worse than the other classes of sex workers. Street-based sex workers are subjected to considerable risks of physical abuse, beatings and rape. These impact greatly on their health. This study explored the general health problems of street-based female sex workers.

Methods
The study was carried out in Cape Town among street-based female sex workers aged 18 years and above. It was cross-sectional, conducted over a period of six months using fifteen (15) in-depth interviews and four (4) focus group discussions. The respondents were non-randomly recruited through the Embrace Dignity Project, whose activities involved sex workers.

Results
The study discovered that condom use was inconsistent as a result of financial incentives, condom breakage, violence, rape and non-payment from clients when insisting on condom use. But some respondents were not using condoms at all. The majority of respondents reported stigmatization and discrimination by community members and the police.

Most of the respondents do not go for routine and other medical checks. Some respondents were not satisfied with health care provision due to discrimination by providers and long waiting times. Notwithstanding, respondents reported a long list of health problems including: flu, cough, HIV/AIDS, TB, headache, vaginal discharge, itchy vagina, sleeplessness, high blood pressure, fever, heart problems, diarrhoea, sweating at night, arthritis, diabetes, alcoholic problems, bad breath, sore throat, and mouth rash. Physical and psychological problems were also mentioned. Most respondents rated their health status as bad. The illegality of sex work in South Africa pushes sex workers to practice the trade in obscure places making them very vulnerable.

Conclusion
Street-based female sex workers have numerous general health problems, but with limited access to health services. The law does not also help the course of street-based female sex workers. There is an urgent need to partially criminalize sex work. Re-orientation and education of sex workers and providers is also required. All these will help promote the welfare of sex workers.
LIST OF ABBREVIATIONS

AIDS............Acquired Immune Deficiency Syndrome
ED..............Embrace Dignity
FGDs..........Focus group discussions
HIV.............Human Immune Deficiency Virus
NGOs..........Non-Governmental Organizations
STDs...........Sexually transmitted diseases
TB..............Tuberculosis
UNAIDS.......United Nations Programme on HIV/AIDS
UNDP..........United Nations Development Programme (UNDP)
WHO..........World Health Organization
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PART A: STUDY PROTOCOL
SUMMARY OF STUDY PROTOCOL

Introduction
The sex industry is hierarchical with street-based sex workers being at the bottom of the hierarchy. Street-based sex workers face different kinds of work experiences and exposure, personal circumstances, and varying degrees of health problems. They face considerable risks including physical abuse, beatings and rape. Health problems faced by the street-based sex workers are more severe and worse than other classes of sex workers. But most studies in South Africa concentrate on sexually transmitted diseases (STDs) including HIV/AIDS, condoms negotiations etc. by sex workers. Hence, there is limited knowledge about the general health problems of street-based sex workers. This study intends to investigate the general health problems of street-based sex workers in Cape Town, South Africa. Sub-questions to be addressed include: (1) How do street-based female sex workers understand their health needs and how do they access health care? (2) What are their experiences in accessing health care services? (3) What are the perceived barriers to accessing health care services for street-based female sex workers?

Methods
The study will be cross-sectional in design and will involve the use of qualitative data methods. The methods will include in-depth interviews and focus group discussions with street-based female sex workers. A combination of purposive, convenience, and snowball sampling methods will be used to recruit street-based female sex workers in the Cape Town Metropolis, who are 18 years and above. Participants will be recruited with the assistance of the Embrace Dignity project. This organization works with street-based sex workers in Cape Town. The data for the study will be transcribed, reviewed and coded to identify major themes that might come up for the write up.

Conclusion
The results of the study will be used to design health interventions to meet some of the health needs of street-based sex workers. Knowledge gathered from this study and other studies will be used to inform a number of public health interventions in sex worker population.
1.0 Introduction

Sex work is globally practiced and considered as the oldest profession in the world (Hubbard, 1997). It is the engagement of men and women in sexual intercourse for remuneration, mostly taking the form of financial payment, though other forms of payment exist (the provision of food, clothing or housing). Defining sex work, Monto stated that it is the exchange of sexual accessibility to one’s body for something of importance, more often money or drugs and other benefits (Monto, 2004). Similarly, the concept has been conceived as the explicit and direct exchange of sexual services for monetary purposes (Vanwesenbeeck, 2001).

Intrinsically, sex work has a strong economic basis with incentives ranging from survival, debt alleviation, drug dependency, coercion, or a desire for wealth (Vandepitte et al., 2006). The sex trade is considered a multi-billion dollar business that employs millions of women (Edlund and Korn, 2002) and differs greatly among populations. According to Vandepitte et al., sex work is classified as direct and indirect (Vandepitte et al., 2006). Direct sex workers are those women who classified themselves as sex workers and earn their living primarily by selling sex. On the other hand, indirect sex workers are women for whom sex work is not the first source of income, but serves as a secondary source of income. For instance, the indirect sex workers may work as waitresses, hairdressers, tailors, massage girls, street vendors, or beer promotion girls and supplement their income by selling sex on a regular basis or occasionally. These women do not consider themselves as sex workers and work outside of the known places for sex work. Sex work can include car sex, in-call or out-call escort services, long-term relational sex, crack house sex, massage parlours, brothels, and sex tours (Monto, 2004).

The sex industry is hierarchical with street-based sex workers being at the bottom of the hierarchy. The street-based sex workers face different kinds of work experiences and exposure, personal circumstances, and varying degrees of health problems (Weitzer, 2010; Vanwesenbeeck, 1994). This class of sex workers are subjected to considerable risks of physical abuse, beatings and rape. The physical violence can be perpetrated by their clients, but they are also subject to molestation by various anti-
social street people, including street gangs and other criminals. The health issues of street-based sex workers are more severe and worse than the other classes of sex workers.

Research with sex workers tended to concentrate on HIV/AIDS and other sexual issues rather than wider health issues, and has failed to differentiate between street-based sex workers and off-street sex workers. Little is known about the general health issues and background of street-based sex workers, the group likely to have the greatest needs. This study intends to investigate the general health problems of street-based sex workers in Cape Town.

1.1 Background

Literature shows several inherent risks in relation to sex work. These risks adversely impact on the health of sex workers. In South Africa for instance, sex workers are exposed to high levels of violence and rape in the course of their working lives (Wood and Jewkes, 1998; Webb, 1997). These crimes are usually perpetuated by pimps, partners, clients, and police officers (Dalla and Kennedy, 2003). Furthermore, sex workers are at an increased risk for the acquisition of sexually transmitted diseases (Mardh et al., 1999). In fact, sex workers have been described as the reservoir for sexually transmitted diseases and HIV/AIDS (Varga, 1997). 50% of sex workers as compared to 20% of women attending an antenatal clinic in KwaZulu-Natal, South Africa tested positive for HIV (Ramjee et al., 1998; Kharsany et al., 1997).

A similar study in the Hillbrow/Joubert Park (in Johannesburg) area showed that HIV infection levels among sex workers was close to 50% (RHRU, 1998). The risk for the acquisition of sexually transmitted diseases is further compounded by clients who negotiate for non-use of condoms through the payment of more money. These clients might have previously patronised the services of other sex workers as well, without the use of condoms, putting sex workers at more risk.

Further, drug use is a common practice among sex workers which has health risk. The use of drugs might also cause users to indulge in sexual intercourse without the use of condoms. Identifying the need for more research on the general health-related concerns of sex workers risky behaviours for HIV, Faugier et al interviewed 100
drug-users and 50 non-drug-using female sex workers in Manchester, England. They found that while many women were aware of the risks of HIV, 33% of drug users and 12% of non-drug users were willing to dispense with condoms if they could get more money from their clients (Faugier et al., 1997). General health problems identified by the respondents were poor antenatal care, hepatitis, malnutrition, and many different types of infections that were resistant to treatment.

In a related study, Valera et al. noted that many sex workers also suffer from psychological problems. They found that 42% of the 100 sex workers interviewed met the DSM-IV criteria for diagnosis of post-traumatic syndrome (PTSD) (Valera et al., 2001). Similarly El-Bassel et al assessed the levels of psychological distress in a sample of poor, inner city women classified as sex traders (those who had traded sex for money or drugs within the 30 days prior to the interview) and non-sex traders (women who had never traded sex for money or drugs or who had not done so in the 30 days prior to the interview). The authors found that sex traders had significantly higher mean scores of psychological distress (e.g., anxiety, depression, hostility) as measured by the Brief Symptom Inventory subscales and the General Severity Index than non-sex traders (El-Bassel et al., 1997). Another study by Burgos et al on the health needs of 78 street-based adolescent sex workers in Puerto Rico, found that 64% had a high level of depressive symptoms (Burgos et al., 1999).

Furthermore, sex workers especially the street-based ones in South Africa face daily harassment from the police and the community, which pushes them to work in isolated places, placing them at increased risk of violence from clients and community members (Brener and Pauw, 1998). This is a result of the fact that sex work in South Africa is illegal and outlawed. Sex workers are also afraid of reporting crime committed against them to the police because of the fear of being arrested and also because of the stigma attached to the trade.

Sex work tends to have a negative impact on health. This negative impact might be because of the nature of the work, the social stigma or the emotional cost attached. Sex workers may be exposed to poor health conditions at work, which would include physical danger. For example, estimates of HIV among sex workers who work in mining communities in South Africa, suggest that over 25% of them are HIV positive
(Campbell, 1998). A similar study of sex workers working at truck stops on the route between Durban and Johannesburg in the Natal Midlands indicated that many of them did not use condoms with clients, because this often led to violence as condom use left clients sexually unsatisfied (Abdool Karim et al., 1995). Further, clients were only willing to pay a quarter of the price for sex with a condom (Abdol Karim et al., 1995). Luiz and Roets also noted that in the Free State Goldfields of the Welkom area, women were afraid to insist on condom usage because they fear violence from clients (Luiz and Roets, 2000).

Significant numbers of street-based sex workers have histories of childhood sexual and physical abuse, increasing their susceptibility to mental and emotional problems (Farley and Barkan, 1998). Other studies show that entry into sex work may occur at a young age (Greene et al., 1999), thus increasing total exposure to these risks.

The combination of the factors listed above leads to increased risk of health problems compounded with lack of appropriate health care and the need to sell sex to gain money can result in serious health problems which require attention. Most previous studies have concentrated on only HIV/AIDS.

1.2 Problem statement

Studies documenting the link between HIV and sexually transmitted diseases (STDs) and sex work are numerous (Baseman et al., 1999). It is also on record that sex work and drug use are inextricably linked and both are associated with considerable risks to health (Ward et al., 2006).

Sex workers especially street-based workers are a socially marginalized group with poor standards of health (Day et al., 1988) and lack access to social and medical services which were available to others (Scambler and Scambler, 1995). This is aggravated by the stigmatization and discrimination by health care workers and community members. Hence their use of routine health care is often challenged (Scott et al., 1995).

Besides, the fear of discrimination and arrest was also cited as the reason that sex workers do not seek out care (Weiner, 1996). Moses noted that the lack of access to
health services by sex workers has resulted in the unsuccessful implementation of programmes targeting the prevention of STDs in Asia and Africa (Moses, 1996).

Despite these myriad of health and social problems, most studies in South Africa have concentrated on HIV/AIDS and condoms negotiations. Studies (especially qualitative ones) highlighting the general health problems of sex workers and barriers to accessing health care services are rare in South Africa. It is important that a study is conducted considering all areas of sex workers’ lives that may have relevance to the general health and expectation of health. Hence, the present study seeks to assess the general health problems of street-based female sex workers in the Cape Town Metropolitan area.

1.3 Main Research question and sub-questions
The following research question will be addressed; what are the general health problems of street-based female sex workers in Cape Town? Sub-questions include: (1) how do street-based female sex workers understand their health needs and how do they access health care?, (2) what are the experiences of street-based female sex workers when accessing health care services?, (3) what are the perceived barriers to accessing health care services for street-based female sex workers?

1.4 Rationale and justification
It is increasingly recognized that STDs infection and related stigma and discrimination pose one of the greatest challenges to effective prevention and treatment (UNAIDS, 2002). Undoubtedly, sex work is found in all societies of the globe. It is practiced in almost all of the countries and in every facet of society. Although there is a considerable amount of literature regarding sex work around the world, there is very little that explains sex work in the context of knowledge on the general health problems of sex workers. Generally, information on health seeking behaviour and experiences street-based female sex workers go through for accessing health services are lacking in Cape Town. There is also limited knowledge on the barriers to health care by street-based sex workers. This is against the fact that sex workers may be exposed to poor health conditions at work, as well as stigma and discrimination. Women are willing to take these risks because they are poor, uneducated, from rural areas, and they rely upon sex work as their only option to support themselves (Varga 2001). A study showed that, most women do not choose to
do sex work, they are forced by circumstances such as poverty, drug addiction or lack of education (Romero-Daza et al., 1998). These factors, in addition to their lives on the streets put them at risk of facing more health problems besides HIV/AIDS and other STDs. As a result, sex work tends to have a negative impact on the general health status of sex workers. Also, street-based sex workers may represent a sub-population that is particularly disadvantaged in terms of access to health care services. The study will go beyond general health needs and perceptions and acts that put them at risk for STDs infection to explore their actual health seeking behaviours and health care experiences when seeking care. Recognizing their health needs and how to overcome them is useful information to better health care which is likely to improve management of STDs and HIV infection that street-based sex workers face.

To develop an appropriate interventional programme requires a comprehensive picture of the general health problems and the barriers faced by street-based sex workers in accessing health care services. Hence it is important that a study be conducted exploring the general health problems as well as the barriers faced by street-based female sex workers when accessing health care. The results of the study will be used to design health as well as developmental interventions to help meet the health needs of street-based female sex workers.

2.0 Methodology

2.1 Study site
The study will be carried out in the Cape Town Metropolitan area, South Africa. This is a small-scale exploratory study and hence the selection of only one site, Cape Town. There is anecdotal evidence that, Cape Town is clustered with a lot of street-based female sex workers and this informs its selection.

2.2 Study design
Again due to time and financial constraints, the study will be cross-sectional. It will be carried out over a period of six months. Qualitative methods of data collection will be used for the study. These methods will allow for an in-depth exploration of the research questions. The methods will include in-depth interviews (IDIs) and focus
group discussions (FGDs) with street-based sex workers. Policy documents on sex work will also be reviewed.

2.3 In-depth interviews
Fifteen (15) in-depth interviews will be held with the street-based sex workers. Due to the fact that street-based sex workers are a difficult to reach population, the proposed number of in-depth interviews is considered as adequate for the study. The use of the in-depth interviews is to help dig deep into issues concerning the general health problems of street-based sex workers. It is also to get participants to tell their individual stories about sex work.

Semi-structured interview guide will be developed in English for the in-depth interviews. The guide will be translated into the local languages (Afrikaans and Xhosa) spoken in the area by a professional translator. The questions in the guide will include participants’ demographics, whether participants have fallen sick, what might have caused their sickness, if they accessed health care, difficulties/barriers that they faced when accessing the health care and what can be done to promote their health needs or health care provision for sex workers. The structure of the questions will make provision for the interviewer to ask additional questions as the interview progresses and for the respondent to raise other issues that would not have been captured by the study. Each interview will last up to one hour.

All the interviews will be recorded and later written out for data analysis. Field notes will also be written alongside as a complement. The in-depth interviews will be conducted by a trained research assistant and supervised by the investigator to assure quality.

2.4 Focus Group Discussion
Four (4) focus group discussions will be held with the street-based sex workers. The participants for the discussion will be drawn from respondents who will take part in the in-depth interviews and will agree to be part of the discussion. Other street-based sex workers will be invited to participate in the discussion through the snowball sampling method. Each focus group will comprise of a membership of up to at least four (4) participants, because sex workers are a hard to reach group.
The essence of the focus group discussion is to help bring together participants who identify themselves as having a common interest and hence discuss issues pertinent to their welfare. A discussion guide will also be developed in English to be used for the discussion. The guide will be translated into the local languages (Afrikaans and Xhosa) by a professional translator. Among other things, the guide will capture data pertaining to the participants’ demographics, their general experience of sex work, their health care needs, whether they are able to visit health facilities as sex workers and finally the type of health facilities that they visit for their health needs. Field notes as well as bodily expressions will also be taken during the discussions, which will complement the transcribed notes. Each discussion will last for about one and half hours. The focus group discussions will be conducted by the trained research assistant and supervised by the investigator.

2.5 Study population, sampling and recruitment
The study population will be street-based female sex workers working in the Cape Town Metropolitan area.

2.6 Inclusion Criteria
- Study participants must be street-based female sex workers who trade sex for money or any other benefit within the last two months;
- Participants must operate within the Cape Town Metropolitan area;
- Study participants must be 18 years or older;
- Study participants must be capable and willing to provide informed consent;
- Study participants must demonstrate willingness to participate in the study without any form of coercion.

2.7 Exclusion Criteria
- This study will exclude sex workers who are less than 18 years old.
- Non street-based sex workers will be excluded from the study too.

The study will recruit its participants via the Embrace Dignity (ED) project, a non-governmental organization involved with sex workers in the Cape Town Metropolitan area. Hence a combination of purposive, convenience, and snowball sampling methods will be adopted. These sampling strategies will be used because of the above-mentioned challenges associated with sex work in South Africa.
Embrace Dignity has contacts with sex workers who visit their offices in central Cape Town regularly for consultation and assistance. The nature, scope, and objectives of the study will be explained to the promoters of Embrace Dignity. With the permission of Embrace Dignity, those sex workers who will visit their offices will be approached by the investigator to solicit their participation in the study. Those who will consent and participate in the study will be asked to direct the investigators to other colleagues for possible consenting and enrolment.

2.8 Data Analysis
Data analysis will begin after the first interview and continue throughout the data collection period and afterwards. The in-depth interviews and focus group discussions will be recorded and transcribed by professional transcriptionists and not by the moderator, to help prevent interviewer bias. All transcriptions will be done verbatim to reduce errors. The transcripts will be reviewed exhaustively and coded to identify major themes that might arise from the data such as health seeking experience, utilization of health services, stigma, discrimination, and sexual behaviors. Other variations and patterns that may appear relevant will be covered. Further, the investigator will seek to identify the health needs of the participants in order to suggest how access to health care can be provided or improved upon for that particular group.

In order to maintain objectivity and truthfulness of the data to be collected, all participants of the study will be asked to endeavour to respond to the questions as sincerely as possible.

2.9 Training
One experienced research assistant will be recruited for the study from Embrace Dignity project who has the experience of working with sex workers. The research assistant will be fluent in the local languages (Afrikaans and Xhosa) spoken in the localities. A one day training session will be organized for him/her by the investigator on the purpose and objectives of the study, data collection techniques and tools and the ethical issues involved.
2.10 Pre-testing
The data collection tools will be pre-tested in one of the designated areas covered by the Embrace Dignity project. Three interviews for the pilot study will be done and they will be kept alongside the data collected. Modification to the tools will be made if there is the need, before they are used in the actual data collection.

2.11 Ethical Issues
The study will conform to the required ethical guidelines regarding the conduct of research. This study raises some important ethical concerns, as it involves an investigation into an illegal activity which is stigmatized within society. The nature of the study may bring back memories that could cause distress and pain, requiring debriefing and emotional support. Participants may be apprehensive in revealing their identity for fear of arrest or imprisonment, and may also be stigmatized by society (family members, friends, sexual partners and spouse) if their profession is disclosed.

The research assistant will be well trained to deal with these issues. Recruitment will be only done through the Embrace dignity project which is working with sex workers. Other street-based sex workers will be invited through the snowballing methods and hence promoting confidentiality. Interviews will be done in private places, at Embrace Dignity offices or elsewhere, where sex workers will feel comfortable and secured by mutual understanding. Compensation (in the form of meal vouchers and cost of transport) will be provided to participants to compensate for their time. All participants will be fully informed about the nature, scope and objectives of the study before the commencement of the interviews and discussions. In addition, the researcher will encourage participants to ask questions about the study.

2.12 Ethical approval
Approval to conduct the study will be obtained from the Faculty of Health Sciences Ethical Review Committee, University of Cape Town, South Africa. Because of the intrusive nature of the investigation and sensitivity of the material discussed, each participant will be asked to sign an informed consent form. The inform consent will outline the purpose of the study, benefits/risks, anonymity, how the data would be used, and the availability of results. All participants will read or have the inform consent form read to them before signing, for which a signed copy each will be retained by each participant.
2.13 Potential risks/discomforts
This study will keep as confidential the personal information of the participants with regards to their health experiences, health seeking behaviour, needs and the difficulties when accessing health care services. Participants who become uncomfortable with interview questions may choose not to answer them or discontinue participation in the study. The research assistant will be trained to be sensitive and to provide emotional support when the need arises. Appropriate referrals for psychological support will be made, if needed. Information given out will not be revealed to other persons, except for the purpose of which the study will cover. In the event of an emotional breakdown of participants, or where participants become violent as a result of the remembrance of a past experience, or a conflict arising between participants, the research team will utilize Embrace Dignity and their services to manage the situation. Any other risk not mentioned here will be dealt appropriately by the research team.

2.14 Benefits
Participation in the study will allow participants to share their general health problems, needs, health seeking behaviour, difficulties of accessing health services, etc. The results of the study will be used to inform health care providers and policy makers in packaging appropriate health care services to that particular population. Whatever information that is given, remains private and will not be linked to anyone.

2.15 Confidentiality
The interview will be conducted in a private place at the Embrace Dignity project offices or elsewhere through an agreement by participants and the research team. All interviews will be tape recorded and some notes also written out. Names will not be written in the notes nor recorded on the tapes. An identification numbers will be assigned to the participants. Nobody will be identified in any report or publication made on the study. All the information given for the interviews will be held private. This information will be accessible only to the research team, who will listen to the tapes, make written notes, and use the notes for the purpose of which the study is intended. After the notes are written from the tapes, they will be destroyed. Personal information obtained from participants will be kept in a highly confidential place.
2.16 Voluntariness and right to withdraw
Participation is completely voluntary. Questions can be asked on anything that is not understood. Participants have the right to terminate the interviews at anytime, or decline to answer questions without any penalty.

2.17 Write up and Dissemination
The principal investigator will be the main author responsible for writing up the research report. This will then be reviewed by co-authors prior to confirmation of the final draft. The final report will be submitted to the internal and external examiners, and thereafter for publication in suitable peer-reviewed journals.

Prior to this, a meeting will be scheduled to release the findings of this study to all previously identified and involved stakeholders, including representatives from Embrace Dignity, government officials, NGOs and community stakeholders. This will include a series of oral presentations detailing the study findings, and will include recommendations of the research team. These meeting will include sessions for discussion of the findings and the prospect of future research initiatives.

All study participants will also be invited to this planned meeting. It is possible, that due to the sensitive nature of sex work and aspects of privacy, many may choose not to attend this event. These sessions will also provide researchers with the opportunity to draw participant’s opinions on the findings, and their views on future research needs.

It is thought that sex worker’s general health experience, needs and sexual health practices, will influence health care providers to improve their services and train their staff to eradicate discrimination. I truly believe that, this process will facilitate health promotion messages among the sex worker population and help improve public health services delivery for them.
REFERENCES


PART B: STRUCTURED LITERATURE REVIEW
1.0 Introduction
Prostitution is globally practiced and considered as one of the oldest professions, employing millions of women worldwide (Hubbard, 1997; Edlund and Korn, 2002). It is also undertaken by males and the transgendered. Prostitution is most often understood as an urban phenomenon (Hubbard, 1997), where a large clientele base exists (Morison et al., 2001). However, it may also manifest in various forms in rural localities as well.

Prostitution has been shown to be a complicated issue for governments, ministries/departments of health, non-governmental organizations (NGOs) and individual stakeholders. According to Kelly et al (2011), prostitution can be framed through a range of concepts including morality, health, social problems, gender orders, human rights, law and order (including national security), migration, labour/employment, capitalism and globalization.

These frames are pursued by different stakeholders, depending on the perspective, interest or policy agenda. For example, in patriarchal societies, prostitution is regarded as a social problem. Against this background, women who practice prostitution are regarded as immoral and carriers of sexually transmitted diseases including HIV/AIDS, gonorrhoea, and syphilis (Varga, 1997). In turn, various regulatory frameworks are typically put in place with the sole objective of controlling or eradicating it. However, these measures are usually not sufficiently deterrent since sex workers continue to offer their services, albeit in reduced numbers. For instance, Kilvington et al (2001) reported that the enactment of criminal sanctions against the buying of sexual services in Sweden only brought about a reduction in the number of sex workers soliciting clients (Kilvington et al 2001).

1.1 Structure of the review
This review examines the concept of prostitution, including the definitions and types of prostitution. The review continues by exploring the various legal frameworks pertaining to prostitution globally and in South Africa. Empirical evidence assessing the relationship between prostitution, stigmatization and discrimination, violence, condom use, sexually transmitted diseases, and the health-seeking behaviour of sex
workers is also reviewed. Finally, a conclusion and a review of important gaps in
to knowledge complete the review.

1.2 Search strategy
The literature review combines studies using both quantitative and qualitative
methods. I did an electronic search in databases like PubMed, MedLine, Inter-
Science (Wiley), Science Direct (Elsevier), and EBSCO (Academic Search Premier)
to identify relevant studies published in peer-reviewed journals and unpublished
papers and reports (grey literature). A combination of keywords was used for the
search. These keywords were: prostitution, prostitutes, sex work, commercial sex
work, female sex workers, health seeking behaviour of prostitutes/sex workers,
condom use among prostitutes/sex workers, stigmatization and discrimination against
prostitutes/sex workers, experience of prostitutes/sex workers when seeking health
care and health problems of prostitutes/sex workers. Additional articles were retrieved
from bibliographies of selected articles. Besides these databases, searches were also
made on the web pages of international organizations such as the World Health
Organization (WHO), United Nations Programme on HIV/AIDS (UNAIDS), the
United Nations Development Programme (UNDP), and the European Network for
HIV-STD Prevention in Prostitution. In addition to these sources, reports and
publications were also taken from non-governmental organizations involved with sex
workers in the Cape Town Metropolis and South Africa.

2.0 Background

2.1 Definitions of prostitution
Various definitions have been given to the term by various authors in the field and in
varying contexts. Some authors define prostitution to include only the exchange of
sexual activities for money. For instance, Vanwesenbeeck defined prostitution as the
explicit and direct exchange of sexual services for monetary purposes
(Vanwesenbeeck, 2001). On the other hand, other authors used a broader definition
that comprises the trading of sexual services to meet certain needs including drugs,
food, shelter, and protection. Monto, for example, defines prostitution as the exchange
of sexual accessibility to one’s body for something of importance, more often money
or drugs (Monto, 2004).
Prostitution has also been defined as a social institution which ‘allows certain powers of command over one person’s body to be exercised by another’ (O’Connell Davidson, 1998: 9). Some authors have argued, however, that defining prostitution in the context of sub-Saharan Africa is not easy. This stems from the fact that the exchange of material goods or money for sex is part of many relationships that have existed between men and women (Nnko & Pool, 1997). For this review, prostitution will be defined as the engagement of men and women in sexual intercourse not for financial benefit only, but for other gains like food, clothing, housing or drugs.

Throughout this literature review, prostitution and sex work will be used interchangeably.

2.2 Types of prostitution
Prostitution differs greatly among populations. According to Vandepitte et al. (2006), prostitution can be grouped into direct and indirect forms. Direct prostitution is undertaken by women who classify themselves as sex workers and earn their living primarily by selling sex. On the other hand, indirect prostitution involves women for whom sex work is not the first source of income, but serves as a secondary source of income. For instance, the indirect sex workers may work as waitresses, hairdressers, tailors, massage girls, street vendors, or beer promotion girls and supplement their income by selling sex on a regular basis or occasionally. These women do not consider themselves as sex workers and work outside of known places for sex work.

Prostitution can include street-based-car sex, in-call or out-call escort services, long-term relational sex, crack house sex, massage parlours, brothels, and sex tours (Monto, 2004). Within the hierarchy of sex work, street-based sex work is at the bottom. Street-based sex workers face different kinds of work experiences and exposures, personal circumstances, and varying degrees of health problems (Weitzer, 2010; Vanwesenbeeck, 1994). They are also the most widespread category of prostitution globally (Harcourt and Donovan, 2005).

2.3 Prostitution and the law
There are three main legal frameworks that can be used to address the issue of prostitution. These are; criminalization, legalization and decriminalization. Partial
criminalization is a hybrid of these approaches. These regulatory frameworks vary from country to country.

2.3.1 Criminalization

By definition, criminalization makes the exchange of sexual services for monetary and other benefits illegal. Examples of countries criminalizing prostitution and its related activities are the United States of America, Canada and South Africa (Lutnick and Cohan, 2009; Mgbako and Smith 2009; Weitzer, 2007).

In South Africa, the purchase and sale of sexual services and its associated activities are criminalized. Individuals involved in prostitution are therefore liable to prosecution. Given these circumstances, sex work poses great risks for both the person providing sexual services and the client buying those services. The Sexual Offences Act (1957) prevents any person from having unlawful carnal intercourse, or committing an act of indecency, with any person for reward. This includes procurement, pimping, brothel management and living off the earnings of prostitution. In 1988, the law was further upgraded to criminalize “the exchange of sexual acts for reward” and the penalty for this offence was a fine. With the introduction of the Sexual Offences and Related Matters Amendment Act of 2007, a range of additional sexual offences were captured, including the sexual exploitation of children and those who are mentally incapacitated.

2.3.2 Legalization

Legalization involves the development of laws to regulate prostitution. Sex workers and their clients have to conform to these rules and regulations. For instance, they will be required to register their operations and often to pay tax. These laws may also require sex workers to operate within certain areas only and to undertake periodic/routine medical check-up as well. Countries that have legalized prostitution include Senegal, the Netherlands, Germany and some parts of Australia (Lutnick and Cohan, 2009; Mgbako and Smith 2009). It is worth noting that a legalized system permits some, but not necessarily, all kinds of sex work.

The essential aim of the legalization of prostitution is the promotion of a safe working environment for sex workers. This gives them more protection from violence and rape and greater access to condoms and other health care services when required (UNAIDS, 2009). However, the restriction of the trade to certain areas and
registration may not work well for all sex workers due to other challenges including distance, transportation, etc. Consequently, the law may not work as effectively as expected.

2.3.3 Decriminalization
Decriminalization involves the removal of all laws that criminalize prostitution. Sex workers are permitted to ply their trade freely whether at home, on the streets, or in brothels. They have the opportunity of choosing among the clients for business and can report violence to law enforcement agencies. New Zealand is one of the countries that has decriminalized prostitution (Lutnick and Cohan, 2009; Weitzer, 2007).

Some authors are of the view that the decriminalization of prostitution will make access to women and children for prostitution easier than when it is illegal. In South Africa, this would particularly contradict the law on Gender Equality. (Farley et al., 2003; Farley and Kelly, 2000).

2.3.4 Partial criminalization
Partial criminalization involves prohibiting the buying of sexual services and all other accompanying acts. The act of prostitution itself is legal and thus sex workers can operate freely. Partial criminalization is premised on the principle that the demand by men for the supply of sexual services from women promotes prostitution and trafficking (O’Connor and Healy, 2006). So if there is no demand for sexual services by men, the supply by women will be significantly reduced if not eradicated. Most importantly, the purpose is to help reduce male violence against women and children and to end the oppression of sex workers by mainstream society (De Santis, 2004). However, sex workers are often powerless to seek legal assistance from the law court or police. Examples of countries practicing partial criminalization of prostitution are Sweden and the United Kingdom (De Santis, 2004).

2.4 Prostitution, stigmatization and discrimination
Many studies have reported that sex workers are stigmatized, as well discriminated against by community members, health care providers and the law enforcement agencies. For example, a UNAIDS report highlighted the fact that sex workers in some settings were being stigmatized and discriminated against, making it very difficult for them to have access to the necessary health care services (UNAIDS, 2001). An exploratory study of 26 female urban, street-based sex workers demonstrated that more than half of the respondents (61.5%) felt very stigmatized by
members of their communities and health care providers (Baker et al., 2004). According to Heyl, even within the prostitution industry, sex workers stigmatized their own groupings. Street-based sex workers are stigmatized by other sex worker groups and are considered to be at the bottom of the social class of sex workers (Heyl, 1979).

2.5 Prostitution and violence
Several studies have been conducted to ascertain the association between prostitution and violence, as this poses a health risk for sex workers. These studies reported that clients, managers, the police and those in the general population often physically/emotionally abuse, assault, rape, or murder sex workers (Arnott and Crago, 2009; Wojcicki and Malala, 2001). For instance, a study by Jeal and Salisbury (2004) illustrated that many respondents (about 44%) in their survey had experienced sexual abuse and 38% had been in care as a result of violence from clients.

A literature review by Farley et al also showed that about 68% of sex workers were threatened with a weapon, 66% were physically assaulted, 56% were raped, 58% of those raped were raped more than five times, and 69% were subjected to more than one type of violence during their lifetimes (Farley et al., 2003). It was for these reasons that Raymond considered prostitution as violence against women (Raymond, 1998). The violence against sex workers often forces them to relocate to more dangerous areas or to associate themselves with a “pimp” or others in organized crime for protection. This association may further compound the problems of sex workers.

2.6 Prostitution and condom use
To combat the transmission of sexually transmitted diseases including HIV/AIDS, there is the need for sex workers to undertake a form of protection, especially the consistent use of condoms during sexual intercourse with clients. Many studies have examined the use of condoms among sex workers. Some have reported a non-consistent (i.e. low) use of condoms by sex workers. For instance, a literature review by Hong and Li (2008) showed that most sex workers in China have both commercial and non-commercial sex partners. Condom use was dependent on the type of partner; condoms were used with commercial sex partners but no condoms were used with non-commercial sex partners. Such non-commercial partners may have other partners.
as well. It is therefore not surprising that the authors reported a high incidence of sexually transmitted diseases for the reviewed studies.

Similarly, in the setting of sub-Saharan Africa including South Africa, studies have established the occasional use of condoms by sex workers with casual partners (usually soldiers, taxi drivers, or business men) and the less frequent use of condoms with intimate partners (long-term clients) or boyfriends/husbands (Varga, 2001; Wojcicki & Malala, 2001; Outwater et al., 2000).

Another significant force affecting the use of condoms by sex workers is financial incentives. A survey by Jeal and Salisbury (2004) in the United Kingdom revealed that 97% of the respondents reported that they had been offered more money for the non-use of condoms. A survey in Durban, South Africa, showed that about 67.3% of the respondents forfeited the use of condoms for extra money (Varga, 2001).

In addition, some sex workers were unable to negotiate for the use of condoms due to unequal power relations with their male clients. Some clients resort to the use of force or non-payment of the fee charged if asked to use condom (Outwater, 2000, Abdool Karim et al., 1995).

On the other hand, some studies have found that, no matter the circumstances, some sex workers would not forgo the use of condoms with clients, even if they needed to buy drugs. For instance, Pyett and Warr showed that no matter the financial incentive or competition from others, sex workers (both street and non-street-based sex workers) were not willing to forgo the use of condoms (Pyett and Warr, 1997). The authors offered the following explanation for their finding; that the sex workers who work in brothels had the support of the management, who ensures the consistent use of condoms by clients. But the street-based sex workers had over time developed risk management strategies to get clients to agree to the use of condoms. For example, these street-based sex workers use humour to get difficult clients to comply with the use of condoms. The finding of this study is peculiar, since most studies highlight the inconsistent use of condoms among female sex workers in their day to day interactions with clients.
2.7 Prostitution and sexually transmitted diseases

With the upsurge of the HIV/AIDS pandemic, sex workers were often considered responsible for the situation. Multiple studies have been carried out to identify whether prostitution and sexually transmitted diseases were linked to a greater degree, in comparison to the general population. Hong and Li demonstrated in their literature review that sex workers had higher rates of infections than other groups in the general population (Hong and Li, 2008). In the UK, Jeal and Salisbury assessed the health needs of street-based sex workers and found that they had infections rates ranging between 9 and 60 times more than the general population (Jeal and Salisbury, 2004).

In South Africa, gynecological and laboratory tests done on sex workers in KwaZulu-Natal, revealed that over half of the sex workers were HIV positive (50.3%). Other sexually transmitted infections discovered were; trichomoniasis (41%), chlamydia (16%), gonorrhea (14%), and syphilis (42%) (Ramjee et al. 1998). In the same vein, other studies have reported that HIV prevalence among South Africa sex workers is over 50% (Scambler and Paoli, 2008; Wojcicki and Malala, 2001). Again, due to the inconsistency of condom use among sex workers, sex workers tend to have several sexually transmitted diseases. Many sex workers in Durban reported that they could not remember the exact number of sexually transmitted diseases they had had (Varga, 2001). These high infection rates show that sex work is a high risk business in terms of sexual health. However, these women are willing to take these risks because they are poor, uneducated, from rural areas, and rely on only sex work for survival and to support their families too (Varga, 2001).

2.8 Prostitution and health seeking behaviour

Given the hostile environment in which sex workers operate and their risky sexual behaviours, investigations have been carried out to understand their health seeking behaviour for ill health. The findings from these studies are mixed. Some studies have found sex workers to be utilizing health care services effectively when ill and others find the contrary. For instance, a study in Tanzania proved that sex workers utilized a variety of health-seeking strategies for the last sexually transmitted disease. About 28% of them attended a public hospital or health centre, 16% attended a private clinic, 13% a confidential clinic, 13% a pharmacy, and 23% the informal sector (Vuylsteke et al., 2001) The use of the informal sector include visits to traditional healers,
spiritualists and soothsayers. Another qualitative study in Tanzania had similar results. Sex workers were found to pursue different avenues of treatment including self-treatment with known herbs, traditional healers (herbalists), injectionists, pharmacies, government hospitals, and private clinics. According to the authors, almost all sex workers explored all options (Outwater et al., 2001).

On the other hand, some studies have found that sex workers were not utilizing health care services when ill. For example, in-depth interviews conducted among female sex workers in Nepal to determine factors associated with their utilization of health care services indicated that the respondents would not seek health care services due to unsuitable clinic opening hours, discrimination, the judgmental attitude of the health care providers, lack of confidentiality, fear of public exposure, and higher fees for the services (Ghimire et al., 2011). A qualitative study in a similar setting (China) established that sex workers had limited medical knowledge. This knowledge was often acquired from friends. The respondents were practicing self-medication, instead of visiting mainstream health care facilities (Wong and Wang, 2003).

3.0 Conclusion and knowledge gaps
Most of the studies in South Africa on the health of sex workers have concentrated on HIV/AIDS and condom negotiations. Studies (especially qualitative ones) highlighting the general health problems of sex workers and barriers to accessing health care services were limited. It is essential that a study is carry out considering all areas of sex workers’ lives that may have relevance to the general health needs and expectations of health. The development of an appropriate interventional programme requires a comprehensive picture of the general health problems and the social challenges faced by street-based sex workers in accessing health care services. Besides, recognizing the health needs of street-based sex workers is useful information to better health care which is likely to improve the management of STDs including HIV/AIDS and other risks that street-based sex workers face. Thus the results of the study will be used to design health as well as developmental interventions to help meet the general health needs of street-based female sex workers.

Word count: 3163
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De Santis, 2004. 'Sweden’s Prostitution Solution'.


36


A qualitative study assessing the general health problems of street-based female sex workers in Cape Town
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Generally, sex workers are a socially marginalized group with poor physical health. Within the hierarchy of sex workers, street-based sex workers are at the bottom. Street-based sex workers face different kinds of work experiences and exposure, with varying degrees of health problems. Their health problems are more severe and worse than the other classes of sex workers. Street-based sex workers are subjected to considerable risks of physical abuse, beatings and rape. These impacts greatly on their health. This study explored the general health problems of street-based female sex workers.

Methods
The study was carried out in Cape Town among street-based female sex workers aged 18 years and above. It was cross-sectional, conducted over a period of six months using fifteen (15) in-depth interviews and four (4) focus group discussions. The respondents were non-randomly recruited through the Embrace Dignity Project, whose activities involved sex workers. The data was transcribed verbatim, reviewed and coded to identify major themes for the write up.

Results
The study discovered that condom use was inconsistent as a result of financial incentives, condom breakage, violence, rape and non-payment from clients when insisting on condom use. But some respondents were not using condoms at all. The majority of respondents reported stigmatization and discrimination by community members and the police.

Most of the respondents do not go for routine and other medical checks. Some respondents were not satisfied with health care provision due to discrimination by providers and long waiting times. Notwithstanding, respondents reported a long list of health problems including: flu, cough, HIV/AIDS, TB, headache, vaginal discharge, itchy vagina, sleeplessness, high blood pressure, fever, heart problems, diarrhoea, sweating at night, arthritis, diabetes, alcoholic problems, bad breath, sore throat, and mouth rash. Physical and psychological problems were also mentioned. Most respondents rated their health status as bad. The illegality of sex work in South Africa pushes sex workers to practice the trade in obscure places making them very vulnerable.
Conclusion
Street-based female sex workers have numerous general health problems, but with limited access to health services. The law does not also help the course of street-based female sex workers. There is an urgent need to partially criminalize sex work. Re-orientation and education of sex workers and providers is also required. All these will help promote the welfare of sex workers.

Abstract word count: 381

Key words: Prostitution, sex work, health problems, street-based sex workers, South Africa

Background Internationally, there are concerns about the health of women who engage in sex work [1]. Sex work involves many risks, but many women are still willing to take these risks. The reasons accounting for the involvement of women in sex work include poverty, lack of education, drug addiction, alcohol consumption and migration from rural to urban areas [2, 3, 4]. Sex work is considered by many women as the only option available for supporting themselves and their families. Risk factors related to sex work include rape, physical violence from clients, homelessness, and poor conditions of work, social stigma and the nature of the work itself, that is, its illegality in some countries [1, 5]. Evidence abounds that sex work and drug use are also linked and both are associated with considerable risks to health [6].

High numbers of sexual partners, inconsistent use of condom and physical violence are other risk factors associated with sex work. A study of sex workers working at truck stops on the route between Durban and Johannesburg in South Africa indicated that many of them do not use condoms, as insistence on condom use often led to
violence from clients [7]. Further, a study in the Free State Goldfields of the Welkom area, South Africa, revealed that women could not ask for condom usage because they feared violence from clients [8].

Other studies also show that entry into sex work can occur at a young age [9] and thus increase the vulnerability of sex workers to health problems due to longer exposure.

All these factors expose sex workers to a number of health problems and diseases including HIV/AIDS and other sexually transmitted diseases (STDs). Estimates of HIV prevalence among sex workers who work in mining communities in South Africa suggest that over 25% of them are HIV+ [10]. As a result, sex work tends to have a negative impact on the general health status of sex workers. Street-based sex workers may represent a sub-population that is particularly disadvantaged in terms of the conditions of their work and their access to health care services.

This article explores the general health problems of street-based female sex workers. Sub-questions addressed include; (1) how do street-based female sex workers understand their health needs and how do they access health care?, (2) what are the experiences of street-based female sex workers in accessing health care services?, (3) what are the perceived barriers to accessing health care services for street-based female sex workers?

The study involved the use of qualitative methods of data collection, (in-depth interviews and focus group discussions).
With many challenges, street-based sex workers are at the bottom of the hierarchy of the sex trade and are socially marginalized [11]. Their physical health has been observed to be poorer than the other classes of sex workers [12]. They face different kinds of work experiences and risk exposures, personal circumstances, and varying degrees of health problems [13, 14]. Street-based sex workers are subjected to considerable risks of physical abuse, beatings and rape. The physical violence is sometimes perpetrated by clients, but it could also be perpetuated by gangster groups on the streets. It has also been noted that a significant numbers of street-based sex workers have histories of childhood sexual and physical abuse. These increase their susceptibility to mental and psychological problems later in life [15].

In South Africa, street-based sex workers face daily harassment from the police and community members, which pushes them to work in isolated places, placing them at further increased risk of violence from these groups [16]. This is a result of the fact that sex work in South Africa is illegal. Street-based sex workers are also afraid of reporting crimes committed against them to the police out of fear of being arrested and again, because of the stigma attached to the trade.

The combination of the factors listed above leads to increased risk of health problems. But due to stigmatization and discrimination by health care workers and community members, the use of routine health care by street-based sex workers is often limited [17]. Fears of arrest and harassment of street-based sex workers by the law enforcement agencies also prevent sex workers from seeking health care [18]. Moses noted that, it was for the lack of access to health care services, which has resulted in
the unsuccessful implementation of programs targeting the prevention of sexually transmitted diseases (STDs) among sex workers in Asia and Africa [19].

In spite of these innumerable and complex health and social problems, most studies on sex workers in South Africa have concentrated only on HIV/AIDS and condom negotiations [2, 20, 21]. The majority of these studies have also failed to differentiate between street-based sex workers and non-street sex workers. Studies (especially qualitative ones) highlighting the general health problems of street-based sex workers are limited in South Africa, but they (street-based sex workers) are one of the groups likely to have the greatest health needs, as indicated above.

The development of appropriate interventions for street-based sex workers will require a comprehensive picture of their general health and social problems. Hence this qualitative study examined the general health needs and social challenges of street-based sex workers in Cape Town. The results of the study will assist in designing health as well as development-oriented interventions to help meet the general health needs of street-based sex workers.

Methods

Study area

The study was carried out in the Cape Town Metropolitan area, South Africa, over a period of six months in 2011 (June to December). The study was intended to be a small-scale exploratory study and hence the small sample size and site. There is also anecdotal evidence that Cape Town is clustered with many street-based female sex workers and this informs the choice of Cape Town.
**Study Design**

The study was cross-sectional, using qualitative methods in the form of in-depth interviews and focus group discussion (FGDs). These methods allowed for an in-depth exploration of the research questions. Policy documents on sex work were also reviewed for the write up.

**In-depth interviews**

Fifteen (15) in-depth interviews were held with the street-based female sex workers. Due to limited time and resources and also because street-based sex workers are a difficult to reach population, this study was kept small and worked with a small sample size, consistent with other small-scale, exploratory qualitative studies. The use of the in-depth interviews was to help dig deep into issues concerning the general health problems of street-based sex workers. It was also to get participants to tell their individual stories and experiences about sex work.

A semi-structured interview guide was developed in English for the in-depth interviews. The guide was translated into the local languages (Afrikaans and Xhosa) spoken in the area by a professional translator. The questions in the guide included participants’ demographics, whether participants have fallen sick, what might have caused their sickness, if they accessed health care, difficulties/barriers that they faced when accessing health care and what could be done to promote their health needs or health care provision for sex workers. The structure of the questions allowed the interviewer to ask additional questions as the interview progressed, and also for the respondent to raise other issues that would not have been captured by the interview guide. Each interview lasted up to one hour. All the interviews were recorded and
later transcribed by a professional transcriptionist, different from the moderator to help prevent interview bias. Field notes were also written alongside as a complement. The in-depth interviews were conducted by a well-trained research assistant who is fluent in the local languages. The interviewing process was supervised by the investigator to ensure quality.

**Focus Group Discussions (FGDs)**

Four (4) focus group discussions were held with the street-based female sex workers. At least four participants each took part in the focus group discussions. Because sex work is outlawed in South Africa, we could not get more participants to take part in the focus group discussions. Discussants were invited to participate in the discussion through the convenience and snowballing methods. Known female sex workers were invited to come with their colleagues for participation in the FGDs. This was achieved through the assistance of Embrace Dignity (a non-governmental organization working with female sex workers in the Cape Town Metropolis).

The essence of the focus group discussion was to help bring together participants who identify themselves as having a common interest and hence would discuss issues pertinent to their welfare. A discussion guide was also developed in English and translated into the local languages (Afrikaans and Xhosa) by a professional translator. Among other things, the guide captured data pertaining to participants’ demographics, their general experience of sex work, their health care needs, whether they were able to visit health facilities as sex workers and finally the type of health facilities that they visited for their health needs. Field notes as well as notes on bodily expressions were also taken during the discussions, which complemented the transcribed notes. Each
discussion lasted for about one and half hours. The focus group discussions were conducted by the trained research assistant and supervised by the investigator. The investigator sat in for some of the discussions as a form of supervision.

The data collection tools were piloted in one of the designated areas covered by Embrace Dignity (ED) project and modification done appropriately. Three interviews for the pilot study were done and included as part of the 15 individual interviews conducted.

**Study population, sampling and recruitment**

The study population was street-based female sex workers who were 18 years and above and were working in the Cape Town Metropolitan area.

As indicated earlier, participants for the study were recruited via the Embrace Dignity (ED) project. The recruitment process involved a combination of purposive, convenience, and snowball sampling methods. Embrace Dignity had contacts with female sex workers who visit their offices in central Cape Town regularly for consultation and assistance. The nature, scope, and objectives of the study were explained to the promoters of Embrace Dignity. With the permission of the organization, female sex workers who visited their offices were approached by the investigator for participation in the study. Those who consented and took part in the study were asked to recruit their colleagues for participation in the study. Each participant was given R50 (R30 food voucher and R20 for transportation).
Data analysis
Data analysis began after the first interview and continued throughout the data collection period. The in-depth interviews and focus group discussions were recorded and transcribed into notebooks by a professional transcriptionist different from the moderator. All transcriptions were done verbatim to reduce errors. The transcripts were read several times by the investigator and coded. The codes identify major themes that arose from the data such as health seeking experience, utilization of health services, stigma, discrimination, sexual behaviours and general health problems. Other variations and patterns that appeared to be relevant were covered as well. Further, the investigator also explored the health needs of the participants in order to suggest how access to health care could be provided or improved upon for this particular group. Relevant quotes were identified for the various themes and used for the write up.

Ethics
The study was approved by the Human Research Ethics Committee of the Faculty of Health Sciences, University of Cape Town. Because of the intrusive nature of the investigation and sensitivity of the material discussed, each participant signed an informed consent form. The informed consent form outlined the purpose of the study, benefits/risks, anonymity, and the use of the data and results. The personal information of the participants with regards to their health experiences, health seeking behaviour, needs and the difficulties when accessing health care services were kept confidential. The participants were given identification numbers and this was used throughout the analysis and the reporting.
Participants who became uncomfortable with the interview questions chose either not to answer them or discontinued participation in the study. The research assistant was trained to be sensitive and to provide emotional support when the need arises. The research team also utilized Embrace Dignity and their services to manage situations of emotional breakdown, etc. The potential benefits of the study would be to inform health care providers and policy makers in packaging appropriate health care services and interventions to meet the needs of this particularly vulnerable group. All the interviews and FGDs were conducted in private settings.

**Results**

Fifteen (15) in-depth interviews and four (4) FGDs (four respondents each for each focus group discussion) were held with street-based female sex workers in the Cape Town Metropolitan area. All respondents for both the in-depth interviews and the FGDs were given identification numbers (IDs) in order to maintain confidentiality. These IDs have been used throughout this write up.

**Demographic characteristics of respondents**

The study recorded the demographic characteristics of all the respondents. These demographic characteristics are contained in Table 1 below.

**Table 1: Demographic characteristics of respondents including date of start of sex work**

<table>
<thead>
<tr>
<th>ID number</th>
<th>Age</th>
<th>Race</th>
<th>Marital Status</th>
<th>Highest educational level</th>
<th>Hometown</th>
<th>Province</th>
<th>Start of sex work</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23</td>
<td>Black</td>
<td>Single</td>
<td>Grade 7</td>
<td>Cape Town</td>
<td>Western Cape</td>
<td>2009</td>
</tr>
<tr>
<td>2</td>
<td>31</td>
<td>Black</td>
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In all, twenty-seven (27) women participated in both the in-depth interviews and the FGDs. The ages of the respondents ranged between twenty (20) and forty-three (43) (the least and the highest respectively). About half the women were black (14) and a majority were single (20). One respondent was married. The highest educational status for the respondents is grade 11 and the least is grade 4. There is only one foreign nationality (Malawi) and the rest were South Africans, with most of the respondents coming from the Western Cape.

**Reasons for becoming sex workers**

All respondents agreed that sex work was their primary source of income. They were engaged in full-time sex work. Respondents were asked why they engaged in sex work on the streets. Various explanations were given, including the inability of their parents to support them, the death of parents, separation from husbands/death of
partners and the influence of friends/peers. The main driving force seemed to be financial. One respondent said:

*My husband left me, so I didn’t have money to feed my kids. I looked for a job then I found this one* (Respondent 4, in-depth interview).

Another respondent said:

*My friends invited me to come because I didn’t have money and needed to live* (Respondent 5, in-depth interview).

Most respondents indicated that because they needed money to cater for their own needs and that of their children, they had to resort to sex work. They went further to emphasize that they would want their children to get fed and be properly educated as well.

Because respondents were not educated enough to be competitive in the employment marketplace, they had come to rely on their parents or partners for support. When that support system became dysfunctional, respondents were left with what they perceived to be the only option of engaging in sex work, an occupation where there were always clients soliciting for sex.

**General sexual behaviour (use of condom)**

Respondents were asked about the use of condoms during sexual intercourse. Some stated they use condoms to protect themselves because they do not want to become
pregnant or get infected with sexually transmitted diseases (STDs). But those who were already HIV+ responded that because of their status, they wanted to be able to live long and support their children. They used condoms to prevent re-infection. HIV+ respondents also said that being HIV+ and becoming pregnant would jeopardize their own lives and that of their unborn babies. One respondent stated:

*Because I want to live longer since I am HIV+. Therefore I try to make use of the condom as much as possible (Respondent 5, in-depth interview).*

Some respondents indicated they sometimes face resistance from their clients when they ask them to use condom. Some clients would prefer to pay more money to have sex without the use of condoms. One respondent said:

*Yes, some clients would negotiate with us to do business without using condom. Business without a condom is very nice, I am able to get more money and I use less time. Because clients who do not use condoms finishes very quickly (Respondent 8, in-depth interview).*

Some clients would either beat or rape the sex workers when they insist on condom use. Clients could also deliberately break the condoms in the process of usage. Some respondents therefore said they compromised their stance if the clients resisted the use of condoms. One HIV+ respondent said that if a client refused to use condom when asked to, then she would allow him to have his way:
If a client doesn’t want to use condom I let them do what they want as long as I told them to use a condom. It is their problem because they don’t want to listen. All I care about is them to finish and pay me (Respondent 7, in-depth interview).

However, the FGDs revealed a different trend in the use of condoms. Respondents seem to be more opened within the group than in the individual interviews, because of the feeling of togetherness. Most of the respondents stated they do not use condoms at all with their clients. To the question; “are there instances you engage in unprotected sex?” a respondent answered:

*I must be honest, I have never used a condom from the time I started with this sex business* (Respondent 3, FGDs).

Though the respondents expressed knowledge of STDs like HIV/AIDS, syphilis, gonorrhoea, etc. and acknowledged that unprotected sex could lead to one contracting these diseases, they argued that they were helpless and could not influence their clients to use the condom. One of them said:

*For us sex workers, it is impossible to avoid getting STDs because we see so many men per day and all of them they are not safe at all. We don’t get enough time to clean ourselves for the next person and neither do we have a place we can clean ourselves. We are just like a dirty bin that get emptied and filled with wasted product and dirty stuff. So this is not something that as sex worker we have control over* (Respondent 1, FGDs).
They argued that female sex workers who work in massage parlours and strip clubs can better avoid contracting STDs and other diseases. These non-street sex workers, they believed, have a good environment and a place to wash themselves after each sexual act. This finding showed a lack of information about the mode of how STDs are transmitted especially. Information needs and its access for participants were not fully accessed for this study.

But interestingly, all respondents agreed that using condoms or having only one sex partner was the only way to protect oneself from getting infected with STDs including HIV/AIDS. But that such a lifestyle would not put food on the table for them. Some respondents also intimated that they could lose their lives or not get paid for asking for the use of condoms. The respondents said their clientele were mostly gangsters:

*Guys who see us are those who have been abandoned by their wives and families and they are gangsters. They don’t want you to start talking about condom. That is why most of our youngsters who enter into this business get killed. Because these guys don’t care, they don’t have time to waste (Respondent 4, FGDs).*

However, the study did not explore the knowledge and use of the female condom by respondents. Maybe it would have helped understand if clients would resist their use too.

Some respondents finally concluded that since they have taken up sex work as the only available option, they were ready to compromise anything to be able to earn money to make life better for themselves and their children. They described money as
the ultimate driving force for their behaviour and hence would not consider pregnancy or STDs, including HIV/AIDS. Some stated that one can only get sick if one believes in that (becoming sick through sex work), but if one does believe in that, one cannot become sick. Some respondents were also of the view that if they just ate properly (nutritiously), they would not have any health problem.

Experience of stigmatization and discrimination
All respondents stated that they face stigmatization and discrimination from their communities. They were called names such as “marhosha” which means sex worker. Male community members teased them by asking them to give them sex in exchange for money. Respondents also reported that community members accused them as being responsible for the spread of HIV/AIDS in the communities:

...they know what we are doing; they call us names and say sex workers are the ones who spread HIV/AIDS (Respondent 11, in-depth interview).

Some of the respondents also said they could not seek help from the law enforcement agencies for the fact that they were sex workers. They live and work in constant fear of the police:

...a client chased me with a gun and he beat me on my head with it. I had to go and seek for help from the police which the police told me I am a sex worker so I must go. They cannot help me (Respondent 12, in-depth interview).
Many sex workers found it difficult to get protection from the law enforcement personnel. Most of the respondents argued that they needed extra protection from the law given their dangerous working environment. One of the survival strategies adopted by some was to move frequently from place to place. They do not stay permanently in one community or place. If they stayed in a particular place for a long time, community members and others (including the police) would begin to recognize them as sex workers and would harass and even organize to have them raped or arrested:

_"I do not stay at one place for a long time. I don’t want people to judge me for being HIV carrier and a sex worker and possibly be arrested by the police." (Respondent 3, FGDs)._

Against the background of stigma, discrimination and harassment from community members and the law enforcement agencies, the respondents said they seek support from other sex workers. Their sex worker colleagues understood and appreciated the difficulties faced and hence offered support when there was the need.

**Health-seeking behaviour**
The study also sought to find out if respondents undertook routine medical checks, the type of health facility visited and whether they have being screened for STDs and other chronic diseases in the last 12 months.

All respondents reported that they have ever sought health care, but some of them indicated they were unable to undertake a routine medical check. Routine medical
checks are considered expensive and time consuming, costing them clients during the
time spent seeking health care. Even respondents who were HIV+ said they would not
want to waste time going for their treatment if clients were available. If their health
permitted, they would continue to do business.

One respondent, however said, she feared the outcome of any screening and hence
would not venture for a medical check or screening. According to her, some of her
clients had died as a result of HIV/AIDS. About half of the respondents said they
sought out routine medical checks, primarily at public clinics. Some respondents
considered private hospitals and clinics to be expensive and therefore beyond their
reach, indicating the important role public health facilities play for these women.

For respondents who reported having been screened for STDs & chronic diseases
during the last 12 months, all of them were declared HIV+. Hence there is the strong
possibility that if all the respondents (27 in number) had agreed to a routine or
medical check, the number for HIV+ persons would have gone up among the sample.

**Experience with health care providers and services**

Respondents were asked to describe their experiences with health care providers.

Some respondents said providers tended to use abusive language with them and
discriminated against them if they knew that they were sex workers:

*Doctors, nurses if you go to the clinic and they know that you are a sex worker they
don’t treat you like other people. If I had infection they would ask me why I didn’t use*
a condom. If they know that you are a sex worker they can even tell other people that you are a sex worker (Respondent 2, FGDs).

On satisfaction with the services provided to them (sex workers), most of the respondents showed they were not happy with the services received. They considered the services as poor and thus were not motivated to go for them. A respondent who is HIV+ reported the following:

*I sometimes don’t feel like going to get medication because I can see how they treat me and making me wait as if I don’t have something to do* (Respondent 2, interview in-depth).

The behaviour of providers and long waiting times clearly act as a barrier to sex workers’ utilization of health care services even when they needed them badly. This trend could compound their health problems, especially for those who are HIV+ and would require constant and consistent treatment or visits to the facilities.

**General health problems**

Respondents were asked to enumerate the general health problems that they had faced. The following problems were mentioned: flu, cough, HIV/AIDS, tuberculosis (TB), headache, vaginal discharge and/or itch, sleeplessness, high blood pressure, fever, heart problems, diarrhoea, sweating at night, arthritis, diabetes, alcoholic problems, bad breath, sore throat and mouth rash.
Some respondents also reported physical injuries. They spoke of scars and other deformities as a result of stabbings, beatings and “push downs” by clients. Five respondents reported they had experience stabbings from clients before:

_As you can see in my face, the scars that I have are from a client. He pushed me down from a moving car, after we did business and he refused to pay me. My left arm is not also functioning as a result of that fall_ (Respondent 3, in-depth interview).

Some of the respondents also stated they have psychological problems including stress. Some of the things that clients make them do produce these nightmares:

_One client made me to suck his penis while pointing a gun at me and others make you strip for them in the forest while they are taking pictures with their phones and they hold knifes so that you don’t run away_ (Respondent 12, FGDs).

These nightmares make them forgetful and hostile to other people, especially their children and partners:

_I forget things and beat my children because I get angry quickly. The MRC (Medical Research Council) told us in a workshop that if you start getting angry quickly, it means you have a psychological problem_ (Respondent 10, in-depth interviews).

Given the risky sexual behaviour, for example, the inconsistent/non-use of condoms, the violence, rape or sexual abuse, and the inability to utilize health care services
regularly, sex workers will obviously have health problems that are different from the
general population.

**Overall assessment of health status**

Respondents were asked to do a self-assessment of their own health status. They were
to rate their health status as either good or bad. Over half of the respondents for both
the in-depth interviews and the FGDs reported that their health status was bad. A respondent stated:

*My health is very bad. I really don’t know when I am going to die because I have the
worst health. Besides, I have never spent a night without having a fight with my
boyfriend.*

Chief among the reasons for describing their health status as bad included being
HIV+, infection with TB and abuse by clients. A respondent indicated:

*My health is bad because of my status and also the work that I do is very dangerous. I
don’t know what my colleagues here think and their experience, but I know for sure
we all have the same experience. Clients do rape and beat us most of the time. They
do all sort of things that a human being cannot do, that puts us at risk of dying before
the expected time. Sex work is a like a death sentence (Respondent 6, FGDs).*

Those respondents, who stated that their health status was good, explained that it was
because they were able to earn money for their livelihood, even if they had health
problems. It was until such a time when they cannot work to make money that they would declare their health status to be bad. A respondent said:

*I think my health is good because I can earn a living, you know. It is hard for many people to make money and they are scared of what other people will say about this job. As for me, truly speaking, I don’t care. All I need is money* (Respondent 12, FGDs).

For respondents with this perspective on health, illnesses that would not prevent them from undertaking their trade were likely to be overlooked, allowing potentially dangerous conditions to persist unnoticed and worsen.

**Summary of results**

A majority of the respondents were black, single, and less educated. All respondents were full-time street-based female sex workers working for monetary gains. The study discovered that condom use was difficult due to clients offering more money as an incentive and deliberate condom breakage. Respondents also faced violence, rape and non-payment from clients when insisting on condom use. The FGDs showed that some respondents were not using condoms at all. Furthermore, respondents said they were stigmatized and discriminated against by the community members and the police as well.

Most of the respondents did not go for routine and other medical checks. Those aware of their HIV status would only go for treatment if there were no clients to attend to. Some respondents were not satisfied with health care provision due to discrimination.
by providers and long waiting times, thus serving as a barrier to health seeking. But they reported a long list of health problems including: flu, cough, HIV/AIDS, TB, headache, vaginal discharge and/or itch, sleeplessness, high blood pressure, fever, heart problems, diarrhoea, sweating at night, arthritis, diabetes, alcoholic problems, bad breath, sore throat, and mouth rash. Physical and psychological problems were also mentioned.

Overall, a majority of the respondents rated their health status as bad for the fact that they were HIV+ and also due to the daily harassment, violence and rape by clients, community members and the law enforcement agencies. Notwithstanding, respondents reported they cannot abandoned the trade because they solely depend on that for their own survival and that of their families.

**DISCUSSION**
The study investigated the general health problems of non-randomly selected street-based female sex workers in the Cape Town Metropolitan area in South Africa. Though the sample is not representative, the findings highlight fundamental issues in relation to street-based female sex workers who are especially vulnerable.

The majority of respondents were black and less educated, consistent with other studies of the demographic distribution of sex work [22, 23]. In South Africa particularly, the legacies of the past apartheid system seems to linger on, with black females bearing the brunt in terms of poor job opportunities [24]. This might explain why most of the respondents indicated that they had entered the sex industry as a result of financial need [25, 26]. They could not find other avenues of earning their
livelihood, hence resorting to sex work with its attendant difficulties and dangers, including the risks of HIV infection, rape and other violent behaviour by clients. Many have reported being sad throughout their lives. There is therefore the need to find appropriate measures to address these societal imbalances in South Africa in general. This might help minimize the number of street-based female sex workers.

The finding of inconsistent use of condoms was not surprising as other studies have demonstrated the non-use of condom when clients offer more money [27, 2, 28, 29]. However, what is shocking is that some respondents reported not having used a condom since their start in the trade. This response came from the older respondents (35 years and above). This is contrary to the study findings of Pyett and Warr, that no matter the financial incentive, respondents would not oblige to engage in sexual intercourse with clients without condoms [26]. According to the authors, the participants of their study included both street-based and non-street-based sex workers. The non-street-based sex workers had the support of the management of the brothels to enforce the use of condoms by clients and the street-based sex workers used their wits to get difficult clients to comply with condom usage. The context of the study by pyett and Warr was therefore different from the context of this study. The respondents in this study rationalized their stance by saying that they did not want to experience any violence by negotiating for the use of condom and that as women; they constantly have to submit to men, especially meeting men’s sexual needs without any question or argument. This has serious public health ramifications, since the lives of these women and others are compromised. The background of these respondents must be understood in order to tailor programmes to educate them about the devastating effects of HIV/AIDS.
In addition to the numerous risks associated with unprotected sex faced by the respondents, the study found them being stigmatized and discriminated against by both community members and the police, which further aggravated their problems. The finding is similar to other studies [20, 17]. In most settings, the direct exchange of sexual services for money is socially stigmatized. There is anecdotal evidence of gang rape of female sex workers by community members, since sex work is seen as an affront to the status of men. Unfortunately, the law enforcement agencies are not helping the situation, as the sex workers are continuously arrested and harassed by the police. These pushes the activity further undercover and render sex workers more vulnerable and less powerful in negotiating for safer sex and more income.

Furthermore, our findings showed that some respondents were not doing routine medical checks, screening for STDs and other diseases. Most of the respondents reported that they had problematic relations with providers. Frequently they were judged, blamed and detested by health care providers. Other studies have found the same phenomenon [30, 31]. In the face of these challenges with the health system, respondents enumerated a host of health problems (including physical and psychological). This is also in line with other studies [32, 15, 33]. There is need to re-orient health care providers about the health needs of sex workers.

**Limitations of the study**

I do not consider the sample to be a representative survey of the total population of street-based female sex workers in Cape Town. It was also difficult to obtain venues where interviews could be conducted due to the fear of public exposure. Therefore the
findings of this study cannot be representative and generalizable to other street-based female sex workers in Cape Town and South Africa and should be read with caution.

As sex work is illegal in South Africa, the respondents may not have provided accurate or complete information for the study due to the fear of the police and other security personnel. It was also possible for the interviewer to bias the interviews due to previous experience working with sex workers. Besides, the sensitive nature of some questions generated emotional reactions from the respondents and some interviews were left incomplete especially when discussing painful events or experiences.

Another limitation of the study is the fact that I could not confirm the self-report of the health problems of the respondents because there were no health care providers or laboratory tests for the confirmation of their health problems. There might be over exaggeration or underestimation of their health problems.

Policy recommendations
The study uncovered the harassment, stigmatization and discrimination that come with sex work. Community members, the law enforcement agencies and health care providers are all guilty of these practices. Respondents enumerated a lot of health problems for which care was inadequate and unsatisfactory. These problems emanate from the fact that sex work is considered a criminal activity in South Africa. Hence there is the need to re-examine the law on sex work. The immediate policy action recommended here is partial decriminalization. Partial decriminalization involves criminalizing the clients of sex work (persons buying or attempting to buy sex) and
decriminalizing sex work for sex workers due to the fact that sex workers are the exploited group. This is currently the practice in Sweden. Partial decriminalization would curtail the power of clients to threaten, abuse and coerce women in sex work. On the other hand, it would increase the power of sex workers to insist on safe sexual practices and to seek help and legal redress from the law for all criminal offences committed against them. It might also help reduce the stigma currently attached to sex work, contributing to the low self-esteem of women and their acceptance of violence as a condition attached to sex work.

Secondly, I recommend the sensitization of community members and health care providers about the needs of this vulnerable group. If possible, lessons on how to cater for the needs of vulnerable groups, especially sex workers, should form part of the training curriculum of health care providers. This will help health care providers understand and appreciate the health needs of sex workers.

There is also the need to challenge the worldviews of street-based female sex workers by organizations and other bodies involved in catering for their welfare. Some respondents reported that women exist for the gratification of men and hence saw no need to negotiate for condom use. More education is required in this direction.

The health needs of street-based female sex workers should be addressed holistically. The root causes of their lifestyle and their health problems should be dealt with. It should take into consideration the future of the children of these women as well.
CONCLUSION
This exploratory study has provided a better understanding of the general health problems of street-based female sex workers. The study gives policy makers, non-governmental organizations and other stakeholders more information pertaining to condom use, stigmatization, discrimination and the health seeking behaviour of street-based female sex workers. Their experience with providers as well as health problems and self-assessed health status was also revealed. Indeed, the numerous health problems of street-based sex workers emanate from the illegality of sex trade in South Africa. Hence partial decriminalization is urgently required. This will punish clients and also afford sex workers the opportunity to negotiate for safer sex and to seek redress for any abuse. Besides, these is also the need to re-orient the mindsets of street-based sex workers themselves, as well as educating providers about the health needs of this at risk group. All these measures if holistically adopted will promote the welfare of street-based female sex workers.

Word count: 6701

List of abbreviations
AIDS, Acquired Immunodeficiency Syndrome; ED, Embrace Dignity; FGDs, Focus group discussions; HIV, Human Immune Deficiency Virus; ID, Identification Number; STDs, Sexually transmitted diseases; TB, Tuberculosis

Competing interests
The author declares that she has no competing interest.

Authors' contributions
The author was responsible for the conception and design of the work within the paper.

**Authors' information**

BM is a post-graduate student at the University of Cape Town, South Africa. This article is part of the requirements for the partial attainment of the masters in public health (MPH) degree.

**Acknowledgements**

I wish to thank the participants of this study who voluntarily gave up their precious time to participate in the study. Thank you very much.
REFERENCES


PART D: APPENDICES
APPENDIX 1: QUESTIONNAIRE

IN-DEPTH INTERVIEW GUIDE

Demographic profile

Age-------------------------------------------------
Sex-------------------------------------------------
Race-----------------------------------------------
Educational level-----------------------------
Marital status-----------------------------
Nationality -----------------------------
Home town-----------------------------
Home region/province-----------------------------

Entry into sex work

What is your main source of income?
How did you come to be involved in sex work?
Since when did you get involved in sex work?
Why did you get involved in sex work?

General sex behaviour

Do you protect yourself during sex?
If yes, what do you use in protecting yourself?
Why do you protect yourself?
If no protection, why?
Do you face difficulties in practicing safe sex/protecting yourself?
If yes, what are some of the difficulties?
Have you been a victim of discrimination because you are a sex worker?
If yes, by whom and where and why?

General health problems

What are some of the general health problems you encounter as a sex worker?
Have you had sexual and health problems since you involved yourself in sex work?
What problems do you have or ever had (both psychologically and physically)?
When you had the sexual health problem(s), did you discuss it/them with other people?
Whom did you discuss with and why?

**Health seeking behaviour**
Did you seek health care for the problem from a facility?
From which source do you normally seek health care? (eg Public, Private hospital/clinic or traditional healers).
Why this particular source?
Apart from this source what are the other sources you occasionally seek health care?
Why the other source(s)?
Which of these sources do you encounter difficulties in seeking health care?
What are some of the difficulties you face?
Do you go for routine medical check-ups?
If yes, source?
If no, why?
What are your views about these services you receive from these sources?
Have you been screened for STDs, chronic diseases in the past 12 months?
If no, why?
What are the general and sexual health problems you are facing currently?
How do you assess your general health? Good or bad?
Since your involvement in sex work has your sexual life changed, in any way, positive or negative?
Are there other issues that you have concerning your general health?
Do you have suggestions for improving the general health of street-based sex workers?

**Thank you for participating in this interview!!!!!**
FOCUS GROUP DISCUSSION GUIDE

Demographic profile

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<th>Educational level</th>
<th>Marital status</th>
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Entry into sex work
Since when did you get involved in sex work?
How did you come to be involved in sex work?
What circumstances compelled you to engage in sex work?
What is your main source of income?

Sex work activities
Do you protect yourself anytime you engage in sex?
If yes, what do you normally use?
If no, why?
Are there instances you engage in unprotected sex?
If yes, why and under what circumstances?
Can one get infected with a disease for engaging in unprotected sex?
What are some of the diseases can one get for engaging in unprotected sex
How can one avoid getting STDs during sexual intercourse?

General health problems
What are the general health problems that you have encountered from sex work?
Which of these problems are frequent and serious?
**Health seeking behaviour**

From which source do you usually seek health care for your health problems?

Do you usually seek health care from a health facility for any of these problems?

Which health problems make you seek health care?

If no, why?

Which health facilities do you normally seek health care?

What are your experiences in seeking health care from these sources?

Do people knowing you as a sex worker affect your health seeking decisions?

If yes, explain.

How do you assess your general health? Good or bad?

Since your involvement in sex work, has your sexual life changed, in any way, positive or negative?

Are there other issues that you have concerning your general health?

Do you have suggestions for improving the general health of street-based sex workers?


**Thank you for participating in this interview!!!!!**
APPENDIX 2: CONSENT FORM

A QUALITATIVE STUDY ASSESSING THE GENERAL HEALTH PROBLEMS OF STREET-BASED FEMALE SEX WORKERS IN CAPE TOWN, SOUTH AFRICA

Purpose of the study
We are inviting you to take part in a study, which is being conducted by a student of the School of Public Health and Family Medicine, of the University of Cape Town, South Africa. The study investigates the general health problems and needs of street-based sex workers; understand the barriers to health care services faced by street-based sex workers. Findings from the study will be used to inform Department of Health to improve their service, and policy makers to consider the health challenges.

Procedure
If you agree to take part, we will ask you questions about your work. Specifically the questions will be based on the general health problems faced in the course of your work. We will ask you several questions about these issues and record your responses on the questionnaire form.

Your participation in this study will last for approximately one to two hours. There is no right or wrong answers to any of these questions. You can choose not to answer any question you do not want to.

Ethical considerations
The study will conform to the required ethical guidelines regarding the conduct of research. Ethical clearance will be sought from the Health Sciences Faculty Research Ethics Committee, University of Cape Town, South Africa.

Potential risks/discomforts
This study will not involve any physical risks to participants. However, if at any point they become uncomfortable with any question, they can choose not to answer that or discontinue outright participation. The data collected will not be given out to any other persons, except for the purpose of which the study covers.
**Benefits**

Participation in the study will allow participants to share their general health problems and needs. The results of the study will be used to inform policy, in order to promote the welfare of that group of individuals and Department of health in order to improve health care delivery. Whatever information that is given, remains private and will not be linked to anyone.

**Confidentiality**

The interview will be conducted in a private place. It will be tape recorded and some notes also written out. Names will not be written in the notes nor recorded on the tapes. Nobody will be identified in any report or publication made on the study. All the information given for the interviews will be held private. This information will be accessible only to research personnel, who will listen to the tapes, make written notes, and use the notes for the purpose of which the study is intended. After the notes are written from the tapes, they will be destroyed. Personal information obtained from participants will be kept in the strictest confidentiality.

**Voluntariness and right to withdraw**

Participation is completely voluntary. Questions can be asked on anything that is not understood. Participants have the right to terminate the interviews at anytime, or decline to answer questions without any penalty.

This research will receive approval from the Human Research Ethics Committee in the Health Sciences Faculty, University of Cape Town, South Africa. Issues concerning your rights and welfare can be channelled to Professor Marc Blockman through this email address: Marc.Blockman@uct.ac.za or via Nosi.Twabi@uct.ac.za or Tel: 0214066338

You can also contact Mediatrice Barengayabo at mamanjoy@gmail.com or 0723260076 for any clarification on this study.
Consent form to be signed by interviewee

Participant’s Agreement

I have read the information provided above, or it has been read and explained to me by the interviewer in the language that I fully understand. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction. I consent voluntarily to participate as a participant in this study and understand that I have the right to withdraw from the study at any time.

Name of participant:
Signature/Thumb print:
Date:

Name of investigator:
Signature:
Date:
APPENDIX 3: LETTER OF APPROVAL FROM ETHICS BOARD

28 June 2011

HREC REF: 257/2011

Ms M Barengayabo
c/o Dr C Colvin
Public Health & Family Medicine

Dear Ms Barengayabo

PROJECT TITLE: A QUALITATIVE STUDY ASSESSING THE GENERAL HEALTH PROBLEMS OF STREET-BASED SEX WORKERS IN CAPE TOWN.

Thank you for submitting your study to the Faculty of Health Sciences Human Research Ethics Committee for review.

It is a pleasure to inform you that the HREC has formally approved the above-mentioned study.

Approval is granted for one year till the 30 June 2012.

Please submit a progress form, using the standardised Annual Report Form (FHS016), if the study continues beyond the approval period. Please submit a Standard Closure form (FHS010) if the study is completed within the approval period.

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please quote the HREC. REF in all your correspondence.

Yours sincerely

PROFESSOR M BLOCKMAN
CHAIRPERSON, HSF HUMAN ETHICS
Federal Wide Assurance Number: FWA00001637.
Institutional Review Board (IRB) number: IRB00001938

This serves to confirm that the University of Cape Town Human Research Ethics Committee complies to the Ethics Standards for Clinical Research with a new drug in patients, based on the Medical Research Council (MRC-SA), Food and Drug Administration (FDA-USA), International Convention on Harmonisation Good Clinical Practice (ICH GCP) and Declaration of Helsinki guidelines.

The Human Research Ethics Committee granting this approval is in compliance with the ICH Harmonised Tripartite Guidelines E6: Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95) and FDA Code Federal Regulation Part 50, 56 and 312.
APPENDIX 4: INSTRUCTIONS FOR AUTHORS

BMC WOMEN’S HEALTH JOURNAL

Instructions for authors

_BMC Women's Health_ is an open access, peer-reviewed journal that considers articles on all aspects of the health and healthcare of adolescent girls and women, with a particular focus on the prevention, diagnosis and management of fertility disorders and diseases of gynecological and breast origin, as well as related genetics, pathophysiology, epidemiology, clinical reports and controlled trials. It is journal policy to publish work deemed by peer reviewers to be a coherent and sound addition to scientific knowledge and to put less emphasis on interest levels, provided that the research constitutes a useful contribution to the field.

Each article type published by _BMC Women's Health_ follows a specific format, as detailed in the corresponding instructions for authors; please choose an article type from the list on the left to view the instructions for authors.

The instructions for authors includes information about preparing a manuscript for submission to _BMC Women's Health_, criteria for publication and the online submission process. Other relevant information about the journal's policies, the refereeing process and so on can be found in 'About this journal'.

Research articles

Criteria | Submission process | Preparing main manuscript text | Preparing illustrations and figures | Preparing tables | Preparing additional files | Style and language

Assistance with the process of manuscript preparation and submission is available from BioMed Central customer support team. See 'About this journal' for information about policies and the refereeing process. We also provide a collection of links to useful tools and resources for scientific authors on our page.

Criteria

Research articles should report on original primary research, but may report on systematic reviews of published research provided they adhere to the appropriate reporting guidelines which are detailed in 'About this journal'.

Submission process

Manuscripts must be submitted by one of the authors of the manuscript, and should not be submitted by anyone on their behalf. The submitting author takes responsibility for the article during submission and peer review.

Please note that _BMC Women's Health_ levies an article-processing charge on all accepted Research articles; if the submitting author's institution is a BioMed Central member the cost of the article-processing charge may be covered by the membership...
(see About page for detail). Please note that the membership is only automatically recognised on submission if the submitting author is based at the member institution. To facilitate rapid publication and to minimize administrative costs, *BMC Women's Health* accepts only online submission.

Files can be submitted as a batch, or one by one. The submission process can be interrupted at any time; when users return to the site, they can carry on where they left off.

See below for examples of word processor and graphics file formats that can be accepted for the main manuscript document by the online submission system. Additional files of any type, such as movies, animations, or original data files, can also be submitted as part of the manuscript.

During submission you will be asked to provide a cover letter. Use this to explain why your manuscript should be published in the journal, to elaborate on any issues relating to our editorial policies in the 'About *BMC Women's Health*' page, and to declare any potential competing interests. You will be also asked to provide the contact details (including email addresses) of potential peer reviewers for your manuscript. These should be experts in their field, who will be able to provide an objective assessment of the manuscript. Any suggested peer reviewers should not have published with any of the authors of the manuscript within the past five years, should not be current collaborators, and should not be members of the same research institution. Suggested reviewers will be considered alongside potential reviewers recommended by the Editorial team, Editorial Advisors, Section Editors and Associate Editors.

Assistance with the process of manuscript preparation and submission is available from BioMed Central customer support team.

We also provide a collection of links to useful tools and resources for scientific authors on our Useful Tools page.

**File formats**
The following word processor file formats are acceptable for the main manuscript document:

- Microsoft word (DOC, DOCX)
- Rich text format (RTF)
- Portable document format (PDF)
- TeX/LaTeX (use BioMed Central's TeX template)
- DeVice Independent format (DVI)

Users of other word processing packages should save or convert their files to RTF before uploading. Many free tools are available which ease this process.
TeX/LaTeX users: We recommend using BioMed Central's TeX template and BibTeXstylefile. If you use this standard format, you can submit your manuscript in TeX format. If you have used another template for your manuscript, or if you do not wish to use BibTeX, then please submit your manuscript as a DVI file. We do not recommend converting to RTF.

Note that figures must be submitted as separate image files, not as part of the submitted manuscript file.

Publishing Datasets
Through a special arrangement with LabArchives, LLC, authors submitting manuscripts to BMC Women's Health can obtain a complimentary subscription to LabArchives with an allotment of 100MB of storage. LabArchives is an Electronic Laboratory Notebook which will enable scientists to share and publish data files in situ; you can then link your paper to these data. Data files linked to published articles are assigned digital object identifiers (DOIs) and will remain available in perpetuity. Use of LabArchives or similar data publishing services does not replace preexisting data deposition requirements, such as for nucleic acid sequences, protein sequences and atomic coordinates.

Instructions on assigning DOIs to datasets, so they can be permanently linked to publications, can be found on the LabArchives website. Use of LabArchives’ software has no influence on the editorial decision to accept or reject a manuscript.

Authors linking datasets to their publications should include an Availability of supporting data section in their manuscript and cite the dataset in their reference list.

Preparing main manuscript text
General guidelines of the journal's style and language are given below.

Overview of manuscript sections for Research articles
Manuscripts for Research articles submitted to BMC Women's Health should be divided into the following sections (in this order):

- Title page
- Abstract
- Keywords
- Background
- Methods
- Results and discussion
- Conclusions
- List of abbreviations used (if any)
- Competing interests
- Authors' contributions
- Authors' information
- Acknowledgements
- Endnotes
- References
• Illustrations and figures (if any)
• Tables and captions
• Preparing additional files

The Accession Numbers of any nucleic acid sequences, protein sequences or atomic coordinates cited in the manuscript should be provided, in square brackets and include the corresponding database name; for example, [EMBL:AB026295, EMBL:AC137000, DDBJ:AE000812, GenBank:U49845, PDB:1BFM, Swiss-Prot:Q96KQ7, PIR:S66116].

The databases for which we can provide direct links are: EMBL Nucleotide Sequence Database (EMBL), DNA Data Bank of Japan (DDBJ), GenBank at the NCBI (GenBank), Protein Data Bank (PDB), Protein Information Resource (PIR) and the Swiss-Prot Protein Database (Swiss-Prot).

You can download a template (Mac and Windows compatible; Microsoft Word 98/2000) for your article.

For reporting standards please see the information in the About section.

**Title page**

The title page should:

• provide the title of the article
• list the full names, institutional addresses and email addresses for all authors
• indicate the corresponding author

Please note:

• the title should include the study design, for example "A versus B in the treatment of C: a randomized controlled trial X is a risk factor for Y: a case control study"
• abbreviations within the title should be avoided

**Abstract**

The Abstract of the manuscript should not exceed 350 words and must be structured into separate sections: Background, the context and purpose of the study; Methods, how the study was performed and statistical tests used; Results, the main findings; Conclusions, brief summary and potential implications. Please minimize the use of abbreviations and do not cite references in the abstract. **Trial registration**, if your research article reports the results of a controlled health care intervention, please list your trial registry, along with the unique identifying number (e.g. Trial registration: Current Controlled Trials ISRCTN73824458). Please note that there should be no space between the letters and numbers of your trial registration number. We recommend manuscripts that report randomized controlled trials follow the CONSORT extension for abstracts.

**Keywords**

Three to ten keywords representing the main content of the article.
Background
The Background section should be written in a way that is accessible to researchers without specialist knowledge in that area and must clearly state - and, if helpful, illustrate - the background to the research and its aims. Reports of clinical research should, where appropriate, include a summary of a search of the literature to indicate why this study was necessary and what it aimed to contribute to the field. The section should end with a brief statement of what is being reported in the article.

Methods
The methods section should include the design of the study, the setting, the type of participants or materials involved, a clear description of all interventions and comparisons, and the type of analysis used, including a power calculation if appropriate. Generic drug names should generally be used. When proprietary brands are used in research, include the brand names in parentheses in the Methods section.

For studies involving human participants a statement detailing ethical approval and consent should be included in the methods section. For further details of the journal's editorial policies and ethical guidelines see 'About this journal'. For further details of the journal's data-release policy, see the policy section in 'About this journal'.

Results and discussion
The Results and discussion may be combined into a single section or presented separately. Results of statistical analysis should include, where appropriate, relative and absolute risks or risk reductions, and confidence intervals. The Results and discussion sections may also be broken into subsections with short, informative headings.

Conclusions
This should state clearly the main conclusions of the research and give a clear explanation of their importance and relevance. Summary illustrations may be included.

List of abbreviations
If abbreviations are used in the text they should be defined in the text at first use, and a list of abbreviations can be provided, which should precede the competing interests and authors' contributions.

Competing interests
A competing interest exists when your interpretation of data or presentation of information may be influenced by your personal or financial relationship with other people or organizations. Authors must disclose any financial competing interests; they should also reveal any non-financial competing interests that may cause them embarrassment were they to become public after the publication of the manuscript.
Authors are required to complete a declaration of competing interests. All competing interests that are declared will be listed at the end of published articles. Where an author gives no competing interests, the listing will read 'The author(s) declare that they have no competing interests'.

When completing your declaration, please consider the following questions:

**Financial competing interests**
- In the past five years have you received reimbursements, fees, funding, or salary from an organization that may in any way gain or lose financially from the publication of this manuscript, either now or in the future? Is such an organization financing this manuscript (including the article-processing charge)? If so, please specify.
- Do you hold any stocks or shares in an organization that may in any way gain or lose financially from the publication of this manuscript, either now or in the future? If so, please specify.
- Do you hold or are you currently applying for any patents relating to the content of the manuscript? Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript? If so, please specify.
- Do you have any other financial competing interests? If so, please specify.

**Non-financial competing interests**
Are there any non-financial competing interests (political, personal, religious, ideological, academic, intellectual, commercial or any other) to declare in relation to this manuscript? If so, please specify.

If you are unsure as to whether you, or one your co-authors, has a competing interest please discuss it with the editorial office.

**Authors' contributions**
In order to give appropriate credit to each author of a paper, the individual contributions of authors to the manuscript should be specified in this section.

An 'author' is generally considered to be someone who has made substantive intellectual contributions to a published study. To qualify as an author one should 1) have made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; 2) have been involved in drafting the manuscript or revising it critically for important intellectual content; and 3) have given final approval of the version to be published. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content. Acquisition of funding, collection of data, or general supervision of the research group, alone, does not justify authorship.

We suggest the following kind of format (please use initials to refer to each author's contribution): AB carried out the molecular genetic studies, participated in the
sequence alignment and drafted the manuscript. JY carried out the immunoassays.
MT participated in the sequence alignment. ES participated in the design of the study
and performed the statistical analysis. FG conceived of the study, and participated in
its design and coordination and helped to draft the manuscript. All authors read and
approved the final manuscript.

All contributors who do not meet the criteria for authorship should be listed in an
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who provided only general support.

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standpoint of the author(s). This may include details about the authors' qualifications,
current positions they hold at institutions or societies, or any other relevant
background information. Please refer to authors using their initials. Note this section
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Acknowledgements
Please acknowledge anyone who contributed towards the article by making
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editor has made significant revision of the manuscript, we recommend that you
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Acknowledgements section.

Endnotes
Endnotes should be designated within the text using a superscript lowercase letter and
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section. Please format this section in a paragraph rather than a list.
References
All references, including URLs, must be numbered consecutively, in square brackets, in the order in which they are cited in the text, followed by any in tables or legends. Each reference must have an individual reference number. Please avoid excessive referencing. If automatic numbering systems are used, the reference numbers must be finalized and the bibliography must be fully formatted before submission.

Only articles, datasets and abstracts that have been published or are in press, or are available through public e-print/preprint servers, may be cited; unpublished abstracts, unpublished data and personal communications should not be included in the reference list, but may be included in the text and referred to as "unpublished observations" or "personal communications" giving the names of the involved researchers. Obtaining permission to quote personal communications and unpublished data from the cited colleagues is the responsibility of the author. Footnotes are not allowed, but endnotes are permitted. Journal abbreviations follow Index Medicus/MEDLINE. Citations in the reference list should include all named authors, up to the first 30 before adding 'et al.'.
Any in press articles cited within the references and necessary for the reviewers' assessment of the manuscript should be made available if requested by the editorial office.
Style files are available for use with popular bibliographic management software:

- BibTeX
- EndNote style file
- Reference Manager
- Zotero

Examples of the BMC Women's Health reference style are shown below. Please ensure that the reference style is followed precisely; if the references are not in the correct style they may have to be retyped and carefully proofread.

All web links and URLs, including links to the authors' own websites, should be given a reference number and included in the reference list rather than within the text of the manuscript. They should be provided in full, including both the title of the site and the URL, in the following format: The Mouse Tumor Biology Database [http://tumor.informatics.jax.org/mtbwi/index.do]. If an author or group of authors can clearly be associated with a web link, such as for weblogs, then they should be included in the reference.

Examples of the BMC Women's Health reference style

Article within a journal

Article within a journal supplement
Orengo CA, Bray JE, Hubbard T, LoConte L, Sillitoe I: Analysis and assessment of

**In press article**

**Published abstract**

**Article within conference proceedings**

**Book chapter, or article within a book**

**Whole issue of journal**

**Whole conference proceedings**

**Complete book**

**Monograph or book in a series**

**Book with institutional author**

**PhD thesis**
Link / URL
The Mouse Tumor Biology Database [http://tumor.informatics.jax.org/mtbwi/index.do]

Link / URL with author(s)

Dataset with persistent identifier
Zheng, L-Y; Guo, X-S; He, B; Sun, L-J; Peng, Y; Dong, S-S; Liu, T-F; Jiang, S; Ramachandran, S; Liu, C-M; Jing, H-C (2011): Genome data from sweet and grain sorghum (Sorghum bicolor). GigaScience.http://dx.doi.org/10.5524/100012.

Preparing illustrations and figures
Illustrations should be provided as separate files, not embedded in the text file. Each figure should include a single illustration and should fit on a single page in portrait format. If a figure consists of separate parts, it is important that a single composite illustration file be submitted which contains all parts of the figure. There is no charge for the use of color figures.

Please read our figure preparation guidelines for detailed instructions on maximising the quality of your figures.

Formats
The following file formats can be accepted:

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- DOCX/DOC (single page only)
- PPTX/PPT (single slide only)
- EPS
- PNG (preferred format for photos or images)
- TIFF
- JPEG
- BMP

Figure legends
The legends should be included in the main manuscript text file at the end of the document, rather than being a part of the figure file. For each figure, the following information should be provided: Figure number (in sequence, using Arabic numerals - i.e. Figure 1, 2, 3 etc); short title of figure (maximum 15 words); detailed legend, up to 300 words.

Please note that it is the responsibility of the author(s) to obtain permission from the copyright holder to reproduce figures or tables that have previously been published elsewhere.
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If you wish to do so, you may submit an image which, in the event of publication, will be used to create a cover page for the PDF version of your article. The cover page will also display the journal logo, article title and citation details. The image may either be a figure from your manuscript or another relevant image. You must have permission from the copyright to reproduce the image. Images that do not meet our requirements will not be used.

Images must be 300dpi and 155mm square (1831 x 1831 pixels for a raster image).

Allowable formats - EPS, PDF (for line drawings), PNG, TIFF (for photographs and screen dumps), JPEG, BMP, DOC, PPT, CDX, TGF (ISIS/Draw).

Preparing tables
Each table should be numbered and cited in sequence using Arabic numerals (i.e. Table 1, 2, 3 etc.). Tables should also have a title (above the table) that summarizes the whole table; it should be no longer than 15 words. Detailed legends may then follow, but they should be concise. Tables should always be cited in text in consecutive numerical order.

Smaller tables considered to be integral to the manuscript can be pasted into the end of the document text file, in A4 portrait or landscape format. These will be typeset and displayed in the final published form of the article. Such tables should be formatted using the 'Table object' in a word processing program to ensure that columns of data are kept aligned when the file is sent electronically for review; this will not always be the case if columns are generated by simply using tabs to separate text. Columns and rows of data should be made visibly distinct by ensuring that the borders of each cell display as black lines. Commas should not be used to indicate numerical values. Color and shading may not be used; parts of the table can be highlighted using symbols or bold text, the meaning of which should be explained in a table legend. Tables should not be embedded as figures or spreadsheet files.

Larger datasets or tables too wide for a portrait page can be uploaded separately as additional files. Additional files will not be displayed in the final, laid-out PDF of the article, but a link will be provided to the files as supplied by the author.

Tabular data provided as additional files can be uploaded as an Excel spreadsheet (.xls) or comma separated values (.csv). As with all files, please use the standard file extensions.

Preparing additional files
Although BMC Women's Health does not restrict the length and quantity of data included in an article, there may still be occasions where an author wishes to provide data sets, tables, movie files, or other information as additional files. Results that would otherwise be indicated as "data not shown" can and should be included as
additional files. Since many weblinks and URLs rapidly become broken, *BMC Women's Health* requires that all supplementary data are included as additional files rather than as a link to your own website. These files can be uploaded using the 'Additional Material files' button in the manuscript submission tool. The maximum file size for additional files is 20 MB each, and files will be virus-scanned on submission.

Additional files will be linked to the final published article in the form supplied by the author, but will not be displayed within the article. They will be made available in exactly the same form as originally provided by the authors.

If additional material is provided, please list the following information in a separate section of the manuscript text, immediately following the tables (if any):

- File name (e.g. Additional file 1)
- File format including the three-letter file extension (including name and a URL of an appropriate viewer if format is unusual)
- Title of data
- Description of data

Additional files should be named "Additional file 1" and so on and should be referenced explicitly by file name within the body of the article, e.g. 'An additional movie file shows this in more detail [see Additional file 1]'.

**Additional file formats**

Ideally, file formats for additional files should not be platform-specific, and should be viewable using free or widely available tools. The following are examples of suitable formats.

- Additional documentation
  - PDF (Adobe Acrobat)
- Animations
  - SWF (Shockwave Flash)
- Movies
  - MOV (QuickTime)
  - MPG (MPEG)
- Tabular data
  - XLS, XLSX (Excel Spreadsheet)
  - CSV (Comma separated values)

As with figure files, files should be given the standard file extensions. This is especially important for Macintosh users, since the Mac OS does not enforce the use of standard extensions. Please also make sure that each additional file is a single table, figure or movie (please do not upload linked worksheets or PDF files larger than one sheet).
Mini-websites
Small self-contained websites can be submitted as additional files, in such a way that they will be browsable from within the full text HTML version of the article. In order to do this, please follow these instructions:

1. Create a folder containing a starting file called index.html (or index.htm) in the root.
2. Put all files necessary for viewing the mini-website within the folder, or subfolders.
3. Ensure that all links are relative (ie "images/picture.jpg" rather than "/images/picture.jpg" or "http://yourdomain.net/images/picture.jpg" or "C:\Documents and Settings\username\My Documents\minwebsite\images\picture.jpg") and no link is longer than 255 characters.
4. Access the index.html file and browse around the mini-website, to ensure that the most commonly used browsers (Internet Explorer and Firefox) are able to view all parts of the mini-website without problems, it is ideal to check this on a different machine.
5. Compress the folder into a ZIP, check the file size is under 20 MB, ensure that index.html is in the root of the ZIP, and that the file has .zip extension, then submit as an additional file with your article.

Style and language

General
Currently, BMC Women's Health can only accept manuscripts written in English. Spelling should be US English or British English, but not a mixture. There is no explicit limit on the length of articles submitted, but authors are encouraged to be concise. There is also no restriction on the number of figures, tables or additional files that can be included with each article online. Figures and tables should be numbered in the order in which they are referred to in the text. Authors should include all relevant supporting data with each article.

BMC Women's Health will not edit submitted manuscripts for style or language; reviewers may advise rejection of a manuscript if it is compromised by grammatical errors. Authors are advised to write clearly and simply, and to have their article checked by colleagues before submission. In-house copyediting will be minimal. Non-native speakers of English may choose to make use of a copyediting service.

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The abstract is one of the most important parts of a manuscript. For guidance, please visit our page on Writing titles and abstracts for scientific articles.

Tim Albert has produced for BioMed Central a list of tips for writing a scientific manuscript. American Scientist also provides a list of resources for science writing.

Abbreviations
Abbreviations should be used as sparingly as possible. They should be defined when first used and a list of abbreviations can be provided following the main manuscript text.

Typography
- Please use double line spacing.
- Type the text unjustified, without hyphenating words at line breaks.
- Use hard returns only to end headings and paragraphs, not to rearrange lines.
- Capitalize only the first word, and proper nouns, in the title.
- All pages should be numbered.
- Use the BMC Women's Health reference format.
- Footnotes are not allowed, but endnotes are permitted.
- Please do not format the text in multiple columns.
- Greek and other special characters may be included. If you are unable to reproduce a particular special character, please type out the name of the symbol in full.

Please ensure that all special characters used are embedded in the text, otherwise they will be lost during conversion to PDF.

Units
SI units should be used throughout (liter and molar are permitted, however).