

Sexual behaviour of immigrant youth and their access to reproductive health services in Hillbrow, South Africa

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Thesis accepted for the degree [Doctor of Philosophy in Social
Science with Population Studies](#) at the North-West University

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Graduation: May 2021

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DECLARATION

I, Nkechi Obisie-Nmehielle, hereby declare that the thesis entitled **Sexual Behaviour of Immigrant Youth and their Access to Reproductive Health Services in Hillbrow, South Africa**, is submitted in fulfilment of the requirements for the degree of Doctor of Philosophy in Population Studies at the North-West University. The thesis is my own work and has not been submitted for this or any other degree or professional qualification at another university. I also declare that all the sources used have been duly acknowledged by means of referencing.

I understand that the copies of the thesis submitted remain the property of the North-West University.

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Signature

DEDICATION

This thesis is dedicated to the Three-in-One God, God the Father, Jesus Christ and the Holy Spirit.

To God the Father - My heavenly Father, for protecting and instructing me through this journey.

To Jesus Christ, My Lord and Saviour, for His sacrificial love and for giving me Peace in the midst of chaos. He is the reason for this PhD. May He receive all the Praise.

To the Holy Spirit, my Advocate, Comforter and Teacher.

“I know that that whatever God does will endure forever. Nothing can be added to it, and nothing taken away from it. God has made it this way so that men will fear Him.” –Ecclesiastes 3:14.

ACKNOWLEDGEMENTS

I am very grateful to my supervisor and mentor, Prof Ishmael Kalule-Sabiti for his invaluable support, guidance, patience, constructive criticism and for teaching me some critical life skills which has led to the completion of this work. I would like to say “Asante-sana. Mungu akubariki”.

I would like to thank my family members, Prof Vincent Nmehielle, Vincent Obisie-Orlu, Sharon Obisie-Orlu, Shalom Obisie-Orlu, Immanuela Obisie-Orlu and Danielle Obisie-Orlu, whose supports enabled me to carry on during the tough times. This degree was a family effort. Special thanks to Dr. Sharon Obisie-Orlu for financial and emotional support. Many thanks to Immanuela Obisie-Orlu for devoting her vacation to assist and lead the data entry team. I am indebted to Vincent Obisie-Orlu, Danielle, Sharon and Shalom for assisting with data entry. You have all been great blessings in my life, for which I am grateful.

I am grateful to my late parents, Mr. Paul Uzodinma Agu and Mrs. Dorcas Bamidele Agu for teaching me the value of good education and continuous learning, irrespective of age. My sincere gratitude to my siblings and their spouses for their support and encouragement - Mr. Patrick Agu, Mr. Saibu Oluwole and Mrs. Taiwo Adediji, Mr. Emmanuel Agu, Ms. Mary Agu, Mr. Adeniyi and Mrs. Martina Adebola, and Late Mr. James Agu, who went to rest with the Lord during the course of this academic work.

Many thanks to my spiritual family from the Every Nation Church for their prayerful support and encouragements, especially Pastors Simon and Lindi Lerefelo, Pastors Themba and Amy Malaba, Mme. Grace Matoni, and Mr. Percival Dikobe. My sincere gratitude to Pastors Kenneth and Comfort Otuokere of the Eagle Assembly Mission, Port Harcourt, Nigeria. God bless you all. I am indebted to my connect group members, the ladies we do life together – Dr. Meryl Oyomno, Ms. Letta Maponyane, Mrs. Mputle Dikobe, Ms. Carol Kioko, Dr. Linet Imbosa Nyakundi, Ms. Dineo Mphahlele and Ms. Tshepang Jonathan. Thank you for standing with me and praying into every aspect of my PhD.

I would like to express my gratitude for the financial support from the North-West University Postgraduate bursary and the Research Office.

My sincere gratitude goes to Dr. Kenneth Machila and Dr. Joshua Akinyemi, who gave me critical feedback and needed assistance. I would like to thank the staff of the Population Unit of the School of Social Sciences at the North-West University for creating an enabling environment for studying.

I am indebted to Mr. Philemon Mokgesi of the Ikageng Community Development for being a great gatekeeper and providing the boardroom where the Focus Group Discussions took place. My thanks go to the Research Assistants especially Mr. Edmond Madhuha for their dedication and hard work.

Finally, I would like to appreciate and thank the survey respondents and the qualitative study participants for their time and for sharing their experiences with me.

To all others who contributed in one way or the other to the success of this thesis but whose names are not mentioned, I am very grateful.

ABSTRACT

High risk sexual behaviours and lack of access to Sexual and Reproductive Health (SRH) services among youth have remained a public health challenge globally. The situation is worsened among immigrant youth due to feelings of invincibility and lack of access to services as a result of their migration status. South Africa is home to immigrants from Southern Africa, with the majority being youth aged 18-34 years. Accordingly, studies on the sexual behavior and access to services for immigrant youth have been missing, especially in immigrant dense areas, like Hillbrow, Johannesburg, South Africa. Exclusion of immigrant youth from accessing SRH services will prevent the Department of Health from meeting the SRH indicators, especially the SDG 3.7. Since the immigrant youth and native-born citizens live together in the same social space, sexual relationships between these do not respect the exclusionary borders of immigrant youth from accessing SRH services, leading to high levels of STIs and re-infections, as well as new HIV infections among the native-born South African youth.

A cross-sectional study using a convergent mixed methods design was used to collect quantitative and qualitative data from male and female immigrant youth in Hillbrow in December 2019. The quantitative study showed the determinants of multiple sex partnerships 12 months prior to the survey and inconsistency of condom use, using negative binomial regression and logistic regression techniques respectively. It further showed the factors associated with access to government health facility for SRH services. The qualitative study used Focus Group Discussions (FGDs) to explore the perceptions and experiences on access to government health facilities for SRH services in Hillbrow.

The study found socio-demographic and migration factors as determinants of multiple sex partnerships among sexually active respondents. The sociodemographic determinants of engaging in multiple sex partnerships are gender, age, wealth index, marital status and sharing room with other households outside that of the respondent. Gender differences exist in the risk of engaging in multiple sex partnerships, with the males having a higher risk. Migration status and duration of residence in the study area were determinants of engaging in multiple sex partnerships. The study found high levels of inconsistency of condom use among the respondents generally, almost three-quarters of the females were found to use condoms inconsistently. Gender, age, marital status, duration of residence in Hillbrow and social support were the determinants of inconsistent condom use among the study sample. Socio-demographic, migration, community social processes, knowledge and information on SRH were established as the determinants of access to government health facilities for SRH services. The themes that emerged as reasons for lack of access to SRH services were bad treatment and negative attitude towards foreigners by clinic staff, discrimination against foreigners, documentation and judgmental attitudes. The convergent mixed methods provided a deeper insight into the barriers to accessing SRH services, than would the quantitative or the qualitative results separately.

The study made contributions to policy, programme and methodological formulations. It thus recommends that policies and guidelines on access to health care facilities by immigrants should be made succinct and clear to the health care facility workers and not left to the subjective interpretations. Programmes on SRH in Hillbrow should also be strengthened to target the immigrants who have been denied access to SRH information and services by government health facilities.

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LIST OF ACRONYMS AND ABBREVIATIONS

CSDH: Commission on social determinant of health

FGD: Focus Group discussions

HIV/AIDS: Human immune deficiency virus/Acquired immune deficiency syndrome

IOM: International Organization for Migration

KII: Key informant interview

SDG: Sustainable Development Goals

SDH: Social determinants of health

SRH: Sexual and Reproductive Health

STIs: Sexually transmitted infections

WHA: World Health Assembly

WHO: World Health Organization

YRSB: Youth risky sexual behaviour

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Globally, there is growing concern about international migration among policy makers, and researchers in developed and developing nations. This concern is due to the number of international migrants, with increasing trends from 82 million in 1970, to 173 million in 2000, up to 220 million in 2010, and currently 272 million in 2019 (United Nations, 2019). The percentage of international migrants increased from 2.8% in 2000 to 3.5% in 2019, with most of these migrants falling in the youth category (United Nations, 2019).

From a demographic perspective, there is heightened concern about international migrants globally. This is due to the growing number of immigrant youth, comprising adolescents and young adults aged 15-24, as well as older youth aged 25-34. In 2019, an estimated 31 million (11.4%) were in the age group 15-24 while 56.1 million (20.6%) were in the age group 25-34 (United Nations, 2019). Additionally, international migration which was previously the realm for men has become a domain for both male and female since 1990 (Donato & Gabbacia, 2015). In 2019, female migrants constituted 47.9% of all international migrants globally (United Nations, 2019).

Furthermore, many international migrants face health and safety challenges both during transit and at the destination countries. It is because of the need for improved health and the well-being of international migrants that the World Health Assembly Resolution (WHA 61:17) urged member states to “*promote equitable access to health promotion, disease prevention, care for migrants and promote migrant-sensitive health policies*” (WHO, 2008). However, transit and destination countries have been very slow in policy formulation and implementation for the health and well-being of migrants.

Since the 1994 International Conference on Population and Development (ICPD) held in Cairo, questions regarding adolescent and youth sexual and reproductive health have been on the global agenda (United Nations, 1995). Over the past two and a half decades, there has been increased interest within the international community on the health of youth generally, and the sexual and reproductive health of adolescents and youth specifically. Examples of such international fora are the African Forum on Adolescent Reproductive Health held in Addis Ababa, Ethiopia in 1997; the World Youth Forum which took place at The Hague, Netherlands in 1999; the 2014 World Conference on Youth held in Colombo, Sri Lanka and the 2019 second World Conference on Youth held in Lisbon, Portugal.

Consequently, global discussions, commitments, goals and targets were agreed upon internationally to address the health of youth generally, and the sexual and reproductive health of adolescents and youth specifically. Examples are the World Programme of Action for Youth (United Nations, 2010) and the Sixty-Fourth World Health Assembly Resolution (WHA 64:28) on the health of youth and the health

risks faced by youth (WHO, 2011). In addition, the Colombo Declaration on Youth recommended universal access to sexual and reproductive health services and information for youth (United Nations, 2014) and the Sustainable Development Goal (SDG) with the pledge that “no one will be left behind” (United Nations, 2015).

Despite these global commitments and targets, gaps in formulation and implementation of policies and programmes at global, regional and national levels continue to leave migrants behind. A lack of clear policies about immigrants exposes immigrant youth as the worst affected especially by sexual and reproductive health policies in transit and destination countries. Immigrant youth have been left behind not only because of a lack of clear policies in transit and destination countries, but also because of their demographics as youth and their status as immigrants.

Sexual and Reproductive Health (SRH) is the “state of complete physical, mental and social well-being in all matters relating to the reproductive system and not merely the absence of reproductive disease” (WHO, 1995). This implies that men and women can enjoy harmless and pleasing sex lives, and get correct information about their SRH in order to manage their fertility (WHO, 1995). There is a global concern about the SRH of youth because of risky sexual behaviours that ultimately compromise their sexual and reproductive health. The impact of risky sexual behaviours on youth is worsened by an interplay of individual factors such as age, sex, level of education, socioeconomic status, as well as community and environmental factors such as discrimination and access to SRH services (Hagiwara et al., 2019; Kogan et al., 2015; Coleman-Minaha, 2017).

Globally, researchers have found that youth migration is a response to economic and non-economic drivers in the main. These drivers include imploding and deteriorating economic environments and political unrest in the country of origin which constitute the push factors. In contrast to these push factors, attractive wages, good education and responsive health care systems in the host countries constitute the pull factors (Simpson, 2017; Van Hear et al., 2017).

In sub-Saharan Africa, the push factors that influence the decision of the youth to migrate include high levels of unemployment, poverty, lack of infrastructure, poor education and parlous healthcare systems, in addition to political instability and violence. Demographic transition is also an important catalytic factor compelling youth migration (Collinson et al., 2016). For instance, there is an increase in the youth population in sub-Saharan Africa due to high fertility rates and low death rates, resulting in a population phenomenon called the “youth bulge.” This youth bulge culminates in youth unemployment and socio-economic dependency (Canning et al., 2015). Consequently, more youth from sub-Saharan Africa embark on international migration to escape this cycle of poverty and unemployment (Esson, 2015; Kaag et al., 2019). Pull factors involve demographic transition in developed countries due to low birth rate and low death rate with the resultant decline in the workforce, which creates the demand for immigrant youth from sub-Saharan Africa (Aiyar et al., 2016).

South Africa is both a transit country and country of destination for immigrants. Immigration has been on the increase in South Africa since the country's independence in 1994. The number of international migrants increased from 958,188 during the 1996 Census to 1 025 076 in 2001 and 2,173,409 in 2011 (Statistics South Africa, 2015). The influx of immigrants to South Africa may be traced to the country's social infrastructure, stable political state, and the dire political unrest in its neighbouring countries. Additionally, the country has the strongest economy in the Southern African Development Community (SADC) region and the second largest economy in Africa, after Nigeria.

Based on the 2011 South Africa Census, 4.2% (2 173 409) of the country's total population were immigrants in 2011 (Statistics South Africa, 2015). In 2019, the estimated population of international migrants in South Africa was 4 224 256 (United Nations, 2019). In South Africa, youth encompasses people aged 15-34 who accounted for 34.9% of the total population in 2019 (analysis of the United Nations, 2019). Immigrant youth aged 15-34 accounted for 40.8% (1 724 336) of all international migrants and 8.4% of total youth population aged 15-34 in 2019 (United Nations, 2019). Though immigrant youth accounted for the largest population of immigrants in the country, they are not included in national health research and sexual and reproductive health research. This exclusion of immigrant youth from research leads to lack of data evidence for policy advocacy and policy development that is inclusive of immigrant youth in South Africa. Immigrant youth thus suffer from policy exclusion in sexual and reproductive health compared to their local counterparts.

Youth are generally at risk of negative reproductive health outcomes such as sexually transmitted infections (STIs), HIV/AIDS, unwanted pregnancies, unsafe abortions, maternal death and disabilities. This is due to risky sexual behaviours such as multiple sex partnerships, unprotected sex and early sexual debut. The risks of and vulnerabilities to negative SRH outcomes among immigrant youth are exacerbated by migration-related factors including immigration status, legal authorisation to work, duration of migration in the country of destination, and linguistic barriers (Botfield et al., 2016).

Furthermore, environmental factors such as place of residence, availability of and accessibility to social and health facilities, racism, xenophobia and sexual violence increase immigrant youth's vulnerability to negative SRH outcomes (Agu et al., 2016). Moreover, lack of information and access to SRH products and services, coupled with unfriendly migration policies and unclear health policies regarding immigrants in the country of destination all predispose immigrant youth to negative SRH outcomes (Philbin et al., 2018; Botfield et al., 2016; Åkerman et al., 2016; Agu et al., 2016). In fact, immigrant youth face heightened risks and vulnerabilities to HIV/AIDS, unplanned and unwanted pregnancies, sexually transmitted infections and unsafe abortions. This is due to risky sexual behaviours in the form of multiple sexual partnerships, inconsistency of condom use, or lack of condom use during sexual intercourse. These risky sexual behaviours, coupled with lack of access to health services for sexual and reproductive health services, eventually expose immigrant youth to dire negative SRH outcomes.

In South Africa, the increasing rate of transmission of HIV infection, unplanned pregnancies and STIs are among the main SRH challenges faced by the youth (The Presidency, RSA, 2015). South African researchers have conducted extensive studies on the levels and determinants of the risky sexual behaviours as well as predictors of contraceptive use among South African youth, producing evidence to guide interventions in the process (Shisana et al., 2014; Muchiri et al., 2017; Makola et al., 2019; Chersich et al., 2017). These studies, however, have not considered the impact of the same risky sexual behaviours and access to SRH services by immigrant youth.

Sexual relationships and social interactions between immigrants and native born are, however, very common in South Africa (Mbomvu, 2015). Risky sexual behaviours have been widely identified among immigrants globally (Dzomba et al., 2019; Ganczak et al., 2017; Dias et al., 2020; Guerra-Ordoñez et al., 2017), but surveys on these behaviours among immigrants is sorely missing in South Africa. There is therefore an urgent need to carry out research that examines the determinants of risky sexual behaviour among immigrant youth in South Africa, and to understand their access to reproductive health services, especially in an immigrant-concentrated community. This thesis fills the research gap on risky sexual behaviour and access to SRH among immigrant youth in Hillbrow, Johannesburg; a community known for its high concentration of immigrants. Findings show evidence on the predictors of risky sexual behaviours among immigrant youth and their access to SRH services.

1.2 PROBLEM STATEMENT

Despite the increased number of immigrants in South Africa, with an estimated population of 4.2 million in 2019 (United Nations, 2019), there is limited data on migration to provide an informed understanding of the demographic profile of the immigrants, either at the national level or in migrant concentrated communities. In the absence of national migration surveys, the Census is the only reliable source of information on immigrants. This absence of surveys on immigrants at national and sub-national levels, especially in communities with a high population density of immigrants, makes evidence-based planning, advocacy and policy development on immigrants impossible.

It is important to study immigrant youth in South Africa because of their demographics. Immigrant youth aged 18-34 accounted for 4 out of 10 (40.8%) of all immigrants and 8.4% of total population of youth in 2019 (Analysis of United Nations, 2019). The paucity of studies privileging the social and demographic characteristics of immigrant youth especially in communities with high population density of immigrants makes it complex to inaugurate evidence-based social development planning and advocacy that caters for immigrant youth.

The City of Johannesburg metropolitan area is home to the highest number of immigrants in South Africa, with the majority of them staying in Hillbrow (South African Census, 2011). Hillbrow has the highest population of immigrant in South Africa, with a total population of 74 131, consisting of 38 874

youth aged 18-34 in 2011. An analysis of the South African Census 2011 demonstrates that immigrant youth aged 18-34 accounted for 46.4% (18 028) of the total youth population aged 18-34 in Hillbrow in 2011. The population of immigrants in South Africa has been on the increase, but despite this high population of immigrants in the City of Johannesburg and Hillbrow local municipality specifically, research on immigrant youth is non-existent if scarce.

High rates of HIV transmission, unplanned pregnancies and STIs are major public health problems facing South African youth (National Department of Health, 2017). This is due to high-risk sexual behaviours such as sexual initiation at an early age, multiple sex partnerships and a lack of, or inconsistent use of condom during sexual intercourse. South African researchers have identified determinants of high-risk sexual behaviours in order to develop appropriate interventions to curb this problem (Shisana et al., 2014; Muchiri et al., 2017; Ngidi et al., 2016; Jonas et al., 2016; Amoateng et al., 2014). However, these studies do not include immigrant youth, though they face the same problems confronting those born in the nation. This is certainly a research gap on risky sexual behaviour among immigrant youth. Globally, youth risky sexual behavior remains a plague contributing to death, disability and social problems. This is due to adverse health consequences such as morbidity and mortality from HIV/AIDS, maternal mortality, unsafe abortions, obstetric complications, infertility and unplanned and unwanted pregnancies (Hajizade-Valokolaee et al., 2016).

Migration has been associated with high-risk sexual behaviour globally (Guerra- Ordóñez et al., 2017; Dias et al., 2020; Ganczak et al., 2017; Dzomba et al., 2019). In South Africa, immigrant youth are exposed to the double risk of negative SRH outcomes because of their migration status and their age. These dual factors predispose them to high-risk sexual behaviour, and thus high levels of negative sexual and reproductive health outcomes. Despite this double vulnerability of immigrant youth, there is a dearth of research on immigrant youth, as current research involving youth does not disaggregate data by migration status. Immigrant youth are therefore marginalised in the literature on youth risky sexual behaviour in South Africa generally and specifically in Hillbrow, the hub of immigrants in South Africa.

While studies on risky sexual behaviours among native-born South Africans focus on youth, existing studies that have examined sexual behaviour among immigrants did not privilege immigrant youth. Richter et al. (2014) studied the intersection of migration status and service utilisation among female sex workers in three cities of South Africa, of which Hillbrow was included in the City of Johannesburg. While the study reported immigrant female sex workers to have higher education levels, worked part-time, mainly at indoor venues, they however had less frequent condom use than non-migrants and had lower health service contact.

Giorgio et al. (2017b) focused on HIV sero-status among women in urban Cape Town. The study found older age, marital status and education level to be associated with HIV sero-status among immigrants. However, the focus of the study was not immigrant youth. This study was carried out in urban Cape Town with a lesser number of immigrants, hence the use of respondent-driven sampling techniques for hidden and difficult to reach population. Though immigrants in Hillbrow are not hidden and not difficult to reach, yet research involving this subgroup is sparse.

Dzomba et al. (2019) did a systematic review of the role of migration in HIV risk acquisition and sexual behaviour between 2000 and 2017. The review established that HIV acquisition and risky sexual behaviour are more prevalent among both male and female migrants. In the same vein, the meta-analysis results show that migration was significantly associated with increased HIV acquisition risk. The foregoing studies among immigrants in South Africa justify the need for research on the risky sexual behaviours among urban immigrant youth in Hillbrow.

Access to services for sexual and reproductive health by adolescents and youth have been a serious public health concern globally since the Cairo Conference in 1994. Mobility concerns, health risks and vulnerabilities of immigrants as well as the increasing number of undocumented migrants have heightened these concerns and anxieties. South Africa is committed to the Sustainable Development Goals, especially SDG 3.7 on universal access to SRH services. South Africa's laws, policies and guidelines "are progressive and comprehensive on contraceptive service provision in the public sector; and promote integrated, rights-based service delivery" (Lince-Deroche et al., 2016). Makola et al. (2019) and Chersich et al. (2017) have studied contraceptive coverage and predictors of contraceptive use in South Africa.

Despite the progressive and comprehensive SRH policies and guidelines, a gap exists on the universal access to SRH at the point of service delivery where policy implementation takes place. Lack of access to SRH services negatively affects immigrant youth due to unclear guidelines regarding immigrants' access to SRH services, as well as subjective interpretations at the point of service delivery. These prevent immigrant youth from accessing SRH services, thus nullifying the universality of access to SRH services. Gumede et al. (2017) studied pregnant women's attendance at three urban antenatal care (ANC) settings in Johannesburg. The Hillbrow health facility had the lowest levels of ANC attendance, HIV testing and the highest HIV prevalence of all three facilities. The study concluded that the low levels recorded could be attributed to perceived or real lack of access by immigrants to the services. In spite of the evidence presented, there is limited research on factors associated with access to government facilities in Hillbrow for SRH services by male and female immigrant youth. In addition, literature on barriers to accessing SRH services and products by immigrant youth in Hillbrow is intermittent if available.

Castañeda et al. (2015) and Spoel et al. (2019) documented the living conditions and access to health as determinants of migrants' health. Despite the living conditions of immigrants in Hillbrow and the noted low access to SRH services in government health facilities, there is a dearth of literature on the interrelationship of living conditions of immigrants in Hillbrow and their access to SRH services as social determinants of the immigrants' health.

Sexual relationships between native-born with access to SRH services and immigrant youth, without access to SRH information and services results in re-infection of the native-born, invariably. This ultimately affects the SRH indicators, leading to poor SRH outcomes in the general population as well as low levels of SRH indicators at district and national levels among South African youth generally.

There is considerable research in developed countries on immigrants' sexual behaviour and access to and use of SRH products and services (Botfield et al., 2016; Zihindula et al., 2015). There is however a dearth of empirical research in South Africa, especially in high migrant concentrated area, such as Hillbrow, Johannesburg, on the sexual behaviour of immigrant youth, as well as their ability to access and use SRH products and services. Lack of evidence on sexual behaviour and access to SRH services by immigrant youth complicates the generation of evidence for policy advocacy and inclusion of immigrants in national SRH programmes and policies.

Despite the high concentration of immigrants in Hillbrow, there is no evidence to show the levels and determinants of risky sexual behaviours among the immigrant youth. Furthermore, studies that assess knowledge about SRH and access to government health facilities for SRH purposes are missing among immigrant youth in Hillbrow.

There is currently no national migration survey, and national administrative records do not disaggregate data by migration status. This makes it difficult to develop evidence-informed policy advocacy for the inclusion of immigrant youth in national youth development strategies. Household surveys in the communities with high concentration of immigrants are sparse in South Africa.

There is therefore a dire and urgent need to understand quantitatively the determinants of risky sexual behaviours among immigrant youth in Hillbrow, specifically multiple sexual partnerships and inconsistency of condom use during sexual intercourse. Additionally, there is need to understand quantitatively the factors that influence access to a government health facility for SRH services by immigrant youth in Hillbrow and explore qualitatively the perceptions of immigrant youth on access to government health facilities for SRH services. Furthermore, the use of a mixed methods approach is justified as this provides a fuller understanding by integrating both quantitative and qualitative findings, and the analysis of the integrated data yields a more comprehensive understanding of access to government health facilities for SRH services by immigrant youth, beyond the findings from either the

quantitative or the qualitative data in isolation (Creswell, 2015; Guetterman et al., 2015; Creswell & Plano Clark, 2018). An understanding of the factors associated with access to government facilities in Hillbrow for SRH services and the perceptions of immigrant youth provide evidence to inform appropriate evidence-based social development planning and advocacy that is inclusive of immigrant youth. Furthermore, an understanding of barriers to accessing of SRH services by immigrant youth facilitates and enhances the development of context-appropriate interventions that reduce the risks and vulnerability faced by immigrant youth in Hillbrow.

1.3 RATIONALE/JUSTIFICATION OF THE STUDY

This cross-sectional study has two justifications. Firstly, it examines the determinants of risky sexual behaviours among male and female immigrant youth aged 18-34 in Hillbrow, Johannesburg, South Africa. Premised on the Social Determinants of Health framework (SDH) by Solar and Irwin (2010) applied in this aspect of the study, factors such as the socio-demographic characteristics, migration-related characteristics, community social processes and social support influenced risky sexual behaviours (multiple sexual partnerships and inconsistency of condom use) among immigrant youths and their access to government health facilities for SRH services in Hillbrow.

Secondly, it uses the survey data to examine the factors that are associated with access to a government health facility for SRH services by immigrant youth in Hillbrow. The constructs of the Behavioural Model of Health Service Utilization (Andersen, 1995) was applied to this study. It predicted that predisposing, enabling, need, external environment and consumer satisfaction would influence access to a government health facility for SRH services by immigrant youth in Hillbrow. The predisposing factors in this study are the socio-demographic characteristics; the enabling factors include the wealth index at household level and community resources that facilitate the availability and access to SRH services in Hillbrow. Need factors include perceived need for SRH services. External environment includes physical environment while political environment includes prevailing health policy on access to health services by immigrants and the economic components. The consumer satisfaction includes the provider characteristics, quality of service provided, convenience and availability of the service (Andersen 1995). The dependent variables for the cross-sectional study are multiple sexual partnerships, inconsistency of condom use and access to a government health facility for SRH services.

On the other hand, the qualitative study is to identify, understand and explore the experiences of male and female immigrant youth aged 18-34 on their access to the government health facilities in Hillbrow for SRH services. Focus Group Discussions (FGDs) were conducted in a boardroom at a Community Centre in the neighbourhood.

In the penultimate, the aim of this mixed methods study was to gain insight into issues surrounding access to a government health facility for SRH services by immigrant youth in Hillbrow, more than either a qualitative or a quantitative study could have provided in isolation. A convergent mixed methods design was used. This is a type of design in which the quantitative and the qualitative data were collected within the same period during the fieldwork, the data were analysed separately and the findings from the two datasets were integrated by merging. The quantitative and qualitative results from the two databases were compared in order to generate a complete understanding of the problem of access to government health facilities for SRH services. The reason for using this method was that it brings significant insight into the problem of access to government health facility for SRH services by immigrant youth than would be obtained by either quantitative or qualitative data separately (Creswell & Plano Clark, 2011; Fetters et al., 2013; Creswell and Creswell, 2018).

1.4 STUDY OBJECTIVES

1.4.1 General Objective

To examine the determinants of risky sexual behaviours among immigrant youth aged 18-34 and understand their perceptions on access to SRH services in Hillbrow, South Africa.

1.4.2 Specific Objectives

1. To describe the characteristics of immigrant youth aged 18-34 living in Hillbrow, Johannesburg.
2. To determine factors associated with multiple sex partnerships among the study sample.
3. To examine the determinants of inconsistent condom use among the study sample.
4. To determine the predictors of access to government health facilities for reproductive health services by the study sample.
5. To understand the perceptions and experiences of immigrant youth on their access to government health facilities for sexual and reproductive health services in Hillbrow.

1.5 RESEARCH QUESTIONS AND HYPOTHESES

1.5.1 Research Questions

Quantitative Research Question

- (1) Are there any associations among gender and age of immigrant youth in the degree of multiple sexual partnerships in Hillbrow?

- (2) What are the levels and differentials in condom-use among the immigrant youth with respect to their gender, age, and education?
- (3) Are there any relationships between risky sexual behaviours of immigrant youth living in Hillbrow and their migration status and duration of migration?
- (4) Do social processes such as discrimination, personal safety and security concerns and social support mediate risky sexual behaviours among immigrant youth living in Hillbrow?

Qualitative Research Question

What are the perceptions and experiences of immigrant youth on their access to government health facilities for sexual and reproductive health services in Hillbrow?

1.5.2 Study Hypotheses

Hypothesis 1

Null (H_0): There is no association between gender and age of immigrant youth and multiple sex partnerships in Hillbrow.

Alternative (H_1): There is an association between gender and age of immigrant youth and multiple sex partnerships.

Hypothesis 2

Null (H_0): There is no association between migration-related variables (migration status and migration duration) and multiple sex partnerships.

Alternative (H_1): There is an association between migration-related variables (migration status and migration duration) and multiple sex partnerships by immigrant youth.

Hypothesis 3

Null (H_0): There is no association between social processes in Hillbrow (discrimination, personal safety and security concerns, and social support) and multiple sex partnerships by immigrant youth.

Alternative (H_1): There is an association between social processes in Hillbrow (discrimination, personal safety and security concerns, and social support) and multiple sex partnerships by immigrant youth.

Hypothesis 4

Null (H_0): There is no association between gender and age of immigrant youth and inconsistency of condom use.

Alternative (H_1): There is an association between gender and age of immigrant youth and inconsistency of condom use.

Hypothesis 5

Null (H_0): There is no association between migration-related variables (migration status and migration duration) and inconsistency of condom use.

Alternative (H_1): There is an association between migration-related variables (migration status

and migration duration) and inconsistency of condom use.

Hypothesis 6

Null (H_0): There is no association between social processes in Hillbrow (discrimination, personal safety and security concerns, and social support) and inconsistent condom use.

Alternative (H_1): There is an association between social processes in Hillbrow (discrimination, personal safety and security concerns, and social support) and inconsistent condom use.

Hypothesis 7

Null (H_0): Access to sexual and reproductive health services is not associated with gender, age and level of education.

Alternative (H_1): Access to sexual and reproductive health services is associated with gender, age and level of education.

Hypothesis 8

Null (H_0): Access to SRH services is not associated with migration status and duration of migration.

Alternative (H_1): Access to SRH services is associated with migration status and duration of migration.

Hypothesis 9

Null (H_0): There is no association between social processes in Hillbrow (discrimination, personal safety and security concerns, and social support) and access to SRH services.

Alternative (H_1): There is an association between social processes in Hillbrow (discrimination, personal safety and security concerns, and social support) and access to SRH services.

1.6 SIGNIFICANCE OF THE STUDY

Given the increasing number of immigrants in South Africa post-independence, immigrant youth aged 18-34 constitutes the vast majority, accounting for 9.2% of all youth aged 18-34 (United Nations, 2019). Despite their number, there is a dearth in the literature on immigrant youth to provide an informed understanding about their demographic profile at national and sub-national levels. In addition, literature on immigrant youth in communities with high concentration of immigrants is scarce. This study contributes to literature on immigrant youth in South Africa generally and in Hillbrow, specifically, being the place with the highest concentration of immigrants.

Research and intervention programmes have identified cities as contributing to increasing HIV infections because of high-risk sexual behaviours stemming from social marginalisation attributed to economic and social disparities (UNAIDS, 2016). Immigrants have been identified as vulnerable populations who need special attention in cities (UNAIDS, 2016). Immigrant youth living in Hillbrow

face several levels of vulnerabilities. Firstly, being a youth with associated high-risk sexual behaviours due to feelings of invincibility including multiple sex partnerships and lack of protection during sexual intercourse; secondly, being an international migrant faced with discrimination and possible exclusion from social and health services, and living in Hillbrow, the inner city of Johannesburg, with all the risks of urban cities.

Urban health researchers in Johannesburg have documented widely on the health status of residents of inner city of Johannesburg, especially as it concerns the HIV epidemic and healthcare service delivery in line with the “Fast-Track Cities” initiative of UNAIDS (Rees et al. 2017; Vearey, 2017; UNAIDS 2016). Despite the multiple levels of vulnerabilities faced by immigrant youth in Hillbrow, literature on risky sexual behaviours among immigrant youth in the inner city of Johannesburg is missing. This study fills this research gap by contributing to knowledge and literature on risky sexual behaviours among immigrant youth in urban Hillbrow, Johannesburg, South Africa.

Researchers have documented access to health as a determinant of immigrants’ health (Castañeda et al., 2015; Spoel et al. 2019). In South Africa, researchers in health have documented disparity in access to health services by immigrants (Gumede et al. 2017; Rees et al. 2017; Makandwa and Vearey, 2017; Crush and Tawodzera, 2014; Mukondwa and Gonah, 2016). This study contributes to existing knowledge and literature on access to SRH services by immigrants, especially the perceived barriers to accessing government sexual and reproductive health services by immigrant youth in Hillbrow.

Furthermore, this study proffers evidence for advocacy and policy discussion on sexual behaviour of immigrant youth and their exclusion from access to SRH services in migrant-dense urban Hillbrow, Johannesburg. This study supplements evidence for policy discussion on Sustainable Development Goal (SDG) target 3.7, on “universal access to sexual and reproductive health-care services”, under the SDG theme of “leaving no one behind”, which includes immigrant youth (United Nations, 2015). Evidence from this study shows that immigrant youth living in Hillbrow have been left behind with regards access to sexual and reproductive health-care services (SDG 3.7). In addition, this thesis reconfigures and extends discourses on the availability of migration and health data by the Inter-Ministerial Committee on Migration in South Africa.

Negative sexual and reproductive health outcomes such as maternal mortality, unsafe abortions, HIV/AIDS because of high-risk sexual behaviours among immigrant youth prevents South Africa from meeting its health targets. Immigrant youth and native-born citizens live together in the same social space and sexual relationships between native born and foreign born do not respect the exclusionary borders of immigrant youth from accessing SRH services leading to high levels of STIs and re-infections, as well as new HIV infections among the native-born South African youth. Findings from this study complement practice by advocating for the provision of SRH services for immigrant youth,

as a strategic way of reducing the cost of treating native-born South Africans for infections and re-infections. In addition, access to SRH services by immigrant youth significantly reduces the cost of emergency maternal health care services because of unsafe abortions.

This study makes an important contribution to the field of demography. Fertility, mortality and migration are the three components of population change. The current study links all the three components of population change. Fertility affects the population growth because of increased birth rate without the use of contraceptives. Lack of, or inconsistent condom use during sexual intercourse are risky sexual behaviours that culminate in unplanned and unwanted pregnancies, hence high fertility rates; spontaneous and back door abortions which can often lead to death; and sexually transmitted diseases including HIV. In the same vein, lack of access to sexual and reproductive health services and products by immigrant youth also lead to high birth rate among immigrant youth.

Migration is, however, an area that is less studied, though immigrant youth aged 18-34 years accounted for 29.4% of all international migrants and 9.2% of all youth aged 18-34 in South Africa in 2019 (United Nations, 2019). In Hillbrow, a densely-populated and immigrant-dense urban area of the inner city of Johannesburg, immigrant youth aged 18-34 accounted for 46.4% of total youth population aged 18-34 in Hillbrow in 2011 (Statistics South Africa, 2012).

Finally, this study contributes to significant research outputs by using quantitative and qualitative samples to understand the determinants of risky sexual behaviours among immigrant youth, and their access to government health facilities for sexual and reproductive health services. In addition, the thesis made a contribution to the field of mixed methods approach by integrating the mixed methods throughout all the phases of the study – from conceptualization to the results; which culminated to the development of the joint display table.

1.7 SCOPE OF THE STUDY

Risky sexual behaviours such as multiple sex partnerships, non-use of condoms and inconsistent condom use during sexual intercourse have been associated with international migration (Ganczak et al. 2017; Dias et al. 2020; Tanton et al. 2016). Migration exposes immigrants to new sexual partners during transit and in the countries of destination. Immigrant youth engage in high-risk sexual behaviours due to the feelings of invincibility, due to freedom from parental and family control, and peer pressure. Individual factors that predispose immigrant youth to high-risk sexual behaviours are age and sex while social and economic factors include level of education, availability of employment, and housing. Environmental factors are the health policy environment and legal framework.

This study examined the determinants of high-risk sexual behaviours, specifically multiple sex partnerships and inconsistency of condom use among immigrant youth aged 18-34 in Hillbrow, Johannesburg, South Africa, based on data collected between the 18th -31st of December, 2019. The survey data further examined the determinants of access to a government health facility for SRH services by immigrant youth. The qualitative study explored the perceptions and experiences of male and female immigrant youth, aged 18-34 on their access to a government health facility for SRH services in Hillbrow. The study used a convergence mixed methods design, whereby quantitative and qualitative data collection took place concurrently.

The quantitative study was a household survey involving biological male and female immigrant youth, aged 18-34, residing in Hillbrow. Structured questionnaires gathered information on sociodemographic characteristics, migration, social processes in the community, knowledge and information about SRH and sexual activity and condom use behavior. The sample size consisted of 467 male and female immigrant youth. Univariate, bivariate and multivariate analyses were performed to examine the determinants of multiple sexual partnerships, inconsistency of condom use and access to a government health facility for SRH services in Hillbrow.

The qualitative study gathered information to understand the perceptions and experiences of immigrant youth on access to government health facilities for SRH services in Hillbrow. This involves Focus Group Discussions consisting of males and females separately, and grouped by age group (18-24 and 25-34 years). The interviews were audio-recorded, the data was transcribed, codes were generated, sub-themes and themes were identified and analysed using thematic analysis.

The mixed methods study involved collection of the quantitative data (survey data) and the qualitative data (audio-recorded FGDs) in concurrently during the fieldwork. The participants for the FGDs were not pooled from the survey. The data were analysed separately using different analytical techniques as mentioned above. Integration occurred at different stages of the study such as the design stage, data

collection, and sampling. Integration of the quantitative and qualitative findings was achieved by merging the two findings. This involved a side-by-side comparison of the two findings and developing a joint display table with meta-inference that shows a comprehensive understanding and a better insight to the study than either of the methods separately. The convergence mixed methods used in this study thus provides a deeper insight on reasons for lack of access to government health facilities for SRH services by immigrant youth, based on the findings from the two databases.

1.8 OUTLINE OF THE THESIS

The thesis comprises nine chapters. The first chapter is the Introduction, which provides the background to the study. In addition, it consists of sections on statement of the problem; study objectives which are categorised into general and specific objectives; significance of the study; definition of terms and scope of the study. Chapter Two is the Literature Review, which discussed current literature on multiple sexual partnerships, inconsistency of condom use and access to government facilities by immigrants, at global regional and national levels. The Chapter further discusses the theories underpinning this study, and provided a conceptual framework that guided the study. Thereafter, Chapter Three, the Research Methodology chapter, describes the methods employed in the study. It describes the study setting, study population, research designs, sampling, quantitative and qualitative data collection; data management; data analysis and limitations of the study.

In Chapter Four, the background characteristics of study sample is presented and this includes the sociodemographic, migration and sexual behaviour attributes. Chapter Five examines the determinants of multiple sexual partners 12 months prior to the survey and predictors of inconsistent condom use. The factors associated with access to government health facilities for SRH service in Hillbrow was examined in Chapter Six. In Chapter Seven, the qualitative findings are presented, which explain the perceptions and experiences of immigrant youth regarding access to sexual and reproductive health services in Hillbrow. In Chapter Eight, the findings of all the results are discussed. In addition, the mixed methods analysis is done, quantitative and qualitative findings were integrated, the joint display table was developed and the mixed methods results were interpreted in detail. Chapter 9 contains the summary of findings, conclusion, and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents a critical review of literature that is recent and relevant to sexual behaviour among immigrant youth and their access to reproductive health services. It tried to review a number of interrogations conducted globally, in sub-Saharan Africa and within South Africa among immigrants. Available literature reviewed on risky sexual behaviours among immigrant youth include determinants of multiple sexual partnerships and condom use behaviours, which consist of lack of condom use and consistency of condom use during sexual intercourse among immigrant youth. The review involved literature on knowledge about sexual and reproductive health, specifically family planning by immigrant youth. In addition, literature on use of modern contraceptives and access to government health services was reviewed. The purpose of the extensive review was to identify the gaps in existing studies, thereby justifying this study.

This chapter further reviewed literature on the theoretical and conceptual frameworks that underpin this study. The theoretical and conceptual frameworks used in this study are interdisciplinary and multifaceted, similar to the experiences of migration and health. This study adopted the broad “Social determinants of health framework”, especially contributions that conceptualise immigration as a social determinant of health. Other theories considered are the push and pull theories of migration and the behavioural model of health service utilization. Finally, the conceptual framework that guided this study was developed from an extensive literature review and modification of existing models.

2.2 METHODS OF LITERATURE REVIEW

Relevant literature from various sources was reviewed. Peer reviewed articles were accessed through online databases made available by the North-West University. Open access materials and online catalogues such as Google Scholar, Google, Science Direct, BioMed Central, JSTOR, Pubmed, were accessed through the North-West University library’s EBSCO Discovery Service. In addition, literature was sourced from grey literature such as Statistics South Africa, National Department of Health, South Africa, Human Science Research Council (HSRC), United Nations (UNDESA, UNAIDS, WHO, UNFPA, IOM) and the World Bank.

2.3 GLOBAL REVIEW OF RISKY SEXUAL BEHAVIOURS OF IMMIGRANT YOUTH

Globally, there has been a growing number of international migrants, especially the youth aged 18-34. The growing number of immigrant youth is of public health concerns due to risky sexual behaviours, increased vulnerability and risks of negative sexual and reproductive health outcomes. International migration causes separation of youth from family and social controls. It also creates feelings of anonymity which predispose immigrant youth to engage in risky sexual behaviours (Tran et al. 2019). An additional public health concern is the fact that many immigrant youth do not have access to reproductive health services in the host country. As a result, researchers globally have striven to establish correlates of risky sexual behaviours among immigrant youth, and generate evidence that could support advocacy using different models and theories.

Multiple sexual partnerships and inconsistency of condom use or non-use of condoms during sexual intercourse are risky sexual behaviours among immigrant youth. Extensive studies have been undertaken on these risky sexual behaviours among immigrants, especially in developed countries. Literature demonstrates the challenges related to multiple sexual partnerships and inconsistency of condom use among immigrant youth globally, in sub-Saharan Africa and in South Africa. Many of these studies have shown correlates of risky sexual behaviours among immigrant youth at different levels. Individual factors include socio-demographic characteristics; proximal context are at family and household level; migration-related factors include migration status and duration of migration; while structural factors include place of residence, social dynamics at the place of residence, prevalence of sex work, physical and sexual violence, and policy environment and law enforcement agencies.

Reports about the sociodemographic determinants of high risk sexual behaviours differ from place to place. In the United States, Sastre et al. (2015) found lower levels of education, younger age and higher income to be the socio-demographic factors that predicted decrease in condom use among Latino immigrant youth after immigration to the United States. The study further found gender differences in HIV risk behaviours, with Latino females reporting a decrease in condom use and increases in the number of sexual partners post migration. Dias et al. (2020) found lack of condom use and engaging in multiple sex partnership to be common among migrants from sub-Saharan Africa living in Belgium and Portugal. Being a female and in the older age group were associated with risky sexual behaviours. Asamoah and Agardh (2018) found that high risk sexual behaviours, including non-use of condoms and multiple sex partnerships, were higher among male immigrant youth in Sweden. In addition, younger age and growing up with only one parent increased risky sexual behaviour among immigrant youth and native-born in Sweden. Ganczak et al. (2017), however, found being male and unmarried was associated with unprotected sex and multiple sex partnerships among Polish immigrants in the United Kingdom.

Rojas et al. (2016), on the other hand, found religiosity as a protective factor against multiple sex partnerships. Other researchers have found lack of condom use or inconsistent use of condom during sexual intercourse among immigrant youth, specifically Mileti et al. (2019) in Switzerland; Maticka-Tyndale et al. (2016) in Canada; Zhang et al. (2017) in Mexico; and Connors et al. (2017) in Mexico. The foregoing reviews demonstrate that gender, age, religiosity and marital status are significant sociodemographic factors that are determinants of high risk sexual behaviours globally.

Globally, migration scholars have found associations between migration status, migration duration and risky sexual behaviours among immigrant youth. Cardoso et al. (2016) compared pre and post migration sexual behaviours and confirmed that immigration increases the risk of engaging in risky sexual behaviours among immigrant youth in the United States. Others documented the role of immigration in youth risky sexual behaviours (Dias et al., 2020; Asamoah and Agardh, 2018; Ganczak et al., 2017). These studies show the influence of immigration on risky sexual behaviours, thus contributing to evidence in the countries where these studies were undertaken.

The role of social networks in international migration has been documented in migration literature (Liu, 2013; Blumenstock et al., 2019; Serbeh and Adjei, 2020; Qiao et al., 2014). Van Meeteren and Pereira (2016) discuss the importance of migrants' social networks in the provision of "important feedback mechanisms in the form of information, resources and support that reduce the costs and risks of migration, thereby contributing to facilitate it." Althoff et al. (2017) found social support to be protective of risky sexual behaviours among immigrant youth in the United States. Similarly, other researchers have found higher levels of social support to be protective of HIV-related risk behaviours (Qiao et al., 2014; Shehadeh et al., 2018). Social support among immigrants has therefore been found to promote risk among drug users (Qiao et al., 2014).

Structural factors within a community such as prevalence of sex work, discrimination, safety concerns, and lack of social support have been confirmed as predictors of risky sexual behaviours among immigrant youth. Studies have identified high risk sexual behaviours among immigrant sex workers (Tran et al., 2019; Desgrees-du-Lou et al., 2016; Goldenberg et al., 2018; Martins-Fonteyn et al., 2016). Discrimination and safety concerns have also been documented as issues influencing high risk sexual behaviours among immigrant youth (Hagiwara et al., 2019; Kogan et al., 2015; Guerra-Ordoñez et al., 2017).

2.4 SUB-SAHARAN AFRICAN REVIEW OF RISKY SEXUAL BEHAVIOURS OF IMMIGRANTS

Though sub-Saharan Africa (SSA) was home to over 23 million international migrants in 2019 (United Nations, 2019), internal migration due to urbanization is rife, thus the majority of literature focuses on internal migration. Data on international migration are scarce in SSA; available literature is equally limited in scope. Publications from international organizations, grey literature and peer reviewed articles on sexual behaviour of international migrants show that in SSA, migration exposes people to high risk sexual behaviours such as multiple sex partnerships, lack of condom use or inconsistent condom use, due to absence from home, migration stress, alcohol use, socioeconomic situations in the country of destination, among others. In Southern Africa, immigrants often engage in circular migration within the SADC region, between the host country and the country of origin. The nature of economic activity influences engagement in risky sexual behaviours, especially the activities involving migration or mobility such as long distance truck drivers, fishermen, and those working at sea ports.

Ganle et al. (2019) examined risky sexual behaviours among female adolescent refugees in the Budumburam refugee camp in Ghana. The researchers found the majority of the participants were sexually active; levels of multiple sex partnerships and non-use of condom during sexual intercourse were also high. The sociodemographic factors predicting high risk sexual behaviours include younger age, being an immigrant, living alone and having a mother without formal education. The study did not, however, include adolescent males who also engage in risky sexual behaviours. Cassels et al. (2017) tested the hypothesis of mobile populations acting as a conduit population for STI transmission by linking otherwise disconnected networks in Agbogbloshie, Ghana. The study found concurrent sexual partnerships to be higher among men than women. However, there was a gendered association between mobility and concurrent sex partnerships, with increased reports of concurrent partnerships among mobile women but not among mobile men.

Jawando and Adeyemi (2020) examined sexual behaviours and sexual relationships among women involved in cross-border trade at Seme, a border town between Lagos, Nigeria, and the Republic of Benin. The study found that some of the women engage in transactional sex with border officials, either for financial gain or to prevent confiscation of their goods and wares. The study further shows a high risk sexual behaviour by the women, as none of the women interviewed reported use of condom during their last sexual intercourse preceding the survey.

In Uganda, high risk sexual behaviours and high HIV prevalence have been documented among mobile populations such as long distance truck drivers that travel internationally, the sex workers at the stop stations for the trucks, and fisher folks/fishing communities (Opio et al., 2013). Uganda has a large

number of refugees, mainly from South Sudan and the Democratic Republic of Congo. Olawore et al. (2018) carried out a population-based cohort study in Rakai, Uganda, to examine the association between migration and acquisition of HIV. The study confirmed that immigrants engaged in risky sexual behaviours and there was an increased incidence of HIV among immigrants in the first two years after migration. This study highlights the palpable risk and vulnerability of immigrants in the first few years of immigration.

In Lesotho, Palk and Blower (2015) carried out an analysis of georeferenced data on mobility and HIV infection. This study verified an association of increased mobility with increased levels of “recent” sexual behaviour. In addition, mobility was associated with high risk sexual behaviours among men who travelled frequently. In Tanzania, Deane et al. (2018) explored ways in which engaging in specific livelihoods involving mobility influence risky sexual behaviour. The researchers found that patterns and conditions of mobility as required by different economic activities such the number of destinations mobile individuals go to and the length of time spent away, certainly shape engagement in risky sexual behaviours, where sexual networks are accessed and transactional sex is a definitive feature.

2.5 REVIEW OF MIGRATION AND RISKY SEXUAL BEHAVIOURS AMONG IMMIGRANT YOUTH IN SOUTH AFRICA

In South Africa, internal and international migration have been linked to increases in high risk sexual behaviours, which fuels the HIV epidemic (Dobra et al., 2017, Walker and Oliveira, 2015). The majority of studies however focused on internal migration, with limited studies on international migration. South Africa is home to over 4 million international migrants, the majority of whom are youth. Though risky sexual behaviours among South African youth are a public health concern, little is known about the determinants of risky sexual behaviour among immigrant youth. The role of immigration in risky sexual behaviours has been under-explored in immigrant-rich South Africa.

Dzomba et al. (2019) conducted a systematic review of literature on the role of migration in risky sexual behaviour and risk of acquisition of HIV in South Africa. The review found risky sexual behaviours and risk of HIV acquisition to be more prevalent among both male and female migrants compared to their non-migrant counterparts. Most of the studies focusing on migrants did not make a distinction between internal and international migrants, thus conflating internal and international migrants together. It is therefore impossible to determine if immigration increases risky sexual behaviours among the population studied. Despite the fact that immigrant youth make the highest percentage of immigrants in South Africa, none of the studies reviewed focused on immigrant youth.

Giorgio et al. (2017a) examined the factors associated with risky sexual behaviours and HIV prevalence among immigrant men in Cape Town. The researchers found immigrant men in Cape Town engaged in transactional sex, multiple sex partnerships three months before the survey, and there was evidence of inconsistent condom use. The sociodemographic factors associated with the risky sexual behaviours include not having enough money for food and being unemployed. A complementary study of immigrant females in Cape Town examined the relationship between social support and HIV serostatus (Giorgio et al., 2017b; Townsend et al., 2014). The study reported multiple sex partnerships and inconsistent condom use three months prior to the survey among the study participants. Sociodemographic variables associated with being HIV positive are age, level of education, marital status and reason for migrating. Though studies by Giorgio and colleagues have shown the behavioural and biological findings among male and female immigrants in Cape Town, it is important that further studies assess the determinants of risky sexual behaviour among immigrant youth in migrant-concentrated immigrant communities of South Africa.

A study of female sex workers in three cities of South Africa showed that the majority of the sex workers were internal and international migrants (Richter et al., 2014). The sociodemographic factors associated with part-time sex-work are age (older age), migration status (being a cross-border migrant), education (some tertiary training), and marital status (being single). The study shows that immigrant sex workers had less frequent condom use, and that the majority of cross-border migrants live in Hillbrow and Sandton, Johannesburg. Further study in Hillbrow is necessary to understand if the determinants of risky sexual behaviours among cross-border migrants are applicable to other sub-groups in Hillbrow.

Anyawu et al. (2020) explored the influence of family dynamics on adolescents sexual risk behaviour in a migration-affected community in South Africa. Risky sexual behaviour among adolescents was influenced by community poverty in the form of financial deprivation, living alone, lack of parental attachment and couple conflicts.

2.6 LITERATURE REVIEW ON ACCESS TO SEXUAL AND REPRODUCTIVE HEALTH SERVICES BY IMMIGRANT YOUTH

Researchers globally have examined barriers and facilitators of access to SRH services by youth (Newton-Levinson et al., 2016). Starrs et al. (2018) alluded to the fact that young people face barriers in accessing health services as a result of their age, stage in development, specific needs and abilities. In addition to the factors identified as barriers to accessing sexual and reproductive health services among youth, immigrant youth face additional barriers as a result of their migration status and duration of migration in the host country.

Ussher et al. (2017) examined the experiences and perceptions of SRH by recent immigrant women living in Australia and Canada. Lack of knowledge about SRH issues was linked to poor education on family planning; unwanted pregnancies were reportedly common, and there was very poor knowledge of long-acting reversible contraceptives. Pills and condoms were the main types of contraception known by immigrant women. The researchers found culture, beliefs, religion, language barriers and lack of knowledge to be impediments to accessing information and services.

Okoro and Whitson (2017) found a lack of knowledge of sexual and reproductive health as barriers for care among African women in the United States. The study found immigration status, housing, lack of awareness, cultural and linguistic barriers and service provider factors were obstacles to accessing sexual and reproductive health among African immigrant women. Åkerman et al. (2016) examined the association between sociodemographic characteristics, social capital, knowledge and utilization of SRH services among Thai immigrant women in Sweden. The study found an association between low usage of services and poor knowledge about health care services. The sociodemographic factors associated with low utilization of SRH services are older age and living without a partner. The social capital factors associated with low utilization of SRH services include low trust in others and having predominantly bonding relationships.

Winters et al. (2018) did a systematic review on the use of health care services by undocumented migrants in Europe. The quantitative studies reviewed show an underutilization of different types of healthcare services by undocumented migrants. Qualitative reviews show inadequate and insufficient care in situations where care was received. Similarly, Brindicci et al. (2015) evaluated the perceptions of undocumented migrants regarding their rights of access and actual utilization of the Italian National Health Care services. The study found very poor knowledge about the right of access to the National Health Care services as well as utilization of the services. The study thus shows that despite available policy on right to the National Health Care services by undocumented migrants in Italy, actual access to Italian health services is very poor. In Spain, decent working conditions were found to be the main

factor that determined access to health by undocumented Latin American immigrant women (Gea-Sánchez et al., 2016).

Hacker et al. (2015) conducted a literature review on barriers to health care for undocumented immigrants and strategies that could be used to address these barriers. The researchers identified obstructions at policy, health system and individual levels. At the policy level, barriers identified include the laws and policies in different countries that limited access to and type of health care that could be accessed. Health care systems barriers include bureaucratic paperwork and registration systems, in addition to widespread discriminatory practices within the health care system. Individual level obstacles to health care among undocumented migrants include fear of deportation, stigma, and lack of both social and financial capital.

Barral et al. (2020) investigated knowledge, beliefs, and attitudes to contraception and access to reproductive health services by rural Latino youth in the United States. The study found geographical barriers due to rural locality, cultural barriers, and religion as barriers to accessing reproductive health services by immigrant youth. Additional barriers to accessing reproductive health services by rural immigrant youth include lack of sexual education and contraception use, as well as limited access to confidential reproductive health care in the community.

This review amplifies the fact that immigrant youth are faced with barriers to accessing sexual and reproductive health services globally as a result of their immigration status, health service-related factors, policies on access to health services by immigrants, and implementation of such policies at the point of service delivery.

2.7 ACCESS TO SEXUAL AND REPRODUCTIVE HEALTH SERVICES BY IMMIGRANTS IN SUB-SAHARAN AFRICA

In sub-Saharan Africa, there is a dearth of literature on access to SRH services by immigrants, specifically by immigrant youth. Arnold et al. (2014) did a qualitative exploration to gain a greater understanding of urban migrants' barriers to accessing healthcare in Nairobi compared to barriers faced by Kenyans living in the same location. In addition to general barriers encountered, immigrants faced threats of harassment, cost discrepancies between immigrant and Kenyan clients, real or perceived discrimination, documentation requirements and language barriers.

Zihindula et al. (2015) carried out a desk review to understand the dynamics of each country in Southern Africa by documenting barriers facing refugees in accessing health care services. The results suggest

that availability, affordability and acceptability are challenges to accessing health services faced by refugees in Southern Africa. In Botswana, immigrants - both documented and undocumented - do not have access to government health care services, including antiretroviral treatment, even though the services are available at no cost to citizens (Marukutira et al. 2019; Escudero et al. 2019). The International Organization for Migration (IOM) and the African Population and Health Research Centre (APHRC) jointly conducted a study on access to SRH services in Kenya, Malawi and South Africa. The study presents challenges faced by immigrants with access to SRH services (IOM and APHRC, 2018). In Kenya, barriers to accessing health services include the mandatory requirement to produce an identification card, higher service fees and provision of service only after Kenyan nationals have been served. In Malawi, the study shows that immigrants could be deported on the basis of their health, hence the barrier to health seeking. In South Africa, undocumented migrants fear the stark reality of being reported to authorities for deportation while seeking health services. In addition to disadvantages in accessing health care services by immigrants, the study further shows that immigrants, especially women, are face the possibility of rape and sexual violence (IOM-APHRC, 2018).

Ivanova et al. (2018) did a review on SRH knowledge, experiences and access to services among refugees, migrants and displaced girls and young women in Africa. The review found limited access and availability of SRH services to the immigrant girls and young women. The major barriers identified include distance to the health care facilities, costs, lack of knowledge about sources of contraception, stigma and judgmental attitudes by the health staff. In addition, immigrant women in the review further highlighted lack of facilities for STI testing, lack of acceptable and affordable contraceptives, stock outs, long waiting times, language barriers and discrimination. In Uganda, Ivanova and colleagues assessed SRH knowledge and access to services of refugee girls in Uganda (Ivanova et al., 2019). Only one-third of the participants had ever visited a SRH service centre, and those were mainly testing for HIV. Knowledge of SRH and access to SRH services was very low among participants.

2.8 ACCESS TO SEXUAL AND REPRODUCTIVE HEALTH SERVICES BY IMMIGRANTS IN SOUTH AFRICA

South African researchers have documented evidence on barriers to accessing sexual and reproductive health services by immigrants. Munyaneza and Mhlongo (2019) carried out an in-depth interview on challenges faced by refugee women with regards utilisation of reproductive health services in public institutions of Durban, KwaZulu-Natal. The major challenges related to health services and personnel include discrimination, “medical xenophobia”, lack of professionalism of health staff, language barriers, failure to obtain informed consent, lack of confidentiality and ill-treatment by health facility personnel. Other barriers to accessing SRH services by the study participants include financial costs, anxiety and fear, religious and cultural hegemony.

Mukondwa and Gonah (2016) found poor access to SRH services among undocumented adolescent migrants as a result of diverse structural, socio-cultural and financial barriers. Conflicting health and migration policies result in inconsistencies in service provision, making it difficult for both adolescents and health service providers to strike a balance between migration and health requirements. Richter et al. (2014) found sex workers who were international migrants to have lower health service compared to sex workers of South African nationality.

Crush and Tawodzera (2014) examined the extent to which xenophobia manifests itself within the public health institutions that offer health services to citizens and non-citizens, based on primary research with Zimbabwean migrants. Barriers to accessing health services by immigrants include decline of access to health facilities by hospital security and health professionals placing non-nationals in long queues. The authors argue that medical xenophobia is deeply entrenched in the South African public health system despite being a fundamental breach of the country's Constitution and Bill of Rights, international human rights obligations and the existence of professional codes of ethics governing the treatment of patients. A report by Khanyile (2017) from the University of the Witwatersrand explored the subjective experiences of refugees when accessing public health care services in Johannesburg. This report showed negative attitudes from health professionals such as being skipped in the queue to attend to the South Africans first, as well as being treated in palpably unjust ways.

Hunter-Adams and Rother (2017) explored language barriers between health care providers and immigrants in accessing health services by immigrants in Cape Town, South Africa. The researchers showed the importance of high quality medical interpretation. The factors perceived by the immigrants as challenges include labelling and stereotyping by healthcare staff, fear of unwanted procedures, lack of consent before carrying out medical procedures, use of partners as interpreters, which is a non-professional medical interpretation. This study shows the language barrier challenge faced by immigrants in accessing SRH services by immigrants in South Africa.

Vanyoro (2019) showed how frontline health care workers provided public health care services and HIV treatment to black African migrants by conducting in-depth interviews and participant observation at a public health care clinic in Musina sub-District, South Africa. Vanyoro showed that innovation, creativity and compromise by health care providers in Musina helped them to consider the precarious situation of the immigrants. Based on the good practice from Musina, the researcher suggests that informal practices of health care providers in addressing challenges related to documentation and language need to be strengthened.

Alfaro-Velcamp (2017) conducted legal and ethnographic research which examined South African jurisprudence, the African Charter, and other international agreements in addition to interviews with civic society organizations and healthcare providers, regarding rights to health and health care access by immigrants in South Africa and specifically in Cape Town. The research shows that asylum-seekers and refugees are entitled to health and emergency care but at the point of service delivery, hospital administrators require documentation (up-to-date permits) before any care can be administered. The study further shows that many immigrants, especially the undocumented, are unable to obtain care due to a lack of up to date papers or because of “progressive realization, the notion that the state cannot presently afford to provide treatment in accordance with constitutional rights.”

Based on this review, there is global, sub-Saharan and South African evidence showing that immigrants generally and immigrant youth specifically either lack access to SRH services, or are faced with substantial challenges preventing them from accessing SRH services. Considering the growing population of immigrant youth and negative consequences of poor SRH (unplanned and unwanted pregnancies, sexually transmitted infections and HIV/AIDS, unsafe abortions, maternal mortality and morbidity) among this population group, this research on access to SRH services among immigrant youth in South Africa is overdue. The need for this research is more pertinent in Hillbrow, an urban suburb of Johannesburg with the highest population of immigrants in Johannesburg.

2.9 THEORETICAL AND CONCEPTUAL FRAMEWORK

This section describes the theoretical and conceptual framework adopted in the study of risky sexual behaviours and access to SRH services among immigrant youth in Hillbrow, Johannesburg, South Africa. The theoretical framework guides in clarifying the variables to measure and examine the relationships. In addition, the theoretical framework provides the background and context of the study, in addition to the conceptual basis to understand, analyse, and design ways to investigate the problems (Grant and Osanloo, 2015). This study adopted interdisciplinary theories as there is no singular theory that best explains immigration, risky sexual behaviours and access to reproductive health services.

The different theories used in migration research vary from one discipline to another, as well as the complexity of the analysis. Some researchers examine the macro-level factors, thus focusing on structural factors such as political, legal and broader socioeconomic factors. Others examine the micro-level factors at the individual and family level, while yet some investigate ways that the broader socioeconomic, political and legal factors influence the decision of individuals and a community (Van Hear et al., 2018).

Migration researchers have used push and pull forces to explain international migration (Simpson, 2017). The neoclassical economic theory posits that wage difference borne out of macro-level imbalances between regions in the supply of and demand for labour spurs migration. At the micro-level, however, the decision to migrate is based on an individual's cost-benefit analysis. The new economic theories of migration highlight the connection between labour market and family/household needs, and the importance of maximizing earnings while minimising risks. This theory explains the importance of employment and remittances by immigrants to families and households in the country of origin (Bean and Brown, 2014).

The migrant network theory describes migrant networks as sets of interpersonal ties that connect migrants, former migrants, and non-migrants in origin and destination areas through ties of kinship, friendship, and shared community origin (Massey, 2011). Blumestock et al. (2019) explain that migration networks serve as a medium to exchange information and form relationships of trust. Other researchers describe social networks as the medium through which family, peers and community members provide useful information or assistance that reduces the costs associated with migration, or increases the benefits that might be expected from it (Garip and Asad, 2016). In addition, Van Meeteren and Pereira (2016) explain the need to consider multiple configurations involving different agents in the countries of origin and destination at different stages of the migration process. Immigrants also rely on informal trust relationships to accumulate social capital that minimizes risks associated with migration (Hlatshwayo, 2019; Kindler et al., 2015).

Migration and health researchers have studied risky sexual behaviours among immigrants globally, in sub-Saharan Africa and in South Africa as shown in the reviewed literature above. Several theories and models have been applied to explain the link between immigration and health behaviours. Some migration and health researchers have used theories that focus on the individual and interpersonal levels such as the Health Belief Model (HBM) and the Social Cognitive Theory, to explain international migration and risky sexual behaviours among immigrants. Kim et al. (2019) used the Social Cognitive Theory (SCT) to find associations between risky sexual behaviour and low sexual relationship power, as well as interpersonal violence among Latino immigrant farm workers in the United States.

Many migration and health researchers have focused on culture, acculturation and the immigrant paradox, a concept of immigrants becoming oriented towards the culture in their country of destination in explaining health behaviours among immigrants. Ethnic identity predicted multiple sexual partners though it negatively predicted unprotected sex. Du and Li (2015) carried out a review that examined global literature on the relationship between acculturation and HIV-related sexual behaviours among international migrants. Immigrants in mainstream acculturation were more likely to have multiple partnerships, early sexual initiation, STDs, and unsafe sex. Acculturation was not associated with

condom use. The relationship between acculturation and unsafe sex also varied across ethnicity. The findings show that acculturation may serve as a risk factor for immigrants' HIV-related sexual health.

Social researchers have explained risky sexual behaviours among immigrants using the ecological systems theory, which was developed by Urie Bronfenbrenner in 1979. The ecological systems theory posits that human development takes place within four layers or systems with which an individual interacts, which are the microsystem, mesosystem, exosystem, and macrosystem (Bronfenbrenner, 1994). The microsystem represents the institutions and groups that directly interact with the child and that the child interacts with, such as family, school, religious institution and the neighbourhood. The mesosystem layer is the interconnections between the microsystems, which is the interconnectedness between institutions such as school and religious institutions and a child's parents or the connection between the religious organization and the neighbourhood. The exosystem layer does not involve the child directly but rather involves the social settings. Though this layer does not involve the child directly, it interacts with some structures in the child's microsystem. The macrosystem is the outer layer, not directly in contact with the child but entails predominant cultural values, customs, system and laws, including the microsystem and the mesosystem (Bronfenbrenner, 1994).

Public health researchers introduced the theories of social epidemiology to explain the effect of socio-structural factors such as social class, gender, race/ethnicity, discrimination, social network, social capital, income distribution and social policy on the state of health. Berkman et al. (2014) defines social epidemiology as "the branch of epidemiology that studies the social distribution and social determinants of states of health." Social epidemiologists mainly use three theories – the psychosocial, the social production of disease/political economy of health and the ecosocial theory and related multilevel frameworks (Krieger, 2011).

The social ecological models extend the understanding of the interactions among individual and environmental factors by emphasizing the multiple levels of influence and multiple levels of analysis, thus showing the influence of the social environment in shaping behaviours (Mengesha, 2017). Many public health researchers have explained youth risky sexual behaviours using the social ecological model. Khuzwayo and Taylor (2018) investigated the factors influencing sexual risk behaviours of the youth at different socio-ecological levels in uMgungundlovu District in South Africa. The researchers found individual factors, the microsystem in which youth function including the influence of family and peers; the exo-system comprising the disadvantaged socio-economic status of the communities where the youth live; and the macrosystem where negative social norms were reported to influence youth health outcomes. Suggested interventions were directed at the four levels. Other researchers that have applied the social ecological model in the study of risky sexual behaviours among youth include Muchimba (2019) and Rizvi et al. (2020).

2.9.1 The Social Determinants of Health Perspective

The World Health Organization's Commission on the Social Determinants of Health (CSDH) has defined the SDH as “the conditions in which people are born, grow, live, work and age” and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems (Solar and Irwin, 2010). The SDH are the factors apart from medical care that can be influenced by social policies and shape health in powerful ways. The CSDH was modelled at the World Health Assembly in 2004, and built on social epidemiology theories and the pathways through which social conditions influence health outcomes (Solar and Irwin, 2010).

The Social Determinants of Health Framework

The SDH framework has three elements - the socio-political context, the structural determinants and socioeconomic position and the intermediary determinants. Evidence for the SDH framework was informed by extensive interdisciplinary research.

The socioeconomic political context

According to the CSDH, the socioeconomic political context refers to the “factors in society that cannot be directly measured at the individual level.” Solar and Irwin (2010: 25) describe context as “encompassing a broad set of structural, cultural and functional aspects of a social system whose impact on individuals tends to elude quantification but which exert a powerful formative influence on patterns of social stratification and on people’s health opportunities.”

Structural determinants and socioeconomic position

The CSDH framework posits that “*structural determinants* are those that generate or reinforce social stratification in the society, which define individual socioeconomic position.” Solar and Irwin propose that the mechanisms of social stratifications shape the health opportunities of social groups, based on their placement within hierarchies of power, prestige and access to resources (Solar and Irwin, 2010). The proxies used to measure social stratification by the CSDH were income, education and occupation. Income and education were understood as social outcomes of stratification processes while occupation served as a proxy for social stratification. Together, context, structural mechanisms and socioeconomic position constitute the social determinants of health inequities. The effect of this gives rise to an inequitable distribution of health, well-being and disease across social groups (Solar and Irwin, 2010).

Intermediary determinants of health

The CSDH framework posits that the underlying social determinants of health inequities operate through a set of intermediary determinants of health to shape health outcomes. The main categories of intermediary determinants of health are: material circumstances, psychosocial circumstances, behavioural and/or biological factors and the health system. Material circumstances include factors such as housing and neighbourhood quality, consumption potential (the financial means to buy healthy food, warm clothing, etc.) and the physical work environment. Psychosocial circumstances include psychosocial stressors, stressful living circumstances and relationships, social support and coping styles or the lack thereof. Behavioural and biological factors include nutrition, physical activity, tobacco and alcohol consumption, which are distributed among different social groups while biological factors also include genetic factors.

The CSDH framework differs from many previous models by conceptualizing the health system itself as a social determinant of health (SDH), thus justifying its use in this study. The role of the health system becomes particularly relevant through the issue of access, which incorporates differences in exposure and vulnerability, and through intersectoral action led from within the health sector. The CSDH framework concludes that the health system plays an important role in mediating the differential consequences of illness in people's lives.

2.9.2 Application of the Social Determinants of Health Framework to Health Outcomes of Immigrants

This study applies the social determinants of health framework to the study of risky sexual behaviours and access to reproductive health services by immigrants. The study adapted the framework proposed by Dahlgren and Whitehead in 1991 and modified by the same authors in 2007. It has been used extensively by the International Organisation for Migration in the study of health behaviour among international migrants (see Figure 1). The framework shows individual and lifestyle factors such as age, sex and hereditary factors; educational attainment, separation from cultural norms, legal documentation, as well as cultural and linguistic barriers) on the immigrant. The social and community factors include separation from family, level of social exclusion, existence of negative social factors such as discrimination, xenophobia, stigma and availability of migrant-friendly health services. The living and working conditions include the lack of safe, clean houses, poor working conditions for migrants and access to jobs that provide a living wage. The general socioeconomic, cultural and environmental conditions include lack of legislation to ensure access to health by immigrants, and labour policies to protect workers' rights. Each of the levels discussed (individual, community, socioeconomic, legal framework) is moderated by international migration.

The use of the social determinants of health perspectives in the area of migration has been on the increase. Public health and social science researchers have linked immigration to poor health outcomes such as poor mental health conditions (Delara, 2016). The social determinants of health framework have been applied to the study of risky sexual behaviours among immigrants (Asamoah and Agardh, 2018; Wilson et al., 2018; Adimora and Schoenbach, 2013). Some studies have shown immigration policies as determinants of health outcome of immigrants (Martinez-Donate et al., 2015). Others have shown disparity in health based on immigration status (Hall and Cuellar, 2016; Kim et al., 2019). Furthermore, food insecurity has been identified as a social determinant of health among immigrants in different countries (Crush and Tawodzera, 2017; Tarraf et al., 2017; Setiloane et al., 2019; Maharaj et al., 2017; Maynard et al., 2019).

Some migration and health researchers have argued that migration is itself a social determinant of health since the factors that cause individuals or groups of people to migrate either willingly or forcibly are rooted in socio-political, structural, socioeconomic and intermediary determinants (Castañeda et al. 2015; Fleischman et al. 2015; Davies et al., 2010). Castañeda et al. (2015) argued that “if substantive changes in health outcomes are to be achieved, immigration must be treated as a health determinant itself.” The authors further argued that the behavioural choices of immigrants are limited, and being an immigrant often alters the effects of social positioning such as race/ethnicity, gender or socioeconomic status; and it could create uncertainty and oftentimes hostile relationships between the immigrant and the state institutions, including health services (Castañeda et al., 2015).

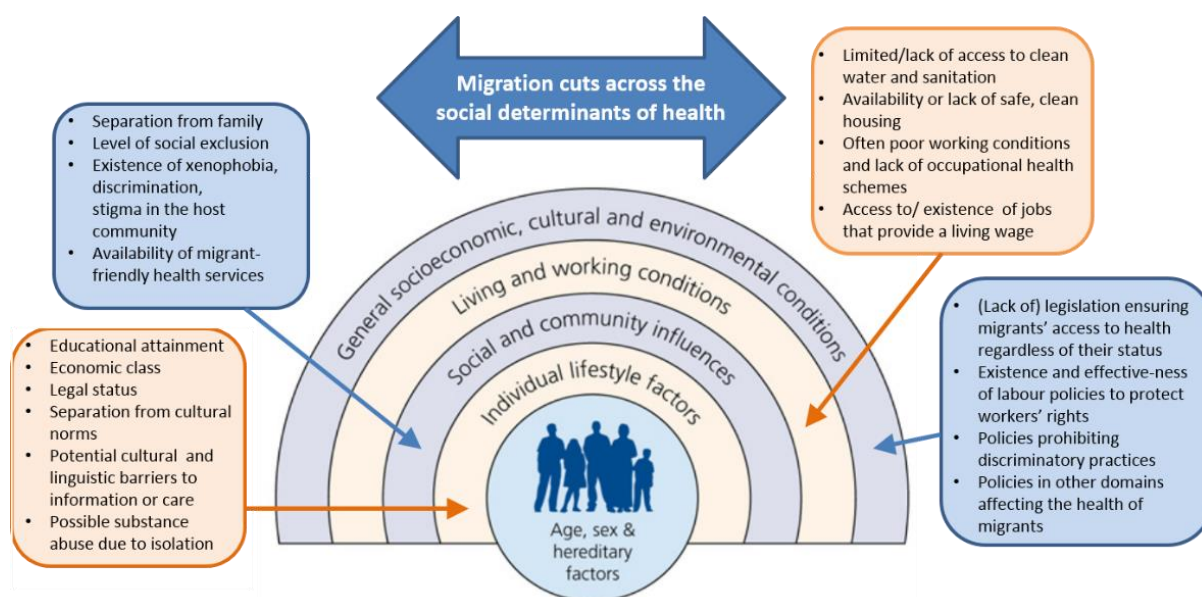


Figure 1

Figure 1: Social Determinants of Immigrants' Health

Source: International Organization for Migration - adapted from Dahlgren and Whitehead, 1991
<https://www.iom.int/social-determinants-migrant-health>

2.9.3 Models and Theories of Access to and Utilization of Sexual and Reproductive Health Services by Immigrants

Several models and theories have been used to explain access to health services. Among youth in the general population, the theory of access to healthcare by Penchansky and Thomas (1981) which provides six dimensions of access to health care – accessibility, availability, acceptability, affordability, and adequacy has been used. Saurman (2016) proposes the inclusion of awareness as an important dimension of access to healthcare. The modified behavioural models of health service utilisation (BMHSU) by Andersen (1995) and Andersen (2008), remain the main models explaining health service utilisation. Building on the modified BMHSU model, Yang and Hwang (2016) further improved the model to account for immigrants' health service utilisation.

ANDERSEN'S BEHAVIOURAL MODEL OF HEALTH SERVICE UTILIZATION

The Behavioural Model of Health Service Utilization was initially developed by Andersen in 1968, with the aim of understanding why families use health services and to define and measure equitable access to health care (Andersen, 1995). The unit of analysis of the original model was the family, but

this was modified to the individual, so as to take into account the heterogeneity of family members (Andersen, 1995). The model has gone through a series of modifications since its initial development. Andersen summarises four phases of the modified model. Phase one which was the initial model proposes that people's use of health services is a function of their predisposition to use services, factors which enable or impede use, and their need for care (Andersen, 1995).

The second phase included the health care system after recognising the importance of national health policy and the resources and organisation of the health care system in the determination of the use of health services by populations. Consumer satisfaction was also added in this phase as an explicit outcome of health services. A third phase of the model included both perceived health status and evaluated health status as outcomes of health services. The modification also recognises the external environment and personal health practice as important inputs for understanding the use of health service (Andersen, 1995).

Phases three and four factor in the effect of the environment, consisting of the health care system and the external environment; while population characteristics include predisposing factors, enabling resources and need. The predisposing factors include demographic characteristics such as age, sex, and marital status, while social structural characteristics include education, employment status, income level, and health beliefs (knowledge of health and health services, attitudes and values). The enabling resources include individual, household and community resources (income, regular health care, residence, availability, accessibility and affordability of services). Andersen (1995) further argued the importance of enabling variables and need which explains the variations in health services' use. This is because the enabling factors and need directly affect service use. Health behaviour components consist of personal health practices and use of health services, all of which affect perceived and evaluated health status. The phase 5 of the BMHSU was modified to include the contextual and individual characteristics (Andersen, 2008). The model emphasizes that understanding health services use is best accomplished by focusing on contextual and individual determinants. In addition, the process of medical care is added to the 5th phase, as a type of health behaviour, and this involves the behaviour of providers interacting with patients in the delivery of medical care.

The BMHSU has been applied extensively among different population groups, including immigrants (Alemi et al., 2017; Brzoska et al., 2020; Brzoska et al., 2017; Seo et al., 2019; Shao et al., 2018). Yang and Hwang (2016) argued for a modification of Andersen's BMHSU such that it accounts for immigrants-specific health service utilisation. They argued that disparities in the health system utilisation by immigrants could be explained by the experiences of migrants based on the nature of their journey, health care needs, resources, and predisposing factors, as well as macrostructural/contextual

conditions including the mediating relationships among some of these factors at both the general and immigrant-specific contexts (Yang and Hwang, 2016).

Based on the above review, the conceptual framework for this thesis which examines the sexual behaviour of immigrant youth and their access to reproductive health services adopts the social determinants of health framework (Solar and Irwin, 2010) and the modified BMHSU by Andersen (2008).

2.10 CONCEPTUAL FRAMEWORK FOR SEXUAL BEHAVIOUR OF IMMIGRANT YOUTH AND THEIR ACCESS TO REPRODUCTIVE HEALTH SERVICES IN HILLBROW, JOHANNESBURG, SOUTH AFRICA

This conceptual framework was guided by an extensive review of literature that applied theories and models such as the social determinants of health framework, social ecological theory, as well as other ecological systems theories, in the study of risky sexual behaviours among immigrant youth in Hillbrow. In addition, review of literature that applied Penchansky and Thomas' theory of access to healthcare and Andersen's behavioural models of healthcare utilisation guided the conceptualisation of access to and utilisation of reproductive health services by immigrant youth living in Hillbrow. This study conceptualises risky sexual behaviours and access to SRH services by immigrant youth in Hillbrow as affected by an array of factors at individual, household, community, and socio-environmental levels. The measures of the socio-environmental factors are located at the policy level, and this involves the prevailing immigration policy, health policy and systems at national and sub-national levels, and employment policies. These would have direct effect on access to SRH services and risky sexual behaviours by immigrant youth. The measure of association between socioenvironmental factors which involves policy and legal framework and access to sexual and reproductive health services by immigrant youth in Hillbrow is outside the scope of this study.

The conceptual framework for this study (Figure 2) shows different pathways that lead to risky sexual behaviours and affect access to reproductive health services by immigrant youth in Hillbrow. The first pathway shows the effect of the interaction of socioeconomic and demographic factors at household and individual levels on risky sexual behaviour and access to reproductive health services by immigrant youth. As illustrated in the conceptual framework, individual and household factors interact to affect engagement in risky sexual behaviours by immigrant youth and their access to reproductive health services. The socioeconomic factors at the household level include household assets, level of education of household head, household income, marital status and religion while interpersonal factors include number of people in a household and number of other households sharing a room. The individual factors

include biological sex identified as male and female, age group, employment status and type of employment.

The second pathway shows the effect of migration characteristics and community social processes on risky sexual behaviours and access to reproductive health services. This study hypothesised that migration characteristics and community social processes would affect risky sexual behaviours and access to reproductive health services by immigrant youth. Migration characteristics are conceptualised as migration status, duration of migration in South Africa, ability to speak a local language, reason for staying in Hillbrow and utilisation of SRH services in country of origin. Migration status asks about the legal status of the participants, whether they are naturalised South African citizens, permanent residents, on a work or study permit, refugee status, asylum seekers or undocumented immigrants. Based on these categories, participants were further grouped into documented and undocumented immigrants, as operationalised in this study. International migration may increase high risk sexual behaviours based on feelings of invincibility and absence from social control in the country of origin. Other reasons could be separation from spouses and regular sexual partners, lack of employment opportunities may lead to sex work and gender dynamics. Undocumented immigrants may also engage in transactional sex with law enforcement officials in exchange for evading getting arrested and deported. Community social processes in this study were the community social factors in Hillbrow which includes personal safety and security concerns, experiences of discrimination and xenophobia, physical assault, violence and social support in Hillbrow.

The third pathway shows the effect of interactions of household, individual, migration and community social factors operating through knowledge and information about sexual and reproductive health issues to influence risky sexual behaviours and affect access to SRH services. This pathway presumes that immigrant youth with access to information and knowledge about sexual and reproductive health might adopt less risky sexual behaviours and have access to reproductive health services in Hillbrow. Correct knowledge and information about sexual and reproductive health exposes youth to knowledge about family planning and products, dual protection of condoms and prevention and treatment of STIs.

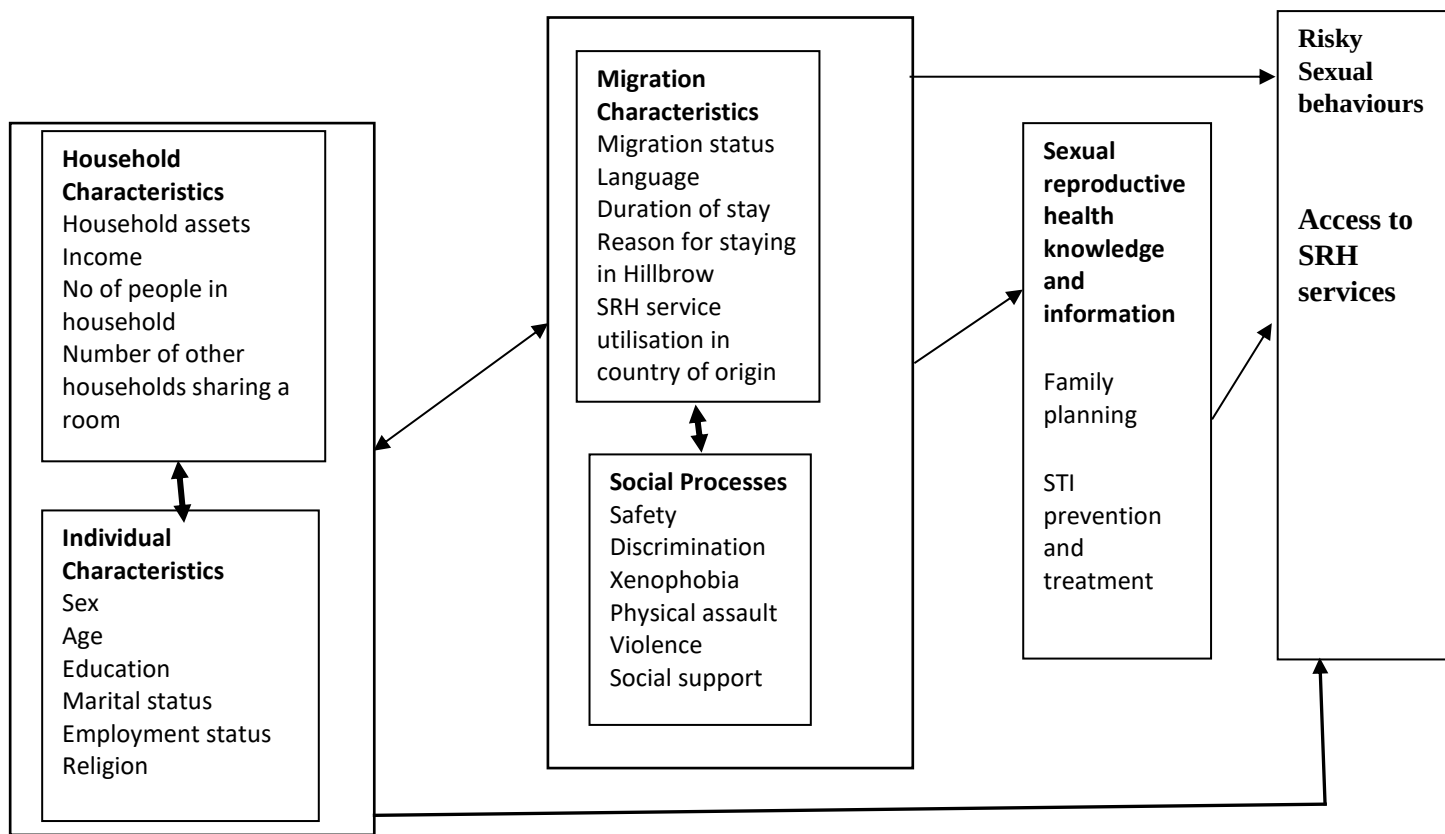


Figure 2

Figure 2: Conceptual Framework for Sexual Behaviour of Immigrant Youth and their Access to Reproductive Health Services in Hillbrow
(Adapted from Solar and Irwin, 2010 and Andersen R.M., 2008).

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

This chapter presents the research methods involving quantitative and qualitative approaches, data sources and analytical procedures used in the study. It describes the study settings, study design and sampling. It also describes the data collection methods, the variables, their measurements as well as the data processing procedures for the quantitative approach. The chapter also annotates the transcriptions, generation of codes, sub-themes and themes for the qualitative approach. In addition, the chapter describes the data quality assessment, as well as quantitative, qualitative and mixed methods analytical procedures. Finally, the chapter discusses ethical issues and how they were addressed. The main limitations of the study are also presented.

3.2 STUDY SETTING

3.2.1 Geographical Location

The study took place in Hillbrow, a residential suburb in the inner city of Johannesburg, located in the City of Johannesburg Metropolitan Municipality. Hillbrow is a densely populated area east of the Johannesburg Central Business District (CBD). It occupies an area of 1.08 square kilometres, with about 200 buildings, the majority of which are high-rise buildings with apartments, and very few hotels and stand-alone buildings. The suburb was founded in 1895 as a residential suburb. The suburb derives its name from its geographic location, it “lies on the brow of the east west mountain ridge that crosses the Johannesburg CBD” (Raper et al., 2014).

3.2.2 Historical, Social and Economic Settings

Hillbrow is a melting pot of internal migrants from different provinces in South Africa as well as immigrants from different countries. It is a suburb for many people in transit, with a significantly high population density of immigrants. Hillbrow was designated as a “whites only” suburb under the apartheid government. According to Winkler (2013), “Hillbrow functioned as a desired port-of-entry location for a steady flow of European immigrants to Johannesburg” until the late 1970s.

Many informal and illegal economic activities take place in Hillbrow, accompanied by a very high crime rate. It is historically known for its cheap accommodation and its resistance to the racist residential policy, where people of different population groups lived under apartheid.

Stadler and Dugmore (2017) refers to Hillbrow as “a space of social change, host to pioneering political, social and cultural transformations.” It is also known as a large base for many gay and lesbian organisations and communities. Hillbrow lost its glory in the late 1990s due to noticeable overpopulation caused by an influx of people at the end of apartheid. The buildings and spaces lack maintenance; there is a palpable decline in basic services and a massive increase in crime levels. Previous residents have left Hillbrow, and many buildings have been occupied by unauthorised and illegal occupants. Hillbrow is still characterised by overpopulation, poverty, crime, sex work, dirt and illegal economic activities. Despite all these, Hillbrow is home to a number of important places and institutions such as the Constitutional Hill, which houses the constitutional court and is a tourist centre of attraction. The Telkom Jo’burg Tower previously known as the Hillbrow Tower is an important landmark in Hillbrow. Hillbrow also has two health facilities – Hillbrow Community Clinic and the Esselen Clinic. Furthermore the Wits Reproductive Health & HIV Institute and the Hillbrow Health Precinct are health research institutions working to address HIV in the inner city of Johannesburg.

3.2.3 Population Size and Structure of Hillbrow

Based on the South African Census 2011, Hillbrow has a total population of 74,131 and 24,857 households, and a population density of 68,418.11 per km². It has the highest population of immigrants in the City of Johannesburg Metropolitan Municipality (Statistics South Africa, 2012). Youth aged 15-34 constituted 55.9% (41,419) of the total population, of which 45.1% (18,686) were immigrant youth. Among the immigrant youth living in Hillbrow, there are more men (52%) than women (48%). Black African make up the predominant population group in Hillbrow at 98.3% in 2011 (own calculation based on 2011 Census Statistics South Africa, 2012). The predominant languages spoken in Hillbrow are isiZulu (36.7%), isiNdebele (16.1%), English (9.7%) and Sepedi (7.1%). (These statistics are based on personal analysis of the Census 2011 data).

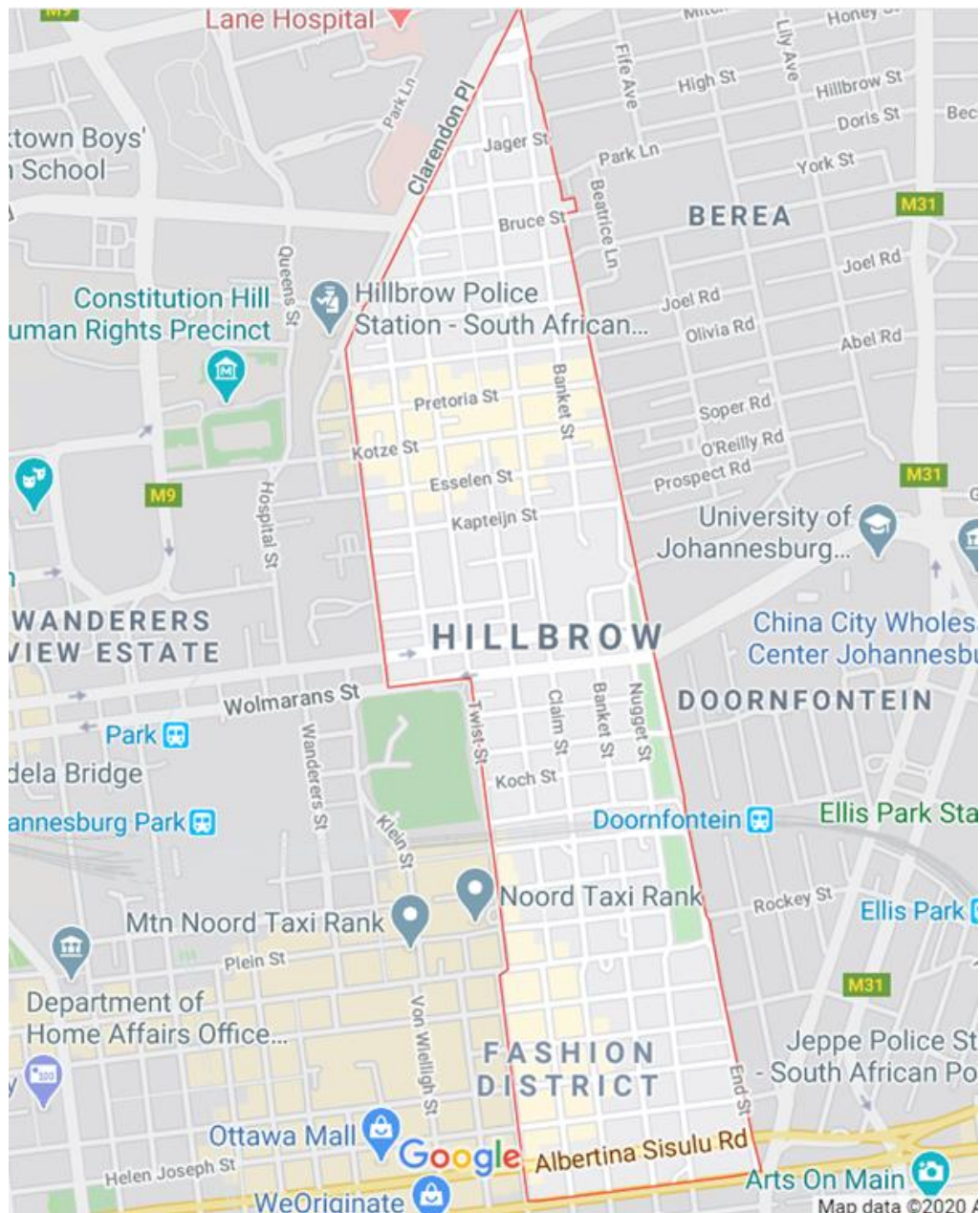


Figure 3: Map of Hillbrow

Source Google maps: <https://www.google.com/maps/place/Hillbrow,+Johannesburg,+2001/@-26.1941238,28.0451562,16z/data=!4m5!3m4!1s0x1e950c26961321e7:0x35bd90c758094153!8m2!3d-26.1936353!4d28.0496215>

3.3 SOURCES OF DATA

This study utilised primary data collected through surveys and interviews conducted in Hillbrow from the 18th of December to the 31st of December, 2019 in Hillbrow, Johannesburg. Data for the quantitative study was gathered from a household survey of youth from selected households. The household survey used interviewer-administered questionnaires to gather data from 467 male and female immigrant youth in the age group 18-34 years.

The qualitative aspect of the study gathered data by carrying out interviews using Focus Group Discussions (FGDs). Six FGDs were conducted, 2 FGDs among male and 4 FGDs among female. Among the female, two of the FGDs involved youth aged 18-24 years, while 2 other FGDs were conducted among female participants age 25-34 years. Qualitative data for this study involved the recorded and transcribed interviews and interview notes.

3.4 RESEARCH PARADIGMS

This study is informed by three research paradigms or philosophical worldview assumptions that guide the study. These are the post positivist paradigm, the social constructivist paradigm and the pragmatic philosophical paradigm. These philosophical assumptions inform the methodological approaches on which this study is based (Creswell and Creswell, 2018).

The assumptions of a postpositivist paradigm are important for a quantitative study. The main assumptions of a post positivist paradigm are: deterministic - as they assess and identify the causes that influence outcome; reductionistic - reduce ideas into a small, discrete set of variables in order to test hypotheses and research questions; knowledge is developed from careful observation, measurements and studying the behaviour of individuals; and finally testing, verifying or refining theories (Creswell and Creswell, 2018). This postpositivist paradigm is the strategy used for the quantitative component of this study because it seeks to identify the determinants of (i) multiple sex partnerships (ii) inconsistency of condom use among immigrant use and (iii) access to government health facilities for SRH services among the study sample.

The social constructivists believe that individuals develop subjective meanings of their experiences. The meanings could vary and be in multiples, which could lead the researcher to look for the complexity of views. The goal is to rely as much as possible on the participants' views of the issue being studied. The questions in this paradigm must be broad and open-ended, and the researcher must listen carefully to what the participants say and to what they do in their life settings (Lincoln et al., 2011; Mertens (2015). The social constructivist paradigm also focuses on the contexts in which people live and work in order to understand the historical and cultural settings of the participants (Creswell & Poth, 2018).

The social constructivist paradigm is used in the qualitative component of this study (Creswell, 2016). This study seeks to understand the perspectives and experiences of immigrant youth on access to government health facilities for SRH services in Hillbrow. These experiences might have been shaped by the social environment of participants; their social networks; exposure to SRH services in their country of origin; the interaction with the health care facility staff; their migration status and other social factors in Hillbrow.

The pragmatic paradigm researchers place emphasis on the research problem and question and use all approaches available to understand the problem, rather than focusing on the method. It is the philosophical approach for mixed methods research studies. It focuses on social science research problems where the two approaches deployed to derive knowledge are recognized (Morgan, 2007 and Tashakkori and Teddlie, 2010; Creswell & Creswell, 2018). Pragmatic philosophy shows no commitment to any one system of philosophy and reality; and pragmatist researchers look to the “what” and “how” questions are in research undertakings.

This study used the pragmatic paradigm to understand: the factors that are associated with access to government health facilities for SRH services using quantitative approaches; the perceptions and experiences of immigrant youth using qualitative approaches. The combination of the two approaches provided a better understanding and deeper insight into access to government health facilities for SRH services by immigrant youth, than what could have been understood using each of the approaches separately (Creswell & Creswell, 2018; Creswell & Plano Clark, 2018; Tashakkori and Teddlie, 2010; Creamer, 2018).

3.5 STUDY DESIGN

This is a cross-sectional study that employed a convergent mixed methods design among male and female immigrant youth aged 18-34. The mixed methods of research data collection and analysis include analysis of both quantitative and qualitative data, and its integration, drawing on the strengths of both approaches (Guetterman et al., 2015; Creswell, 2015; Creswell and Plano Clark, 2011). Mixed methods techniques were used because of their capacity and effectiveness in providing insights to problems and in answering research questions that cannot be answered by singular quantitative or qualitative approaches alone (Fetters and Freshwater, 2015, Creswell & Creswell, 2018). The type of mixed methods design was the fixed design where the use of quantitative and qualitative methods were predetermined at the conceptualisation of this research; and the processes and techniques were implemented as planned (Creswell and Plano Clark, 2018).

Integration is the process in which mixed methods researchers intentionally bring the quantitative and qualitative data together in addressing common research questions and hypotheses (Guetterman et al., 2015; Creswell, 2015; O’Cathain et al., 2007; Bazeley, 2012). Integration of the quantitative and

qualitative data is important in mixed methods research as this greatly enhances the value of mixed methods research as the qualitative data can be used to assess the validity of the quantitative findings and quantitative data can be used to explain findings from the qualitative data (Fetters et al., 2013; Creswell & Plano Clark, 2011). Mixed methods researchers have further argued the synergistic value of integration using the “1 + 1=3” integration formula (Fetters and Freshwater, 2015b). In this study, integration occurred at three levels – design, methods and interpretation and reporting levels. At the design level, integration occurred through the use of concurrent design in data collection. At the methods stage, integration occurred through merging. At the interpretation and reporting stage, this was done through the joint display table and the reporting and interpretation of the table (Fetters et al., 2013).

In this convergent mixed methods design, the quantitative and qualitative data were collected within the same period during the fieldwork. Equal weight was given to the quantitative and the qualitative approaches in this study. The data collection started with the household survey, and this was followed by the qualitative study. The quantitative method provided data that were used to develop indicators for measuring risky sexual behaviours among immigrant youth, as well as the determinants of access to a government health facility for SRH services in Hillbrow. The qualitative method on the other hand provided an understanding of the perceptions and experiences of immigrant youth on access to government health facility for SRH services in Hillbrow.

The quantitative study involved household survey using structured interviewer-administered questionnaires. Data were collected for male and female immigrant youth in Hillbrow on background information such as individual and household sociodemographic characteristics, migratory history, knowledge of SRH and access to reproductive health services and sexual behaviour. The variables were used to generate indicators that examined sexual behaviours of immigrant youth, and their access to government hospital for SRH services.

The qualitative study involved interviews that used Focus Group Discussions (FGDs). The FGDs were stratified by gender and age group. Separate FGDs were held with male and female immigrant youth in the age group 18-24 and 25-34. Interview guides were used for the FGDs. Recordings from the FGDs were transcribed and analysed using thematic analysis. Braun and Clarke (2013) define thematic analysis as “a method used for organising and describing the data by identifying, analysing and reporting the patterns or themes within data.” The steps outlined by Braun and Clarke were followed in this section. These involved transcription of the FGDs; reading and familiarising oneself with the data; generating initial codes; searching for themes; reviewing themes; defining and naming themes and writing and finalising the analysis (Braun and Clarke, 2013). The transcribed data were imported into ATLAS.ti 7 for analysis, with codes, quotations, sub-themes and themes generated from the programme.

This convergent mixed methods design involved the integration of both quantitative and qualitative approaches which entails the combination of the quantitative and qualitative data through merging, for the purpose of analysis and comparison of the results. This involved development of a joint display table which is a visual presentation of the merged data, as well as the interpretation of the findings. This integration provided insight into the reasons for lack of access to government health facilities for SRH services by immigrant youth in Hillbrow (Fetters et al. 2013; Creamer, 2018). The process of convergent mixed methods design is illustrated in Figure 4.

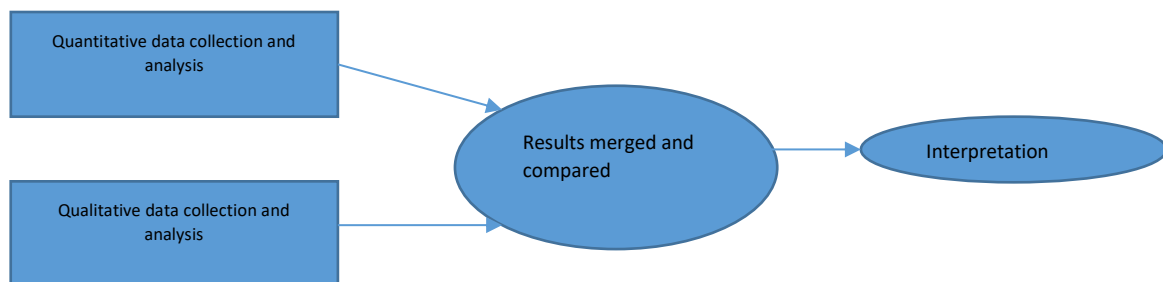


Figure 4: Convergent Mixed Methods Design.

(Adapted from Creswell and Plano Clark, 2011)

3.5.1 The Study Population and Study Participants

The study population was made up of immigrant youth aged 18-34 residing in Hillbrow in 2019. Based on the analysis of the South African Census 2011, the study population consisted of 18 028 immigrant youth aged 18-34, with male and female accounting for 9 490 and 8 538 respectively. The study participants were male and female consenting immigrant youth aged 18-34, living in the selected households in Hillbrow, Johannesburg.

3.5.2 Sampling Design

Hillbrow was purposively selected because of its high concentration of immigrants based on analysis of the 2011 South Africa Census (Statistics South Africa, 2012). The sampling designs for this study involved two concurrent and independent sampling procedures, consisting of quantitative probability sampling and qualitative purposeful sampling.

3.5.2.1 Calculation of Sample Size for the Quantitative Study

The sample size for this study was calculated in order to ensure representativeness of the data. Thompson (2012) describes sampling as a selection of some part of a population to observe so that one may estimate constructs and properties about the whole population. Cochran (1977) explains that sampling enables the researcher to estimate results for the whole population with precision. In other words, sample size calculation enables a researcher to draw inferences, generalise about the population from the sample data and to estimate results for a population with precision. The sample size for frequency in a population with a correction factor was used to calculate the sample size of immigrant youth needed for this study in order to account for the effect of intra-cluster correlation, otherwise called the design effect – DEFF (Alimohamadi and Sepandi, 2019; Hoyle 2018).

The Open Epi Version 3.05.07 software for estimating a population proportion with specified absolute precision was used to calculate the sample size. The design effect (DEFF) of 1.25 was used in order to correct for estimated sample variance and account for within group differences among immigrant youth in Hillbrow. The following formula for sample size calculation was used:

$$n = \frac{DEFF * N * p(1-p)}{\left[\left(\frac{d^2}{z^2 \cdot \frac{\alpha}{1-\frac{\alpha}{2}}} \right) * (N-1) + p * (1-p) \right]} \dots (i)$$

where

n = sample size

N= Population size of immigrant youth in Hillbrow =18028

p = Probability of exposure in the population = 0.33

d = level of precision margin of error

$deff$ = design effect = 1.25

Z = the selected critical value of desired confidence level at 1.96 for the 95% CI

This means that 417 samples were required for this study to detect a difference as statistically significant at 5% level of significance assuming a design effect of 1.25. A non-response rate of 12% was factored into this study. This was because some undocumented immigrants were reluctant to participate in the study and some immigrants were not forthcoming and open to discuss their sexual behaviours. This increased the sample size to 467. This method ensured that the effect of clustering within households was factored during sample size calculation.

Sampling Procedure for Quantitative Study

Methods for the selection of eligible respondents: A list of all the enumeration areas (EAs) in Hillbrow was based on the 2011 Census of Statistics South Africa. Using simple random technique, 9 of the EAs were selected out of the 30 EAs in Hillbrow (30%). A full list of all the streets in the selected EAs was mapped, and this formed the sampling frame for the study. Using a simple random sampling technique, a list was drawn from the sampling frame of all the streets; and the streets drawn were the location of the study. The dwelling units in the selected streets were not randomly selected due to the security challenge in getting access to some of these properties. Dwelling units were selected using convenient sampling based on access to the property.

Thereafter, starting from the left corner of a selected street, dwelling units where access was given were visited. Using systematic sampling method, in every dwelling unit, starting from the left side of the dwelling unit, a flat was randomly selected as a starting point. Thereafter, every 5th flat was visited. Flats without immigrant households were replaced with the next flat with immigrants. The questionnaire was administered to male and female immigrants within 18-34 years of age. On the average, a household with immigrants consisted of two respondents in the age group 18-34. In this study, a household is defined as a group of persons who live together and provide themselves jointly with food and/or other essentials for living, or a single person who lives alone. Persons who occupy the same dwelling unit but do not share food or other essentials, are regarded as separate households (Statistics South Africa, 2019).

The sample was stratified to ensure a higher quota of females. Thus, there was oversampling of females, with 60% of the study population being females and 40% males. This was because women have been the predominant users of reproductive health services, especially the use of family planning services. The exclusion of men from studies on SRH has, however, been identified as a research gap which

creates a challenge to use of SRH services by women (Kriel et al. 2019; Rasesemola et al. 2017; Withers et. al.2015). Current study thus includes both males and females.

3.5.2.2 Sampling Procedure and Sample Size for the Qualitative Study

The four-point approach to sampling in qualitative interview research developed by Robinson (2014) was utilised in the study. These points entail defining a sample universe, deciding on a sample size, devising a sampling strategy and sourcing the sample (Robinson, 2014). Participants for FGDs were selected using purposeful, non-probability sampling technique from immigrants living in Hillbrow. Purposeful sampling strategy ensured that categories of people who might have had a unique, different or important perspective on the phenomenon in question participated in the interview, and for the identification and selection of information-rich cases for the most effective use of limited resources (Trost, 1986; Palinkas et al. 2015).

Palinkas et al. (2015) proposed that in a convergent mixed methods design, a purposeful sampling strategy that aimed for breadth that parallels quantitative probability sampling technique should be used. The inclusion criteria considered in selection of participants were being an immigrant, being in the age group 18-34, living in Hillbrow, willingness to provide informed consent and engage in conversations on issues around sexual and reproductive health and access to services. Possible participants were excluded for being drunk or under the influence of any substance; if they were identified as mentally ill; intellectually challenged and therefore unable to provide informed consent by signing the form.

Sample Size for the Qualitative Study

The study used the stratified purposeful sample. The first level of stratification was the selection of only immigrants living in Hillbrow. This was followed by stratification according to gender and age group. This enabled an understanding of the views of different age groups of both male and female participants with regards accessing government health facilities for SRH services in Hillbrow. Thus immigrant youth aged 18-34 consisting of both males and females, who agreed to participate in the study were recruited purposefully.

A total of 36 immigrant youth were recruited for the focus group discussions. There was a total of 6 FGDs each consisting of 6 participants. The sample was further stratified according to gender (male/female) of the participants and by age group (18-24/25-34). In total, twelve of the participants were male and 24 were female. Among the male, a group of 6 participants comprised participants aged 18-24, while the other group comprised those aged 25-34. For the female group which consisted of a total of 24 women, two groups of 6 women each were in the age group 18-24 and the other two groups

of 6 women consisted of women aged 25-34. The reason was that the research question sought to clarify access to sexual and reproductive health services, and women of reproductive age are the ones that access reproductive health services generally. Participants who met the inclusion criteria were recruited from the Hillbrow community and advised of the interview venue. At the end of the interview, each participant was given R50.00 (Fifty Rands) to compensate for their transportation to the interview venues.

3.6 DATA COLLECTION

Quantitative and qualitative data collection took place concurrently during the fieldwork as expected in a convergent mixed methods study (Creswell, 2011). In addition, equal weight was given to the quantitative and qualitative study.

Data Collection Instrument and Procedure

The quantitative study used a structured household questionnaire which was pre-coded to collect data from consenting respondents who met the inclusion criteria for the study. The questionnaire was structured into themes to capture the different characteristics such as sociodemographic, sexual behaviour, knowledge and information about sexual and reproductive health (SRH), and migration characteristics of the participants. Most of the questions were adapted from the survey questionnaire by the African Population and Health Research Centre (APHRC), Nairobi (IOM and APHRC, 2017) and the 2016 South African Demographic and Health Survey. The survey questionnaire took 25 minutes to complete on the average.

The qualitative study involved interviews using Focus Group Discussions (FGDs) with consenting study participants. Open-ended interview guides were used to guide the discussion. The FGDs were audio-recorded and interview notes were taken. Each FGD lasted for approximately 1 hour.

3.7 DESCRIPTION OF VARIABLES AND MEASUREMENT

The variables for the quantitative aspect of this thesis are classified into three – the dependent, the independent and the intervening variables. The independent variables are the variables that probably cause, influence, or affect outcomes. The intervening variables otherwise called the mediating variables are between the independent and dependent variables, and they mediate the effects of the independent

variable on the dependent variable. Dependent variables (otherwise called outcome variables) are the outcomes of the influence of the independent variables (Creswell, 2011).

3.7.1 Dependent Variables

A total of three dependent variables were studied. Two of these were for risky sexual behaviours which were operationalised as the number of sexual partners that a respondent had in the 12 months prior to the survey, and, inconsistency of condom use during sexual intercourse by the respondent. The last dependent variable was physical access to a government health facility for SRH services in Hillbrow.

The first dependent variable was the number of sexual partners in the 12 months prior to the survey. The question asked was: *“In total, how many sexual partners did you have in the past 12 months?”* The actual number was recorded for the response.

The second dependent variable was inconsistency of condom use. For inconsistency of condom use, the question asked was *“How often do you use condoms during sexual intercourse?”* The responses had three categories, which were coded as “Never=1” “Sometimes=2” “Always =3”. Respondents who reported never having used a condom and those who reported using condoms sometimes were thus defined as inconsistent condom users, while the respondents who reported always using condoms were defined as consistent condom users. The new variable called “Inconsistency of condom use” has two categories – inconsistent condom user and consistent condom user.

The third dependent variable was physical access to a government health facility for SRH services in Hillbrow. The question asked was *“Have you visited any government clinic in this area for sexual and reproductive health services?”* This had a Yes or No response.

3.7.2 Intervening Variables

The intervening variables for access to a government health facility for SRH services were “having received information about family planning 6 months prior to the survey, knowledge of place to obtain a family planning method and source of information on family planning”. For the variable on having received information about family planning 6 months prior to the survey, the question asked was *“Have you received any information in the past six months about family planning specifically – what it is, how to use it and where to get it?”* The responses were “Yes” or “No”.

The second intervening variable was knowledge of place to obtain a family planning method. The question asked for this variable was *“Do you know a place in this area where you can obtain any of the following family planning methods?”* The methods listed were daily pill, intra-uterine device (IUD), implants, male condom, female condom, injectable (Depo-provera), emergency contraception, vasectomy and tubal ligation. All the responses had a “Yes” or “No” response, and the “Yes” responses were coded as 1 while the “No” responses were coded as 2. Factor analysis of the responses was done

in order to generate a new variable. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of each variable in the model and for the complete model was 0.83, meaning the sampling is adequate. The Cronbach's alpha is a measure of internal consistency and scale reliability coefficient, which shows the consistency in measurement of the items. The value was calculated and yielded 0.86, implying that the items have high internal consistency. The new variable generated was “Knowledge of where to obtain contraception”, which has two categories – inadequate knowledge and adequate knowledge.

The third intervening variable was the source of information on how to live a healthy sexual life, prevent unwanted pregnancies and treat sexually transmitted infections. For this, respondents were asked if they had received any information in the past six months on how to live a healthy sexual life, prevent unwanted pregnancies and treatment of STIs. This question had a “Yes” or “No” response. Those who responded in the affirmative were asked “*From where did you receive such messages?*” The options for answers listed were posters, television/radio, health centre/community clinic, private clinic, government hospital, parents, peer educator, teacher, and friends. Factor analysis of the responses was done in order to generate a new variable which measured the reliability of the source of information. Cronbach's alpha measure of internal consistency was 0.65 meaning the items have an acceptable internal consistency. The new variable generated was “Source of information”, which has two categories – “unreliable source” and “reliable source”.

3.7.3 Independent Variables

The independent variables in this study included the demographic and socio-economic variables at individual and household levels; as well as migration-related factors and community social processes in Hillbrow.

3.7.3.1 Socio-economic and Demographic Variables

Specifically, the demographic variables included gender identified as male or female. Age in years was collected based on the question “In what month and year were you born?” Actual figures were recorded. Another question asked to validate the age of the respondent was the question “How old were you on your last birthday? Age in completed years was recorded as a discrete variable.

Individual socio-economic variables included highest level of education attained which was categorised as incomplete primary, complete primary, incomplete secondary, complete secondary/matric, incomplete tertiary education (Technikon/university), completed tertiary and Post-Graduate education. Incomplete primary and complete primary were combined and recoded as “Primary”; incomplete secondary and complete secondary/matric were combined and recoded as “Secondary” while incomplete tertiary education (Technikon/university), complete tertiary and Post-Graduate education were combined and recoded as “Tertiary”.

Data was also collected on the religious affiliation which was categorised as Christian, Muslim, Traditional religion, No religion and Hindu. In addition, data on the importance of religion to respondents was collected and categorised as Important (combination of very important and important) and Not important (combination of Not very important and Not important). Respondents were also asked about their marital status, and the responses were categorised as married, single, not married – living with a partner, separated, divorced and widowed. These were further recoded and re-categorised as single for those who reported themselves as single, separated, and divorced; and married/co-habiting for those who reported themselves as married or not married, living with a partner. There was no record for the widowed category. Moreover, data was collected on current economic activity of respondents. The question asked was “*Are you currently engaged in any economic activity?*” Economic activity was defined as any employment, job or income generating activity. This had a “Yes” or “No” option.

Socio-economic variables were collected at household level to understand the impact of household level factors on the dependent variables. Social science researchers recommend the use of Principal Component Analysis for the construction of wealth indices for the purpose of measuring living standards (Howe et al. 2008; Falkingham and Namazie, 2002; Rutstein and Johnson, 2004). In the present study, data was collected on ownership of household assets in working condition. The items were radio, television, desktop or laptop computer, refrigerator, vacuum cleaner, microwave oven and washing machine, cell phone, bicycle, motorcycle and an automobile (car/bakkie/van/truck). In addition, refuse collection, sharing toilet with other households, source of energy for heating and cooking and having a separate room for cooking were included. Using Principal Component Analysis, a wealth index was constructed with three categories – poor, middle and rich.

Other household data collected included number of people in the household as well as number of rooms occupied by the household excluding bathroom, toilet and kitchen. Actual numbers were recorded for these. Data on number of people aged 18-34 in a household was also collected. Furthermore, data was collected on the number of other households sharing a rooms with respondents. The question asked was “*How many other households do you share your rooms with?*” Actual numbers were recorded.

3.7.3.2 Migration and Community Social Variables

Data were collected on the country of birth, migration status in South Africa, duration of migration, and reason for staying in Hillbrow. Actual country of birth of the respondent was recorded. Actual number of months and years were recorded for the question “*When did you come to South Africa*”. The responses were further categorised as “0-3 years”, “4-6 years” and “7 years and above”. Data was also collected on the ability to speak any of the local languages in South Africa. Data was collected on

current legal immigration status of the respondent in South Africa. The responses were categorised as documented (Naturalised South African citizen, Permanent resident, work permit, study permit, and refugee status); asylum seeker and undocumented (no paper). Reasons for staying in Hillbrow was categorised into school, cheaper accommodation, employment opportunities, reduced transportation costs. Data was also collected on the level of exposure of respondents to sexual and reproductive health/family planning in country of origin or place of previous resident before coming to Hillbrow.

With regards to community social processes in Hillbrow, data were collected on having ever experienced discrimination, physical assault, safety and security concerns in the Hillbrow community. The responses were categorised as never, sometimes, often, and always. These were recoded into Yes/No responses. Finally data was collected on availability of social support in South Africa. The question asked was *“Do you have anyone here in South Africa whom you trust and with whom you can discuss very important and private issues.”* This had a “Yes” / “No” response.

3.8 DATA QUALITY ASSURANCE

Data quality assurance is important for assuring the reliability, validity and the integrity of the survey data collected (Ruel et al. 2016; Yamanaka et al. 2016; Zohrabi, 2013; Üstün et al. 2005). Data quality assurance has implications for the data analyses, results, interpretation of findings and policy. In this study, quality assurance of the data collected was implemented at different stages of the research as described below.

3.8.1 Research Instruments

The research instruments used for this study were a mixture of closed-ended and open-ended questionnaires for the quantitative study. The quantitative study used questionnaires that were developed to cover every aspect of the study. The questionnaire was divided into different sections, and each section was based on themes derived from the research objectives which were guided by an extensive literature review, the conceptual framework and theoretical foundations of this study. The qualitative study was a semi-structured interview, which used a focus group discussion guide to guide the interviews. The focus group discussion guide was derived from the qualitative research question in accordance with the conceptual framework and theoretical foundations of this study.

After the development of the questionnaires, the questionnaire was tested for validity and reliability. Face validity and content validity of the questionnaire was first ascertained by my supervisor, followed by a full panel of experts from the Departmental Post-Graduate Committee at the Population and Demography Programme, School of Social Sciences and thereafter by the Scientific Committee of the

Faculty of Humanities, North-West University, Mafikeng Campus. Pre-test of the questionnaire was done with six immigrant youth in Braamfontein, Johannesburg. The pre-test enabled us to properly order questions, re-formulate questions to avoid the use of ambiguous wording, and ensure that response options were comprehensive. In addition, the pre-test enabled us to record how long it took to administer one questionnaire and to know the time difference to complete the interview by the respondents.

3.8.2 Training of the Fieldworkers

Data collection was done by 7 field workers who are very familiar with the Hillbrow community, and are fluent in English, Shona, Ndebele or Chichewa. The choice of language preference was informed by the pre-fieldwork consultation in Hillbrow, which indicated that Zimbabweans and Malawians were the predominant ethnic groups residing in Hillbrow, while other ethnic groups go to Hillbrow for business. The choice of fieldworkers who speak the languages of the immigrants, in addition to having good understanding of the social dynamics of the study area reduced fears of law enforcement officials and enhanced cooperation from the study participants.

The fieldworkers were post-graduate students from the Faculty of Humanities at the University of the Witwatersrand and the University of Johannesburg. The choice of these fieldworkers was based on previous experience with similar studies, having taken social research methods as coursework. In addition, the field workers were trained for three days at the University of the Witwatersrand, Johannesburg, by the principal researchers in order for them to understand the research instrument, the importance of research integrity, and the relationship between the questions and the objectives of the study.

The training involved different sessions including going through the questions in each section of the questionnaire and explaining the link to the objectives, practical interviewing skills, the importance of informed consent, and the need to observe respondents' change of mood and those that could become emotional when asked questions on sexual behaviours. Other components of the training included probing skills, importance of completion of questionnaires, rules and regulations including code of conduct as a fieldworker in line with requirement by the ethics committee of the North-West University, as well as inclusion and exclusion criteria. Breakaway sessions were held in groups of two as role plays to enable fieldworkers to practice administering the questionnaire. Repeated role plays developed the confidence of the fieldworkers and made them get acquainted with the tool.

3.8.3 Pilot Testing of Questionnaire

The pilot testing of the corrected questionnaire was conducted in a location outside Hillbrow with many immigrant households. This helped to identify any potential problems with the questionnaire design and

with the entire survey procedure. Questionnaires were administered by fieldworkers to a total of 40 immigrant youth aged 18-34. The results of the pilot test were further used to improve the quality of questionnaire, the reliability and validity of the data collected. The pilot testing was also useful as it enabled the fieldworkers to get familiar with the questionnaire, the procedures involved in data collection and any other challenges that might come up during actual field work. Feedback was discussed with the field workers and final changes were adapted before the printing of final survey questionnaires.

3.8.4 Supervision of Fieldwork

The administration of a household survey was supervised and managed by the principal researcher with the assistance of the team leader for fieldworkers. The principal researcher provided logistical and technical assistance throughout the fieldwork. The fieldwork team was briefed at the beginning of the day and were assigned a certain number of survey questionnaires, informed of the streets where data collection was going to take place and a list of the code names was provided. Completed questionnaires and informed consent forms were collected from each of the fieldworkers at the end of each day. Data quality checks of each completed questionnaire were done to ensure completeness of information and internal consistency of the responses. Incomplete and inconsistent questionnaires were returned for correction or rejected. All the questionnaires were given unique identification numbers. As part of the quality check, fieldworkers were paired up to assigned dwelling units and they were paid for completed questionnaires. Debriefing with fieldworkers was done daily and necessary steps were taken to ensure the fieldwork continued without any problems.

For the qualitative study, recruitment of participants was done concurrently as the fieldwork for quantitative study. The FGD commenced after obtaining informed consent from participants, ensuring anonymity as well as gaining permission to audio-record the interview. The binding contract for the interview was read to all participants. The FGD guide was used to direct the FGDs. The FGDs participants were given an incentive of R50 each to compensate for their transportation.

3.8.5. Data Entry

A data entry database was created in MS Excel by the principal researcher prior to the fieldwork. The purpose of the data entry database was to convert the data collected on the paper-based questionnaires into an electronic version, such that the initial processing of the data could be done. Quality control criteria were created in the MSExcel database using the validation lists to create drop down lists, data range, valid values and restrict entries. This reduced errors during data entering, prevented typing mistakes and improved logical consistency.

Data entry of questionnaires that had been checked by the principal researcher started while field work was ongoing. Data entry assistants were trained on the MSExcel database. Thereafter data entry was coordinated and managed by the data entry assistants based on the database created while necessary technical assistance was provided as needed. Double entry of the data was performed by the principal researcher once the qualitative fieldwork was completed. This enabled typing errors or omissions to be identified and corrected. The final data was imported to STATA 14 for further evaluation of the data, data cleaning and necessary statistical analysis.

The response rate for this study was 100%. This could be attributed to the level of training of the fieldworkers, and personal involvement of the principal researcher in the field work. In addition, the 100% response rate could be attributed to daily checks of the questionnaires for incomplete entries, illegible writing, and skipping patterns as instructed. Incomplete questionnaires were returned to the fieldworkers for completion of missing information and for verification with the respondents. Data cleaning and all necessary data management were done in the STATA 14. Outliers were identified using univariate analysis of the variables.

3.9 ADDRESSING THE STUDY OBJECTIVES

Objective 1: To describe the background characteristics of immigrant youth aged 18-34 in Hillbrow, Johannesburg, South Africa.

In order to achieve this objective, descriptive statistics of the background characteristics of the respondents were collated. This provided summary statistics of the study population, showed the distribution, patterns and levels of the dependent, independent and intervening variables. The variables were further presented in tables of frequencies and percentages, and some were illustrated in graphs and charts. The summary statistics used were the measures of central tendency and the measures of dispersion. The measure of central tendency used depended on the type of variable. The mean was used for continuous and symmetrical variables, the standard deviations showed the distribution of the data

around the mean while the median was the measure of central tendency for skewed dataset and ordinal variables. Upper and lower interquartile ranges (IQR) were reported with median to show the spread of such variables.

Objective 2: To determine the factors associated with multiple sex partnerships and inconsistent condom use among immigrant youth aged 18-34 living in Hillbrow.

In order to achieve this objective, bivariate analyses were carried out. Negative binomial regression was used to identify factors associated with multiple sex partnership. However, Pearson's Chi-square test was used to investigate factors associated with the inconsistency of condom. Multivariate analyses were used to determine the predictors of multiple sex partnership and inconsistency of condom use. The negative binomial regression was used to determine the predictors of multiple sex partnership, while binary logistic regression was used to understand predictors of inconsistent condom use.

Objective 3: To examine the predictors of access to a government health facility for sexual and reproductive health services by the study sample.

In order to achieve this objective, Pearson's Chi-square test was used for investigating the factors associated with access to a government health facility for SRH services. Thereafter, multivariate analysis using binary logistic regression analysis was carried out to determine the predictors of access to health facilities for reproductive health services by the immigrant youth.

Objective 4: To understand the perceptions and experiences of immigrant youth on their access to sexual and reproductive health services in Hillbrow.

In order to achieve this qualitative objective, the audio-recordings from the focus group discussions held with male and female immigrant youth were transcribed. After initial familiarisation with the data, codes were generated, and themes were identified. Analysis was done in Atlas ti7.

3.10 ANALYTICAL PROCEDURES

Quantitative and qualitative analytical procedures were carried out separately.

3.10.1 Quantitative Procedures

This study utilised the univariate, bivariate and multivariate analytical methods to measure the predictors of multiple sexual partnership and inconsistency of condom use among immigrant youth aged 18-34 in Hillbrow. In addition, it examined the determinants of access to reproductive health services in Hillbrow. The detailed description of analytical procedures is provided in this section. STATA 14.0 was used for all the statistical analysis.

3.10.1.1 Univariate Analysis

Univariate statistical analysis provided the background characteristics of male and female immigrant youth. The demographic, socio-economic, migratory and behavioural characteristics of the respondents were presented in percentages and frequencies according to the background characteristics of interest. Due to the nature of the data, the statistical measures used were the mean which is a measure of central tendency for continuous and symmetrical variables, the standard deviations which showed the distribution of the dataset around the mean and the median which is a measure of central tendency for skewed dataset. Upper and lower interquartile ranges (IQR) were reported with median to show the spread of such variables.

3.10.1.2 Bivariate Analyses

Bivariate analysis was conducted to test the association between dependent and independent variables in this study. Two types of bivariate analyses were conducted – the unadjusted binomial logistic regression and the Pearson's Chi-square.

Model Selection for Count Dependent Variables

The negative binomial regression analysis

The goal of this analysis was to find the nature of the association between multiple sex partnership and independent variables. Based on Cameron and Trivedi (2013) analysis of count data, the standard is to use Poisson regression model for the analysis. In order to make a statistical decision on the best model of choice, the goodness of fit test was done, all the variables were statistically significant which showed that the Poisson regression model was not suitable for the data. Further examination of the data showed that the data did not meet the assumptions of Poisson, for which the mean and the variance should be equal. In addition, the data does not meet the assumption of homogeneity. In this study, the mean for number of sexual partners in the last 12 months before the survey was 2.24, the standard deviation was 2.16 and the variance was 4.67, with skewness of 4.32. There was a significant over-dispersion. A critical examination of the data showed that the over-dispersion was real. As a result, the negative

binomial regression model that does not have the assumption of equality of mean and variance was used.

Poisson regression and negative binomial regression models were run on the dependent data. The major parameters in goodness of fit perspectives were compared. The log likelihood test statistics compared how well the Poisson regression model and the negative binomial regression model fit the data. The value of the log likelihood test statistics was way greater than the critical value of Chi square at 5% level of significance. In addition, the Pearson chi square for the Poisson regression was very high compared to the Pearson chi square for the negative binomial regression model. The test results show that Poisson regression is not the right model for this data but rather the negative binomial model. We therefore used the negative binomial regression model for the analysis of the count dependent variables.

The model for the Negative binomial distribution used for over-dispersed data is expressed below:

$$Pr Pr (\lambda, \alpha) = \frac{\Gamma(y+\alpha^{-1})}{y!\Gamma(\alpha^{-1})} \left(\frac{\alpha^{-1}}{\alpha^{-1}+\lambda}\right)^{\alpha^{-1}} \left(\frac{\lambda}{\alpha^{-1}+\lambda}\right)^y \dots\dots\dots (ii)$$

The negative binomial distribution has two parameters: λ and α

λ is the mean or expected value of the distribution

α is the over-dispersion parameter

When $\alpha = 0$ the negative binomial distribution is the same as a Poisson distribution.

Pearson's Chi-square analysis

The Pearson Chi-square (χ^2) is a non-parametric test that is used to assess the level of association between a categorical dependent variable and an independent variable. The test of association was done at a critical value of 0.05 for 5% level of significance and a confidence interval of 95%. The model for Pearson's Chi-square used in this study is expressed below:

$$\chi^2 = \sum \frac{(O-E)^2}{E^2} \dots (iii)$$

where O is the observed value

E is the expected value

The alpha level, which is a measure of significance, was set at 0.05 indicating that the maximum probability of committing type one error was 5% and without doubt, 95% accounts for the association between the dependent and independent variables.

Bivariate analysis using Pearson's Chi square test was adopted in this study to determine the level of association between inconsistency of condom use and independent variables (demographic and socioeconomic characteristics, migration characteristics and community social factors). It was also used to assess the independent variables associated with knowledge of sexual and reproductive health. It examined the association between access to government health facility for reproductive health services and the independent variables.

3.10.1.3 Multivariate Analysis

Multivariate analyses were used to determine the predictors of multiple sex partnership, inconsistency of condom use and access to government facilities for sexual and reproductive health services. The negative binomial regression model was used to determine the predictors of multiple sex partnership. The model was described above in sub-section 3.6.2.1. Binary logistic regression model was used to examine the predictors of inconsistent condom use and access to government health facilities for reproductive health services in Hillbrow. The model is expressed as:

$$\text{Logit}(p) = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_{10}x_{10} \dots\dots\dots (\text{iv})$$

where P is the dependent variable (inconsistent condom use and access to government health facility for reproductive health services);

$b_0 \ b_1 \ b_2 \ b_3 \dots\dots b_{10}$ =log odds

$x_1 \ x_2 \ x_3 \dots\dots\dots x_{10}$ =explanatory variables

3.10.2 Qualitative Procedure

Thematic analysis was done for the qualitative data. The qualitative procedure involved the analysis of the transcripts of all audio-recordings of the focus group discussions. The transcripts were read over and over for familiarisation. It was then exported to ATLAS.ti. This was followed by identification of codes and themes. In order to ensure the validity of the qualitative data, an independent coder was appointed to code the data for comparison with that of the principal researcher.

3.11 LIMITATIONS OF THE STUDY

This study identifies and accounts for the predictors of the number of sexual partners and inconsistency of condom use among immigrant youth aged 18-34 in Hillbrow. In addition, it established the determinants of access to reproductive health services in government health facilities based in the area, and the use of a mixed methods technique provided better understanding of the research problem. Despite these, this study is limited in being a cross-sectional design where the results do not imply causation. Secondly, due to the challenge encountered in getting access to some of the dwelling units because of very strict security measures, dwelling units were not randomly selected. In order to ensure that the selected sample was representative of immigrant youth in Hillbrow, about half of all the streets in the selected EAs were randomly selected and included in the data collection exercise. In addition, every 5th flat was systematically selected for the administration of questionnaire.

The selection of Hillbrow as the study site was purposeful, based on the 2011 South African Census. The implementation of this study however showed that majority of immigrants who live in Hillbrow are Zimbabweans and Malawians while immigrants from other countries own and do business in Hillbrow but they do not live there. This study thus missed out on experiences of immigrants from other countries. Recall bias might be a limitation in participants reporting number of sexual partners 12 months prior to the survey, which might result in underreporting of number of sexual partners. Respondents who reported their main economic activity as sex workers may have over-reported the number of sexual partners. This limitation was mitigated by some sex workers referring to their diaries to check the number of sexual partners 12 months before the survey. In addition, inconsistency of condom use during sexual intercourse might have been under-reported due to social desirability bias. There could have been an under-reporting of migration status by undocumented migrants. In addition, some undocumented migrants could have reported themselves as asylum seekers. Use of well-trained field workers mitigated such bias.

Challenges related to implementation included the lack of safety in the Hillbrow community. The initially planned electronic-based survey could not be implemented due to safety concerns and advice from the South African Police (SAPS) in Hillbrow. Paper-based questionnaires were used, making the implementation more expensive and time consuming than previously planned. Increasing the number of field workers and using fieldworkers who lived or have lived in Hillbrow previously, with a good understanding of the study area dynamics helped mitigate the challenge. Another concern was with the study of only immigrant youth, when stakeholders perceived risky sexual behaviour as a problem with native-born also. This was discussed with stakeholders and we arrived at a compromise, such that the current study was not disrupted.

3.12 ETHICAL ISSUES

The study was first approved by the PhD Higher Degrees Committee of the Population Studies and Demography Department, School of Social Sciences, North-West University, Mafikeng Campus. Approval was thereafter received from the joint Higher Degrees Committee of the Faculty of Humanities. This was followed by the successful completion of the Macquarie University Human Research Ethics Online Training Module for the Social Sciences and Humanities. Thereafter, final approval for the study was granted by the Human and Social Sciences Research Ethics Committee (HSSREC) of the North-West University.

There was also extensive consultation with stakeholders in Hillbrow for continued support for the study. This included the Hillbrow South African Police Service (SAPS), the Ikageng Community Development, and the different immigrant ethnic groups in Hillbrow. In addition, the two ward councillors for Hillbrow were consulted and informed about the study.

Finally, a participant information leaflet and consent form was approved by the Human and Social Sciences Research Ethics Committee of the North-West University. This was administered to every participant and respondents during the fieldwork. The participant information and consent form contained information on what the research was all about, reason for the selection of the participant, inclusion and exclusion criteria, responsibilities of the participant, benefits, risks and strategies to minimise the risk, who will have access to the data, anonymity and confidentiality of information, as well as compensation and feedback. Participants were informed of their willingness to discontinue the interview at any time if they wished to. In addition, due to the sensitive nature of questions on sexual behaviour, an arrangement was made with a psychologist to attend to any participant who was emotional or showed any signs of distress as a result of questions on sexual behaviours asked in the survey.

In summary, this chapter has described the methods used in this study, the variable description, qualitative and quantitative analyses, ethical considerations and limitations of the study. Chapter Four describes the background characteristics of the sample.

CHAPTER FOUR

BACKGROUND CHARACTERISTICS OF THE STUDY SAMPLE

4.1 INTRODUCTION

This chapter presents the descriptive statistics of the background characteristics of male and female immigrant youth aged 18-34, who were interviewed in Hillbrow, in December 2019. The descriptive analyses portray summary statistics of the study population, showing patterns and levels of risky sexual behaviour, and reproductive health indicators among the immigrant youth sampled. The descriptive statistics allow the presentation of the survey data in a more meaningful way for ease of interpretation. Some of the variables are described in tables with frequencies and cross-tabulations, and illustrated in graphs and charts. The variables in the analyses are the socioeconomic and demographic characteristics at individual and household levels, migration and social processes in Hillbrow community, as well as sexual and reproductive health indicators based on the conceptual and theoretical framework for this study.

Two general types of statistics are used to describe the dataset – the measures of central tendency and the measures of dispersion. The measures of central tendency describe the central position of a frequency distribution and patterns for a variable in the dataset. The central position of the variables are described using the mean, median and mode. The decision on the type of measure of central tendency used depended on the type of variable. The mean is the measure of central tendency for continuous and symmetrical variables, and the standard deviations are reported to show the distribution of the dataset around the mean. The median is the measure of central tendency for skewed dataset and ordinal variables. Upper and lower interquartile ranges (IOR) are reported with median to show the spread of such variables.

Descriptive statistics was done on the household survey data for the study population and separately for males and females to show gender differences in risky sexual behaviour and knowledge of sexual and reproductive health.

4.2 SOCIOECONOMIC AND DEMOGRAPHIC CHARACTERISTICS OF STUDY POPULATION

Table 4.1 shows the socio-economic and demographic characteristics of male and female immigrant youth who responded to a household survey in December 2019. A total of 467 participants aged 18-34 responded to the survey; 41.3% were males and 58.7% were females. The median age of the respondents was 26 years, the median age of males was 27 years while for the females the median age was 26 years.

With regards level of education attained by the respondents, majority of the respondents (52.7%) had completed secondary education while 15.8% had post-graduate education. The proportions with primary and incomplete secondary education were 6.0% and 25.5% respectively.

As far as engagement in an economic activity at the time of the survey was concerned, about three-quarters (76.0%) reported themselves as being engaged in an economic activity while 24% were not engaged in any economic activity during the period of the survey. Gender disaggregation of engagement in economic activity at the time of the survey shows that 78.8% of the males and 74.1% of the females were engaged in an economic activity during the period of the survey. On the other hand, 21.2% of the male and 25.9% of the female were not engaged in an economic activity during the period of the survey.

As concerns marital status, three out of five of the respondents were single (60.2%), only 1 out of 5 reported being married (19.9%), 15.4% were living together but not married, 3.9% were separated while 0.6% were divorced. Gender disaggregation of marital status of respondents shows that 64.8% and 56.9% of the male and female respectively were single, while the proportion of male and female respondents that reported being married were 20.2% and 19.7% respectively. More females (16.8%) than males (13.5%) were cohabiting. Similarly, more females (5.8%) than males (1.0%) reported being separated from a partner; while 0.5% and 0.7% of males and females reported that they were divorced respectively. There was no record of a widow or widower among the respondents.

With regard to religious affiliation, majority of the youth reported themselves as Christians (82.2%) while the second largest proportion reported themselves as not being affiliated with any religion (10.5%). There is a statistically significant difference in gender disaggregation based on religious affiliation ($p=0.000$). More males than females reported being affiliated with Islamic religion (5.7% versus 1.5%), traditional religion (6.7% versus 1.8%) and no religious affiliation (14.5% versus 7.7%) respectively. As far as religious importance is concerned, almost half (49.0%) responded that religion was very important, about a quarter (24.6%) reported that religion was important to them, 11.8% reported religion as not very important while 14.6% reported that religion was not important to them. There is a statistically significant difference between male and female with regards importance of religion ($p=0.000$). Among the male respondents, about 2 out of 5 (42.5%) and 1 out of 5 (19.7%) reported religion to be very important and important respectively. The proportions reporting religion as not very important and not important among the males were 18.6% and 19.2% respectively. Among the

female respondents however, 53.7% and 28.1% reported religion to be very important and important to them; while 6.9% and 11.3% reported religion not to be very important and not important respectively.

With regard to wealth index, 42.4% were in the poor quintile, 34.9% were in the middle while only 22.7% were in the rich quintile. Among the male respondents, 45.1% were poor while 31.1% and 23.8% were in the middle and rich quintiles respectively. Among the female, 40.5% were in the poor quintile, while 37.6% and 21.9% were in the middle and rich wealth quintiles respectively.

The median number of people in a household for the study sample was 3, the minimum was 1 while the maximum was 10. Among the male respondents, the median number of people was 3 while for the female respondents, the median number of people in the household was 4. Among the male respondents, the minimum was 1 while the maximum was 10. However, among the female respondents, the minimum number of people in a household was 1 while the maximum was 8. The median number of rooms occupied by a household was 1, and the maximum reported number of rooms was 5. Sharing of a room by more than one household was a common practice in Hillbrow. The median number of other households sharing a room was 1, minimum was 0 while the maximum number of other households sharing a room was 5. Among the male respondents, the maximum number of other households sharing a room was 5 while it was 3 among the female.

Table 4.1: Socioeconomic and Demographic Characteristics of Immigrant Youth, Hillbrow 2019

Variables	All respondents	Male	Female	p-value
	Frequency N=467 (%)	n=193 (%)	n=274 (%)	
Gender				
Male	193 (41.3)			
Female	274 (58.7)			
Median age in years (IQR)	26 (18, 34)	27 (18, 34)	26 (18, 24)	
Highest level of education attained				0.471
Primary	28 (6.0)	15 (7.8)	13 (4.7)	
Incomplete secondary	119 (25.5)	46 (23.8)	73 (26.6)	
Complete secondary/matric	246 (52.7)	99 (51.3)	147 (53.7)	
Post-Graduate	74 (15.8)	33 (17.1)	41 (15.0)	
Current engagement in an economic activity				0.245
Yes	355 (76.0)	152 (78.8)	203 (74.1)	
No	112 (24.0)	41 (21.2)	71 (25.9)	
Marital status				0.065
Single	281 (60.2)	125 (64.8)	156 (56.9)	
Married	93 (19.9)	39 (20.2)	54 (19.7)	
Cohabiting	72 (15.4)	26 (13.5)	46 (16.8)	
Separated	18 (3.9)	2 (1.0)	16 (5.8)	
Divorced	3 (0.6)	1 (0.5)	2 (0.7)	
Religion				0.000
Christian	384 (82.2)	140 (72.5)	244 (89.0)	
Muslim	15 (3.2)	11 (5.7)	4 (1.5)	
Traditional religion	18 (3.9)	13 (6.7)	5 (1.8)	
No religion	49 (10.5)	28 (14.5)	21 (7.7)	
Hindu	1 (0.2)	1 (0.5)	0 (0.0)	
Religion importance				0.000
Very important	229 (49.0)	82 (42.5)	147 (53.7)	
Important	115 (24.6)	38 (19.7)	77 (28.1)	
Not very important	55 (11.8)	36 (18.6)	19 (6.9)	
Not important	68 (14.6)	37 (19.2)	31 (11.3)	
Wealth index				0.347
Poor	198 (42.4)	87 (45.1)	111 (40.5)	
Middle	163 (34.9)	60 (31.1)	103 (37.6)	
Rich	106 (22.7)	46 (23.8)	60 (21.9)	
Median number of people in household (IQR)	3 (1,10)	3 (1, 10)	4 (1, 8)	
Median number of rooms occupied by household (IQR)	1 (1,5)	1 (1,5)	1 (1,5)	
Median number of other households sharing room (IQR)	1 (0,5)	1 (0,5)	1 (0,3)	

p-value is analysed based on gender

4.3 MIGRATION CHARACTERISTICS AND COMMUNITY SOCIAL PROCESSES

Table 4.2 presents on the migration characteristics and community social processes of the study sample and distribution by gender. A vast majority of the respondents were born in Zimbabwe, accounting for 90.4% of the respondents. This was followed by Malawi (5.8%). Other countries of origin included Botswana (0.6%), DRC (1.3%), Lesotho (0.2%), Uganda (0.4%), Zambia (0.9%) and South Africa (0.4%). It is important to note that the respondents born in South Africa were not South African citizens, but rather children born to undocumented parents who automatically remain undocumented. Among the male respondents, 86.6% and 8.8% were born in Zimbabwe and Malawi respectively. Among the female respondents, 93.1% and 3.6% were born in Zimbabwe and Malawi respectively.

Regarding migration status at the time of the survey, 2.4% were naturalised South African citizens, 2.1% were permanent residents, 16.1% had work permit, 12.0% had study permit, 0.9% were refugees, 21.8% were asylum seekers while 44.7% were undocumented. Among the male respondents, 9.3% were on study permit while 50.5% were undocumented. Among female respondents, 13.9% were on study permit and 40.9% were undocumented.

The median length of stay in Hillbrow of respondents was 4 years, the minimum being less than 1 year and the maximum being 20 years. The median length of stay in Hillbrow for the male was 5 years, with a minimum stay being less than 1 year and maximum stay was 20 years. For the female, the median duration of migration was 4 years, the minimum was less than 1 year and the maximum duration for female was 19 years.

Ability to speak a local language by immigrants was considered as an indicator of acculturation. About 4 out of 5 (79.9%) were able to speak a local language in South Africa. This is similar for the male and female respondents with 77.7% of male and 81.4% being able to speak a local language in South Africa.

On the reason for choosing to live in Hillbrow, majority (46.0%) reported moving to Hillbrow for employment-related purposes such as more rewarding employment opportunities, proximity to workplace and cheaper transportation. A quarter (25.1%) reported coming to live with a relative, 13.1% submitted they moved into Hillbrow for the purpose of cheaper accommodation, 9.6% for proximity to school while 6.2% moved to Hillbrow for marriage purposes. It is worth noting that none of the respondents reported moving to Hillbrow for the purpose of better health facility. Gender disaggregation shows a statistically significant difference on motive for moving to Hillbrow. Approximately half of the males chose to live in Hillbrow due to employment-related purposes, while 23.8%, 15.0%, 10.4% and 0.5% chose to live in Hillbrow to stay with a relative, for cheaper accommodation, proximity to school and marriage respectively. Among the females, 43.1% chose to live in Hillbrow for employment-related purposes, 25.9% moved to Hillbrow to stay with relatives, 11.7% for cheaper accommodation,

and 9.1% for proximity to school while 10.2% of the female moved to Hillbrow for marriage purposes. The reasons given for moving to Hillbrow by the respondents represent the constructs of the push and pull theory of migration (Simpson, 2017), as well as the network theory of migration (Blumenstock et al, 2019) both migration theories used in this study.

With regard to levels of community social processes, approximately 2 out of 5 (43.3%) reported never having experienced discrimination in Hillbrow. The same proportion (43.0%) reported experiences of discrimination sometimes, almost 1 in 10 (8.6%) reported their experience of discrimination as often while 5.1% reported always experiencing discrimination in Hillbrow. There was no statistically significant difference in experiences of discrimination in the study area.

Personal safety and security concerns was an indicator of the social processes in the study area. Only 17.4% of respondents reported never having personal safety and security concerns, while 33.2%, 26.3% and 23.1% reported having safety and security concerns sometimes, often and always, respectively. Overall, 4 out of 5 (82.6%) of the study population reported personal safety and security concerns in the study area.

With respect to how often immigrant youth have negative feelings such as blue moods, despair, anxiety and depression, associated with poor mental health, only a quarter of all the respondents (25.1%) reported never having such feelings while 35.8% and 39.2% reported having negative feelings often and very often respectively. There is a statistically significant gender difference in reported negative feelings ($p=0.03$). Only 31.1% male and 20.8% female reported never having negative feelings and depression. In contrast, the remaining respondents reported experiencing negative feelings associated with poor mental health. Among the males, 31.1% and 37.8% reported having negative feelings associated with poor mental health often and very often respectively. Among the females, 2 out of 5 of the respondents reported having negative feelings associated with poor mental health often and very often respectively.

Regarding social support in South Africa, 4 out of 5 reported having someone in South Africa who they trust and can discuss very important and private issues, while 1 out of 5 reported lack of social support. Reports of having social support is slightly higher among females (81.0%) as compared to males (76.8%).

Table 4.2: Migration Characteristics and Community Social Processes

Variables	All respondents	Male	Female	p-value
	Frequency N=467 (%)	n=193 (%)	n=274 (%)	
Country of birth				0.023
Botswana	3 (0.6)	0 (0.0)	3 (1.1)	
DRC	6 (1.3)	2 (1.0)	4 (1.4)	
Lesotho	1 (0.2)	0 (0.0)	1 (0.4)	
Malawi	27 (5.8)	17 (8.8)	10 (3.6)	
South Africa	2 (0.4)	2 (1.0)	0 (0.0)	
Uganda	2 (0.4)	2 (1.0)	0 (0.0)	
Zambia	4 (0.9)	3 (1.6)	1 (0.4)	
Zimbabwe	422 (90.4)	167 (86.6)	255 (93.1)	
Current migration status				0.176
Naturalized citizen	11 (2.4)	6 (3.1)	5 (1.8)	
Permanent resident	10 (2.1)	3 (1.6)	7 (2.5)	
Work permit	75 (16.1)	30 (15.5)	45 (16.4)	
Study permit	56 (12.0)	18 (9.3)	38 (13.9)	
Refugee	4 (0.9)	3 (1.6)	1 (0.4)	
Asylum seeker	102 (21.8)	36 (18.6)	66 (24.1)	
Undocumented	209 (44.7)	97 (50.3)	112 (40.9)	
Median length of stay in Hillbrow (IOR)	4 (0, 20)	5 (0, 20)	4 (0, 19)	
Speak any local language				0.330
Yes	373 (79.9)	150 (77.7)	223 (81.4)	
No	94 (20.1)	43 (22.3)	51 (18.6)	
Reason for staying in Hillbrow				0.001
Employment opportunities	215 (46.0)	97 (50.3)	118 (43.1)	
School	45 (9.6)	20 (10.4)	25 (9.1)	
Marriage	29 (6.2)	1 (0.5)	28 (10.2)	
Cheaper accommodation	61 (13.1)	29 (15.0)	32 (11.7)	
Stay with a relative	117 (25.1)	46 (23.8)	71 (25.9)	
Discrimination in Hillbrow				0.961
Never	202 (43.3)	82 (42.5)	120 (43.8)	
Sometimes	201 (43.0)	84 (43.5)	117 (42.7)	
Often	40 (8.6)	16 (8.3)	24 (8.8)	
Always	24 (5.1)	11 (5.7)	13 (4.7)	
Personal safety and security concerns in Hillbrow				0.311
Never	81 (17.4)	33 (17.1)	48 (17.5)	
Sometimes	155 (33.2)	62 (32.1)	93 (33.9)	
Often	123 (26.3)	59 (30.6)	64 (23.4)	
Always	108 (23.1)	39 (20.2)	69 (25.2)	
Depression/negative feelings				0.031
Never	117 (25.1)	60 (31.1)	57 (20.8)	
Often	167 (35.8)	60 (31.1)	107 (39.1)	
Very often	183 (39.2)	73 (37.8)	110 (40.1)	
Social support				0.314
Yes	371 (79.4)	149 (77.2)	222 (81.0)	
No	96 (20.6)	44 (22.8)	52 (19.0)	

p-value is analysed based on gender

4.4 SEXUAL BEHAVIOUR AND REPRODUCTIVE HEALTH INDICATORS

The sexual behaviour attributes investigated in this study are the number of sexual partners in the 12 months prior to the survey, frequency of condom use during sexual intercourse, age at first sex, age of most recent sex partners, condom use with most recent sex partner. Table 4.3 shows the percentage distribution of respondents by sexual behaviour and reproductive health indicators. A majority of all the respondents were sexually active (94%) while 6% were not. The median age at first sex was 18 years, with the lowest age at first sex being 9 years and the highest age being 28 years. Gender disaggregation shows that the median age at first sex for both males and females was 18; however the lowest age at first sex for males was 9 years and 12 years for the females.

With respect to number of sexual partners in the 12 months prior to the survey, the median number for all the respondents was 1 partner, minimum number was 0 and the maximum was 7300 partners. The reason for the remarkable increase in the number of sexual partners among the female respondents was because of the respondents who reported their employment as sex workers. The number of sex partners in the past 12 months among the sex workers range from 90 to 7300. There is a marked gender difference in the number of sexual partners in the past 12 months in the study sample. Among the males, the median was 2 partners, with the minimum being 0 and the maximum number of sexual partners was 22 sexual partners 12 months prior to the survey. Among the female respondents however, the median number of sexual partners was 1 partner, with the minimum being 0 partner and the maximum number of sexual partners was 7300.

With regard to frequency of condom use during sexual intercourse by all respondents, Table 3 suggests that 12.9% reported never having used condoms, 54.0% reported using condoms sometimes, 27.6% always used condoms while frequency of condom use was not applicable to 5.8% of the respondents because they were not sexually active. As indicated, among the males, 10.4% never used condoms, 52.3% used condoms sometimes, 32.6% always used condoms and 4.7% reported condom use during sexual intercourse was not applicable. However, among the females, 14.6% reported never having used condoms, 55.1% used condoms sometimes, 24.1% always used condoms while 6.2% reported condom use during sexual intercourse was not applicable to them because they are not sexually active.

The median age of most recent sex partner was 28 years, with the minimum age being 14 years and the maximum age was 65 years. Among the males, the median age of most recent sex partner was 22 years, with a minimum age of sexual partner among males being 14 years and a maximum age of sexual partner being 38 years. Among the female respondents, the median age of most recent sex partner was 32 years, with the minimum age of most recent sex partner being 18 years and the maximum being 65 years. This shows that age disproportionate sex partnership was higher among the female respondents.

As far as condom use with most recent sex partner is concerned, 57.0% of respondents reported having used a condom while 37.5% reported not having used a condom with their most recent sex partner. There was a statistically significant gender difference in condom use with most recent sex partner ($p=0.005$), with 65.8% of male respondents and 50.7% of female respondents reported having used condom with their most recent sex partners. More females (43.1%) than males (29.5%) reported not having used condom with most recent sex partner.

Having sex while drunk predispose one to risky sexual behaviour. In this regard, about one-third (34.5%) of respondents reported having ever had sex when drunk while 31.5% reported not having had sex when drunk and 34.0% reported not drinking. A total of 44.0% male and 27.7% female reported having ever had sex drunk.

Regarding level of exposure to SRH and FP message, 72.2% were less exposed to SRH/FP messages in their country of origin than in Hillbrow while 27.8% were more exposed to SRH/FP messages in their country of origin than in Hillbrow.

Table 4.3: Sexual Behaviour and Reproductive Health Indicators

	All respondents	Male	Female	
Variables	Frequency N=467 (%)	n=193 (%)	n=274 (%)	p-value
Ever had sex				0.821
Yes	439 (94.0)	182 (94.3)	257 (93.8)	
No	28 (6.0)	11 (5.7)	17 (6.2)	
Median age at first sex (IQR)	18 (9, 28)	18 (9, 28)	18 (12, 25)	
Median number of sexual partners in the past 12 months (median, IQR)	1 (0, 7300)	2 (0, 22)	1 (0, 7300)	
How often condom used				0.156
Never	60 (12.9)	20 (10.4)	40 (14.6)	
Sometimes	252 (54.0)	101 (52.3)	151 (55.1)	
Always	129 (27.6)	63 (32.6)	66 (24.1)	
Not applicable (Not sexually active)	26 (5.8)	9 (4.7)	17 (6.2)	
Median age of most recent sex partner (IQR)	28 (14, 65)	22 (14, 38)	32 (18, 65)	
Condom use with most recent sex partner				0.005
Yes	266 (57.0)	127 (65.8)	139 (50.7)	
No	175 (37.5)	57 (29.5)	118 (43.1)	
Not applicable/not sexually active	26 (5.8)	9 (4.7)	17 (6.2)	
Ever had sex drunk				0.000
Yes	161 (34.5)	85 (44.0)	76 (27.7)	
No	147 (31.5)	59 (30.6)	88 (32.1)	
Not applicable (does not drink alcohol)	159 (34.0)	49 (25.4)	110 (40.2)	
Level of exposure to SRH/FP message				0.083
Less exposed to SRH/FP messages in country of origin than in Hillbrow	337 (72.2)	131 (67.9)	206 (75.2)	
More exposed to SRH/FP messages in country of origin than in Hillbrow	130 (27.8)	62 (32.1)	68 (24.8)	

4.5 SUMMARY OF THE CHAPTER

This chapter presented a description of the sample of immigrant youth aged 18-34 living in Hillbrow, and responses from various characteristics that stemmed from the household survey in December, 2019. The characteristics of the study sample investigated included individual, household, migration and social processes as well as sexual behaviour and indicators of sexual and reproductive health. These characteristics provide an informed understanding of the context of the study population.

The study sample consisted a total of 467 respondents aged 18-34, of which 41.3% were males and 58.7% were females. The median age was 26 years, and about half of the respondents had completed secondary education. A majority (60.2%) of the study sample were single. About 4 out of 5 of the respondents were affiliated with the Christian religion and approximately half reported that religion was very important to them. The median number of people in a household was 3 and the median number of other households sharing a room with the respondent was 1.

With regards migration characteristics and community social processes, 9 out of 10 of the respondents were born in Zimbabwe. As far as migration status at the time of the survey is concerned, 1 out of 3 had legal migration status ranging from naturalised citizen, permanent resident, work permit, study permit and refugee status. About 1 out of 5 reported themselves as asylum seekers while about 2 out of 5 were undocumented. The median length of stay in Hillbrow was 4 years. A majority of the study sample reported staying in Hillbrow for employment-related reasons. As far as social processes in Hillbrow is concerned, about 2 out of 5 reported never having experienced discrimination, while over 4 out of 5 reported having had experiences of safety and security concerns in the study area. Three-quarters of the study sample reported negative feelings associated with poor mental health. About 4 out of 5 of the respondents reported having social support in South Africa.

In terms of the sexual behaviour and reproductive health indicators, 94% of the study sample are sexually active. The median age at first sex was 18 years, with 9 years as the youngest age of sexual debut. The median number of sexual partners 12 months prior to the survey was 1, with a minimum of 0 for those who are not sexually active and a maximum of 7300, from those who reported their occupation as sex work. A total of 1.14% of the respondents reported their employment as sex workers. Less than 3 out of 10 reported using condoms consistently during sexual intercourse. The median age of most recent sex partner was 28 years, with the minimum age of 14 years and a maximum age of 65 years. Over one-third reported ever having had sex while drunk. About 7 out of 10 of the respondents reported being less exposed to sexual and reproductive health messages in country of origin than in Hillbrow.

This chapter has described the attributes of the study sample consisting of immigrant youth aged 18-34 living in Hillbrow in 2019. Chapter Five discusses the factors associated with multiple sex partnership and inconsistent condom use among sexually active immigrant youth in the study sample.

CHAPTER FIVE

FACTORS ASSOCIATED WITH RISKY SEXUAL BEHAVIOURS

5.1 INTRODUCTION

This chapter presents risky sexual behaviours among sexually active immigrant youth as well as factors that are associated with the behaviours in the study area. The chapter focuses only on sexually active youth who constitute 94% (439) of the study sample. A total of 1.14% of the respondents were those who reported their employment as sex workers. These were removed from the sample because of the vast difference in their report of number of sex partners. Those who reported themselves as sex workers were thus removed from the sample. This, however did not affect the sample size because of the oversampling that was conceptualised in the study design and the completeness of the data. The risky sexual behaviours examined are multiple sex partnership and inconsistency of condom use. Multiple sex partnership was investigated using the actual recorded number of sexual partners in the last 12 months prior to the survey while inconsistency of condom use was examined using frequency of condom use during sexual intercourse. The chapter examines the relationship between the dependent variables and each of the independent variables. Previous studies in South Africa have shown increased prevalence in risky sexual behaviours among migrants compared to non-migrants (Townsend et al., 2014; Dzomba et al., 2019). The chapter presents the results of bivariate analysis of factors associated with the risky sexual behaviours mentioned above among sexually active study population as well as their determinants.

In the first section of this chapter, the estimation of association between the independent variables and multiple sex partnership commenced with the Poisson models. The negative binomial regression model was finally selected as the most suitable model because it includes an additional parameter that accounts for the observed over-dispersion of the number of sexual partners in the 12 months prior to the survey (Cameron and Trivedi, 2013). The unadjusted negative binomial regression measured the association between the number of sexual partners in the 12 months prior to the survey and selected independent variables. Thereafter, the adjusted multivariate negative binomial regression models was used to examine the determinants of multiple sex partnership.

In the second section, investigation of factors associated with inconsistency of condom use and selected independent variables was carried out using cross tabulation and the Pearson Chi-square. Thereafter, multivariate logistic regression analysis examined the determinants of inconsistency of condom use among sexually active immigrant youth in the study site

The determinants of multiple sex partnership and inconsistency of condom use among immigrant youth in Hillbrow are discussed.

5.2 CHARACTERISTICS OF SEXUALLY ACTIVE IMMIGRANT YOUTH

5.2.1 Sociodemographic Characteristics of Sexually Active Youth

Table 5.1 provides the sociodemographic characteristics of sexually active immigrant youth assessed in this study. The sample consist of a total of 432 respondents, of which 41.9% were males and 58.1% were females. About 3 out of 5 were in the age group 25-34 years; majority (68.3%) completed secondary school/had a post-secondary education and about 3 out of 5 were single. Over 4 out of 10 were in the poor wealth quintile.

Table 5.1: Sociodemographic Characteristics of Sexually Active Respondent

Variables	Frequency N=432	Percentage (%)
Sex		
Male	181	41.9
Female	251	58.1
Age group		
18-24	172	39.8
25-34	260	60.2
Highest level of education		
Primary/incomplete secondary	137	31.7
Complete Secondary/Higher	295	68.3
Current economic activity		
Yes	344	79.6
No	88	20.4
Marital status		
Single	268	62.0
Married/Cohabiting	164	38.0
Religious importance		
Important	322	74.5
Not important	110	25.5
Wealth index		
Poor	186	43.0
Middle	155	35.9
Rich	91	21.1
Number of people in a household		
1-2	104	24.1
3-4	121	28.0
5/max	207	47.9
Number of rooms occupied by household		
1 room	237	54.9
2 or more	195	45.1
Number of other households sharing room		
0-1 household	304	70.4
2 -5 households	128	29.6

5.2.2 Migration-Related Characteristics of Sexually Active Respondents

Table 5.2 provides the characteristics of migration-related variables and community social processes of sexually active respondents. As shown in Table 5.2, just above half (54.9%) of the respondents were documented. Over 1 out of 5 were recent immigrants, having lived in Hillbrow for 0-2 years and almost half reported staying in Hillbrow for employment-related reasons. With regards to community social processes in Hillbrow, almost 6 out of 10 reported having experienced discrimination in Hillbrow, while over 4 out of 5 reported having personal safety and security concerns in Hillbrow. Over 7 out of 10 reported that they were less exposed to sexual and reproductive health messages in their country of origin than in Hillbrow.

Table 5.2: Migration-Related Characteristics of Sexually Active Respondents

Migration status		
Documented	237	54.9
Undocumented	195	45.1
Migration duration in South Africa		
0-2 years	101	23.4
3-5 years	169	39.1
6-20 years	162	37.5
Language		
Speak local language	344	79.6
Does not speak local language	88	20.4
Reason for staying in Hillbrow		
Better employment	207	47.9
School/Accommodation	94	21.8
Stay with a relative/marriage	131	30.3
Discrimination in Hillbrow		
No	183	42.4
Yes	249	57.6
Personal safety and security concerns in Hillbrow		
No	75	17.4
Yes	357	82.6
Depression/negative feelings		
Never	105	24.3
Seldom	152	35.2
Often	175	40.5
Level of exposure to SRH message in country of origin than in Hillbrow		
Less exposed	311	72.0
More exposed	121	28.0
Social support in South Africa		
Yes	341	78.9
No	91	21.1

5.3 DETERMINANTS OF MULTIPLE SEX PARTNERSHIPS AMONG SEXUALLY ACTIVE IMMIGRANT YOUTH IN HILLBROW

This section describes the factors associated with multiple sex partnerships among sexually active study population. The dependent variable is the number of sexual partners in the 12 months prior to the survey. Being a count variable, Poisson regression was performed as this is the regression analysis for modelling count data. Diagnostic assessment of the data shows that the Poisson regression model could not be used because the data was over-dispersed. The negative binomial regression analysis was thus chosen because it has an additional parameter that models the over-dispersion of the number of sexual partners in the 12 months prior to the survey. As such, unadjusted negative binomial regression was employed in the bivariate analysis.

Based on the conceptual framework for this study, the bivariate analysis examined the association between the demographic and socioeconomic factors at individual and household levels and multiple sex partnerships. Bivariate association between the migration-related variables, community social processes and multiple sex partnerships was also examined. All analyses were performed at three levels – for all the respondents in total including males and females and separately for the male and female samples. This clarifies and extends understanding of gender differences in the factors associated with multiple sex partnerships among the study population. The results of bivariate analyses are presented in Tables 5.3 and 5.4.

5.3.1 Bivariate Analysis of Socio-demographic Characteristics and Multiple Sex Partnership

Table 5.3 shows the results of unadjusted negative binomial regression analysis of the number of sexual partners 12 months prior to the survey for all, and separately for male and female sexually active respondents. Female respondents have 31% reduction in risk of having more than one sexual partner compared to the males ($p=0.000$). There was no statistically significant association between age group and having two or more sexual partners among the study sample. There was no statistically significant association between highest level of education attained and multiple sex partnerships at bivariate level.

With regards marital status, respondents who reported themselves as married or living with a partner had 33% reduced risk of having multiple sex partners compared to respondents who were single ($IRR=0.67$, $CI=0.57-0.79$). Considering disaggregation by gender, male respondents who were married or living with a partner had a 26% reduced risk of having multiple sex partners compared to male respondents who were single ($IRR=0.74$, $CI=0.58-0.96$). Among the females, those who were married

had a 38% reduced risk of having multiple sex partners as compared to their single female counterparts (IRR=0.62, CI=0.51-0.77).

As far as importance of religion to respondents was concerned, among all respondents, there was a strong statistical association between reporting religion as not important and increased risk of having multiple sex partners (IRR=1.36, CI=1.15-1.60). Gender disaggregation demonstrates that importance of religion was not associated with multiple sex partners among the males. However female respondents that reported that religion was not important to them had increased risk of having multiple sex partners, as compared to female respondents who reported that religion was important to them (IRR=1.49, CI=1.19-1.88).

With regards the wealth index, the results show that being in the rich wealth quintile was associated with reduced risk of having multiple sex partners as compared to respondents in the poor wealth quintile (IRR=0.67, CI=0.54-0.83). Among the females, being in the middle and rich wealth quintiles respectively were each associated with a 26% and 37% reduced risk of having multiple sex partners as compared to the females in the poor wealth quintile (IRR=0.74, CI=0.60-0.91 and IRR =0.63, CI=0.48-0.82) respectively.

The results further show that having 4 or more people in the household reduces the risk of having multiple sex partners (IRR=0.79, CI=0.66-0.95). Among the male respondents, there was a 39% reduced risk of having multiple sex partners among those who reported living in a household with 4-10 people as compared to males living in a household with 1-2 people (IRR=0.71, CI=0.53-0.94).

As far as number of rooms occupied by a household is concerned, coming from a household that occupied 2 or more rooms reduced the risk of having multiple sex partners among female respondents (IRR=0.78, CI=0.65-0.95). Number of other households sharing a room was associated with a 45% increased risk of having multiple sex partners among all respondents, as compared to respondents who did not share a room or shared a room with 1 other household (IRR=1.45, CI=1.22-1.67). Among male respondents, there was a 49% increase in the risk of multiple sex partners among those sharing a room with other households compared to those not sharing room with other households or those sharing with only one household (IRR=1.49, CI=1.17-1.89). Similarly among the females, there was an increased risk of having multiple sexual partners among those sharing rooms with 2-5 other households compared to those not sharing room with another household or sharing with only one household (IRR=1.33, CI=1.09-1.63).

Table 5.3: Unadjusted Negative Binomial Regression Analysis of Sociodemographic Characteristics and Number of Sexual Partners for Sexually Active Respondents

Variable	All			Male			Female		
	IRR (SE)	95% CI	p-value	IRR (SE)	95% CI	p-value	IRR (SE)	95% CI	p-value
Gender									
Male	ref								
		0.59							
		-	0.00						
Female	0.69 (0.05)	0.80	0						
Age group									
18-24	ref			ref			ref		
		0.87						0.79	
		-	0.75					-	0.71
25-34	1.02 (0.08)	1.19	0	1.06 (0.13)	0.83-1.35	0.609	0.96 (0.09)	1.17	0.9
Highest level of education attained									
Primary/incomplete secondary	ref			ref			ref		
		0.74						0.71	
		-	0.09					-	0.20
Complete Secondary/Higher	0.87 (0.07)	1.02	0	0.86 (0.10)	0.67-1.11	0.259	0.87 (0.08)	1.07	0.7
Current economic activity									
Yes	ref			ref			ref		
		0.78						0.71	
		-	0.57					-	0.41
No	0.94 (0.09)	1.14	7	1.06 (0.16)	0.78-1.44	0.696	0.90 (0.10)	1.14	3
Marital status									
Single	ref			ref			ref		
		0.57						0.51	
		-	0.00					-	0.00
Married/living with a partner	0.67 (0.05)	0.79	0	0.74 (0.09)	0.58-0.96	0.023	0.62 (0.06)	0.77	0
Importance of religion									
Important	ref								
		1.15						1.19	
		-	0.00					-	0.00
Not important	1.36 (0.11)	1.60	0	1.10 (0.13)	0.87-1.40	0.408	1.49 (0.17)	1.88	1
Wealth index									
Poor	ref			ref			ref		
		0.73						0.60	
		-	0.09					-	0.00
Middle	0.86 (0.07)	1.02	4	1.06 (0.14)	0.81-1.37	0.660	0.74 (0.07)	0.91	6
		0.54						0.48	
		-	0.00					-	0.00
Rich	0.67 (0.07)	0.83	0	0.75 (0.12)	0.54-1.04	0.086	0.63 (0.08)	0.82	1
Number of people in a household									
1-2	ref			ref			ref		
		0.68						0.76	
		-	0.09					-	0.94
3	0.84 (0.08)	1.03	7	0.74 (0.11)	0.55-1.00	0.057	1.01 (0.14)	1.33	0
		0.66						0.78	
		-	0.01					-	0.98
4-10	0.79 (0.07)	0.95	5	0.71 (0.10)	0.53-0.94	0.017	0.99 (0.12)	1.27	8
Number of rooms occupied by household									
1 room	ref			ref			ref		
		0.73						0.65	
		-	0.05					-	0.01
2-5	0.86 (0.06)	1.00	7	0.99 (0.12)	0.78-1.26	0.987	0.78 (0.07)	0.95	5
Number of other households sharing room									
0-1 household	ref			ref			ref		

		1.22					1.09	
		-	0.00	1.49	1.17-		-	0.00
2 -5 households	1.45 (0.11)	1.67	0	(0.18)	1.89	0.001	1.33 (0.13)	1.63
								4

IRR: Incidence risk ratio; SE=Standard error; CI: Confidence interval; * P-value<0.05; **P-value <0.01; ***P<0.001

5.2.2 Bivariate Analysis of Migration, Community Social Processes and Number of Sexual Partners in the 12 months prior to the Survey

Table 5.4 shows the results of bivariate analysis using unadjusted negative binomial regression analysis of migration characteristics, community social processes and number of sexual partners in the past 12 months prior to the survey for all, male and female sexually active respondents. With respect to migration status for all respondents, undocumented migrants had 37% increased risk of having multiple sex partners as compared to documented migrants (IRR=1.37, CI=1.18-1.59). Among the male respondents, undocumented migrants had a 45% increased risk of having multiple sex partners compared to documented migrants (IRR=1.45, CI=1.15-1.83).

As far as duration of residence in Hillbrow was concerned, among all respondents, those who had lived in Hillbrow for more than 5 years had a increased risk of having multiple sex partners compared to those who have only lived in Hillbrow for 0-2 years (IRR=1.24, CI=1.01-1.52). Findings from this bivariate analysis thus shows that long term residency in Hillbrow was associated with increased risk of having multiple sex partners. There were no statistically significant association between ability to speak any of the local languages in South Africa and the number of sexual partners 12 months prior to the survey.

With regards to the reason for staying in Hillbrow, among all respondents, moving to Hillbrow for employment reasons and moving to Hillbrow to stay with a relative or for marriage were associated with reduced risk of having multiple sex partners among all respondents (IRR=0.81, CI=0.67-0.99 and IRR=0.76, CI=0.63-0.90 respectively), as compared to respondents that are staying in Hillbrow for the purpose of school or cheaper accommodation. Among the males, there was no statistically significant association between reason for staying in Hillbrow and multiple sex partners. Among the females, however, staying in Hillbrow with a relative/marriage purposes were associated with reduction in risk of multiple sex partners compared to those staying in Hillbrow for the purpose of school or cheaper accommodation (IRR=0.77, CI=0.62-0.95). This shows that both economic and non-economic pull factors of migration as indicated by Simpson (2017) and Bansak et al, (2016) are associated with multiple sex partnerships among the immigrant youth living in Hillbrow. A previous study in Johannesburg (Richter et al., 2014) found sex work to be an important economic activity for immigrant women in Hillbrow, South Africa.

Level of exposure to SRH/FP message was associated with multiple sex partners. Among all the respondents, those who were more exposed to SRH/FP messages in their country of origin than in the study site had increased risk of having multiple sex partners (IRR=1.47, CI=1.26-1.73) compared to those who were less exposed to SRH/FP in their country of origin than in Hillbrow. Among the males, there was 47% increased risk of having multiple sex partners compared to those who reported being

less exposed to SRH/FP messages in country of origin than in Hillbrow (IRR=1.47, CI=1.16-1.87). Among the females, those who were more exposed to SRH/FP messages in their country of origin than in Hillbrow had a 39% increased risk of having multiple sex partners, as compared to those who had less exposure to SRH/FP messages in country of origin than in Hillbrow (IRR=1.39 , CI=1.13-1.70).

As far as discrimination in Hillbrow is concerned, gender differences exist in the results of unadjusted binomial regression analysis of the respondents. Among all respondents, those who had experienced discrimination in their community had 17% reduction in risk of having multiple sex partners compared to those who did not (IRR=0.83, CI=0.71-0.97). Among the male respondents, those who reported having faced discrimination in Hillbrow had a 31% reduced risk of having multiple sex partners compared to their counterparts who reported not having faced discrimination in Hillbrow (IRR=0.69, CI=0.55-0.88). Among all respondents, having personal safety and security concerns in Hillbrow was associated with a reduction in risk of having multiple sex partners as compared to respondents who did not have safety and security concerns (IRR=0.76, CI=0.61-0.88). Similarly, male respondents who have safety and security concerns has 34% reduced risk of having multiple sex partners compared with those who did not have safety or security concern (IRR=0.66, CI=0.49-0.87).

Negative feelings associated with poor mental health such as blue moods, despair, anxiety and depression was not associated with the risk of having multiple sexual partners at bivariate analysis.

Concerning social support in South Africa, among all respondents and male respondents who reported not having anyone in South Africa who they trust and with whom they could discuss important and private issues each had reduced risk of multiple sex partners compared to respondents who have social support (IRR=0.23, CI=0.05-0.40 and IRR=0.28, CI=0.02-0.55 respectively). A previous studies by Giorgio et al. (2016) found social support to be a protective factor among immigrants in South Africa. Similarly, Althoff et al. (2017) found social support to be a protective factor for risky sexual behaviour among Latino immigrants in the United States.

In summary, this section presented bivariate association between sociodemographic variables, migration, community social processes for all the respondents and by gender and number of sexual partners 12 months prior to the survey, using negative binomial regression analysis. The results show gender differences in multiple sex partnerships among respondents across different variables. The variables that were statistically significant were further analysed using multivariate negative binomial regression for all respondents and by gender, in order to understand the determinants of multiple sex partnerships.

Table 5.4: Unadjusted Negative Binomial Regression Analysis of Migration, Community Social Processes and Number of Sexual Partners for Sexually Active Respondents

Variable	All			Male			Female		
	IRR (SE)	95% CI	p-value	IRR (SE)	95% CI	p-value	IRR (SE)	95% CI	p-value
Migration status									
Documented	ref			ref			ref		
Undocumented	1.37 (0.10)	1.18-1.59	0.000	1.45 (0.17)	1.15-1.83	0.002	1.19 (0.11)	0.98-1.44	0.064
Migration duration in Hillbrow									
0-2 years	ref			ref			ref		
3-5 years	1.18 (0.12)	0.96-1.45	0.107	1.28 (0.21)	0.93-1.78	0.123	1.13 (0.14)	0.88-1.45	0.309
6-20 years	1.24 (0.12)	1.01-1.52	0.039	1.35 (0.21)	0.99-1.78	0.054	1.08 (0.14)	0.83-1.40	0.560
Language									
Speak local language	ref			ref			ref		
Does not speak local language	0.96 (0.09)	0.79-1.16	0.721	0.90 (0.13)	0.68-1.19	0.484	0.98 (0.12)	0.77-1.26	0.906
Reason for staying in Hillbrow									
School/accommodation	ref								
Employment	0.81 (0.08)	0.67-0.99	0.043	0.85 (0.12)	0.63-1.14	0.281	0.77 (0.10)	0.60-1.00	0.058
Stay with a relative/marriage	0.76 (0.06)	0.63-0.90	0.003	0.83 (0.12)	0.61-1.11	0.222	0.77 (0.08)	0.62-0.95	0.019
Discrimination in Hillbrow									
No	ref			ref			ref		
Yes	0.83 (0.06)	0.71-0.97	0.022	0.69 (0.08)	0.55-0.88	0.002	0.98 (0.09)	0.81-1.19	0.872
Personal safety and security concerns in Hillbrow									
No	ref			ref			ref		
Yes	0.76 (0.07)	0.61-0.88	0.001	0.66 (0.09)	0.49-0.87	0.004	0.83 (0.10)	0.65-1.06	0.659
Depression/negative feelings									
Never	ref			ref					
Seldom	0.90 (0.09)	0.74-1.11	0.347	0.91 (0.14)	0.67-1.24	0.592	1.03 (0.14)	0.79-1.36	0.783
Often	1.07 (0.10)	0.88-1.30	0.459	1.11 (0.15)	0.84-1.47	0.424	1.15 (0.15)	0.88-1.51	0.276
Level of exposure to SRH/FP message									
Less exposed to SRH/FP messages in country of origin than in Hillbrow	ref						ref		
More exposed to SRH/FP messages in country of origin than in Hillbrow	1.47 (0.11)	1.26-1.73	0.000	1.47 (0.18)	1.16-1.87	0.001	1.39 (0.14)	1.13-1.70	0.001
Social support in South Africa									
Yes	ref								

No	0.23 (0.09)	0.05- 0.40	0.01 0	0.28 (0.13)	0.02- 0.55	0.03 2	0.11 (0.11)	0.11- 0.35	0.311
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IRR: Incidence risk ratio; SE=Standard error; CI: Confidence interval; * P-value<0.05; **P-value <0.01; ***P<0.001

5.2.3 Determinants of Multiple Sexual Partners in the 12 months prior to the Survey

Multivariate negative binomial regression analyses were conducted for all respondents and separately for male and female respondents in order to establish the determinants of multiple sex partners among the study sample. The results are presented in Table 5.5.

As shown in Table 5.5, separate adjusted models were run for demographic and socioeconomic characteristics; migration characteristics and community social processes; and a final fully adjusted model consisting of all the independent variables that were significant in the bivariate analysis. The models were run independently for all the respondents and also for male and female samples in order to understand gender differences in the determinants of multiple sex partnerships. In all, there were 9 models. Models 1-3 were for all the respondents. Model 1 controlled for demographic and socioeconomic factors at individual and household levels; Model 2 controlled for migration and community social factors while Model 3 is the final one with all the independent variables. Similarly, Models 4- 6 were for the male respondents. Models 4, 5 and 6 estimated the associations between the socio-demographic factors, migration/community social factors, and all independent variables respectively among the males. Models 7-9 were models for the female respondents. Models 7, 8 and 9 were for the socio-demographic factors, migration/community social factors and all the independent variables respectively, for the female respondents. Table 7 displays the incidence risk ratio, confidence interval and p-values.

Gender differences exist in the determinants of multiple sex partnerships for all respondents. The demographic and socio-economic determinants of multiple sex partnerships in the fully adjusted model (Model 3) for all the respondents are gender, marital status, number of other households sharing a room. The migration-related variables and community social processes that are determinants of multiple sex partners for all the respondents in the fully adjusted model (Model 3) are: migration status, duration of residence in Hillbrow, and level of exposure to SRH/FP messages in the country of origin

Among the male respondents, the demographic and socioeconomic variables that are determinants of multiple sex partners in Model 4 are marital status, number of people in a household and number of other households sharing a room with the respondent. The migration-related variables that are determinants of multiple sex partnerships in Model 5 are migration status, migration duration and level of exposure to SRH/FP messages in country of origin. However, in the fully adjusted model for the male sample with all the independent variables (Model 6), the only variables that were associated with multiple sex partners among the male respondents are marital status, number of people in a household, number of other households that a respondent is sharing a room with and duration of residence in Hillbrow.

Among the female respondents, on the other hand, the socio-demographic variables associated with multiple sex partnerships (Model 7) are: marital status, importance of religion, wealth index and number of people in a household. The migration-related variables and community social processes associated with multiple sex partners in Model 8 are exposure to SRH/FP messages in country of origin. However, in the fully adjusted model (Model 9) among the females, the factors associated with multiple sex partners are marital status, importance of religion, and exposure to SRH/FP in country of origin.

Among all sexually active respondents, Model 1 shows that gender, age group, marital status, and number of people in a household are the demographic and socio-economic factors at individual and household levels that determine multiple sex partnerships. In the fully adjusted model for all respondents (Model 3), female respondents had 21% reduced risk of having multiple sex partners compared to their male counterparts (IRR=0.79, CI= (0.68-0.92).

With regards to marital status, in the fully adjusted model for all respondents (Model 3), those who were married or cohabiting had 35% reduction in the risk of having multiple sex partnerships compared to those who were single (IRR=0.65, CI=0.54-0.77). Correspondingly, in the fully adjusted model for the males (Model 6), those who were married or cohabiting had 29% reduction in the risk of having multiple sex partners compared to the men who were single (IRR=0.71, CI=0.54-0.93). In the fully adjusted model among the female sample (Model 9), those who were married or cohabiting had a 40% reduction in the risk of having multiple sex partners compared to their counterparts who were single (IRR=0.60, CI=0.47-0.75).

As far as the wealth index is concerned, there was no statistically significant association between wealth index and risk of multiple sex partnerships among the male sample. On the contrary, among the females, among the females, Model 7 shows a reduction in risk of multiple sex partners among those in the middle and rich wealth quintile. This effect was however attenuated in the fully those in the fully adjusted model (Model 9).

Number of people in the household was associated with a reduction in the risk of engaging in multiple sex partnerships in the models. In the fully adjusted model among all the respondents (Model 3), belonging to a household with four or more people was associated with a 21% reduced risk of multiple sex partnerships as compared to respondents from households with 1-2 people (IRR=0.79, CI=0.65-0.95). In the fully adjusted model among the male respondents (Model 6), belonging to households with 4-10 people was associated with a 34% reduction in risk of engaging in multiple sex partnerships as compared with respondents from household with 1-2 people (IRR=0.66, CI=0.50-0.97).

As far as number of other households sharing a room with the respondent was concerned, in the fully adjusted model (Model 3) for all respondents, those who reported sharing a room with 2-5 other

households had a 34% increased risk of having multiple sex partners compared to those who did not share a room with other households, or those who shared a room with only one household (IRR=1.34%, CI=1.14-1.57). Similarly among the male sample, sharing a room with 2-5 other households was associated with a 42% increased risk of multiple sex partnerships compared to those who did not share a room with other households or those sharing with just one other household (IRR=1.42, CI=1.12-1.81). Among the female respondents, Model 7 shows that those share a room with two or more other households have an increased risk of engaging in multiple sex partnerships (IRR=1.25%, CI=1.03-1.53).

Multivariate negative binomial regression analysis of migration-related variables and community social processes and multiple sex partnerships clarifies that being an undocumented migrant was associated with increased risk of multiple sex partnerships. In the fully adjusted model for all respondents (Model 3), the undocumented migrants had 20% increased risk of engaging in multiple sex partnerships compared with the documented migrants. In the migration models for both male and female sample (Model 5 and Model 8), being an undocumented migrant was associated with increased risk of multiple sex partnerships. Among the males, being an undocumented migrant was associated with a 35% increased risk of engaging in multiple sex partnerships compared with documented migrants (IRR=1.35, CI=1.05-1.73). However, the effect of being an undocumented migrant on multiple sex partnerships was attenuated in the fully adjusted model (Model 6).

Concerning duration of residence in Hillbrow, current findings suggest that residence in Hillbrow for more than two years was associated with an increased risk of multiple sex partnerships among the respondents overall in the fully adjusted model. Model 3 shows that respondents who have lived in Hillbrow for over 6 years had a 28% increased risk of engaging in multiple sex partnerships compared with those who have lived in Hillbrow for 0-2 years (IRR=1.28, CI=1.02-1.60). However, gender differences exist in the risk of having multiple sex partners. In Model 6 among the males, having lived in Hillbrow for 6 years and above was associated with a 41% increased risk of having multiple sex partners compared with the men who have lived in Hillbrow for 0-2 years (IRR=1.41, CI=1.01-1.97). There is however no statistically significant association between number of years of residence in Hillbrow and multiple sex partnerships among the females.

Concerning the effect of social processes and neighbourhood characteristics on multiple sex partnerships,

There was an association between the level of exposure to SRH/FP messages in the country of origin and multiple sex partnerships among the respondents. In the fully adjusted model for all respondents (Model 3), those who were more exposed to SRH/FP messages in their country of origin than in Hillbrow had an increased risk of 27% for engaging in multiple sex partnerships compared to those who

were less exposed to SRH/FP messages in their country of origin (IRR=1.27, CI=1.08-1.49). Among the male respondents in Model 5, those who were more exposed had a 30% increased risk of engaging in multiple sex partnerships compared with those who were less exposed to SRH/FP messages in their country of origin (IRR=1.30, CI=1.02-1.65). There was no statistically significant association between exposure to SRH/FP messages and multiple sex partnerships in the fully adjusted model for the males (Model 6). However among the female respondents in the fully adjusted model (Model 9), those who were more exposed to SRH/FP in their country of origin had a 32% increased risk of engaging in multiple sex partnerships compared to those who were less exposed to SRH/FP in their country of origin (IRR=1.32, CI=1.06-1.64). Having social support in South Africa was not associated with the risk of multiple sex partnerships among the study sample.

5.1.4 Summary of Section

This section described the factors associated with multiple sex partnership 12 months prior to the survey and the determinants thereof. Estimation of association between independent variables and number of sexual partners 12 months prior to the survey started with Poisson models of estimation. The negative binomial regression model was finally selected as the best model and the unadjusted negative binomial regression was used for the bivariate association, while the adjusted negative binomial regression analysis was used for analysing the determinants of multiple sex partnerships among the study sample. The variables in the analyses were divided into components based on the conceptual framework and the research hypotheses for this study. The first component was the social, economic and demographic variables at individual and household levels. The second component consisted of migration-related variables and the social processes in the community.

The bivariate analysis of the demographic and socioeconomic characteristics showed marked gender differences in multiple sex partnerships among immigrant youth in Hillbrow, with female respondents having a reduced risk of engaging in multiple sex partnerships than their male counterparts. Other factors significantly associated with multiple sex partnerships were: not regarding religion as important and sharing a room with 2 or more other households. On the contrary, being married, belonging to the rich wealth quintiles, belonging to a household with four more people, were factors associated with reduced risk of multiple sex partnerships at bivariate analysis.

With respect to bivariate analysis of migration-related variables, migration status, duration of residence in Hillbrow, reason for staying in Hillbrow and level of exposure to SRH messages in country of origin showed statistically significant association with multiple sex partnerships. As for community social processes in Hillbrow, having experienced discrimination in Hillbrow, and having personal safety and

security concerns were the variables with statistically significant association with multiple sex partnerships.

Multivariate negative binomial regression analyses were conducted for all, male and female respondents in order to establish the determinants of multiple sexual partnerships among immigrant youth in Hillbrow. Separate adjusted models were run for socio-demographic, migration and community social processes, and a final adjusted model consisting of all the independent variables that were significant at bivariate analysis. Gender differences existed in engaging in multiple sex partnerships among immigrant youth in Hillbrow across various independent variables. The demographic and socio-economic determinants of multiple sex partnerships in the 12 months prior to the survey are gender, age group, marital status, importance of religion, wealth index, number of people in a household, and number of other households sharing.

Being in the older age group (25-34 years), reporting religion as not important and sharing a room with other households are associated with increased risk of multiple sex partnerships in the 12 months prior to the survey. On the other hand, being a female, being married or cohabiting, belonging to the rich wealth index, having more than two people in the household, were associated with reduced risk of having multiple sex partners.

Multivariate negative binomial regression analysis of migration-related variables and community social processes and multiple sex partnerships shows that migration status, duration of residence in the study area, and level of exposure to SRH messages in the country of origin, were the determinants of engaging in multiple sex partnerships in the study sample. The analysis reveals that being an undocumented migrant was associated with increased risk of multiple sex partnerships among all respondents. Gender differences exist in the duration of residence in Hillbrow and engaging in multiple sex partnerships. Among the males, residence in the study area for a period of six years and more was associated with increased risk of engaging in multiple sex partnerships.

With regards the social processes, respondents who were more exposed to sexual and reproductive health messages in their country of origin had an increased risk of engaging in multiple sex partnerships among all respondents, including among the males and the females separately. There was no association between social support and engaging in multiple sex partnerships.

In conclusion, this chapter examined the determinants of multiple sex partnerships among immigrant youth in Hillbrow. Based on the conceptual framework for this study, the association between the demographic and social and economic factors at individual and household levels; the migration-related factors and the community social processes were examined. The next section, 5.2 will examine the determinants of inconsistency of condom use among sexually active immigrant youth in the study area.

Table 5.5: Multivariate Negative Binomial Regression for Determinants of Multiple Sex Partners 12 months prior to the survey

Variable	All			Male			Female		
	Model 1: IRR (CI)	Model 2: IRR (CI)	Model 3: IRR (CI)	Model 4: IRR (CI)	Model 5: IRR (CI)	Model 6: IRR (CI)	Model 7: IRR (CI)	Model 8: IRR (CI)	Model 9: IRR (CI)
Gender									
Male	ref		Ref						
Female	0.76 (0.65-0.88)***		0.79 (0.68-0.92)**						
Age group									
18-24	ref		ref	ref		ref	ref		ref
25-34	1.18 (1.00-1.39)*		1.11 (0.93-1.33)	1.19 (0.92-1.56)		1.10 (0.83-1.45)	1.13 (0.92-1.39)		1.08 (0.86-1.37)
Highest level of education attained									
Primary/incomplete secondary	ref		ref	ref		ref	ref		ref
Complete Secondary/Higher	0.94 (0.80-1.10)		0.97 (0.83-1.15)	0.90 (0.70-1.16)		0.94 (0.73-1.23)	0.96 (0.78-1.17)		0.96 (0.78-1.18)
Marital status									
Single	ref		ref	ref		ref	ref		ref
Married/living with a partner	0.65 (0.54-0.77)***		0.65 (0.54-0.77)***	0.66 (0.50-0.87)**		0.71 (0.54-0.93)*	0.63 (0.50-0.78)***		0.60 (0.47-0.75)***
Importance of religion									
Important	ref		ref	ref		ref	ref		ref
Not important	1.17 (0.99-1.38)		1.12 (0.95-1.32)	1.02 (0.81-1.28)		0.93 (0.74-1.18)	1.43 (1.14-1.79)**		1.37 (1.09-1.73)**
Wealth index									
Poor	ref		ref	ref		ref	ref		ref
Middle	0.95 (0.80-1.13)		0.98 (0.83-1.16)	1.16 (0.89-1.50)		1.08 (0.83-1.39)	0.79 (0.64-0.97)*		0.81 (0.64-1.01)
Rich	0.80 (0.64-1.00)		0.87 (0.69-1.09)	0.85 (0.60-1.21)		0.88 (0.62-1.23)	0.74 (0.56-0.99)*		0.79 (0.58-1.08)
Number of people in a household									
1-2	ref		ref	ref		ref	ref		ref
3	0.85 (0.70-1.04)		0.92 (0.75-1.12)	0.75 (0.56-1.00)		0.88 (0.65-1.18)	1.07 (0.81-1.40)		1.05 (0.79-1.38)
4-10	0.77 (0.64-0.93)**		0.79 (0.65-0.95)**	0.60 (0.45-0.80)***		0.66 (0.50-0.97)**	1.01 (0.79-1.30)		0.96 (0.75-1.24)
Number of rooms occupied by household									
1 room	ref		ref	ref		ref	ref		ref
2 or more	1.04 (0.88-1.23)		1.07 (0.90-1.27)	1.23 (0.94-1.60)		1.30 (0.98-1.71)	0.88 (0.71-1.08)		0.86 (0.69-1.07)

Number of other households sharing room							
0-1 household	ref	ref	ref	ref	ref	ref	ref
2 -5 households	1.43 (1.22-1.67)***	1.34 (1.14-1.57)***	1.55 (1.22-1.78)***	1.42 (1.12-1.81)**	1.25 (1.03-1.53)*		1.20 (0.97-1.49)
Migration status							
Documented	ref	ref	ref	ref	ref	ref	ref
	1.33 (1.14-1.55)***	1.20 (1.02-1.41)*	1.35 (1.05-1.73)*	1.27 (0.98-1.64)		1.20 (0.99-1.46)	1.16 (0.95-1.41)
Undocumented							
Migration duration in Hillbrow							
0-2 years	ref	ref	ref	ref	ref	ref	ref
	1.22 (0.99-1.49)	1.22 (0.99-1.49)	1.32 (0.96-1.80)	1.29 (0.94-1.77)		1.10 (0.85-1.43)	1.07 (0.82-1.40)
3-5 years							
	1.25 (1.01-1.54)*	1.28 (1.02-1.60)*	1.45 (1.06-1.97)*	1.41 (1.01-1.97)*		1.01 (0.77-1.33)	1.17 (0.87-1.58)
6 years and above							
Reason for staying in Hillbrow							
School/cheaper accommodation	ref	ref	ref	ref	ref	ref	ref
	1.06 (0.87-1.29)	1.04 (0.85-1.28)	0.92 (0.68-1.25)	0.99 (0.72-1.35)		1.20 (0.92-1.56)	1.08 (0.83-1.41)
Employment							
	0.88 (0.71-1.10)	0.95 (0.77-1.18)	0.84 (0.59-1.19)	0.86 (0.61-1.22)		0.98 (0.74-1.29)	1.03 (0.78-1.35)
Stay with a relative/marriage							
Discrimination in Hillbrow							
No	ref	ref	ref	ref	ref	ref	ref
	0.96 (0.81-1.14)	0.98 (0.83-1.15)	0.79 (0.61-1.01)	0.80 (0.63-1.03)		1.12 (0.90-1.39)	1.19 (0.95-1.48)
Yes							
Personal safety and security concerns in Hillbrow							
No	ref	ref	ref	ref	ref	ref	ref
	0.86 (0.70-1.06)	0.88 (0.72-1.08)	0.81 (0.59-1.10)	0.85 (0.62-1.17)		0.92 (0.70-1.21)	0.96 (0.73-1.26)
Yes							
Exposure to SRH/FP message to SRH/FP messages in country of origin than in Hillbrow							
Less exposed	ref	ref	ref	ref	ref	ref	ref
	1.34 (1.14-1.58)***	1.27 (1.08-1.49)***	1.30 (1.02-1.65)*	1.19 (0.94-1.51)		1.36 (1.09-1.70)**	1.32 (1.06-1.64)*
More exposed							
Social support in South Africa							
Yes	ref	ref	ref	ref	ref	ref	

No	1.10 (0.92-1.32)	1.02 (0.85-1.22)	1.16 (0.89-1.51)	1.13 (0.87-1.48)	1.03 (0.80-1.32)	0.93 (0.72-1.20)
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IRR: Incidence risk ratio; CI: Confidence interval; * P-value<0.05; **P-value <0.01; ***P<0.001

5.3 DETERMINANTS OF INCONSISTENT CONDOM USE

5.3.1 Introduction

This section examines factors associated with inconsistency of condom use among sexually active youth. Cross-tabulation and the Pearson Chi-square were used to test the association between inconsistency of condom use and selected independent variables at a critical value of 0.05 for 5% level of significance and a confidence interval of 95%. Multivariate logistic regression analysis was used to examine the determinants of inconsistency of condom use among sexually active immigrant youth in Hillbrow. Bivariate and multivariate analyses were carried out for the respondents overall, and separately for the males and females. The analyses were disaggregated by sex to see the effect of specific independent variables on inconsistency of condom use among male and female.

5.3.2 Levels of Inconsistency of Condom Use

The dependent variable - inconsistent condom use - was derived from the question “*How often do you use condoms during sexual intercourse?*” The responses were “Never”, “Sometimes” and “Always”. Among all respondents, 13.89% (60) reported never using condoms; 58.10% (251) reported using condoms sometimes, while 28.01% (121) reported always using condoms. Respondents who reported always using condoms were coded as consistent condom users, while those who reported sometimes or never were coded as inconsistent users.

Table 5.6 shows the percentage distribution of consistency of condom use among sexually active study population, highlighting a significant disproportion between the two categories. The majority of the sample were inconsistent condom users (72%), a fact that is quite worrisome.

Table 5.6: Percentage Distribution of Consistency of Condom Use

Variable	All		Male		Female	
	No (N=432)	%	No (n=182)	%	No (n=257)	%
Inconsistent	311	71.99	120	66.30	191	76.10
Consistent	121	28.01	61	33.70	60	23.90

5.3.3 Factors Associated with Inconsistency of Condom Use

Bivariate analysis was carried out to identify factors associated with inconsistency of condom use among sexually active respondents. Based on the conceptual framework for this study, as well as the study hypotheses, different models show the effect of socio-demographic and migration-related variables separately for all respondents. In addition, the separate models were run for male and female respondents to show if there were gender differences in the association between socio-demographic or migration variables and inconsistency of condom use. A final model was run which controlled for both socio-demographic and migration variables.

5.3.3.1 Socio-demographic Factors Associated with Inconsistency of Condom Use

Table 5.7 shows the bivariate association between socio-demographic variables and inconsistency of condom use for sexually active youth overall, as well as among male and female respondents. The variables associated with inconsistency of condom use at bivariate level are gender, age group, current economic activity, marital status and number of rooms occupied by household. Gender differences exist in the level of inconsistent condom use, as 61.4% of all inconsistent condom users were female and 38.6% were male.

There was a statistically significant association between age group and inconsistency of condom use among all respondents and separately among male and female respondents, with 7 out of 10 among older youth in the age group 25-34 reporting inconsistent condom use among all respondents ($P=0.000$). Gender disaggregation showed similar percentage distribution of inconsistency of condom use. This result is a concern for public health because of the increased risk of HIV infection, STIs, unplanned pregnancies and unsafe abortion among the respondents. Involvement in an economic activity during the period of the survey was associated with inconsistent condom use. Among all respondents, 84.9% of those who reported being engaged in an economic activity at the time of the survey were inconsistent condom users, while 15.1% of those who were not involved in an economic activity during the period of the survey were inconsistent condom users ($p=0.000$).

There was a significant association between marital status and inconsistency of condom use among all respondents and by gender. In the overall sample, 51.1% of single respondents reported being inconsistent condom users while 48.9% of those who were married or living with a partner were inconsistent condom users ($p=0.000$). Among the male respondents, 53.3% of those who were single and 46.7% of the married respondents were inconsistent condom users ($p=0.000$). However among the female respondents, the levels of inconsistent condom use were 49.7% and 50.3% among the single and married females respectively ($p=0.000$). This result was unexpected as the level of inconsistency of

condom use was expected to be higher among the married respondents. In addition, this result is of public health concern, as immigrant youth who are often not included in public health interventions may be contributing to the mammoth challenges faced by the entire system in fulfilling its mandated health outcomes. As immigrant youth and South African citizens engage in sexual relationships, inconsistent condom use among immigrant youth predisposes the entire population of residents in Hillbrow and the inner city of Johannesburg to the negative sexual and reproductive health outcomes mentioned above.

There was a statistically significant association between number of rooms occupied by a household and inconsistency of condom use in the overall sample ($p=0.008$) as well as among the female respondents ($p=0.009$).

Table 5.7: Bivariate association of sociodemographic variables and inconsistency of condom use

Variables	All N=432			Male n=181			Female n=251		
	Inconsisten t condom users (%)	Consisten t condom users (%)	Pearson Chi- square	Inconsisten t condom users (%)	Consistent condom users (%)	Chi- squa re	Inconsisten t condom users (%)	Consisten t condom users (%)	Pearson Chi- square
	n=311	n=121		n=120	n=61		n=191	n=60	
Gender			0.025						
Male	38.59	50.41		38.59	50.41		61.41	49.59	
Female	61.41	49.59							
Age group			0.000			0.002			0.000
18-24	29.58	66.12		30.00	54.10		29.32	78.33	
25-34	70.42	33.88		70.00	45.90		70.68	21.67	
Highest level of education attained			0.314			0.602			0.358
Primary/incomplete secondary	33.12	28.10		33.33	29.51		32.98	26.67	
Complete Secondary/Higher	66.88	71.90		66.67	70.49		67.02	73.33	
Current economic activity			0.000			0.002			0.001
Yes	84.89	66.12		89.17	70.49		82.20	61.67	
No	15.11	33.88		10.83	29.51		17.80	38.33	
Marital status			0.000			0.000			0.000
Single	51.13	90.08		53.33	85.25		49.74	95.00	
Married/living with a partner	48.87	9.92		46.67	14.75		50.26	5.00	
Importance of religion			0.963			0.403			0.859
Important	74.60	74.38		59.17	65.57		84.29	83.33	
Not important	25.40	25.62		40.83	34.43		15.71	16.67	
Wealth index			0.089			0.637			0.006
Poor	43.09	42.98		45.00	52.46		41.88	33.33	
Middle	38.26	29.75		34.17	29.51		40.84	30.00	
Rich	18.65	27.27		20.83	18.03		17.28	36.67	
Number of people in a household			0.901			0.983			0.826
1-2	23.79	24.79		27.50	27.87		21.47	21.67	
3	28.62	26.45		30.83	29.51		27.23	23.33	
4-10	47.59	48.76		41.67	42.62		51.31	55.00	
Number of rooms occupied by household			0.008			0.159			0.009
1 room	58.84	44.63		63.33	52.46		56.02	36.67	
2 -5	41.16	55.37		36.67	47.54		43.98	63.33	
Number of other households sharing room			0.503			0.789			0.192

0-1 household	69.45	72.73	69.17	67.21	69.63	78.33
2 -5 households	30.55	27.27	30.83	32.79	30.37	21.67

5.3.3.2 Migration Factors and Community Social Processes Associated with Inconsistency of Condom Use

The result of bivariate analysis of migration-related variables and community social processes associated with inconsistency of condom use are presented in Table 5.8. The results were presented for all the respondents overall, and separately for the male and the female respondents.

The migration-related variables associated with inconsistency of condom use are duration of residence in Hillbrow and reason for staying in Hillbrow, while the community social processes associated with inconsistency of condom use are negative feelings of anxiety, despair and depression and having social support in South Africa. There was a statistically significant association between duration of residence in Hillbrow and inconsistency of condom use among all respondents overall, and separately among male and female respondents. Among all respondents, the level of inconsistent condom use among those who have lived in Hillbrow for 0-2 years, 3-5 years and 6-20 years were 18.3%, 39.9% and 41.8% respectively ($p=0.000$). Among the males, there was a statistically significant association between the duration of residence in Hillbrow and inconsistency of condom use. Male respondents who have lived in Hillbrow for 0-2 years, 3-5 years and 6-20 years had levels of inconsistency of condom use of 18.3%, 34.2% and 47.5% respectively ($p=0.039$). Among the females, there was a statistically significant association between the duration of residence in Hillbrow and inconsistency of condom use. Females who have lived in Hillbrow for 0-2 years, 3-5 years and 6-20 years had levels of inconsistency of condom use of 18.3%, 43.5% and 38.2% respectively ($p=0.002$).

Concerning reason for staying in Hillbrow, among all the respondents, those who reported living in Hillbrow for purposes of proximity to school/accommodation, employment and marriage had 18.0%, 52.1% and 29.9% levels of inconsistent condom use respectively ($p=0.004$). Similarly among the male respondents, those who reported living in Hillbrow for purposes of proximity to school/accommodation, employment and marriage had 19.2%, 60.8% and 20.0% levels of inconsistent condom use respectively ($p=0.012$).

There was a statistically significant association between frequency of negative feelings such as blue moods, despair, anxiety and depression and inconsistent condom use. Among all the respondents, there was a statistically significant association between frequency of negative feelings such as blue moods, despair, anxiety and depression and inconsistent condom use. Respondents who reported themselves as never, seldom and often having negative feelings had levels of inconsistency of condom use of 20.53%, 34.7% and 45.0% respectively ($p=0.001$). Among the females, those who reported themselves as never, seldom and often having negative feelings had levels of inconsistency of condom use of 16.2%, 37.2% and 46.6% respectively ($p=0.008$). With regards to social support, there was bivariate association between having social support in South Africa and inconsistency of condom use for all the respondents and for the females.

Multivariate logistic regression analyses was carried out on independent variables that were statistically associated with inconsistent condom use at bivariate analysis in order to examine the determinants of inconsistent condom use.

Table 5.8: Bivariate Association of Migration, Community Social Processes and Inconsistency of Condom Use

Variables	All N=432			Male n=181			Female n=251		
	Inconsisten t condom users (%) n=311	Consisten t condom users (%) n=121	Pearson Chi- square	Inconsisten t condom users (%) n=120	Consistent condom users (%) n=61	Chi- suar e	Inconsisten t condom users (%) n=191	Consisten t condom users (%) n=60	Pearso n Chi- square
Migration status			0.728			0.831			0.518
Documented	54.34	56.20		47.50	49.18		58.64	63.33	
Undocumented	45.66	43.80		52.50	50.82		41.36	36.67	
Duration of residence in Hillbrow			0.000			0.039			0.002
0-2 years	18.33	36.36		18.33	34.43		18.32	38.33	
3-5 years	39.87	37.19		34.17	32.79		43.46	41.67	
6-20 years	41.80	26.45		47.50	32.79		38.22	20.00	
Language			0.332			0.122			0.999
Speak local language	78.46	82.64		73.33	83.61		81.68	81.67	
Does not speak local language	21.54	17.36		26.67	16.39		18.32	18.33	
Reason for staying in Hillbrow			0.004			0.012			0.093
School/accommodation	18.01	31.40		19.17	32.79		17.28	30.00	
Employment	52.09	37.19		60.83	37.70		46.60	36.67	
Stay with a relative/marriage	29.90	31.40		20.00	29.51		36.13	33.33	
Level of exposure to SRH/FP message			0.353			0.602			0.296
Less exposed to SRH/FP messages in country of origin than in Hillbrow	70.74	75.21		66.67	70.49		73.30	80.00	
More exposed to SRH/FP messages in country of origin than in Hillbrow	29.26	24.79		33.33	29.51		26.70	20.00	
Discrimination in Hillbrow			0.417			0.847			0.160
No	41.16	45.45		40.83	39.34		41.36	51.67	
Yes	58.84	54.55		59.17	60.66		58.64	48.33	
Personal safety and security concerns in Hillbrow			0.779			0.616			0.913
No	17.04	18.18		16.67	19.67		17.28	16.67	
Yes	82.96	81.82		83.33	80.33		82.72	83.33	
Depression/negative feelings			0.001			0.142			0.008
Never	20.26	34.71		26.67	40.98		16.23	28.33	

Seldom	34.73	36.36		30.83	26.23		37.17	46.67	
Often	45.02	28.93		42.50	32.79		46.60	25.00	
Social support in South Africa			0.001			0.122			0.001
Yes	74.92	89.26		73.30	83.60		75.90	95.0	
No	25.08	10.74		26.70	16.40		24.10	5.0	

5.3.4 Determinants of Inconsistency of Condom Use

Table 5.9 shows the results of the multivariate logistic regression of determinants of inconsistency of condom use. The results are presented for all, male and female respondents to show gender differences in the determinants of inconsistency of condom use. In addition, separate models were ran in order to understand the relationship between social, economic and demographic factors (Model 1, 4,7) and inconsistent condom use; and migration-related factors and community social processes (Model 2, 5,8) and inconsistency of condom use separately. The fully adjusted models controlled for both socio-demographic and migration/community social factors (Model 3, 6, 9) for all the respondents, as well as for male and female.

As indicated in the overall sample, gender differences exist in the inconsistency of condom use. In model 1, the females were 1.90 times more likely to use condom inconsistently compared to the males (OR=1.90, CI=1.18-3.08). The pattern remains in the fully adjusted model (Model3), where the females were twice more likely to use condoms inconsistently compared to the males (OR=2.03, CI=1.20-3.41). With regards to age group among all respondents in Model 1, respondents in the age group 25-34 were 2.11 times more likely to be inconsistent condom users compared to those in the age group 18-24 (OR=2.11, CI=1.24-3.58). Similarly in Model 3, respondents in the age group 25-34 were twice as likely to be inconsistent condom users compared to those aged 18-24 (OR=2.03, CI=1.11-3.72). Among the male respondents (Models 4 and 6), there was no statistically significant association between age group and inconsistency of condom use. However among the females, in Model 7, those in the age group 25-34 were four times more likely to use condoms inconsistently compared to females in the age group 18-24 (OR=4.00, CI=1.82-8.79). The observed association between age group and inconsistency of condom use among the females was stronger in Model 9 (OR=5.15, CI=1.98-13.42).

Marital status was associated with inconsistent condom use among all respondents, as well as among the males and the females. In Model 1 of the overall sample, those who were married or cohabiting had 6.03 times increased odds of being inconsistent condom users compared to the single, unmarried respondents (OR=6.03, CI=3.00-12.15). In the fully adjusted model (Model 3), the odds of being an inconsistent condom user increased among the married respondents (OR=6.53, CI=3.19-13.41). Among the male sample, in Model 4, those who were married had 4.46 times increased odds of being inconsistent condom users compared to the males who were single (OR=4.46, CI=1.79-11.12). Similarly in Model 6, those who were married had 4.65 times increased odds of being inconsistent condom users compared to the single males (OR=4.65, CI=1.79-12.03). There was a very strong association between being married and inconsistency of condom use among the females. In Model 7, females who were married were 12.5 times more likely to be inconsistent condom users compared to their single counterparts (OR=12.51, CI=3.49-44.84). Similarly in the fully adjusted model (Model 9), females who reported themselves as married or cohabiting were 13.25 times more likely to be

inconsistent condom users compared to females who reported themselves as single (OR=13.25, CI=3.59-48.96). Household wealth quintile was not associated with inconsistency of condom use.

Migration status was not associated with inconsistency of condom use in this study. However, duration of residence in Hillbrow was associated with inconsistency of condom use. Among all respondents in Model 2, those who have lived in Hillbrow for 3-5 years were 2.2 times more likely to use condoms inconsistently compared to those who had lived in Hillbrow for 0-2 years (OR=2.20, CI=1.25-3.85). Similarly, those who had lived in Hillbrow for 6-20 years were 3.46 times more likely to use condoms inconsistently compared to respondents who had lived in Hillbrow for 0-2 years (OR=3.46, CI=1.91-6.27). In the fully adjusted model for all respondents (Model 3), In the male sample, long-term residents who had lived in Hillbrow for 6-20 years were 2.43 times more likely to be inconsistent condom users, compared to short-term residents who have lived in Hillbrow for 0-2 years (OR=2.43, CI=1.05-5.64). In the female sample in Model 8, those who had lived in Hillbrow for 3-5 years were threetimes more likely to use condoms inconsistently compared to those who have lived in Hillbrow for 0-2 years (OR=3.05, CI=1.40-6.63). Similarly, those who had lived in Hillbrow for 6-20 years were 5.76 times more likely to use condoms inconsistently compared to females who have lived in Hillbrow for 0-2 years (OR=5.76, CI=2.31-14.29).

Staying in Hillbrow for employment purposes was associated with increased odds of inconsistent condom use among all respondents and among the males. In Model 2, among all respondents, those who lived in Hillbrow for employment purposes were 2.14 times more likely to be inconsistent condom users compared to those whose purpose for living in Hillbrow was for proximity to school or cheaper accommodation (OR=2.14, CI=1.21-3.77). Among the males in Model 5, those who lived in Hillbrow for employment purposes were 2.79 times more likely to be inconsistent condom users compared to those whose purpose for living in Hillbrow was proximity to school or cheaper accommodation (OR=2.79, CI=1.22-6.39).

With regards to negative feelings associated with poor mental health, among all respondents in Model 2, respondents who reported often having depression/negative feelings were 1.79 times more likely to use condoms inconsistently compared to those who reported never having negative feelings/depression (OR=1.79, CI=1.102-3.13). Among the females in Model 8, those who reported often having depression/negative feelings were 2.45 times more likely to use condoms inconsistently compared to those who reported never having negative feelings/depression (OR=2.45, CI=1.02-5.89).

Lack of social support in South Africa was associated with increased odds of inconsistent condom use. In Model 2 of the overall sample, those who reported not having social support in South Africa were 2.76 times more likely to be inconsistent condom users compared to those who reported having social support in South Africa (OR=2.76, CI=1.40-5.42). Similarly in the fully adjusted model (Model 3), those who reported not having social support in South Africa were 3.58 times more likely to be

inconsistent condom users compared to those who reported having social support in South Africa (OR=3.58, CI=1.70-7.58). Among the female sample, in Model 8, those who reported not having social support in South Africa were 6.33 times more likely to be inconsistent condom users compared to those who reported having social support in South Africa (OR=6.33, CI=1.74-22.97). The association between social support and inconsistency of condom use was stronger in the full adjusted model (Model 9). Female respondents who reported not having social support in South Africa were 10.54 times more likely to be inconsistent condom users compared to those who reported having social support in South Africa (OR=10.54, CI=2.33-47.60). This result is consistent with results of findings by Althoff et al. (2017) who found increased social support as protective against risky sexual behaviours. In the same way, Giorgio et al. (2016) found an association between social support and transactional sex, as women who reported having low social support had an increased risk of transactional sex.

Table 5.9: Determinants of Inconsistency of Condom Use

Variable	All			Male			Female		
	Model 1: OR (CI)	Model 2:OR (CI)	Model 3: OR (CI)	Model 4: OR (CI)	Model 5:OR (CI)	Model 6: OR (CI)	Model 7: OR (CI)	Model 8:OR (CI)	Model 9: OR (CI)
Gender									
Male	ref		ref						
	1.90 (1.18-3.08)**		2.03 (1.20-3.41)**						
Female									
Age group									
18-24	ref		ref	ref		ref	ref		ref
	2.11 (1.24-3.58)**		2.03 (1.11-3.72)*	1.10 (.509-2.41)		0.93 (0.38-2.26)	4.00 (1.82-8.79)***		5.15 (1.98-13.42)***
25-34									
Highest level of education attained									
Primary/incomplete secondary	ref		ref	ref		ref	ref		ref
	0.78 (0.46-1.32)		0.93 (0.51-1.67)	0.62 (0.29-1.35)		0.81 (0.35-1.90)	0.93 (0.43-2.02)		0.99 (0.41-2.39)
Complete Secondary/Higher									
Current economic activity									
Yes	ref		ref	ref		ref	ref		ref
	0.63 (0.35-1.12)		0.73 (0.39-1.35)	0.44 (0.19-1.06)		0.48 (0.19-1.21)	1.03 (0.44-2.41)		1.14 (0.43-3.04)
No									
Marital status									
Single	ref		ref	ref		ref	ref		ref
	6.03 (3.00-12.15)***		6.53 (3.19-13.41)***	4.46 (1.79-11.12)***		4.65 (1.79-12.03)**	12.51 (3.49-44.84)***		13.25 (3.59-48.96)***
Married/living with a partner									
Wealth index									
Poor	ref		ref	ref		ref	ref		ref
	1.06 (0.60-1.86)		1.21 (0.67-1.12)	1.40 (0.63-3.10)		1.48 (0.64-3.40)	0.80 (0.35-1.81)		0.98 (0.40-2.44)
Middle									
	0.71 (0.36-1.42)		0.90 (0.43-1.86)	1.39 (0.52-3.71)		1.62 (0.58-4.55)	0.33 (0.11-0.97)*		0.42 (0.13-1.39)
Rich									
Number of rooms occupied by household									
1 room	ref		ref	ref		ref	ref		ref
	0.73 (0.43-1.23)		1.00 (0.56-1.78)	0.57 (0.27-1.19)		0.82 (0.35-1.91)	1.07 (0.48-2.38)		1.80 (0.72-4.50)
2 or more									
Migration status									
Documented		ref	ref		ref	ref		ref	ref
		1.06 (0.66-1.70)	1.36 (0.77-2.40)		0.96 (0.47-1.94)	1.26 (0.56-2.81)		1.41 (0.72-2.79)	1.53 (0.63-3.69)
Undocumented									
Duration of residence in Hillbrow									
0-2 years		ref	ref		ref	ref		ref	ref
		2.20 (1.25-3.85)**	1.67 (0.88-3.17)		1.56 (0.67-3.66)	1.34 (0.53-3.43)		3.05 (1.40-6.63)**	2.11 (0.80-5.58)
3-5 years					2.43 (1.05-5.64)*	1.62 (0.60-4.37)		5.76 (2.31-14.29)***	1.77 (0.56-5.63)
6-20 years									
Reason for staying in Hillbrow									
School/accommodation		ref	ref		ref	ref		ref	ref

Employment	2.14 (1.21-3.77)**	1.82 (0.95-3.52)	2.79 (1.22-6.39)*	2.59 (1.02-6.61)*	1.61 (0.71-3.62)	1.22 (0.45-3.28)
Stay with a relative/marriage	1.65 (0.91-3.02)	1.48 (0.74-2.90)	1.24 (0.49-3.10)	1.22 (0.44-3.331)	1.71 (0.73-3.97)	1.96 (0.71-5.40)
Depression/negative feelings						
Never	ref	ref	ref	ref	ref	ref
Seldom	1.79 (1.02-3.13)*	1.05 (0.56-1.98)	1.83 (0.78-4.29)	1.26 (0.49-3.22)	1.68 (0.75-3.76)	0.89 (0.34-2.34)
Often	2.20 (1.24-3.91)*	1.23 (0.65-2.33)	1.75 (0.80-3.82)	1.26 (0.54-2.95)	2.45 (1.02-5.89)*	1.04 (0.37-2.96)
Social support						
Yes	ref	ref	ref	ref	ref	ref
No	2.76 (1.40-5.42)**	3.58 (1.70-7.58)**	2.05 (0.87-4.83)	2.56 (0.90-5.63)	6.33 (1.74-22.97)*	10.54 (2.33-47.60)**

OR: Odds Ratio; CI: Confidence interval; *p-value<0.05, **p-value<0.01, ***p-value<0.001

Model 1, 4, 7: Multivariate logistic regression analysis of inconsistency of condom use and sociodemographic variables

Model 2, 5, 8: Multivariate logistic regression analysis of inconsistency of condom use and migration/community social variables

Model 3, 6, 9: Multivariate logistic regression analysis of inconsistency of condom use and all independent variables

5.4 Summary of the Chapter

This chapter examined the socio-demographic, migration and community social processes that determine risky sexual behaviours among immigrant youth in Hillbrow. The risky sexual behaviours examined are multiple sex partnerships 12 months prior to the survey and inconsistency of condom use. The negative binomial regression analysis was employed in the determination of multiple sex partnerships. The binary logistic regression analysis was used to examine the predictors of inconsistency of condom use. Separate models were ran for sociodemographic, migration and community social processes, and a final model controlled for all the independent variables.

The chapter found that the two risky sexual behaviours examined were prevalent among the study sample. With regards multiple sex partnerships, the demographic and socio-economic determinants of multiple sex partnerships in the 12 months prior to the survey are gender, age group, marital status, importance of religion, wealth index, number of people in a household, and number of other households sharing room with the respondent. These socio-economic and demographic variables are the social determinants of multiple sex partnerships among immigrant youth in the study area. As documented by Solar and Irwin (2010), they are the “conditions in which people are born, grow, live, work and age” and they involve the non-health factors that determine the health and well-being of people. The findings of this study thus show that the social determinants of health are strong determinants for engaging in multiple sex partnerships among immigrant youth in Hillbrow.

The migration-related variables that were determinants of multiple sex partnerships were: migration status, duration of residence in Hillbrow, and level of exposure to SRH/FP messages in Hillbrow. This study found undocumented migrants to have an increased risk of having multiple sex partners compared to documented migrants, and the risk was higher among the male compared to the females. This is similar to the findings in Poland (Ganczak et al., 2017), Portugal and Belgium (Dias et al., 2020) and Honduras (Gandhi et al., 2015). The association between duration of residence in Hillbrow and multiple sex partnerships is consistent with Ma et al., 2014.

The level of inconsistency of condom use in this study is disturbingly high, as seven out of ten respondents reported inconsistent condom use, compared with national studies in South Africa. Findings from the present study show disproportionately high levels of inconsistent condom use among male and female immigrant youth, compared to general population of South African youth. In the light of the current results, there is bound to be increased incidences of HIV infections and STIs in the

City of Johannesburg, as a result of high levels of inconsistent or lack of condom use among immigrant youth.

This study has shown that gender differences exist in inconsistency of condom use. In addition to gender, the other sociodemographic determinants of inconsistent condom use were age group and marital status. The migration and community social processes that were determinants of inconsistent condom use are duration of residence in Hillbrow, reason for staying in Hillbrow, negative feelings associated with poor mental health including depression and availability of social support in South Africa. Being married or cohabiting was a strong predictor of inconsistent condom use among all the respondents. The reason for these findings could be traditional gender roles, and social norms which exists in patriarchal societies where immigrants originated from, which expose females to inconsistent condom use, and the same encourage the males to engage in multiple sex partnerships. An important factor that may be predisposing female immigrants in this study to risky sexual behaviours may be the cultural factors and traditional roles, specifically coming from a patriarchal society with a high prevalence of gender inequality, and lack the power to negotiate safe sex. In this regard, those who may be holding on to the cultural beliefs and societal views from their country of origin. Some of these involve being submissive to a spouse hence having to do whatever he says, linking condom use to lack of trust, fear of consequences of requesting a partner to use condom and refusing to have sex if the partner refuses to use a condom.

Duration of residence in Hillbrow was a predictor of inconsistent condom use in the study, with the females having a strong positive association between longer duration of residence in Hillbrow and inconsistency of condom use. This is consistent with the findings from other studies which verified duration of residence as associated with inconsistency of condom use (Ertl et al., 2018; Sastre et al., 2015; and Castañeda et al., 2015). This could be because of the social environment of Hillbrow, which is predominantly disorganised, thus lacks social control present in an organised community. Other reasons for residence in Hillbrow being a predictor of inconsistent condom use could be linked to high level of alcohol consumption in the study area, a factor that was observed during this research. This is consistent with the findings by Bello et al., (2017). Furthermore, there is a high prevalence of sex work with lots of brothels in the study area. This is consistent with the findings by Richter et al., 2014).

This study found the pull factors for choosing to live in Hillbrow to be availability of employment, reduced cost of transportation to work, cheaper accommodation in Hillbrow, proximity to school, as well as reasons related to family and friends. Despite the poor social environment, level of crime, and personal safety and security concerns in Hillbrow, respondents chose to stay in Hillbrow for the reasons mentioned. This study further revealed that not having social support in South Africa is associated with inconsistent condom use among immigrant. This is consistent with the findings by Althoff et al., 2017) and Giorgio et al., 2016).

This chapter demonstrated the factors that predict multiple sex partnerships and inconsistency of condom used among immigrant youth in Hillbrow. Chapter Six examines the predictors of access to a government health facility for reproductive health services in the study area.

CHAPTER SIX

PREDICTORS OF ACCESS TO GOVERNMENT HEALTH FACILITIES FOR SEXUAL AND REPRODUCTIVE HEALTH SERVICES

6.1 INTRODUCTION

This chapter examines the predictors of access to a government health facility for reproductive health services in Hillbrow. The chapter investigated the sociodemographic, migration and knowledge of SRH variables that are predictors of access to a government health services for family planning. Based on the conceptual framework of this study, knowledge and information about SRH were the intervening variables for access to government health facilities for family planning. The knowledge and information about SRH assessed in this study are sources of information on SRH, having received information about family planning 6 months prior to the survey and knowledge of place to obtain different family planning methods. The dependent variable examined in this chapter is having visited a government health facility in Hillbrow for SRH services. Having knowledge and information about family planning generates the basic knowledge needed to stimulate interest and create awareness of family planning among immigrant youth. Having visited a government health facility for SRH services was used as a proxy for physical access to the SRH products and services.

6.2 KNOWLEDGE AND INFORMATION ON SEXUAL AND REPRODUCTIVE HEALTH

Descriptive statistics show the distribution of the knowledge of SRH variables which are sources of information about family planning, having received information about family planning 6 months prior to the survey, and knowledge of place to obtain a family planning method. This analysis was done for all the respondents overall and separately for male and female, to show gender differences in source of information and knowledge of sexual and reproductive health.

The first intervening variable was source of information on how to live a healthy sexual life, prevent unwanted pregnancies and treat sexually transmitted infections. The list of sources listed were posters, television/radio, health centre/community clinic, private clinic, government hospital, parents, peer educator, teacher and friends. A factor analysis was conducted and a new variable for source of information named 'reliability of source of information' was generated, with the categories "unreliable source" and "reliable source". The second intervening variable was on recent of access to information on family planning prior to the survey. The question asked was "*Have you received any information in the past 6 months about family planning specifically?*" This has a "Yes" or "No" response. The third intervening variable was adequacy of knowledge of place to obtain family planning methods. For this,

the question asked was “*Do you know a place in this area where you can obtain any of the following family planning method?*” The contraceptive methods listed were daily pill, IUD, male condom, female condom, injectable/Depo-provera, implants, emergency contraception, vasectomy and tubal ligation. A “Yes” or “No” response was provided for each contraceptive. Factor analysis of the different methods was carried out in order to construct a new variable for adequacy of knowledge of place to get contraceptive methods. This variable was categorised into “inadequate knowledge” and “adequate knowledge”.

The dependent variable examined in this study is physical access to a government health facility for sexual and reproductive health services. The question asked was “Have you visited any government clinic in this area for sexual and reproductive health services? The responses were “Yes” or “No”. Bivariate analyses involving cross tabulation and Pearson chi-square are employed to determine the factors associated with physical access to a government facility for SRH services, across the independent variables. Multivariate analyses using multivariate logistic regression is employed to examine the determinants of physical access to government health facility in Hillbrow.

6.2.1 Sources of Information on Sexual and Reproductive Health

Table 6.1 shows the percentage distribution of sources of information of SRH among all sexually active respondents overall, as well as male and female separately. The main source of information on SRH for all respondents are radio and television (39.4%), friends (22.0%) followed by posters (21.3%). Gender differences exist in the sources of SRH information. Among the male respondents, the proportions that received information from radio/television, friends and posters are 28.6%, 13.2% and 17.0% respectively. Among the female respondents, on the other hand, the proportions that received information from radio/television, friends and posters are 45.9%, 29.6% and 24.1% respectively. There is a statistically significant difference between male and female with regards to source of information from radio/television and from friends. Contrary to expectations, only a small proportion of all respondents received SRH information from government hospital (9.3%), community clinic (11.3%) and private clinic (5.6%). Among the male respondents, 7.1%, 6.0% and 6.0% received information from government hospital, community clinic, and private clinic respectively. The results show that many of the immigrant youth, both male and female, were poorly informed of SRH issues.

Table 6.1: Percentage Distribution of Sources of Information on SRH

Variable	All respondents	Male	Female	p-value
	All N=432 (%)	Male n=181 (%)	Female n=251 (%)	
	Yes	Yes	Yes	
Poster	92 (21.3)	31 (17.0)	62 (24.1)	0.070
Tv or Radio	170 (39.4)	52 (28.6)	118 (45.9)	0.000
Community clinic	49 (11.3)	11 (6.0)	40 (15.6)	0.002
Private clinic	24 (5.6)	11 (6.0)	14 (5.4)	0.790
Govt. Hospital	40 (9.3)	13 (7.1)	27 (10.5)	0.228
Parent	7 (1.6)	1 (0.5)	6 (2.3)	0.141
Peer educator	7 (1.6)	2 (1.1)	6 (2.3)	0.340
Teacher	5 (1.2)	2 (1.1)	3 (1.2)	0.947
Friends	95 (22.0)	24 (13.2)	76 (29.6)	0.000

P-value is based on analysis by sex

6.2.2 Knowledge of Facility for Family Planning Method

Table 6.2 shows the percentage distribution of knowledge of where to obtain a contraceptive method among the respondents overall and among males and females separately. Overall, 96.5% of the respondents knew where to obtain male condoms and 89.1% had knowledge of where to obtain female condoms. Among all respondents, 45.8%, 62.0% and 73.1% knew where to obtain IUD, implants and Depo-provera injection respectively. Only 27.3% knew where to obtain vasectomy and just about a quarter (25.7%) knew where to get tubal ligation. Gender differences exist in knowledge of where to obtain all the contraceptive methods except for male condoms, though more females (97.6%) reported knowing where to obtain male condoms than males (95.0%).

With regards the long acting reversible contraceptives (LARCs), 28.2%, 40.9% and 54.7% of the male population knew where their sexual partners could obtain IUD, implants or depo-provera injections respectively. Among the females, 58.6%, 77.3% and 86.4% of the females knew where to obtain IUD, implants and depo-provera injections respectively. With regards vasectomy and tubal ligation, only 14.9% and 12.1% of the males knew where they or their sex partner can obtain either method. However, among the females, 36.2% and 35.5% knew where they or their partners could obtain vasectomy or tubal ligation respectively.

Table 6.2: Knowledge of Place to Obtain a Family Planning Method

Variable	All respondents	Male	Female	p-value
	All Frequency N=432 (%)	Male n=181 (%)	Female n=251 (%)	
	Yes	Yes	Yes	
Daily pill	384 (80.6)	120 (66.3)	228 (90.8)	0.000
IUD	198 (45.8)	51 (28.2)	147 (58.6)	0.000
Implant	268 (62.0)	74 (40.9)	194 (77.3)	0.000
Male condom	417 (96.5)	172 (95.0)	245 (97.6)	0.221
Female condom	385 (89.1)	152 (84.0)	233 (92.8)	0.008
Injection (Depo-provera)	316 (73.1)	99 (54.7)	217 (86.4)	0.000
Emergency contraception	287 (66.4)	91 (50.3)	196 (78.1)	0.000
Vasectomy	118 (27.3)	27 (14.9)	91 (36.2)	0.000
Tubal ligation	111 (25.7)	22 (12.1)	89 (35.5)	0.000

P-value is based on analysis by sex

6.2.3 Distribution of Knowledge and Information about Family Planning

Table 6.3 shows the percentage distribution of knowledge and information about family planning. Three variables were used to assess the knowledge and information about family planning. These were reliability of the source of information, recent access to information on family planning, and knowledge of where to obtain contraception. The percentage distribution was assessed among all respondents, and among male and female respondents separately.

Reliability of the source of information showed that 73.4% of the respondents obtained information about family planning from unreliable sources, while only 26.6% obtained their information from reliable sources. There was a significant gender difference in source of information. Among the males, 82.3% obtained information from unreliable sources while only 17.7% of males obtained information on family planning from reliable sources. Among the females, two out of three (66.9%) got their information from unreliable sources while only one-third (33.1%) obtained information about family planning from reliable sources.

With regards recent access to information on family planning prior to the survey, overall, 6 out of 10 reported recent access to information about family planning. There was a statistically significant difference between males and females with 42.8% of the males and 72.1% of the females reporting recent access to information on family planning prior to the survey.

Regarding knowledge of place to obtain contraception, there was a statistically significant gender difference as 56% of the respondents knew a place to obtain contraception while 44% did not know. Among the males, 76.2% had inadequate knowledge of place to obtain contraception while only 23.8% had adequate knowledge of place to obtain contraception. Among the females however, 41.4% had inadequate knowledge of a place to obtain contraception while 58.6% had adequate knowledge. This shows general poor knowledge of family planning among the study sample, with the males showing poorer knowledge than the females.

Table 6.3: Percentage Distribution of Knowledge and Information about Family Planning

Variable	All respondents	Male	Female	p-value
	N=432 (%)	n=181 (%)	n=251 (%)	
	Yes	Yes	Yes	
Source of information				0.000
Unreliable source	317 (73.4)	149 (82.3)	168 (66.9)	
Reliable source	115 (26.6)	32 (17.7)	83 (26.6)	
Information about FP				0.000
Yes	258 (59.9)	77 (42.8)	181 (72.1)	
No	173 (40.1)	103 (55.2)	70 (27.9)	
Knowledge of where to obtain contraception				0.000
Inadequate knowledge	242 (56.0)	138 (76.2)	104 (41.4)	
Adequate knowledge	190 (44.0)	43 (23.8)	147 (58.6)	

6.3 FACTORS ASSOCIATED WITH ACCESS TO GOVERNMENT HEALTH FACILITY

Access to government health facilities for SRH services by immigrant youth is important in order for them to get correct information on contraception and for them to be able to use the modern long acting reversible contraceptive (LARC) methods as well as permanent contraception, as needed. There are two government health facilities in Hillbrow – the Esselen Clinic and Hillbrow Community Health Centre. In order to assess the level of physical access to any of the government health facilities, respondents were asked “*Have you visited any government clinic in this area for sexual and reproductive health services?*” The responses provided were “Yes” or “No”.

Table 6.4 shows the percentage distribution of having visited a government clinic in Hillbrow for SRH services. About 2 out of 5 immigrant youth had physical access to a government health facility for SRH services in Hillbrow (41.9%). Among those who had access, about one quarter (24.9%) were males and three-quarters were females.

Table 6.4: Percentage Distribution of Physical Access to Government Health Facility for SRH Services

Variable	All N=432 (%)	Male n=181 (%)	Female n=251 (%)	p-value
Physical access to government health facility				0.000
Yes	181 (41.9)	45 (24.9)	136 (54.2)	
No	251 (58.1)	136 (75.1)	115 (45.8)	

Bivariate analysis using cross-tabulation and Pearson’s Chi Square assessed the socio-demographic, migration, and knowledge factors associated with access to a government health facility for SRH services by immigrant youth in Hillbrow. The socio-demographic factors associated with access to a government health facility for SRH services among all respondents overall were gender, age group, marital status, and wealth index. The migration-related variables associated with access to a government facility for SRH services among all respondents were duration of residence in Hillbrow, experiences of discrimination in Hillbrow, frequency of negative feelings such as anxiety, blue moods, despair and depression and having social support in South Africa. The three variables on knowledge and

information on SRH (source of information, recent information on family planning prior to the survey and knowledge of where to obtain contraception) were all associated with access to a government health facility for SRH services.

Table 6.5 shows the bivariate association between the socio-demographic variables and access to a government health facility for SRH services in Hillbrow. As expected, there was a marked gender difference in access to a government facility in Hillbrow for SRH services. In the overall sample, a quarter of the male sample reported having access to a government health facility while about three-quarters of females reported access to government facility. There was an association between age group and access to a government health facility in the overall sample as well as among the female respondents. Of all the people with access to a government health facility in the overall sample, 31.5% were in the age group 18-24 while 68.5% were in the age group 25-34 ($p=0.000$). Similarly among the female respondents, 30.9% were in the age group 18-24 while 69.1% were in the age group 25-34 (0.001). There was no statistical association between age group and access to a government health facility for SRH services among the males. There was an association between highest level of education attained and access to a government health facility for SRH services among the males. Of all the males who had access to a government health facility, 17.8% had primary/incomplete secondary education, while 82.2% had complete secondary school or higher ($p=0.018$). Level of education attained was not associated with access to a government health facility for SRH services in the overall sample and among the females. Marital status was statistically associated with access to a government health facility for SRH services among all the respondents overall and among the females. Among those with access to a government health facility in the overall sample, 55.8% were single and 44.2% were married or living with a partner ($p=0.02$). Similarly in the female sample, among those with access to a government health facility, 52.2% were single and 47.8% were married ($p=0.003$).

Wealth index was associated with access to a government health facility for SRH services in the overall sample. Among those who had access to a government facility for SRH services, 37.0%, 43.7% and 19.3% were in the poor, middle and rich wealth quintiles respectively ($p=0.016$). Number of people in the household was associated with access to a government facility for SRH services among the males, with 30.4%, 27.1% and 42.5% of those with access to a government facility lived in households with 1-2 people, 3 people and 4-10 people respectively ($p=0.02$). There was an association between the number of rooms occupied by a household and access to government facility for SRH services among the males, with 75.6% residing in 1 room and 24.4% residing in 2 or more rooms ($p=0.01$). Among the females, the number of other households sharing room with respondent's household was statistically associated with access to a government facility for SRH services among the females, with 75.7% and 24.3% of females sharing room with 0-1 or 2-5 other households respectively ($p=0.04$).

Table 6.5: Bivariate Association of Sociodemographic Variables and Access to a Government Health Facility

Variable	All N=432			Male n=181			Female n=251		
	Yes (%) n=181	No (%) n=251	Pearson Chi-square	Yes (%) n=45	No (%) n=136	Pearson Chi-square	Yes (%) n=136	No (%) n=115	Pearson Chi-square
Gender			0.000						
Male	45 (24.9)	136 (54.2)							
Female	136 (75.1)	115 (45.8)							
Age group			0.003			0.445			0.000
18-24	57 (31.5)	115 (45.8)		15 (33.3)	54 (39.7)		42 (30.9)	61 (53.0)	
25-34	124 (68.5)	136 (54.2)		30 (66.7)	82 (60.3)		94 (69.1)	54 (47.0)	
Highest level of education attained			0.121			0.018			0.826
Primary/incomplete secondary	50 (27.6)	87 (34.7)		8 (17.8)	50 (36.8)		42 (30.9)	37 (32.2)	
Complete Secondary/Higher	131 (72.4)	164 (65.3)		37 (82.2)	86 (63.2)		94 (69.1)	78 (67.8)	
Current economic activity			0.155			0.747			0.037
Yes	150 (82.9)	194 (77.3)		38 (84.4)	112 (82.3)		112 (82.3)	82 (71.3)	
No	31 (17.1)	57 (22.7)		7 (15.6)	24 (17.7)		24 (17.7)	33 (28.7)	
Marital status			0.023			0.677			0.003
Single	101 (55.8)	167 (66.5)		30 (66.7)	86 (63.2)		71 (52.2)	81 (70.4)	
Married/living with a partner	80 (44.2)	84 (33.5)		15 (33.3)	50 (36.8)		65 (47.8)	34 (29.6)	
Importance of religion			0.360			0.833			0.421
Important	139 (76.8)	183 (72.9)		27 (60.0)	84 (61.8)		112 (82.3)	99 (86.1)	
Not important	42 (23.2)	68 (27.1)		18 (40.0)	52 (38.2)		24 (17.6)	16 (13.9)	
Wealth index			0.016			0.235			0.109
Poor	67 (37.0)	119 (47.4)		17 (37.8)	69 (50.7)		50 (36.8)	50 (43.5)	
Middle	79 (43.6)	76 (30.3)		19 (42.2)	40 (29.4)		60 (44.1)	37 (31.3)	
Rich	35 (19.3)	56 (22.3)		9 (20.0)	27 (19.9)		26 (19.1)	29 (25.2)	
Number of people in a household			0.028			0.037			0.066
1-2	55 (30.4)	49 (19.5)		19 (42.2)	31 (22.8)		36 (26.5)	18 (15.6)	
3	49 (27.1)	72 (28.7)		12 (26.7)	43 (31.6)		37 (27.2)	29 (25.2)	
4-10	77 (42.5)	130 (51.8)		14 (31.1)	62 (45.6)		63 (46.3)	68 (59.1)	
Number of rooms occupied by household			0.264			0.012			0.780
1 room	105 (58.0)	132 (52.6)		34 (75.6)	74 (54.4)		71 (52.2)	58 (50.4)	
2 -5	76 (42.0)	119 (47.4)		11 (24.4)	62 (45.6)		65 (47.8)	57 (49.6)	
Number of other households sharing room			0.040			0.759			0.008
0-1 household	137 (75.7)	167 (66.5)		30 (66.7)	94 (69.1)		107 (78.7)	73 (63.5)	
2 -5 households	44 (24.3)	84 (33.5)		15 (33.3)	42 (30.9)		29 (21.3)	42 (36.5)	

Table 6.6 show the bivariate association between the migration and knowledge variables and access to a government health facility for SRH services. There was an association between duration of residence in Hillbrow and access to a government health facility for SRH services in the overall sample and among the females. Among all the respondents with access to a government health facility, 16.6%, 43.6% and 39.8% had 0-2 years, 3-5 years and 6-20 years of residency in Hillbrow respectively ($p=0.007$). Among the females with access to a government health facility, 16.2%, 48.5% and 35.3% had 0-2 years, 3-5 years and 6-20 years of residency respectively in Hillbrow ($p=0.01$). With regards the social processes in Hillbrow community, discrimination was associated with access to government health facility for the respondents overall and for the female sample. Among those with access to a government health facility in the overall sample, 35.4% had not experienced discrimination while 64.6% had experienced discrimination ($p=0.012$). Similarly among the female respondents, 33.1% had not experienced discrimination while 66.9% reported experiences of discrimination ($p=0.000$).

There was an association between frequency of negative feelings associated with poor mental health such as depression and anxiety, and access to a government health facility for SRH services in the overall sample and among the females. Among all the respondents with access to a government health facility, 17.1%, 40.9% and 42.0% had never, seldom and often had negative feelings associated with poor mental health respectively ($p=0.008$). With regards the association between social support in South Africa and access to a government health facility for SRH services, among those with access to a government health facility in the overall sample, 85.6% had social support in South Africa while 14.4% did not ($p=0.004$). This was similar to those who had access to a government health facility for SRH services among the female respondents, in which 86.8% had social support in South Africa while 13.2% did not ($p=0.006$). There was no statistical association between social support and having had access to a government facility for SRH services. This result is not surprising because immigrants depend on their friends and other informal relationships for emotional support and information about how to cope in the country of destination, which includes information about a place to obtain a family planning method. Not having social support thus predisposes them to negative SRH outcomes. This finding is consistent with the findings from Åkerman et al. (2017); Agu et al. (2016); Rade et al. (2017).

Table 6.6: Bivariate Association of Migration and Community Social Processes and Access to Government Health Facilities

Variable	All N=432			Male n=181			Female n=251		Pearson Chi-square
	Yes (%) n=181	No (%) n=251	p-value	Yes (%) n=45	No (%) n=136	Pearson Chi-square	Yes (%) n=136	No (%) n=115	
Migration status			0.088			0.637			0.336
Documented	108 (59.7)	129 (51.4)		23 (51.1)	64 (47.1)		85 (62.5)	65 (56.5)	
Undocumented	73 (40.3)	122 (48.6)		22 (48.9)	72 (52.9)		51 (37.5)	50 (43.9.0)	
Duration of residence in Hillbrow			0.016			0.228			0.015
0-2 years	30 (16.6)	71 (28.3)		8 (17.8)	35 (25.7)		22 (16.2)	36 (31.3)	
3-5 years	79 (43.6)	90 (35.9)		13 (28.9)	48 (35.3)		66 (48.5)	42 (36.5)	
6-20 years	72 (39.8)	90 (35.9)		24 (53.3)	53 (39.0)		48 (35.3)	37 (32.2)	
Reason for staying in Hillbrow			0.201			0.799			0.571
School/accommodation	41 (22.6)	53 (21.1)		22 (48.9)	74 (54.4)		56 (41.2)	55 (47.8)	
Employment	78 (43.1)	129 (51.4)		12 (26.7)	31 (22.8)		29 (21.3)	22 (19.1)	
Stay with a relative/marriage	62 (34.2)	69 (27.5)		11 (24.4)	31 (22.8)		51 (37.5)	38 (33.0)	
Level of exposure to SRH/FP message			0.095			0.831			0.073
Less exposed to SRH/FP messages in country of origin than in Hillbrow	138 (76.2)	173 (68.9)		30 (66.7)	93 (68.4)		108 (79.4)	80 (69.6)	
More exposed to SRH/FP messages in country of origin than in Hillbrow	43 (23.8)	78 (31.1)		15 (33.3)	43 (31.6)		28 (20.6)	35 (30.4)	
Discrimination in Hillbrow			0.012			0.765			0.000
No	64 (35.4)	119 (47.4)		19 (42.2)	54 (39.7)		45 (33.1)	65 (56.5)	
Yes	117 (64.6)	132 (52.6)		26 (56.8)	82 (60.3)		91 (66.9)	50 (43.5)	
Depression/negative feelings			0.008			0.566			0.036
Never	31 (17.1)	74 (29.5)		13 (28.9)	44 (32.4)		18 (13.2)	30 (26.1)	
Seldom	74 (40.9)	78 (31.1)		16 (35.5)	37 (27.2)		58 (42.7)	41 (35.6)	
Often	76 (42.0)	99 (39.4)		16 (35.6)	55 (40.4)		60 (44.1)	44 (38.3)	
Social support in South Africa			0.004			0.320			0.006
Yes	155 (85.6)	186 (74.1)		37 (82.2)	102 (75.0)		118 (86.8)	84 (73.0)	
No	26 (14.4)	65 (25.9)		8 (17.8)	34 (25.0)		18 (13.2)	31 (27.0)	

Table 6.7 shows the bivariate association of knowledge variables and access to a government health facility for SRH services. There was a statistically significant association between source of information on SRH and having visited a government health facility for SRH services in the overall sample, as well as in the male and female samples. In the overall sample, among those who had visited a government health facility for SRH services, 56.3% received information about SRH from unreliable sources while 43.7% received the information from reliable sources ($p=0.000$). Among the males that had access to a government health facility for SRH services, 64.4% received information on SRH from unreliable sources while 35.6% received the information from reliable sources ($p=0.000$). Among the females that had access to a government facility for SRH services, 53.7% received information from unreliable sources while 46.3% received information from reliable sources ($p=0.000$). This bivariate result showed that immigrant youth receive most of their information from unreliable sources. This is consistent with the findings by Barral et al., (2020) which showed poor knowledge of contraceptives among male and female Latino immigrant youth.

There was an association between access to recent information about family planning prior to the survey and access to a government facility for SRH services in the overall sample and among the females. Overall, 77.2% of those who had access to a government facility for SRH services had recently received information on family planning prior to the survey while 22.8% of those who had access to a government facility had not received recent information on family planning prior to the survey ($p=0.000$). In the male sample, among those who had access to a government facility for SRH services, 54.6% had recently received information on family planning prior to the survey, while 45.4% of males had not.. This was not statistically significant. The findings among the male was however in contrast to the female sample, in which 84.6% of those who had access to a government health facility for SRH services had recently received information on family planning prior to the survey and only 15.4% of the females had not received information on family planning 6 months prior to the survey ($p=0.000$).

With regards the association between knowledge of where to obtain contraception and access to a government health facility for SRH services, among the respondents overall, 35.4% of those who had access to a government health facility for SRH services had inadequate knowledge, while 63.9% had adequate knowledge of where to obtain contraception ($p=0.000$). Among the male respondents, 60.0% of those who had access to a government health facility for SRH services had inadequate knowledge of where to obtain contraception, while only 40% of the males with access to a government facility for SRH services had adequate knowledge ($p=0.003$). Among the female respondents however, 27.2% of those with access to a government health facility for SRH services had inadequate knowledge of where to obtain contraceptive method, while 72.8% of females with access to a government health facility had adequate knowledge ($p=0.000$). The poor knowledge about family planning in this study is not surprising as previous studies on family planning with men have confirmed that most men had inaccurate knowledge about contraceptive methods (Thummalachetty et al. 2017).

Multivariate logistic regression analysis was performed on variables with significant association at bivariate level, in order to identify and ascertain the determinants of access to a government health facility for SRH services among the respondents overall, and separately among male and female respondents.

Table 6.7: Bivariate Association of Knowledge Variables and Access to Government Health Facilities for SRH Services

Variable	All N=439			Male n=182			Female n=257		
	Yes (%) n=181	No (%) n=251	p-value	Yes (%) n=45	No (%) n=136	Pearson Chi-square	Yes (%) n=136	No (%) n=115	Pearson Chi-square n=181
Source of information			0.000			0.000			0.000
Unreliable source	102 (56.3)	215 (85.7)		29 (64.4)	120 (88.2)		73 (53.7)	95 (82.6)	
Reliable source	79 (43.7)	36 (14.3)		16 (35.6)	16 (11.8)		63 (46.3)	20 (17.4)	
Received information on FP 6 months prior to the survey			0.000			0.070			0.000
Yes	41 (22.8)	132 (52.6)		20 (45.4)	83 (61.0)		21 (15.4)	49 (42.6)	
No	139 (77.2)	119 (47.4)		24 (54.6)	53 (39.0)		115 (84.6)	66 (57.4)	
Knowledge of where to obtain contraception			0.000			0.003			0.000
Inadequate knowledge	64 (35.4)	178 (70.9)		27 (60.0)	111 (81.6)		37 (27.2)	67 (58.3)	
Adequate knowledge	117 (64.6)	73 (29.1)		18 (40.0)	25 (18.4)		99 (72.8)	48 (41.7)	

*p-value<0.05, **p-value<0.01, ***p-value<0.001

6.4 DETERMINANTS OF ACCESS TO GOVERNMENT HEALTH FACILITIES FOR SEXUAL AND REPRODUCTIVE HEALTH SERVICES

The determinants of access to a government health facility for SRH services by immigrant youth were examined using multivariate logistic regression analysis. It was important to examine the predictors of access to a government health facility because lack of access to a health facility endangers the lives of sexually active youth in the study are due to social interactions in the community. This could lead to increased levels of negative SRH outcomes, including high rates of unintended pregnancy, unsafe abortion, maternal deaths, STIs and HIV as a result of lack of access to adequate information and services. Access to government health facilities for SRH services enables immigrant youth to get adequate information about SRH, SRH products and services from the health facility, so as to reduce unsafe abortions and avoidable maternal deaths.

Table 6.8 shows the multivariate logistic regression analysis of socio-demographic, migration and knowledge on SRH variables that were predictors of access to a government facility for SRH by immigrant youth in Hillbrow. Separate models were run for the socio-demographic and migration variables. The full model consisted all the independent variables. This is consistent with the conceptual framework for this study. The socio-demographic variables that predicted access to a government facility in the overall model (Model 1) were gender, age group, wealth index, and number of people in a household. The migration variables that predicted access to a government facility for SRH services in the overall sample were duration of residence in Hillbrow, negative feelings, anxiety and depression and social support (Model 2). In the fully adjusted model for all the sample overall (Model 3), the predictors of access to a government facility for SRH services were gender, number of people in a household, source of information and knowledge of where to obtain contraception.

Among the males, the socio-demographic variables that predicted access to a government health facility for SRH services in Model 4 was number of rooms occupied by a household. Migration variables did not predict access a government facility for SRH services among the males (Model 5). In the overall fully adjusted model for the males, the predictors of access to a government health facility for SRH services were: number of rooms occupied by a household and source of information (Model 6). Among the females, the socio-demographic variables that predicted access to a government health facility for SRH services were age group and number of other households sharing with respondent (Model 7). The migration-related variables that predicted access to a government health facility for SRH were: experiences of discrimination in Hillbrow and depression/negative feelings and social support (Model 8). Among the females in the fully adjusted model, the predictors of access to a government health facility for SRH services were: wealth index, experiences of discrimination in Hillbrow, frequency of experiencing negative feelings, anxiety or depression, and source of information on contraceptives (Model 9).

There was a marked gender difference in physical access to a government health facility for SRH services, with the female respondents being 4.19 times more likely to have access compared to their male counterparts (OR=4.19, CI=2.67-6.59). The effect remained in the fully adjusted model (OR=3.22, CI=1.93-5.37).

In the overall sample, those in the age group 25-34 were more likely to have access to a government health facility for SRH compared to respondents in the age group 18-24 (OR=1.81, CI=1.08-3.02). This association was not, however, statistically significant in the fully adjusted model (Model 3). Similarly among the females, those in the age group 25-34 were more likely to have access to a government health facility for SRH services compared to respondents in the age group 18-24 (OR=2.11, CI=1.11-3.97). This association was not also statistically significant in the fully adjusted model.

Males who attained a higher level of education had increased likelihood of having access to a government health facility for SRH services among the males compared to those with primary education. Those with complete secondary education or higher were 2.33 times more likely to have access to a government health facility compared to male respondents with primary or secondary incomplete education. This was however not statistically significant at 95% level of confidence..

Concerning wealth index, in the overall sample of Model 1, respondent in the middle wealth quintile were more likely to have access to a government health facility compared to those in the poor wealth quintile, (OR=1.67, CI=1.02-2.73). Among the females, respondents in the rich wealth quintile were less likely to access government health facility With regards to number of people in a household, there was an inverse association between living in a household with four or more people and having visited a government health facility for SRH services. In Model 1 of the overall sample, those living in households with 4-10 people were less likely to have visited a government health facility for SRH services, compared to respondents living in households with 1-2 people (OR=0.42, CI=0.24-0.74). This result showed the negative effect of living in an overcrowded house. It shows that the more people in a household, the less likely it is for the residents to have had access to a government facility for SRH services. The negative impact of living in an overcrowded space has been studied. For instance, Nkosi et al. (2019) found an association between overcrowded housing and ill health among residents in two suburbs of Johannesburg.

There was no statistically significant association between migration status and having had access to a government hospital for sexual and reproductive health services. With regards to duration of residence in Hillbrow, in the Model 2 of the overall sample, respondents who lived in Hillbrow for 3-5 years were 1.86 times more likely to have access to a government health facility for SRH compared to respondents who have lived in Hillbrow for 0-2 years (OR=1.72, CI=1.00-2.97

The negative social processes in Hillbrow community had varied effect on access to a government health facility for SRH services. There was an association between having experienced discrimination in the study area and having had access to a government health facility for SRH services among the females but not among the males. In the migration model for the females (Model 8), those who reported having had discrimination in Hillbrow were 1.84 times more likely to have had access to a government health facility compared to those who have not had discrimination (OR=1.94, CI=1.11-3.39). In the fully adjusted model for the females (Model 9), the association between having experienced discrimination and access to a government health facility for SRH services was stronger (OR=2.20, CI=1.11-4.35).

Frequency of experiences of negative feelings such as depression, fear, anxiety and sad moods were associated with access to a government health facility for SRH in the overall sample and among the females. In the overall sample (Model 2), respondents who reported seldom experiencing negative feelings were two times more likely to have had access to a government health facility compared to those who reported never having had negative feelings (OR=2.08, CI=1.21-3.57). Similarly in Model 2, those who often had negative feelings were twice more likely to have access to a government health facility for SRH services (OR=2.00, CI=1.16-3.46). Among the females, in Model 8, those who seldom had negative feelings were 2.27 times more likely to have access to a government health facility for SRH services compared to those who never experienced negative feelings (OR=2.27, CI=1.08-4.76). Similarly females who often had negative feelings were 2.79 times more likely to have access to a government health facility for SRH services compared to those who never experienced negative feelings (OR=2.79, CI=1.29-6.04). In the fully adjusted model (Model 9) among the females, experiencing negative feelings often was strongly associated with access to a government health facility for SRH services compared to those who never experienced negative feelings (OR=3.37, CI=1.31-8.70).

With respect to having social support in South Africa, in the overall sample (Model 2), respondents who did not have social support in South Africa were less likely to have access to a government health facility for SRH services, compared to respondents with social support in South Africa (OR=0.49, CI=0.28-0.84). Similarly among the female respondents in Model 8, those who did not have social support in South Africa were less likely to have access to a government health facility for SRH services, compared to respondents who had social support in South Africa (OR=0.43, CI=0.20-0.92).

Source of information was associated with access to a government health facility for SRH services. Among all respondents in the fully adjusted model (Model 3), those with reliable source of information were 3.32 times more likely to have access to a government health facility for SRH services (OR=3.32, CI=1.77-6.24). In the fully adjusted model among the males (Model 6), those with a reliable source of information about SRH were 6.45 times more likely to have access to a government health facility

compared to respondents that had unreliable sources of information (OR=6.45, CI=1.72-24.13). Similarly among the female sample in the fully adjusted model, those with a reliable source of information were 3.42 times more likely to have access to a government facility for SRH services compared to those that had unreliable sources of information (OR=3.42, CI=1.50-7.79). Receiving information on SRH from unreliable sources predispose immigrant youths to negative SRH outcomes.

Knowledge of a place to obtain contraception was associated with access to a government health facility for SRH services among all respondents (Model 3) and among the females (Model 9). Among all respondents, those with adequate knowledge were 1.81 times more likely to have had access to a government health facility for SRH services compared to those with inadequate knowledge (OR=1.81, CI=1.07-3.06). Likewise among the females, those with adequate knowledge were 1.75 times more likely to have access to a government health facility for SRH services compared to those with inadequate knowledge. This was however not statistically significant.

Table 6.8: Determinants of Access to Government Health Facilities for Sexual and Reproductive Health Services

Variable	All			Male			Female		
	Model 1: OR (CI)	Model 2:OR (CI)	Model 3: OR (CI)	Model 4: OR (CI)	Model 5:OR (CI)	Model 6: OR (CI)	Model 7: OR (CI)	Model8:O R (CI)	Model 9: OR (CI)
Gender									
Male	ref		ref						
	4.19		3.22						
Female	(2.67- 6.59)***		(1.93- 5.37)***						
Age group									
18-24	ref		ref	ref		ref	ref		ref
	1.81		1.28	1.31		0.98	2.11		1.11
25-34	(1.08- 3.02)*		(0.69- 2.34)	(0.54- 3.19)		(0.34- 2.77)	(1.11- 3.97)*		(0.50- 2.49)
Highest level of education attained									
Primary/incomplete secondary	ref		ref	ref		ref	ref		ref
	1.42		1.28	2.33		2.33	1.19		0.98
Complete Secondary/Higher	(0.89- 2.28)		(0.75- 2.197)	(10.94- 5.77)		(0.82- 6.57)	(0.66- 2.15)		(0.48- 1.97)
Current economic activity									
Yes	ref		ref	ref		ref	ref		ref
	0.87		0.99	1.04		0.86	0.80		1.23
No	(0.49- 1.54)		(0.52- 1.87)	(0.35- 2.93)		(0.25- 2.90)	(0.40- 1.62)		(0.53- 2.84)
Marital status									
Single	ref		ref	ref		ref	ref		ref
	1.10		1.06	0.67		0.81	1.45		1.63
Married/living with a partner	(0.67- 1.79)		(0.62- 1.82)	(0.28- 1.63)		(0.30- 2.16)	(0.78- 2.68)		(0.80- 3.32)
Wealth index									
Poor	ref		ref	ref		ref	ref		ref
	1.67		1.31	2.12		1.84	1.43		0.88
Middle	(1.02- 2.73)*		(0.76- 2.25)	(0.90- 5.00)		(0.69- 4.88)	(0.77- 2.65)		(0.42- 1.82)
	1.13		0.71	2.16		1.70	0.92		0.36
Rich	(0.60- 2.14)		(0.35- 1.45)	(0.72- 6.44)		(0.51- 5.56)	(0.40- 2.09)		(0.13- 0.99)*
Number of people in a household									
1-2	ref		ref	ref		ref			ref
	0.53		0.51	0.42		0.43	0.68		0.66
3	(0.29- 0.95)*		(0.26- 0.98)*	(0.16- 1.07)		(0.15- 1.23)	(0.30- 1.53)		(0.26- 1.70)
	0.42		0.45	0.44		0.48	0.47		0.48
4-10	(0.24- 0.74)**		(0.23- 0.86)*	(0.18- 1.10)		(0.17- 1.29)	(0.22- 0.98)		(0.19- 1.20)
Number of rooms occupied by household									

1 room	ref	ref	ref	ref	ref	ref
2 or more	0.88 (0.54-1.44)	0.69 (0.40-1.20)	0.38 (0.15-0.95)*	0.21 (0.07-0.62)**	1.28 (0.69-2.40)	1.08 (0.52-2.24)
Number of other households sharing room with respondent						
0-1	ref		ref	ref		ref
2-5	0.71 (0.44-1.156)	0.88 (0.52-1.49)	1.53 (0.68-3.42)	2.28 (0.93-5.56)	0.53 (0.28-0.98)*	0.55 (0.27-1.12)
Migration status						
Documented		ref		ref		ref
		0.84	0.89	0.96	1.13	0.61
Undocumented		(0.56-1.26)	(0.53-1.48)	(0.47-1.97)	(0.44-2.87)	0.93 (0.53-1.61) (0.31-1.12)
Duration of residence in Hillbrow						
0-2 years		ref		ref		ref
		1.72	1.72	1.20	1.08	1.94
3-5 years		(1.00-2.97)*	(0.88-3.34)	(0.44-3.26)	(0.33-3.54)	1.85 (0.91-3.74) (0.82-4.58)
6-20 years		1.66 (0.95-2.87)	1.95 (0.95-3.99)	1.87 (0.73-4.73)	1.72 (0.52-5.59)	2.20 (0.83-5.81)
Discrimination in Hillbrow						
No		ref		ref		ref
		1.29	1.51	0.84	1.08	2.20
Yes		(0.85-1.96)	(0.91-2.51)	(0.41-1.72)	(0.33-3.54)	1.94 (1.11-3.39)* (1.11-4.35)*
Depression/ negative feelings						
Never		ref		ref		ref
		2.08	1.45	1.33	1.11	2.01
Seldom		(1.21-3.57)**	(0.75-2.78)	(0.55-3.22)	(0.38-3.23)	2.27 (1.08-4.76)* (0.83-4.83)
Often		2.00 (1.16-3.46)*	1.52 (0.78-2.98)	1.07 (0.45-2.57)	0.64 (0.22-1.85)	3.37 (1.31-8.70)*
Social support						
Yes		ref		ref		ref
		0.49	0.58	0.70	0.83	0.53
No		(0.28-0.84)*	(0.30-1.12)	(0.28-1.72)	(0.28-2.41)	0.43 (0.20-0.92)* (0.21-1.31)
Source of information						
Unreliable source			ref		ref	ref
			3.32		6.45	3.42
Reliable source			(1.77-6.24)***		(1.72-24.13)**	(1.50-7.79)**
Received information on FP 6 months prior to the survey						
Yes			ref		ref	ref

No	1.14 (0.61- 2.09)	0.52 (0.15- 1.84)	1.86 (0.82- 4.19)
Knowledge of where to obtain contraception			
Inadequate knowledge	ref	ref	ref
Adequate knowledge	1.81 (1.07- 3.06)*	2.51 (0.82-7.61)	1.75 (0.90- 3.42)

OR: Odds Ratio; CI: Confidence interval; *p-value<0.05, **p-value<0.01, ***p-value<0.001

Model 1, 4, 7: Multivariate logistic regression analysis of access to Government health facility and sociodemographic variables

Model 2, 5, 8: Multivariate logistic regression analysis of access to Government health facility and migration/community social variables

Model 3, 6, 9: Multivariate logistic regression analysis of access to Government health facility and all independent variables

6.5 SUMMARY OF THE CHAPTER

This chapter examined the predictors of access to a government health facility for SRH services among immigrant youth in Hillbrow. In order to do this, the sources of information about SRH, knowledge of place to get contraception was described. Bivariate analyses involving cross tabulation and Pearson chi-square were employed to examine the factors associated with access to a government facility for SRH services, across the independent variables. Multivariate logistic regression was employed to measure the determinants of access to a government health facility for SRH services in Hillbrow. The main sources of information on SRH for all respondents were radio or television, friends and posters. Gender differences existed in the sources of SRH information. Radio or television and posters were the main sources of information on SRH for the males, while radio or television and friends were the main sources of information on SRH for the females. The determinants of access to a government facility for SRH services among all the respondents in the model with demographic and socio-economic variables at individual and household levels were gender, age group, wealth index, and number of people in a household. The migration variables that predicted access to a government facility for SRH services among all the respondents were duration of residence in Hillbrow, negative feelings of anxiety, depression or bad moods and social support. In the fully adjusted model which further controlled for the knowledge variables, the predictors of access to a government facility for SRH services were gender, duration of residence in Hillbrow, source of information and knowledge of where to obtain contraception.

In conclusion, this chapter examined the predictors of access to a government health facility for SRH services by immigrant youth in Hillbrow. The socio-demographic predictors of access to a government facility were gender, age group, wealth index and number of people living in a household, and number of other households sharing room with respondent. The migration and community social processes that were predictors of access to a government health facility for SRH services were duration of residency in Hillbrow, experiences of discrimination, negative feelings of depression, anxiety and sadness, and having social support in South Africa. The knowledge and information factors that were predictors of access to a government health facility for SRH services were source of information and knowledge of where to obtain a contraception. This chapter has shown that poor knowledge and awareness as a result of unreliable source of information and inadequate knowledge of where to get contraception. These were associated with lack of access to government health facility by majority of the study sample. Lack of access to a health facility for SRH services endangers the lives of immigrant youth, leading to increased levels of negative SRH outcomes, including high rates of unintended pregnancy, unsafe abortion, maternal deaths, STIs and HIV as a result of lack of access to adequate information. Chapter Seven uses qualitative techniques to explore the perceptions and experiences of immigrant youth on access to sexual and reproductive health services in Hillbrow.

CHAPTER SEVEN

PERCEPTIONS AND EXPERIENCES ON ACCESS TO SEXUAL AND REPRODUCTIVE HEALTH SERVICES FROM GOVERNMENT HEALTH FACILITIES

7.1 INTRODUCTION

Qualitative analysis was conducted to understand the perceptions and experiences of immigrant youth on access to SRH services from government health facilities in Hillbrow. Six focus group discussions consisting of 6 people each were held. Four FGDs were held for the females and two for the males. Among the females, two FGDs each were held among the youth aged 18-24 and 25-34, one FGD was held among the males aged 18-24 and one FGD among the males 25-34. The recorded FGDs were transcribed and the field notes taken were used to record observations such as participants' facial expression and body language. The analysis of the transcripts was done using ATLAS.ti 7 to generate codes, sub-themes, themes and quotations answering the research question.

7.2 QUALITATIVE ANALYSIS

Qualitative analysis was conducted to understand the perceptions of youth on access to SRH services from government health facilities in Hillbrow. Thematic analysis of the transcripts were done, following the steps suggested in Braun and Clarke, (2013); Maguire and Delahunt, (2017). Accordingly, the transcripts from the FGDs were read repeatedly to get familiarised with the data. The transcripts were then imported to ATLAS.ti7 for further analysis. For each interview, initial codes were generated and quotations were highlighted. Thereafter different themes and sub-themes were generated and reviewed for all the 6 FGDs and finally names of the themes and subthemes were used for the analysis. The thematic analysis provided answers to the research question for this study, which sought to identify the perceptions and experiences of immigrant youth on access to government health facilities for SRH services in Hillbrow.

Five themes emerged: lack of information on SRH, discrimination, bad treatment and negative attitudes to foreigners, documentation, judgement and blame by health facility staff.

7.2.1 Lack of Information on Sexual and Reproductive Health in Hillbrow

Immigrant youth expressed a lack of information on SRH and access to services from the government health facilities and in the Hillbrow community generally. The only thing they have in the community is HIV testing, as indicated by some participants:

I see different booths doing HIV testing; that's all I get. I don't get any information on STIs, family planning or contraceptive use. – Male 18-24, FGD participant.

Participants explained that they did not have information on how to live a healthy sex life, they did not have access to STI testing and treatment, and termination of unwanted pregnancies from any of the government facilities in Hillbrow. Their main sources of information on SRH were friends and the internet. The views on information varied by gender, as the females felt they had some level of information but their problem was rather a lack of access to SRH services.

We do have information – fairly available. But services – having services is a problem. Because of the way we are treated in the clinics, we do not want to go there. If I have unwanted pregnancy or I go for any of such services, the moment I show my asylum paper or any other document if it's not ID, I will not be allowed to get into the clinic. – Female 18-24, FGD participant.

We get information from friends. The main source of information is friends... foreigners-women who have been in the country long enough. – Female 25-34, FGD participant.

For information, internet gives us information... You can go to an aunt, but internet is great. – Female 18-24, FGD participant.

For accessing information about sexual and reproductive health, I don't have anything here. I had information before I moved to Hillbrow. I used to stay in Orange Farm before I came here. There, medical students and teachers used to come and tell us about sexual health, protection, STIs and such. But here in Hillbrow, there is no information. They only test. There is no one telling young people the way to do things right. But for testing, they are always there testing, but no information on STIs, sex health, abortion and the stuff... No. They are not available. - Male 18-24, FGD participant.

Participants acknowledged their lack of information on SRH. They understood that correct information on SRH is available at the government health facilities in the community but they do not go to these facilities because of the way they are treated. When asked about their sources of information on family planning, participants mentioned friends, internet and only very few mentioned private clinics.

To get information, we have to go to the government hospital but when you get there, you are discriminated against, treated badly, and even they ask you questions on where you got your papers from. They even threaten to call Home Affairs for you, saying your paper is fake. So I would rather not go there again. So true, we don't have information

on sexual health, testing and treatment of STI. – Male 18-24, FGD participant.

There's a doctor at Shoprite that you could consult for family planning information. He charges R100 and he also prescribes good medication. He is the main source of information on family planning for every foreigner. Unfortunately, abortion is not the area of the Indian doctor, so he doesn't do that. – Female 25-34, FGD participant.

Both male and female participants in the two different age groups expressed a lack of access to SRH information and services from government health facilities. Participants were asked to explain reasons for the lack of access, especially since they knew that correct information and SRH services were available at the government health facilities.

7.3 REASONS FOR NOT ACCESSING SRH SERVICES FROM GOVERNMENT HEALTH FACILITIES

Participants discussed reasons for not accessing SRH services from the government health facilities in Hillbrow, despite the fact that the facilities are in close proximity to them. The reasons provided were mainly related to perceived hostile treatment of foreigners by health facility staff and the harassment over documentation.

7.3.1. Bad Treatment and Negative Attitude to Foreigners by Health Facility Staff

The participants highlighted their negative experiences with the staff in the two government clinics in Hillbrow because of their foreign identities. They expressed how they were questioned on the authenticity of their identity documents and other legal permits; they were frequently told that they were a waste of time and medical resources by the nurses.

When I needed a test and treatment for STI, I went to the clinic. First I was given a very bad attitude because I don't have a South African ID but my document was okay. Then the nurse gave me a very negative treatment, she told me – "It's your fault and now you have the disease you have come here." So they tell you that you are giving them extra work – Male 18-24, FGD participant.

"... The attitude of the workers is a big problem. They behave as if all their problems is targeted to foreigners". – Male 25-34, FGD participant

- *“...At the clinics, the nurses are very harsh, they are not patient.”* –Female 25-34

“... When I went there, there was a lady at the front, I greeted her in Zulu, she asked me my name and asked to see my document. As soon as I presented my passport, she changed her behaviour totally, got a very bad attitude, oh my man.... (expressing frustration).” She asked me “so why are you here?” I told her I want to test. She said what for? Then without listening to me again, she started speaking in Sepedi that “these guys are wasting our time and resources. They come here to waste our time and our medical resources”. She did not know I understood and she did not attend to me. I went back home and never went there again. If you present an ID, you are given treatment but they still give you attitude because of your name and the fact that your ID shows you are not a South African.
– Male FGD 18-24, FGD participants.

“Bad experiences and bad treatment at the clinics in Hillbrow pushes immigrants to do otherwise. An immigrant lady was in a queue for SRH service at the clinic. When it finally got to her turn, they checked her asylum seeker’s document and found out that it was only valid until for that day. She was told that she should go back to her country and seek SRH services. Another problem is that for abortion from the clinics, getting to the place to do the abortion does not guarantee you a place. You keep going and may not be given an appointment for over 4 weeks. When they finally give the appointment, it’s too far off so you can’t abort again”. –Female 18-24, FGD participants.

7.3.2 Discrimination against Foreigners

Participants shared experiences of how they were discriminated against in the government health facilities based on their foreign nationality. They articulated their perceived discrimination by the clinic staff in the government facilities as a factor that prevented them from going to the clinics for SRH services. Both male and female of different age groups shared this experience of discrimination. This is patently evident in the quotations below:

I have papers but they have a different approach to you when you go to the clinic because you are a foreigner. Though you speak the language, like me, I speak Zulu but they talk to you like it’s an attack. You are looked down upon because you are a foreigner. Eish, the nurses have a different mind-set. They ask “How did you get here? Are you pregnant?” They ask questions as if it’s a straight attack. Female 18-24, FGD participant

You are at the hospital to get the information but you are discriminated against and sometimes you come back without any help. This is a problem...really. – Female 18-24

They treat you differently because you are a foreigner, sometimes you are told to go back and take Panadol... You are never given the same treatment as South Africans. –Female 18-24

To get information, we have to go to the government hospital but when you get there, you [get] discriminated against, treated badly, they even ask you questions on where you got your papers from. They threaten to call Home Affairs for you, saying your paper is fake. So I would rather not go there again. So true, we don't have information on sexual health, test and treatment of STI. –Male 18-24

You are asked if you have medical aid. If you don't have medical aid, you will be told "Uzoba strong". They give excuses "come back tomorrow". – Female 25-34, FGD participant

For abortion, the way they treat foreigners and South Africans who want to have abortion are different. Sometimes you are not given any treatment at all, they tell you come back, we attend to 5 people a day. If you come back and you are the 3rd person on the second day, they say "you foreigners just wait let's attend to our people first." Irrespective of how early you go, they attend to the South Africans first and the foreigners are told to keep trying, till they say we cannot do the abortion because it's about 12 weeks. – Female 18-24, FGD participant

7.3.3 Documentation

The participants shared their views that documentation was a major barrier to accessing SRH services by immigrants in Hillbrow. They explained that the SA identity document was the only identity recognised at the clinics. They spoke of how the clinic staff did not trust other types of documentation such as the asylum papers. The participants explained that clinic staff questioned immigrants with valid documents about the source of their identity documents, raising the suspicions over the authenticity of these genuine forms of identity.

Furthermore, the participants explained that those whose legal status have expired were sent back unattended. Requirements for legal documentation by the clinic staff was not just as a form of identification as expected, but the dates were also checked for validity of stay. Those without an up to date valid documents were turned back.

Documentation was thus perceived as a barrier to accessing services by both documented and undocumented immigrant youth in the study. A general view with different groups of participants was

that having a valid document did not guarantee access to SRH services, though some may have physical access to the facility.

They need the ID to allow you go into the clinic for information or testing and treatment of STI. They don't trust your asylum paper. They even check the dates and complain, if it's over with a day, then they turn you back. – Male 18-24, FGD participant

You need to show valid passport and permits before you can get services. Injections have been stopped. You need to have your documentation every time you go. If your permit is not valid or you overstayed, you are sent back. It doesn't matter what your issue is. –Female 25-34, FGD participant

If you want to go to the clinic even for HIV test, they ask you for legal documents but outside on the booths, you are not asked for any legal document. Unfortunately, they don't give counselling at the tents. I think they have targets...but the problem with the tent is that people will know you are positive. But at the clinic, you need valid documentation. - Female 18-24, FGD participant

"..... Documentation is a big challenge. The clinics here need you to show documentation. Sometimes when you have your correct documentation, they still question you and sometimes refuse it. Sometimes if you go with a receipt from Home Affairs, they refuse to accept it and turn you back. A friend of mine has a valid documentation from Home Affairs and the clinic refused the paper because they were not sure ...it was not what they are used to". – Female 18-24, FGD participant

7.3.4 Judgment and Blame

The participants expressed the judgmental attitude of the nurses at the clinics in Hillbrow. They shared their experiences of being judged and blamed by the nurses, which made them to stop going to the clinics. Both male and female experienced judgmental attitudes. In addition, participants explained that the nurses were counselling them like a parent to a child, rather than providing the services they sought. Participants further complained about the lack of confidentiality.

Most of the staff do not keep issues confidential. They start counselling you as a child and parent – "Why did you go and have unprotected sex?" It's all about judgement. They judge you. –Female 18-24, FGD participant

“Posters are available on the street poles with numbers to get abortion done by the abortion specialists. Services are very poor in government clinic. No information there. One time I was sick with an STI and I went there, they were blaming me and scolded me that it’s my fault”. - Male 18-24

7.4 HOW PARTICIPANTS CIRCUMNAVIGATE THE BARRIERS TO ACCESSING FAMILY PLANNING SERVICES

Participants were asked to explain how they were able to go around getting family planning services since they did not have access to government health facilities in Hillbrow. Among all the female participants, buying contraceptive pills from street vendors who brought these from Zimbabwe was a common practice. Female participants in the age group 25-34 indicated using some substances like bicarbonate of soda, while some got traditional herbs from the Sangoma (traditional healer). Among the males, some decided to use condoms consistently while a participant mentioned using a private doctor and other government clinics outside Hillbrow.

We mostly buy family planning pills from the street. Some of the people selling on the street sell family planning pills. –Female 18-24

We buy pills from Zim for R25. Since the clinic no more gives injection - the one we mostly prefer, we rather get pills from Zim. Also the SA pills are very weak and people get pregnant while using them. I got pregnant with my son while using the pill from SA and since then I have been using the pill from Zim.-Female 25-34, FGD participant

“Many women do not use tablet, they use cooked soda - cooked bicarbonate of soda – for prevention. It is used as morning after pill, after having sex. The bicarbonate of soda is highly effective, cheap and no side effects. Seriously the bicarbonate of soda cleans, it’s used after sex – same as morning after pill” (with emphasis). –Female 25-34

Sangoma... the traditional healers...traditional medicine. They give you herbs to drink. – Female 25-34, FGD participant

To protect myself, I condomise every time. Where I stay, at the security post, there are condoms. I went and put 2 packets in my pocket. In the clubs, there are condoms at the entrances of the clubs. The clinics are far to get condoms but clubs and flats are more accessible. Male 18-24, FGD participant

Since we still want to access services, I sometimes go to private doctor. Clinics outside Hillbrow are better than here. Clinics in Hillbrow are very bad in terms of services. Male 18-24, FGD participant.

7.5 UNPLANNED PREGNANCIES AND UNSAFE ABORTION

With the low levels of knowledge and information on family planning and the wide availability of alcohol and club houses, it was not surprising that unplanned pregnancies are rife in the Hillbrow community. Participants were asked if unplanned pregnancy was a problem in the community and how they dealt with the problem. The participants (both male and female) agreed immigrant youth lacked access to SRH services in government hospitals, including abortion services. They mainly turn to unsafe abortion (backstreet abortion specialists) for assistance. The numbers for places to do unsafe abortion are in the public domain. The views of some of the participants is indicated below:

If you are a foreigner they don't treat you well, never treat you the same. When my very close friend went to the clinic, the nurse said she needed to pay R300; she was turned back because she had no money, no medication. When she went back with the money she was told to come back again, every time she goes, she was told to come back until the pregnancy was over 12 weeks. She is now stuck with a baby she didn't plan for or wanted. Female 18-24, FGD participant

Backstreet abortion is very common. Because we are desperate, we do not want to have babies yet, and the clinics do not attend to us, people do backstreet abortion. For backstreet abortion, the problem is that there is no medical care... your safety and your life is not guaranteed. The provider tells you they are just doing the job and the consequences is not their problem... As youth, we engage in this because we are desperate and all we want is to get rid of the unwanted pregnancy, especially as the medical clinics have refused to help. - Female 18-24, FGD participant

Unplanned pregnancy is a problem here in Hillbrow. You only get abortion here in Hillbrow only if you are raped and you have a case number with the police. The young ladies know the building where the adolescent service is but they don't use them... (every one talking at same time, in disapproval of adolescent services). ...even when we were younger, we never, I've never used any of the services. – Female 25-34, FGD participant

The cost of backstreet abortion is ...good. You can negotiate, any negotiation can work out, so it's a win-win situation. I think the backstreet abortion people are more interested in helping young people not just for the money. – Female 18-24, FGD participant

My friend was pregnant, she went to the clinic and was turned back many times. So she called the street abortion specialist number and we went together to know what it would take. The person that attended to us told her how much she would need to bring and when I asked about the safety, he said there is no guarantee for her life. He was ready to help her, she should just go get the money and come to have the abortion done. I was so scared, I didn't go with her when she went for the abortion. They gave her pills and she was there for 2-3 hours. She said she was told to detoxify. – Male 18-24, FGD participant

The participants were further asked about their perceptions on unsafe abortion. The participants did not think of the consequences as a major issue, though they are aware of such consequences and mentioned after-effects such as profuse bleeding and inability to conceive again. They explained that the driving force for their action was desperation, and all their effort was termination of the unwanted and unplanned pregnancy. One of the participants mentioned that the “backstreet abortion specialist” were interested in helping the youth. Such statement conviction shows the need for correct SRH information and services for immigrant youth in Hillbrow.

As young people we look beyond the consequences, we think about the now, and not beyond. Though I know I may never get pregnant in my life again after this type of abortion, but what is important to me is the now. – Female 18-24, FGD participant

A friend had an abortion from a backstreet abortion specialist. After bleeding for one month and 3 weeks, she went to the clinic. Most of the abortions result in [excessive] bleeding and the people may not be able to have a baby ever again. – Female 18-24, FGD participant

One of my friends called the backstreet abortion place, got the medicine and left, and a 7 month baby came out at the MTN taxi rank. So that was a right pill, the cost was R500. Pregnancies above 3 months cost R500 while those within 12 weeks cost R300. She put the baby in a plastic in a ...The backstreet abortion specialists use blood thinners to do the abortion, yes, high doses of blood thinners. Female 18-24, FGD participant.

Participants were asked about accessing services from private clinics within their community. The cost of procuring such services was prohibitive. They agreed that the private clinics were good and treated them well. They also mentioned the fact that the behaviour to foreigners they experienced in the

government health facilities in Hillbrow was not the norm in all government facilities in South Africa, but they were specific to Hillbrow. The experiences of immigrant youth with regards access to SRH needs serious intervention strategies to curb both the stigma and negativity that Hillbrow residents highlighted.

Private clinics are doing it but it costs R1800 for under 12 weeks. You can get an abortion for about R700 for under 12 weeks but they are not real professionals – but they can do the abortion (shrugs shoulders). Female 18-24, FGD participant

Private hospitals and clinics take good care of people..... For example, most of the doctors and nurses are foreigners so they understand the plight of foreigners. Also because of the wrong mind-set based on experiences from government hospitals...Though not all government facilities in South Africa are bad to foreigners, here in Hillbrow, they are very bad. Female 18-24, FGD participant.

One of the participants narrated what happened to someone close to her and how the nurses verbally abused foreign nationals, especially the Zimbabweans. Stemming from such negative experiences, the participants vowed never to seek access for services from the government clinics in Hillbrow because they feared being prescribed wrong medication.

There are lots of incomplete abortions and complications after abortion. Someone close to me had incomplete abortion. She had complications and when she got to the hospital, they called the cops for her. This experience affected others who are foreigners so they don't want to go to the general hospital. - Female 25-34, FGD participant.

At the clinics, the nurses have expressed their frustration of attending to foreigners who want SRH services. We are afraid of going for services at the general hospital in Hillbrow for fear of being given the wrong medication, because the nurses have verbally expressed their dissatisfaction with foreign nationals, especially Zimbabweans who come to the general hospital Female 25-34, FGD participant

When asked about post-abortion care, the participants explained that there was no post-abortion care or instructions on how long they were expected to bleed for when they get unsafe abortions. They were asked to detoxify. The older participants mentioned going to the pharmacy to get post-abortion care

medication without prescription. Unsafe abortion is a serious concern and a major negative SRH outcome among immigrant youth in the Hillbrow community.

Backstreet specialists... give you pills and tell you post abortion cleaning is not necessary because it costs R300. You are however asked to drink ginger and eat a lot of water melon, so you pay only the R500. You have to do your own research to know what to expect. Backstreet abortion specialists are at your own risk. –Female 18-24, FGD participant

“... Private clinics provide the cleaning services (post-abortion services) but it costs R3000”. Female 18-24, FGD Participant

“...backstreet abortion - R500, depending on how far the pregnancy has progressed. You can get the procedures done. The pharmacies in Hillbrow don't need a prescription to give medicines for post abortion cleaning”. –Female 25-34, FGD Participant.

The participants were asked about the adolescent /youth friendly services in Hillbrow. Most of the participants did not know of such services and those who knew described the bad attitudes of the nurses. However, one of the respondents aged 18-24 knew about it and used the services. She described the bad attitudes of the nurses that prompted never using the services again.

The receptionists at the adolescent/youth friendly services are friendly but the nurses are bad. The nurses asked if I was pregnant, my last menstrual date etc. (in a very harsh tone). She then told me to go and take the testing strip and test myself before she could give me my family planning medicine. I went back to report at the reception and that's when the receptionist gave me the contact details of a research on SRH going on in Hillbrow, from Wits Health researchers. - Female 18-24, FGD participant

7.6 REASONS FOR UNPLANNED PREGNANCIES

When asked why unplanned pregnancies were so high in the community, the males pointed to abuse of alcohol. Among the males, other reasons included request not to use condoms by their girlfriends and the males wanting to prove themselves, as well as the linkage of condom use to infidelity. Among the females, in addition to alcohol, the reason for unprotected sex was that it was a “mistake”.

The study thus established that the social environment in Hillbrow, with lots of alcohol, clubs, and the unlimited excitement with these social factors encouraged the study participants to engage in unprotected sex. Some of the vignettes are presented below to substantiate this observation:

Alcohol-when the boys and girls are drunk, they don't wait for condoms. Male 18-24, FGD participant

Many of the guys look at girls on facevalue and say she's fresh and no need to use condoms. Male 18-24, FGD participant

Some girls want the boys to prove himself... some girls say condoms are not comfortable – they say it's not nice with a condom. -Male 18-24, FGD participant

Some ladies don't want condoms, one said to me "Today, I don't want you with a plastic, why do you want to put a condom, it means you are cheating on me." So you end up going into sex without condoms, because you are in the mood and men are weaker..... Some guys will fight at night with the lady over condoms. If you insist, she may say no, and you either end up forcing yourself on her or you end up going to the prostitute to buy. -Male 18-24, FGD Participant.

7.7 SUGGESTIONS FOR IMPROVEMENT FROM PARTICIPANTS

Finally, the participants were asked to proffer their suggestions, based on their experiences, to community leaders, health facilities in Hillbrow and the Department of Health, on how they could improve sexual and reproductive health services in Hillbrow. The responses by males and females were similar and they were grouped into five major themes and sub-themes. The themes were: training and re-training of health facility workers, provision of alternative sources of information on SRH outside the clinics, government (Department of Health) should intensify Monitoring and Evaluation in Hillbrow, media broadcast on SRH to specifically target the youth, provision of non-discriminatory, non-judgmental friendly services at the facilities, nurses who are younger should be employed and inclusion of foreigners as part of staff and volunteers in the clinics.

(a) Training and re-training of health facility workers

The participants indicated that all the staff at the health facilities need to be trained and re-trained on how to provide services to young people generally and to immigrant youth, specifically. In addition, they suggested that nurses should be sent for refresher courses and workshops on how to provide friendly services.

- *Training of staff and volunteers in the clinics to treat people equally –Female, 18-24*
- *Nurses become complacent, they should go for refresher courses- Female, 18-24*

- *Workshops and education of nurses, re-training of all providers –Female (18-24)*

(b) Stop treating people without discrimination and judgmental attitude

In addition, participants suggested the need to consistently educate and remind both the staff and volunteers at the clinics on how to treat people equally without discrimination when they seek access to services. They suggested that both the staff and volunteers in the clinics should stop discriminating against foreigners and that the counsellors should stop undermining people.

-Health providers should be educated on being friendly to youth, they should be more welcoming instead of being judgemental and being on the attack. –Female (18-24)

- Youth are willing and will be happy to learn and listen to the older people, but we don't want to be judged or talked to like babies.

- The volunteers should be trained not to choose who to help, but they should assist everyone – Male (18-24).

- Counsellors undermine people. This should stop. –Male (18-24)

-Nurses should be trained to look beyond colour, ethnicity and immigration status –Female (25-34)

The services at general hospital are never the same. The problem is that here in Hillbrow nurses say you are overloading them with work, even with your papers, as long as you are a foreigner, it's a problem.-Female (25-34)

These suggestions are very important because discrimination against foreign nationals by health facility staff and volunteers only worsens the challenging situation of the participants. This leads to seeking SRH services from the wrong places which might increase their vulnerability to negative sexual and reproductive health outcomes and avoidable deaths.

(c) Provision of alternative sources of information on SRH

Participants suggested the need for alternative sources of information on SRH outside the two health facilities in Hillbrow. In this regard, the participants suggested that STI information and services should be made available in the community, outside the clinic, such that youths could walk in for services. They suggested the need for awareness campaign and further suggested making information, education

and communication on SRH available and accessible for everyone. In addition, they suggested the need for a social media site fully dedicated to complete and correct SRH information. They suggested the need for government to collaborate with media houses for series on SRH information at a suitable time for the youth.

One of the participants suggested the provision of time and context-relevant SRH information at the health facilities because the materials currently used at the facilities are outdated and do not speak to the context of the youth. Materials that the youth could relate to should be used.

People need to be told where to get services. – Male, 18-24

Internet-Wi-Fi was at Joubert Park previously but it was taken away because people were getting mugged hence youngsters in Hillbrow now go to Braamfontein which is much safer- Male, 18-24.

STI services should be made more available like it is for HIV –Male, 18-24.

There should be awareness campaign to provide information to the youth in Hillbrow – Female, 18-24

There should be social media sites to fully discuss SRH – Female 18-24.

Government should meet with media houses and do series of SRH information and where to access them. Media should be specific to SRH and target youth. The media should not be at 5am which is the one currently available. SRH information/media should be at a time when youth are available to listen to them –Female 18-24.

SRH information should be time relevant and explained in the way that talks to youth of today, using material that youth can relate to. The materials that they used previously are not valid in this age of internet. Government should learn from the Wits SRH research team on how to communicate SRH information to youth –Female 18-24.

(d) Documentation requirement should be removed

Participants suggested the need to remove the request for documentation at the health facility for SRH services since such services must be accessible for everyone. They suggested the need for government to open up documentation of immigrants like the temporary permits for Zimbabwean nationals as a way of reducing crime and illegal activities.

The nurses need to communicate with the immigrants and make services available, irrespective of your country- Female, 25-34.

The government should bring back visa like asylum and Zimbabwean work permits for immigrants so that people will not be undocumented – Refugee status permit. This will also prevent illegality and fake papers.... We need proper regulation. The government should let people have proper regulation, to also prevent fraud and crime - Female, 15-34.

(e) Parental communication about sex

The participants expressed their frustrations of not getting information about SRH from home. They expressed that discussing sex-related issues with their parents is a taboo, as parents behave as if youth should not know about sex. They suggested the need for open communication about sex and related matters. This lack of information from parents predisposes the youth to engaging in negative SRH outcomes such as unplanned pregnancies.

Our parents should be discussing sex things with us and not treat it like a taboo. When they don't talk to us, we go on our own and do what we think is right, then we make mistakes. They know sex is a thing we will have sooner or later, so they should talk to us about sex. Our elders, should know that we youngsters are sexually active so they should give us information. – Male, 18-24

Education of black parents so that they understand that youth are sexually active –Male, 18-24

Encourage young people to discuss sex openly – Female, 18-24

Provision of information on safe sex at home especially by parents –Female, 18-24

- *Sexual activities should not be treated as exclusively for the elders –Male, 18-24*

(f) Inclusion of foreigners as part of staff and volunteers in the clinics

Participants suggested that the health facilities should employ foreigners as part of their staff in some capacity as volunteers. They explained that though Hillbrow community has a lot of immigrants, they are not hired either as volunteers or as staff members at the health facilities. They hoped this would reduce the level of discrimination and improve access to services.

Nurses who are younger should be employed –Female, 18-24

Some of the participants were of the view that the older nurses see them as children and talk to them as though they were talking to “babies”. They suggested that employing younger nurses who understand the plight of young people might reduce judgmental attitudes from the older nurses and increase access.

(g) Government (Department of Health) should intensify Monitoring and Evaluation in Hillbrow

The participants mentioned corruption as one of the challenges in accessing the General Hospital. They expressed the views that the clinic has some depo-provera injection but they offer the services only when bribes are paid. Participants thus suggested the need for the Department of Health to intensify Monitoring and Evaluation in the health facilities in Hillbrow.

In some clinic, the injection is there but you have to pay R100 as bribe to get injection but if you don't have papers, you pay R400 to get the depo injection.-Female, 25-34

There is a lot of corruption at the general hospital. You can even get a sick note for some amount of money. – Female participant 25-34

7.8 SUMMARY AND CONCLUSION

This Chapter discussed the perceptions and experiences of immigrant youth on access to a government health facility for sexual and reproductive health services in Hillbrow. It used qualitative data collected using Focus Group Discussions with the aid of FGD guides. The FGDs were audio-recorded and transcribed. The transcript and interview notes were used for the thematic analysis of this chapter. The transcripts were read several times, imported to ATLAS.ti.7 where further analysis was carried out. Themes, sub-themes, quotations and codes were selected. This study found that immigrant youth in Hillbrow lacked correct information on SRH issues. They did not access SRH information and services from the government health facilities in their community. Their main sources of information were friends and internet. Four main themes were identified as reasons for lack of access to SRH services from government health facilities in this study. These were bad treatment and negative attitudes to foreigners by clinic staff, discrimination against foreigners, documentation and judgmental attitude. Participants further explained that unplanned pregnancy was a challenge in their community, and this was linked to the availability of alcohol and clubs.

Participants were asked how they circumnavigated the barriers to accessing SRH services. The sub-themes among female participants of all age groups was buying contraceptive pills from street vendors who brought the contraceptives from Zimbabwe. Older female participants used some substances like the bicarbonate of soda and some got traditional herbs from the *Sangoma*. Some male participants

circumnavigated barriers to accessing SRH services by using condoms always, visiting private doctors and visiting other government clinic outside Hillbrow.

Participants were asked if unplanned pregnancy was a problem in the community and how they dealt with it. Both male and female agreed that unplanned pregnancy was a problem in their community. They explained that since they lacked access to government health facility for services, they engage in unsafe abortion, by going to the backstreet abortion specialists for assistance. Further probing question asked about the perception of the participants regarding unsafe abortion including the consequences. The participants were aware of the consequences and mentioned some during the discussion. They however explained that their actions were driven by desperation, with all attention focused on termination of unwanted and unplanned pregnancy.

With regards accessing SRH services from private clinics within the community, the cost of the services was the main challenge. Participants agreed that the private clinics were good and treated them well but they could not afford the cost of SRH services. They also explained that there was no post-abortion care when they get unsafe abortions. The people who carry out backstreet abortion however tell them to detoxify. When asked about the adolescent/youth friendly services, many did not know that such services exist in Hillbrow, and those that knew about it described the bad attitude of the nurse which prevents them from using such.

Participants explained that unplanned pregnancy was a problem in the community. Both males and females cited the availability of alcohol and clubs in their community as a main cause of unplanned pregnancies. When participants were asked why they did not use condoms consistently, the males explained that their girlfriends requested to have sex without condoms, and they felt they have to prove themselves to the girlfriends. The males also cited their girlfriends accusing them of cheating when they insist on condom use. Finally the males linked unprotected sex to “men’s weakness”, while the females linked unprotected sex to “mistake”. In conclusion, it is clear that immigrant youth lacked access to SRH services from government health facilities.

Chapter Eight discusses the results, the findings of the quantitative, qualitative and the mixed methods analysis. The integration of the quantitative and the quantitative findings and the interpretations are interrogated in detail.

CHAPTER EIGHT

DISCUSSION OF RESULTS

8.1 INTRODUCTION

The previous chapter described the perceptions and experiences of immigrant youth on access to government health facilities for sexual and reproductive health services in the study area using qualitative data collected using Focus Group Discussions. This chapter discusses the results of the quantitative and the qualitative findings, including the background characteristics of the study sample; determinants of multiple sex partnerships; determinants of inconsistency of condom use; predictors of access to government health facilities for sexual and reproductive health services and perceptions and experiences on access to government health facilities for SRH services by immigrant youth. The chapter further presents the convergent mixed methods analysis which is concerned with the integration of the quantitative and the qualitative findings. It also clarifies the different points of integration which occurred throughout the research process and finally discusses the integration analysis, the joint display table, and the interpretations. The chapter concludes by providing justification for the mixed method.

8.2 Characteristics of the Study Sample

Individual and household characteristics describe the levels of variables that provide an understanding of the background characteristics of the study sample, including the socio-economic and demographic characteristics. The migration-related characteristics and social processes within the Hillbrow community provide sound knowledge of the levels of migration-related variables and experiences of migrants based on the social processes in the study area. These results form the basis of reconceptualising of migration as a social determinant of health of immigrants; which is one of the theories utilised in this study (Solar and Irwin, 2010; Hall and Cuellar, 2016). The sexual and reproductive health characteristics provide levels of indicators of sexual and reproductive health and anchor the outcome variables of risky sexual behaviours that guide further analysis in this study.

Findings from the descriptive study were presented for all respondents as well as gender differences across all variables. The results show that the majority of the respondents were from Zimbabwe, and two out of five were undocumented. Results further show that the majority of the respondents chose to stay in Hillbrow for employment opportunities, proximity to work or cheaper transportation to their place of work. The other reason was to stay with a relative already living in Hillbrow. These reasons verify trends in push and pull theories of migration as well as the network theory of migration (Blumenstock et al., 2019).

Despite the choice to stay in Hillbrow, many expressed safety and security concerns in the study community. This could be attributed to the high level of criminality in the Hillbrow community. Previous studies have confirmed the effect of community and neighbourhood characteristics such as residential instability, crime, violence, deviance, and community poverty on health outcomes, including risky sexual behaviours (Warner, 2018); multiple sex partnerships (Tewksbury et al., 2013) and teenage pregnancy (Odimegwu and Mkwanaenzi, 2016). In addition, many of the respondents had negative feelings associated with poor mental health in the Hillbrow community. Other studies have ascertained evidence of poor mental health among immigrants (Bentley et al., 2019; Olukotun et al., 2019; Garcini et al., 2017; Virupaksha et al., 2014).

Findings from sexual and reproductive health behaviours indicate that the vast majority of the study sample were sexually active. This finding is very important because it set the pace for further analysis of the sexually active respondents only. Though male and female respondents reported same median age at first sex, this study shows that male respondents were sexually active at a very young age. This validates existing literature that has already confirmed lower age at sexual initiation among boys in sub-Saharan Africa (Bentley et al., 2019; Richter et al., 2015).

There is a marked gender difference in the number of sexual partners in the 12 months prior to the survey. The study finds male respondents engage more in multiple sex partnerships compared to their female counterparts. More male respondents however reported always using condoms during sexual intercourse than the female respondents. The mean age of most recent sex partner was lower for male respondents as compared to the female counterparts. However, age disproportionate sex was very high among the females. Both male and female respondents reported having had sex drunk. However, having sex when drunk was higher among the males than the females. This is consistent with the findings by Bello et al., (2017) in Johannesburg; Cano et al., (2017) in the United States and Agic et al., (2016) in Canada.

8.3 Determinants of Multiple Sex Partnerships

The demographic and socio-economic determinants of multiple sex partnerships for all the respondents are gender, age group, highest level of education attained, marital status, importance of religion, wealth index, number of people in a household, and number of other households sharing a room. There were gender differences in the risk of engaging in multiple sex partnerships, with the males having a higher risk than the females. A few of the female respondents who reported themselves as sex workers reported very high number of sex partners. Previous literature has documented migrant women's increased involvement in sex work as a means of survival in Hillbrow (Richter et al. 2014; Walker and Oliviera (2015). This result is however contrary to the findings among Polish migrants that identified male

respondents as significantly having a higher number of sexual partners than their female counterparts (Ganczak et al., 2017). Regarding age of respondents, a previous study by Muindi et al., (2014) established evidence of an increase in multiple sex partnerships as the age of the respondent increases among youth living in the slums in Nairobi. This is contrary to the findings by Rojas et al., (2016) in the United States, where there was no association between length of stay in the US and the number of sexual partners.

In this current study, marriage conferred protection from multiple sex partnerships for both the males and the females as marriage or cohabitation was associated with a reduction in risk of multiple sex partnerships and especially among the females. This is consistent with the findings by Exavery et al., (2015) in Tanzania but contradicts the findings by Sastre et al., (2015) among immigrant females aged 18-34 in the United States, in which married females reported increased number of sexual partners than their male counterparts.

Furthermore, respondents in the rich and the middle wealth quintiles in this study had reduced risk of engaging in multiple sex partnerships compared to the respondents in the poor quintile. This is consistent with the findings by Son et al., (2016) in Vietnam. Sharing a room with 2-5 other households was associated with increased risk of engaging in multiple sex partnerships among the respondents. Having other households sharing a room in an urban area is an indication of housing deprivation. This finding is consistent with previous studies in urban slums in South Africa (Kamndaya et al., 2014) and Nigeria (Kunnuji, 2014) which found associations between material deprivation in the form of poor housing and multiple sex partnerships. The determinants of multiple sex partnerships in this study are constructs of the social determinants of health (Solar and Irwin, 2010). The findings thus show that the social determinants of health are equally strong determinants of the number of sex partnerships in the study sample and thus predisposes the study population to negative health outcomes like sexually transmitted diseases, including HIV/AIDS, unplanned and unwanted pregnancies, infertility and maternal mortality.

Furthermore, the migration-related variables that were determinants of multiple sex partnerships were: migration status, duration of residence in Hillbrow, reason for staying in Hillbrow and exposure to SRH/FP messages in Hillbrow. This study found undocumented migrants to have an increased risk of having multiple sex partners compared to documented migrants. In the same breath, risk was higher among the males compared to the females. This is similar to the findings in Poland (Ganczak et al., 2017), Portugal and Belgium (Dias et al., 2020) and Honduras (Gandhi et al., 2015).

Duration of residence in Hillbrow was associated with an increased risk of engaging in multiple sex partnerships among the males. This observation may be explained by the fact that the female immigrants who stayed longer in Hillbrow exhibited a better understanding of the space and looked for better employment opportunities, thereby becoming more independent. In addition, those who engaged in sex

work within the earlier period of migration may choose to quit sex work and transition to other categories of employment. However, the males may feel more comfortable and more acculturate with the community, and decide to engage in multiple sex partnerships. The findings among the females consolidate those of Ma et al. (2014) which found immigrants with longer duration of migration to have lesser number of sex partners while the findings among the males are more inclined towards findings by other researchers (Morales-Alemán et al., 2016; Smith, 2015; Rojas et al., 2016) which found positive associations between longer duration of migration and multiple sex partnerships. The subsequent construct was staying in Hillbrow for employment reasons and for staying with a relative and these were associated with increased risk of multiple sex partnerships for female respondents. This could be explained by the high level of the informal economy and increased opportunities for sex work in Hillbrow. This is consistent with the findings by Richter et al., (2014).

The community social processes that were associated with multiple sex partnerships were discrimination in Hillbrow, safety and security concerns, and negative feelings associated with poor mental health. Gender differences exist in the way these social processes affect multiple sex partnerships. Discrimination and negative feelings in Hillbrow were significantly associated with increased risk of multiple sex partnerships among the female respondents. Hagiwara et al., (2019) documented the effect of discrimination on risky sexual behaviour in the United States. Similarly, Kogan et al., (2015) found an association between racial discrimination and multiple sex partners among male African American adolescents in the United States. In the present study, however, reported experiences of discrimination among the females were associated with an increased risk of multiple sex partnerships. Personal safety and security concerns in the community were associated with reduced risk of multiple sex partnerships among all respondents generally. Other studies (Warner, 2018; Tewksbury et al., 2013; Parrado et al., 2014) have found an association between neighbourhood characteristics and risky sexual behaviours, based on the tenets of the social disorganization theory by Shaw and McKay (1969).

There was no association between poor mental health and engaging in multiple sex partnerships in this study, though other researchers found urban migrants engaged in risky sexual behaviour and had poor mental health, because of the psychosocial changes that stem from immigration (Yang, 2014; Delara, 2016; Ganczak et al., 2017).

This study has shown that in addition to demographic and socioeconomic factors previously discussed, migration-related factors are determinants of the health of immigrants. This corroborates findings in Castañeda et al. (2015) and Fleischman et al. (2015); who have shown that migration is a determinant of an immigrant's health. Furthermore, the social processes in the communities where an immigrant lives are additional determinants of the health of the immigrant. Findings from this study show that risky sexual behaviour of engaging in multiple sex partnerships and the eventual negative health

outcomes among immigrants are both products of migration factors and the social, economic, and community factors in the place of destination. To sum up, migration-related social factors, the demographic and socioeconomic factors as well as community social factors were determinants of multiple sex partnerships among immigrant youth in Hillbrow. The section has applied the social determinants of health perspective, push and pull theory of migration and the community social disorganisation theory in understanding the determinants of multiple sex partnerships among immigrant youth in Hillbrow.

8.4 DETERMINANTS OF INCONSISTENCY OF CONDOM USE

The findings show that overall, immigrant youth were inconsistent condom users while only a small fraction were consistent condom users. This result is of great concern, due to the public health risk of continued transmission of HIV infections and STIs among the general population; as well as negative sexual and reproductive health outcomes such as unplanned pregnancies, unsafe abortions, reproductive health morbidity and maternal mortality of the immigrant youth. Inconsistent condom use among immigrants has been documented by researchers (Mileti et al. 2019; Maticka-Tyndale et al. 2016; Musariri and Odimegwu, 2016; Conners et al. 2017; Wong et al. 2018; Dzomba et al. 2019). Inconsistent condom use has been identified as a risky sexual behaviour among youth in different African countries (Thankian et al. 2017; Ajayi et al. 2019; Chialepeh and Susuman, 2017, Chirinda and Peltzer, 2014; Ntshiqqa et al. 2018; Mehra et al. 2014). However, the magnitude of contribution by international migrant youth has not been explored fully for the attention it deserves.

The level of inconsistency of condom use in this study is disturbingly high, as seven out of ten respondents reported inconsistent condom use, compared with national studies in South Africa. For instance, this study identified that among the female sexually active respondents, almost three-quarters used condoms inconsistently. Ntshiqqa et al. (2018) found four out of ten sexually active women use condoms inconsistently in South Africa. Similarly, while two-thirds of the male immigrant youth were inconsistent condom users in this study, Chirinda and Peltzer (2014) found a quarter of the male reported inconsistent condom use in South Africa. Findings from the present study show disproportionately high levels of inconsistent condom use among male and female immigrant youth, compared to general population of South African youth. Sexual relationships between immigrants and South African born citizens is quite common. In the light of the current results, there is bound to be increased incidences of HIV infections and STIs in the City of Johannesburg, as a result of high levels of inconsistent condom use among immigrant youth.

South Africa's National Strategic Plan for HIV, TB and STIs 2017-2022 recognised mobile populations, migrants and undocumented foreigners as vulnerable to HIV and STIs (National Department of Health, 2017). The current study has demonstrated that immigrant youth living in Hillbrow are indeed

vulnerable to HIV and STIs. Interventions involving education, social and behavioural change programmes targeting immigrant youth especially in Hillbrow ought to be privileged in order to reduce transmission of HIV and STIs to the general population, to reduce unsafe abortions due to unplanned and unwanted pregnancies, as well as a reduction in maternal morbidity and mortality.

The findings on gender differences in inconsistent condom use, with female respondents using condoms more inconsistently compared to their male counterparts in this study is consistent with previous findings (Thankian et al., 2017; Chialepeh and Susuman, 2017; Chirinda and Peltzer, 2014; Madiba and Ngwenya, 2017); which showed that females were more likely to be inconsistent condom users as compared to males. The reason for the increased inconsistency in condom use among female immigrant youth may be as a result of transactional sex. Other reasons could be linked to the gender norms and attitudes in the country of origin of the respondents. Traditional gender roles, gender norms and attitudes are enshrined and taken for granted in Zimbabwe and many African countries (Mugweni et al., 2012; Nalukwago et al., 2019). Women from a patriarchal society like Zimbabwe and Malawi, with high prevalence of gender inequality, essentially lack the power to negotiate safe sex. In addition, immigrant women may still hold on to the traditional practices, social norms, gender norms and societal views from their country of origin, which encourages male control and dominance while the females are expected to be submissive in many aspects of life, including sexual intercourse.

Mugweni et al. (2012) found traditional gender roles such as perceived entitlement to sex, male dominance and being a provider contributed to forced sex among married women in Zimbabwe. Coming from a patriarchal society, with the enshrined gender norms and roles, complicates and compromises women who find it difficult to ask the sexual partner to use a condom during sexual intercourse, leading to increased risks of HIV infections and STIs (Madiba and Ngwenya, 2017; Mkandawire-Valhmu et al., 2013). In addition, the traditional social norms of patriarchal societies frown at any woman requesting a male partner to use condoms. The general perceptions towards such a woman are that she is unfaithful and sexually promiscuous. As a result, many female immigrants from such patriarchal societies exhibit strong fears of consequences arising from requesting a partner to use condom or refusing to have sex if the partner is adamant against using a condom. The traditional gender role attitudes among men have also been found to predispose men to risky sexual behaviours such as multiple sex partnerships (Lefkowitz et al., 2014). Similarly, traditional gender roles among women predispose them to unprotected sex and unplanned pregnancies (Mugweni et al., 2012; Mkandawire-Valhmu et al., 2013; Madiba and Ngwenya, 2017). Being married or cohabiting was a strong predictor of inconsistent condom use among all the respondents. This is consistent with other findings (Wong et al., 2018; Musariri and Odimegwu, 2016; and Rojas et al., 2016). Inconsistency of condom use among married or cohabiting men and women pose a public health risk of transmission of HIV and STIs in a community where multiple sex partnerships is common.

There was a statistically significant association between age of respondents and inconsistency of condom use among the females. The reason for this strong association between older age and inconsistency of condom use could be linked to enhanced knowledge about condoms and increased access to condoms among respondents in the age group 18-24. This result is consistent with the findings among immigrants in Guiana, France (Eubanks et al., 2018). There was an association between marriage and inconsistency of condom use. This verifies and consolidates the findings by Ertl et al., 2018. In addition, the duration of residence in Hillbrow was strongly associated with inconsistency of condom use among all respondents and among the males and females separately. This is consistent with the findings by Ertl et al. (2018). Staying in Hillbrow for employment-related reasons was associated with inconsistency of condom use.

Migration status was not a predictor of inconsistent condom use in this study, because both documented and undocumented migrants were inconsistent condom users. The findings however reveal that duration of residence in Hillbrow was a predictor of inconsistent condom use in the study, with the females having a strong positive association between longer duration of residence in Hillbrow and inconsistency of condom use. This is consistent with the findings from other studies which found duration of residence as associated with inconsistency of condom use (Ertl et al., 2018; Sastre et al., 2015; and Castañeda et al., 2015). The reason why duration of residence was associated with inconsistency of condom use could be the social environment of Hillbrow, which is predominantly a decaying urban space and thus lacking the social control present in an organised community (Tewksbury et al., 2013). Other reasons for duration of residence being a predictor of inconsistent condom use could be linked to high level of alcohol consumption in the study area, a factor that was observed and confirmed during the qualitative aspect of this research. This is consistent with the findings by Bello et al., (2017). Furthermore, there is a high prevalence of sex work with numerous brothels in the study area. This is consistent with the findings by Richter et al., (2014).

The main reason given by respondents for living in Hillbrow were employment-related, marriage, staying with a relative and proximity to school, in addition to cheaper accommodation. The choice of moving to South Africa and where to stay while in South Africa is linked with the push and pull factors of migration (Simpson, 2017; Van Hear et al., 2017). Push factors for moving to South Africa are mainly economic, as a result of poverty and unemployment, as well as political instability in the countries of origin. This study found the pull factors for choosing to live in Hillbrow were availability of employment, reduced cost of transportation to work, cheaper accommodation in Hillbrow, proximity to school, as well as reasons related to family and friends. Despite the poor social environment, level of crime, and personal safety and security concerns in Hillbrow, respondents chose to stay in Hillbrow for the reasons mentioned.

This study further established that not having social support in South Africa is associated with inconsistent condom use among immigrant. This is consistent with the findings by Althoff et al., (2017) and Giorgio et al., (2016). The high likelihood of inconsistency of condom use among respondents without social support may be due to lack of information from friends and family on the importance of condom use as well as how to use condoms correctly. Also respondents without social support may lack the physical support of friends and family who can give them condoms or inform them of where they could get free condoms in Hillbrow.

In conclusion, understanding the levels and predictors of inconsistent condom use among immigrant youth could assist public health programmes in developing interventions specifically targeting communities with high numbers of immigrant youth. Behavioural change communication strategies in Hillbrow should take the complex situation including the vulnerable immigrant youth into consideration.

8.5 PREDICTORS OF ACCESS TO GOVERNMENT HEALTH FACILITIES FOR SRH SERVICES

This study found that the main sources of information on SRH for all respondents were radio or television, friends and posters. Gender differences existed in the sources of SRH information. Media which includes radio, television and posters were the main sources of information on SRH for the males. This is consistent with the findings by Adamchak and Mbizvo (1991), which found radio, posters and newspapers as the main sources of information on family planning among Zimbabwean men. Among the females however, media and friends were the main sources of information on SRH and family planning. Contrary to expectation, only a small proportion of all respondents received SRH information from government health facilities. This is surprising because there are two government health facilities within 10-15 minutes' walk from three-quarters of the respondents. This finding is not consistent with previous findings in Uganda (Alege et al., 2016) and Ghana (Eliason et al., 2014) which found the public health system as the main source of information on family planning.

The socio-economic and demographic determinants of access to a government health facility for SRH services were gender, age group, wealth index and the number of people in a household. Gender differences exist in having had access to a government health facility for SRH services. The males were less likely to have had access to a government health facility for SRH services. The findings by Lee et al., (2014) showed poor health seeking behaviour among immigrant men due to high cost of services. Other studies have linked poor access to SRH services among men to their perception that family planning is a woman's affair and that the responsibility of the men being just to provide support where necessary (Adelekan et al., 2014; Rasesemola et al., 2017). In addition, findings by Hardee et al. (2017)

showed that most family planning programs do not make sufficient consideration for men as contraceptive users. Highest level of education attained was associated with access to a government health facility for SRH services among the males. Studies have found that men who attained higher level of education were more likely to seek and use SRH services (Speizer et al., 2018; Ling and Tong, 2017; Msovela et al., 2020). The association between wealth index and access to a government facility for SRH services has been noted by Ugaz et al., 2016; Adebowale et al., 2016; Ochako et al., 2016; Agadjanian et al., 2015).

With regards to migration and community social processes that were predictors of access to a government health, longer duration of residence was associated with having had access to a government health facility for SRH services. This could be because those with longer duration of residence in Hillbrow may have a better understanding of what is needed to get to a government health facility; the long-term residents might also have become acculturated to the community processes and the operations in the government health facilities. The qualitative findings will help us understand the reason for this finding. This is consistent with the findings by Xu et al. (2018). The social processes that were associated with access to a government health facility for SRH services were: having experienced discrimination, negative feelings such as depression, fear, anxiety and sad moods, and having social support in South Africa. Gender differences existed in the experiences of discrimination in the study area, with the females who reported having experienced discrimination being more likely to have access to a government health facility for SRH services. The reason could be that the females were the ones that mostly visit government health facilities and thus, they will be the ones to experience any forms of discrimination at the point of service provision, if there is. The qualitative findings provided a better understanding of this. This finding is consistent with the studies that have discussed the experiences of discrimination among immigrants while accessing reproductive health services in South Africa (Munyaneza and Mhlongo, 2019; Keygnaert et al. 2014, Zinhindula et al., 2015; IOM and APHRC, 2018).

Frequency of experiences of negative feelings associated with poor mental health such as depression, fear, anxiety and sad moods were associated with access to a government health facility for SRH among the females. The poor mental health among the females could be linked to their experiences of discrimination while trying to access SRH services in the study area. Other researchers have discussed the relationship between mental health issues and access to family planning by immigrants (Mengesha et al., 2017; Larchanché, 2012). This study further found respondents who did not have social support in South Africa to be less likely to have had access to a government health facility for SRH services, compared to respondents with social support. This is not surprising because migration researchers have shown the importance of social support in the country of destination to immigrants (Hombrados-Mendieta et al., 2019, Msengi et al., 2015). Immigrants depend on their friends and other interpersonal

relationships for emotional support, information about how to cope in the country of destination, which includes information and strategies to access a government health facility for SRH services. This result is consistent with findings from other studies (Åkerman et al., 2017; Agu et al., 2016; Rade et al., 2017; Dune et al., 2017; Giorgio et al., 2017a; Colleran and Mace, 2015).

As expected, having a reliable source of information was associated with having had access to a government facility for SRH services among both male and female respondents. However, as shown in the descriptive results, a vast majority of the respondents got their information on family planning from unreliable sources. This result thus shows that those with unreliable source of information did not have access to a government health facility for SRH services. Lack of correct information about SRH from reliable sources thus predisposes immigrant youths to negative SRH outcomes. Researchers (Alege et al., 2016; Eliason et al., 2014; Prata et al., 2016; Gele et al., 2020, Thummalachetty et al., 2017) have shown the importance of access to information with regards to knowledge of family planning.

With regards to knowledge of place to obtain contraception, gender differences exist in the adequacy of knowledge of place to obtain contraception, with the females being more likely to have adequate knowledge of place to obtain contraceptive method compared to the males. Studies among immigrants generally have shown inadequate knowledge of sexual and reproductive health. Researchers have shown low levels of knowledge and information about family planning among immigrant men and women alike (Metusela et al., 2017; Agu et al., 2016; Uprety et al., 2016; Åkerman et al., 2017; Ngum Chi Watts et al., 2015). This finding is consistent with the findings by Thummalachetty et al., (2017); Ellawela et al., (2017) and Bersamin et al., (2017); which find females to have better knowledge of place to access family planning methods. This quantitative study applied the tenets of Andersen's Behavioral Model of Health Service Utilization (Andersen, 1995) to the study the predictors of access to government health facilities for SRH services in Hillbrow.

8.6 Perceptions and Experiences on Access to Government Health Facilities for SRH Services

The qualitative study used the thematic analysis to group themes and sub-themes. Five themes were identified: lack of information on SRH, discrimination, bad treatment and negative attitude to foreigners, documentation, and judgement and blame by health facility staff. The study participants explained that they did not have information on how to live a healthy sex life, they did not have access to STI testing and treatment, and termination of unwanted pregnancies from any of the government facilities in the study area. The main sources of information on SRH for them were friends and internet.

Participants acknowledged their lack of information on SRH. They understood that correct information on SRH is available at the government health facilities in the community but they do not go to these facilities for SRH information and services based on the way they are treated.

The discussions on reasons for lack of access to government health facility in Hillbrow showed that factors related to service provision and poor knowledge and lack of information were major barriers to access to health facilities for SRH services. This is consistent with the findings by Betancourt et al (2013) which found poor quality of service as a barrier to accessing SRH services by immigrant women in the United States. Lack of knowledge and adequate information about the health facilities have been identified among immigrants (Åkerman et al. 2016, Gele et al. 2020) as reasons for a lack of access to access to healthcare. Ellawela et al. (2017) found that being immigrants and being uncomfortable to ask a health provider about contraception as determinants of access to reproductive health services among Sri Lankans in Australia. The reason for the lack of knowledge and adequate information on SRH among participants in this study differed from the reason for lack of knowledge and information from previous studies. In this study, the immigrant youth knew where the health facilities are, but they were unable to use the SRH services either as source of information or for contraception of their choice, because they were denied access to government health facilities based on their immigration status. Participants in this study identified the availability of information on SRH at the health facilities but they lacked access to the facilities.

This study identified discrimination as a barrier to accessing a government health facility for SRH services. Some migration and health researchers have identified discrimination as a barrier to accessing SRH services among immigrants (Agu et al., 2016; Rade et al., 2018). The effect of discrimination in accessing SRH services at the health facility may enhance the vulnerability of the immigrant youth to other social problems in the community as well as negative mental health issues. Documentation was identified as a barrier to accessing SRH services among the study participants. The fact that both documented and undocumented immigrants reported lack of access based on their legal documentation was very concerning, as this showed lack of access irrespective of legal documentation by foreign nationals. This finding agrees with the findings by Freedman et al., (2020) which found documentation as a barrier to accessing SRH by immigrants in Durban, South Africa. Experiences of bad treatment, negative attitude and judgment and blame found in this study was similar to what participants in Freedman et al., (2020) called xenophobic attitudes.

In order to circumnavigate the barriers to access to SRH services, since SRH is essential for youth, the participants expressed the alternative options they use. Many of these alternative measures are however endanger their lives. The alternatives include engaging in unsafe abortion, buying contraceptive pills from street vendors, douching with bicarbonate of soda and drinking traditional herbs from the traditional healers. Participants explained that unsafe abortion is rife in their communities and the numbers of those who offer such services are available at the corners of the street in the community. They understand how unsafe the backstreet abortion is, the backstreet abortion specialists make them understand that there is no guarantee of safety of life, but desperation and the immediate need to

terminate unwanted and unplanned pregnancies was the driving force.

Issues related to unplanned pregnancies and reasons why participants were having unprotected sex emerged during the interviews. Participants explained that unplanned pregnancy was a problem in the community. Both males and females cited the availability of alcohol and clubs in their community as a main cause of unplanned pregnancies. Contrary to expectation, the males explained that they felt they have to prove themselves to the girlfriends when they requested for sex without condoms. The males also cited their girlfriends accusing them of cheating when they insist on condom use. Finally the males linked unprotected sex to “men’s weakness”, while the females linked unprotected sex to “mistake”, mainly after excessive alcohol consumption. This study shows that immigrant youth lacked access to SRH services from government health facilities. Correct information and services on family planning is not available for immigrant youth because they do not have access to the government health facilities in the community for SRH services. In addition, the social environment of Hillbrow expose the youth to alcohol and clubs, which contribute to unprotected sex.

8.7 MIXED METHODS INTEGRATION, ANALYSIS AND INTERPRETATION

This section discusses the integration and interpretation of this convergent mixed methods data analysis. Mixed methods analysis provided answers to the mixed methods research question which sought to establish the extent to which the quantitative results on determinants of access to a government health facility for SRH services confirm and verify the qualitative findings on their perceptions and experiences on access to SRH services from government health facilities in Hillbrow. This integration process involved the merging quantitative and qualitative results in a joint display, followed by comparison and interpretation of the results.

In this study, a convergent mixed methods study was used to compare and discuss similarities and differences of both quantitative and qualitative data. Survey data was used to determine the relationship between socio-demographic, migration, community variables as well as knowledge and information and access to government health facilities for SRH services. During the same period of fieldwork, qualitative data using Focus Group Discussions (FGD) were collected in the study area using audio-recordings and field notes. The transcripts from the audio-recording and the field notes were explored in order to understand the perceptions and experiences of FGD participants on access to a government health facility for SRH services. In this convergent mixed methods approach, data analysis for the quantitative approach and the qualitative approach were carried out separately. STATA 14 was used for the quantitative analysis. Pearson’s Chi Square examined the socio-demographic, migration, community, knowledge and information factors associated with access to a government health facility

for SRH services. Binary logistic regression was used to examine the factors that were predictors of access to a government health facility for SRH services. For the qualitative analysis, thematic analysis was carried out using ATLAS ti 7. Themes, sub-themes, codes and quotations were generated, and used to explore the perceptions and experiences of immigrant youth on access to a government health facility in Hillbrow for SRH services.

The mixed methods analysis involved separate examination of the quantitative data using quantitative methods and the qualitative data using qualitative methods, followed by the merging of two findings. A major aspect of this mixed methods research is the integration, which involved combining the findings using approaches that integrate the quantitative and qualitative results. The separate analysis of the two datasets and the integration of the findings from the two different approaches through merging is the main goal of a convergent mixed methods study. The results of the integration and interpretations offer more comprehensive understanding than either the quantitative or the qualitative findings separately.

A convergent parallel mixed methods design was used. This is a type of design in which the quantitative and the qualitative data were collected in parallel, the data were analysed separately and then merged. In this study, household survey data was used to test the Behavioural Model of Health Service Utilization (Andersen, 1995) which proposes that predisposing, enabling, need, external environment and consumer satisfaction would influence access to a government health facility for SRH services by immigrant youth in Hillbrow. The predisposing factors in this study were the socio-demographic characteristics, the enabling factors include the wealth index at household level and community resources that facilitate the availability and access to SRH services in Hillbrow. Need factors include perceived need for SRH services, external environment includes physical environment, political environment which includes prevailing health policy on access to health services by immigrants and the economic components. The consumer satisfaction include the provider characteristics, quality of service provided, convenience and availability of the service (Andersen 1995).

The qualitative data used transcripts from the FGDs to explore the perceptions and experiences of immigrant youth on access to a government facility in Hillbrow for SRH services. The reason for conducting mixed methods study is to enable the integration of quantitative and qualitative analysis, to converge the two forms of data in order to bring greater insight into the problem than would be obtained by either type of the data separately (Creswell & Plano Clark, 2011, Fetters, Curry, & Creswell, 2013).

8.7.1 Integrated Data Analysis and Interpretation

Mixed methods researchers describe integration as the point in the research procedures where qualitative research intersects with quantitative research (Creswell & Plano, 2018). In this study, the

convergent mixed methods design was employed to enable us have a more complete and expanded understanding of the study by combining statistical results with personal experiences on access to a government health facility for SRH services by immigrant youth. Creswell and Plano (2018) described the purpose of integration in a convergent design as “the development of results and interpretations that expand understanding, are comprehensive, and are validated and confirmed”. In this mixed methods study, integration occurred at the different stages that mixed methods researchers considered for integration to take place. These are the integration purpose, integration at the point of data collection, integration at the point of data analysis, representation of integration results and interpretation of integration results.

Data analysis integration procedures was done in which the quantitative results (presented in Chapter 6 of this thesis) which was obtained from quantitatively analysed data and qualitative results (presented in Chapter 7) were compared. The first level of integration of results involved comparison of the two data findings which involved a critical review and comparison of the quantitative and qualitative findings. Themes and categories from the qualitative findings were examined and compared with results from the quantitative findings.

The representation of merging integration results in a narrative discussion involved summarizing the results and comparison of the two types of results in order to assess for confirmation, expansion or discordance and to draw meta-inferences (Fetters et al. 2013, Moseholm et al. 2017). The joint display of the integration of quantitative and qualitative findings for this study is presented in Table 8.1. Confirmation occurs when the findings from the quantitative and the qualitative results reinforce the findings from the other. Expansion occurs when findings from the two datasets do not agree but further exploration of the quantitative data provided expanded insights on physical access to government health facilities for SRH services and the challenges to using SRH services at the health facilities, which would not have been achieved by either the quantitative or the qualitative findings separately (Guetterman et al. 2015, Fetters et al. 2013, Moseholm et al. 2017).

The overarching mixed methods domains for integrating the quantitative and qualitative findings follow the conceptual framework for this study. These are the socio-demographic characteristics (gender and age group), migration characteristics (migration status and duration of residence), community social processes (discrimination and negative feelings/depression) and awareness (source of information and knowledge of place to get contraception). The main findings in these four domains were considered for the integration.

As shown in Table 8.1, there was a difference across gender regarding access to a government health facility for SRH services with only 1 out of 4 of males and 3 out of 4 of females reported having had access to a government health facility for SRH services. This was confirmed by the qualitative findings

among the males but not the females. Both male and female interview participants shared experiences of not having had access to a government health facility. The quantitative findings for the female in the quantitative findings was discordant with the experiences shared by the participants. This led to further examination of the quantitative data and a variable that examines the challenges of the survey respondents in using the SRH services at the government facilities provided the answer for the noted divergence. The additional analysis showed that both males and females had challenges using the SRH services at government facilities. Thus the findings of the qualitative expands the knowledge beyond just the quantitative or the qualitative alone.

With regards migration status, there was no difference between documented and the undocumented with regards to access to a government health facility for SRH services. The qualitative study explained the reason for this finding, as participants who were documented and those who were not shared similar experiences of lack of access to any of the government health facilities because they are foreigners. The qualitative findings thus confirm the quantitative results. Quantitative findings yielded a bivariate association between duration of residence in Hillbrow and access to a government health facility among the females but not among the males. Similarly, multivariate analysis showed that females who had lived in Hillbrow for over 6 years were more likely to have access to a government facility compared to those who have lived there for 0-2 years. In the qualitative study, one participant refers to those who have lived in Hillbrow for a long time to inform them on how to circumnavigate barriers to accessing SRH services. Experiences from older age cohort in the qualitative findings showed that long term residents have information on alternative ways to access some SRH services.

Quantitative findings showed gender disaggregation in experiences of discrimination and access to a government facility for SRH services, with only females who reported having had experiences of discrimination being twice as likely to have access to SRH services in a government health facility compared to females who did not have such experiences. There was no association between having experienced discrimination and having had access to a government health facility for SRH services among the males. This quantitative result is confusing in this respect. On its own alone, it was not clear why discrimination was a determinant of access to government facility for SRH among the females. However, in the qualitative study, both males and females did not have access government facilities in Hillbrow. As mentioned earlier, the quantitative data was further explored, showing that discrimination was a major challenge faced by the respondents and there was a statistically significant difference between male and the females. This thus confirmed and expanded the findings.

Quantitative analysis showed an association between poor mental health issues such as negative feelings, depression, fear and anxiety and access to a government health facility for SRH services. This was confirmed by a qualitative finding in which a female respondent expressed her frustration over bad

treatment from the health facility staff. With regards source of information, there was an association between having a reliable source of information and having had access to a government health facility for SRH for both males and females. Bivariate findings showed an association between source of information on SRH and having had access to a government health facility for SRH services among males and females. Multivariate analysis further showed that those who had reliable information among the males were 7.56 times more likely to have had access to a government health facility compared to those without. Similarly among the females, those who had reliable source of information were 3.52 times more likely to have had access to a government facility compared to those with information from unreliable sources. Qualitative findings showed a gap in access to information on SRH from a government health facilities in Hillbrow by both males and females. Both males and females mentioned getting information from friends, having gone to a private clinic in the neighbourhood for information and services, while more males did not have any source of information on SRH. The qualitative findings thus confirm the quantitative findings.

8.7.2 Discussion and Interpretation of the Joint Display Table

The joint display table showed the meta-inferences from both quantitative and qualitative findings. The mixed methods domains follow the components of the conceptual framework for this study. The survey results show the socio-demographic, migration, community social processes and awareness (availability of information) factors that are determinants of access to a government health facility for SRH services by immigrant youth in Hillbrow. The qualitative findings developed themes that provided an understanding of the perceptions and experiences of immigrant youth on access to government health facilities for SRH services in the study area. The convergent mixed methods provided meta-inferences from both findings to show the extent to which the quantitative and the qualitative results converge and produce a comprehensive and expanded insight on access to government health facility for SRH services by immigrant youth.

In the socio-demographic characteristics domain, the meta-inferences showed an expansion of insights as the quantitative results on challenges faced while using the SRH services from government health facilities in Hillbrow showed that more males than females reported not having information about SRH and also that they not need SRH services. The lack of information was narrated by the male participants in the qualitative study. Similarly among the females, the meta-inferences provided an expansion of insights into access to a government health facility for SRH services by immigrant youth, which is different from the result of the quantitative findings alone which showed that three out of four females had access to a government health facility. However this did not agree with the qualitative findings where females experienced lack of access. This divergence led to further exploration of the quantitative data and analysis of the variable on challenges encountered by study participants while using SRH

services from government facilities. The findings from this additional analysis was consistent with the four out of the five themes for the qualitative findings; and it was consistent for both the males and the females. Although females visit the facilities more often but they have more challenges with using the SRH facilities in the health facilities. Results of challenges in using SRH services thus clarified and gave more insight to the results than either quantitative or qualitative alone.

With regards to age, the meta-inferences showed a confirmation among both males and females. Among the males, the qualitative results were a confirmation of the quantitative results, as males of the two age groups lacked access to SRH services in government facilities in Hillbrow. The meta-inference result for the females showed a confirmation, as the qualitative results confirmed that females aged 25-34 had higher access to the health facilities than those aged 18-24. The younger cohort reported more of being turned back without any service, being refused services despite having a correct legal document. Thus, the socio-demographic domains showed that the convergence of the quantitative and qualitative results and provided insights that could not have been gotten by either of the methods alone.

In the migration characteristics domain, the meta-inferences showed a confirmation that being a documented migrant did not guarantee access to the health facility. The qualitative findings did not show any statistically significant association between migration status and access to health services and in the qualitative study, participants explained that being documented does not guarantee access to the health facilities. Though documented migrants are supposed to have access to government facilities, participants shared their experiences of being sent back from the facilities, being asked where they got their identity documents and other legal documents from and also threats of calling Home Affairs.

The meta-inference of the duration of residence in Hillbrow showed an expansion of insight. The quantitative results showed that participants with longer duration of residence visited the health facility more based on quantitative findings. The qualitative findings however shows that the older youth visited the clinic despite the harsh treatment. Comparison of the two results show that longer duration alone does not guarantee access to government facility but further exploration of the findings showed that residents with longer duration know about the alternatives for SRH services available in the community and they know how to circumnavigate lack of access to SRH services at the government facilities.

The variables associated with community social processes domain are discrimination in Hillbrow and negative feelings of fear, depression and anxiety. The quantitative findings showed that discrimination was a determinant of access to SRH services among the females. In the qualitative findings, discrimination was a main theme for experiences of immigrant youth on access to a government health facility for SRH services. Both the males and the females shared experiences of discrimination. The meta-inference thus showed confirmation of discrimination for the females. However it showed expansion of insight for the males. The initial quantitative analysis did not show discrimination as a

factor associated with access to government health facility for the males but further exploration of the dataset showed that both the males and the females reported discrimination as a challenge. An additional reason for the observed result could be linked to the health seeking behaviour among men compared to the women, but despite this, the findings the meta-inference expanded insights on experiences of discrimination among the male participants. Experiences of negative feelings of fear, depression and anxiety which was reported as a determinant of access to a government health facility for SRH services was confirmed by the female participants. Bad treatments and bad experiences caused poor mental health problems for the participants. Qualitative findings corroborated this as a female participant expressed how the bad treatment and bad experiences “make immigrants do otherwise”.

With regards to social support, quantitative findings showed that the respondents who lacked social support were less likely to have access to government facilities for SRH services. This was confirmed by the findings from the qualitative study where participants discussed their friends and interpersonal relationships as sources of information for SRH information.

The awareness domain consist of sources of information and knowledge of place to obtain contraception. The quantitative findings showed that majority of the males have unreliable sources of information on SRH. The qualitative findings also showed the lack of information on SRH among the males. The meta-inference is thus a confirmation of the quantitative and the qualitative findings. In the same way, qualitative finding confirmed the quantitative findings on knowledge of place to get contraception. Both findings showed that the females had better knowledge of place to get SRH services, though lack of access to SRH services and desperation pushes the female participants to wrong places to get contraception such as from the street vendors and back street abortion for unsafe abortion.

8.7.3 Summary of Mixed Methods Analysis

This section discussed the mixed integration analysis and interpretation. The quantitative and qualitative data were analysed separately, the two data were merged and integrated analysis via side-by-side comparison of both findings was done. A joint display table was developed showing the findings of integration analysis including the meta-inference. This was followed by the interpretation of the results. The convergent mixed methods approach has shown the extent to which the qualitative results confirm the quantitative results, and it has expanded the insights on access to SRH services by immigrant youth by providing more comprehensive understanding that could not have been provided by either the quantitative or the qualitative without the integration of both findings; in order to understand the problem of lack of access to government health facilities for SRH services by immigrant youth.

The joint display table showed the meta-inferences from both quantitative and qualitative findings. The mixed methods domains follow the components of the conceptual framework for this study. The survey results show the socio-demographic, migration, community social processes and awareness (availability of information) factors that are determinants of access to a government health facility for SRH services by immigrant youth in Hillbrow. The qualitative findings developed themes that provided an understanding of the perceptions and experiences of immigrant youth on access to government health facilities for SRH services in Hillbrow. The convergent mixed methods provided meta-inferences from both findings to show the extent to which the quantitative and the qualitative results converge and produce a comprehensive and expanded insight into access to government health facilities for SRH services by immigrant youth.

Table 8.1: Joint display of quantitative, qualitative and mixed methods meta-inferences of access to government health facility for SRH in Hillbrow

Mixed method Domain	Variables (bivariate and multivariate results)	Theme 1: Lack of reliable information	Theme 2: Bad treatment and negative attitude to foreigners	Theme 3: Discrimination	Theme 4: Judgment and blame	Theme 5: Documentation	Mixed method Interpretation
Sociodemographic characteristics	Gender Male: 25.1%, Female 74.9%, p=0.000	I see different booth doing HIV testing; that's all I get. I don't get any information on STIs, family planning or contraceptive use. – (Male, 18-24).	You are asked if you have medical aid. If you don't have medical aid, you will be told "Uzoba strong". They give excuses "come back tomorrow". – Female 25-34	To get information, we have to go to the government hospital but when you get there, you discriminated against, treated badly, even they ask you questions on where you got your papers from. They even threaten to call Home Affairs for you, saying your paper is fake. So I will rather not go there again. So true, we don't have information on sexual health, testing and treatment of	When I needed test and treatment for STI, I went to the clinic. First I was given a very bad attitude because I don't have a South African ID but my document was okay. Then the nurse gave me a very negative treatment, she told me – It's your fault and now you have the disease	They need the ID to allow you go into the clinic for information or testing and treatment of STI. They don't trust your asylum paper. They even check the dates and complain, if it's over with a day, then they turn you back. – Male 18-24	Male: Confirm Female: Expands the quantitative (Females visit the facilities more often because of their need for SRH but they do not have access to services)

			STI. – male 18-24	you have come here”. So they tell you that you are giving them extra work – Male 18- 24		
	Age Male 18- 24=32.6%, 25- 34=67.4%, p=0.391 Female 18- 24=30.7, 25- 34=69.3% P=0.001, OR=1.90, CI=1.04-3.48	When I went there, there was a lady at the front, I greeted her in Zulu, she asked me my name and asked to see my document. As soon as I presented my passport, she changed her behavior totally, got a very bad attitude, oh my man....(expres sing frustration) she asked me “so why are you here? I told her I want to test. She said what for? Then without listening to me again, she started speaking in Spedi that “these guys are wasting our time and resources. They come here to waste our time and our resources”. She did not know I understood and she did not attend to me. I went back home and never went there again. If you present an ID, you are given treatment but they still give you attitude because of your name and the fact that your ID shows you are not a South African.	You are at the hospital to get the information but you are discriminated against and sometimes you come back without any help. This is a problem...rea lly. – Female 18-24	Most of the staff do not keep issues confidenti al. They start counsell ing you as a child and parent - why did you go and have unprotect ed sex. It's all about judgemen t. They judge you. – Female 18-24	Documentati on is a big challenge. The clinics here need you to show documentati on. Sometimes when you have your correct documentati on, they still question you and sometimes refuse it. Sometimes if you go with a receipt from Home Affairs, they refuse to accept it and turn you back. A friend of mine has a valid documentati on from Home Affairs and the clinic refused the paper because they were not sure ...it was not what they are used to. – Female 18-24	Confirm (Documentat ion status is insufficient to guarantee access)

Migration characteristics		– Male FGD 18-24			
	Migration status Male- Documented =50%, Undocumented 50%, p=0.730 Female – Documented=62 % Undocumented=38%, p=0.253	The attitude of the workers is a big problem. They behave as if all their problems is targeted to foreigners – Male 25-34	The services at general hospital are never the same. The problem is that here in Hillbrow nurses say you are overloading them with work, even with your papers, as long as you are a foreigner, it's a problem. – Female 25-34	They need the ID to allow you go into the clinic for information or testing and treatment of STI. They don't trust your asylum paper. They even check the dates and complain, if it's over with a day, then they turn you back. – Male 18-24	Confirm (Documentation does not guarantee access. Documented migrants are supposed to have access but experiences of discrimination and bad treatment by health facility staff kept them away).
	Duration of residence in Hillbrow Male: 6 or more years=39% 0.181, OR=1.7, CI=0.53-5.44 Female 6 and more years=30.8%, p=0.004, OR=2.08, CI=1.01-4.28	At the clinics, the nurses are very harsh, they are not patient – Female 25-34		<i>We get information from friends. The main source of information is friends... foreigners-women who have been in the country long enough.</i> – Female 25-34.	Disconfirm (Duration of residence does not guarantee access to government facility but residents with longer duration know about alternatives and how to circumnavigate lack of access to SRH services at the government facilities).
Community social processes	Discrimination in Hillbrow Male No-43.5%, Yes-56.5%, p=0.653, OR=1.04, CI=0.43-2.49. Female No-32.8% Yes-67.2%, p=0.000, OR=1.84, CI=1.06-3.19		I have paper but they have different approach to you when you go to the clinic because you are a foreigner. Though you speak the language, like me, I speak Zulu but they talk to you like it's an attack. You are looked down upon because you are a foreigner.		Confirm

Awareness	Negative feelings/Depression Male: Never-32.4%, seldom-27.2%, Often-40.4% p=0.607 Female: Never-25.8%, seldom-35.0% OR=2.31, CI=1.10-4.82, Often-39.2% p=0.03, OR (Often)=2.68 CI=1.25-5.77 Social support Male: Yes 82.6% No=17.4% Female: Yes=86.1% No=13.9% OR=0.47, CI=0.22-0.99 Source of information Males: Unreliable=88.2%, Reliable source=11.8%; OR=7.56, CI=2.07-27.53. Females: Unreliable=53.3%, Reliable source=43.7%; OR=3.52, CI=1.58-7.82	We get information from friends. The main source of information is friends... foreigners- women who have been in the country long enough. – Female 25-34 For accessing information about sexual and reproductive health, I don't have anything here. I had information before I moved to Hillbrow. I used to stay in Orange Farm before I came here. There, medical students and teachers used to come and tell us	Eish, the nurses have a different mindset. They ask "How did you get here? Are you pregnant?" They ask questions as if it's a straight attack. Female 18-24 Bad experiences and bad treatment at the clinics in Hillbrow pushes immigrants to do otherwise Female 18-24	Confirm for females Confirm (Participants mentioned friends and interpersonal relationships for information on how to access SRH services) Confirm (The females have knowledge of place to get services though lack of access to the services pushes them to wrong places to get contraception such as from the street vendors and back street abortion for unsafe abortion.)

	about sexual health, protection, STIs and such. But here in Hillbrow, there is no information . They only test. There is no one telling young people the way to do things rightly. But for testing, they are always there testing, but no information on STIs, sex health, abortion and the stuff... No. They are not available.- (Male 18-24) We do have information – fairly available. But services – having services is a problem. Because of the way we are treated in the clinics, we do not want to go there. If I have unwanted pregnancy or I go for any of such services, the moment I show my asylum paper or any other document if it's not ID, I will not be allowed to get into the clinic – Female, 18-24.
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	There's a doctor at shoprite that you could consult for family planning information. He charges R100 and he also prescribes good medication. He is the main source of information on family planning for every foreigner. Unfortunately, abortion is not the area of the Indian doctor, so he doesn't do that. – Female 25-34 Knowledge of place to get contraception Male: Inadequate knowledge- 60.9%, adequate knowledge=39.1%, p=0.004, OR=2.54, CI=0.82-7.80. Female: Inadequate knowledge- 27.7%, adequate knowledge=72.3%, p=0.000, OR=1.95, CI=1.02-3.73. We mostly buy family planning pills from the street. Some of the people selling on the street sell family planning pills. – Female 18-24 Private clinics provide the cleaning services (post-abortion services) but it costs R3000. Female 18-24 Since we still want to access services, I sometimes go to private doctor. Clinics outside Hillbrow	For abortion, the way they treat foreigners and South Africans who want to have abortion are different. Sometimes you are not given any treatment at all, they tell you come back, we attend to 5 people a day. If you come back and you are the 3rd person on the second day, they say "you foreigners just wait let's attend to our people first". Irrespective of how early you go, they attend to the South Africans first and the foreigners are told to keep trying, till they say we	If you want to go to the clinic even for HIV test, they ask you for legal documents but outside on the booths, you are not asked for any legal document. Unfortunately they don't give counselling at the tents. I think they have targets...but the problem with the tent is that people will know you are positive. But at the clinic, you need valid documentation.- Female 18-24 You need to show valid passport and permits before you	Confirm
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	are better. Clinics in Hillbrow are very bad in terms of services. Male 18-24 To protect myself, I condomize everytime. Where I stay, at the security post, there are condoms. I went and put 2 packets in my pocket. In the clubs, there are condoms at the entrances of the clubs. The clinics are far to get condoms but clubs and flats are more accessible.- Male 18-24	cannot do the abortion because it's about 12 weeks. – Female 18-24	can get services. Injections have been stopped. You need to have your documentati on every time you go. If your permit is not valid or you overstayed, you are sent back. It doesn't matter what your issue is. –Female 25-34
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CHAPTER NINE:

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

9.1 INTRODUCTION

This ultimate chapter presents the summary of the quantitative, qualitative and mixed methods findings, the conclusions, recommendations, and policy implications. The present study sets out to investigate the sexual behaviour of immigrant youth and their access to reproductive health services in Hillbrow. There is a dearth in literature on sexual behaviours of immigrant youth and their sexual behaviour in South Africa. The main objective of the this research was to examine the determinants of risky sexual behaviours among immigrant youth aged 18-34 and understand their perception on access to SRH services in Hillbrow, South Africa.

The specific objectives were designed to:

- (a) Determine factors associated with multiple sex partnerships among the study sample.
- (b) Examine the determinants of inconsistent condom use among the study sample.
- (c) Identify and determine the predictors of access to government health facilities for sexual and reproductive health services by the study sample.
- (d) Identify and explain the perceptions and experiences of immigrant youth on their access to sexual and reproductive health services in Hillbrow.

This was a cross-sectional study that employed a convergent mixed methods design among male and female immigrant youth aged 18-34 in Hillbrow, in December 2019. The quantitative study involved household survey using structured interviewer-administered questionnaires to collect data on background information such as individual and household sociodemographic characteristics, migratory history, knowledge of SRH and access to reproductive health services and sexual behaviour. The qualitative study involved interviews that used Focus Group Discussions (FGDs). The FGDs were stratified by gender and age group. Integration, the process in which mixed methods researchers intentionally bring the quantitative and qualitative data together such that the two data become interdependent in addressing common research questions was used. Integration was achieved by merging the findings of the quantitative and qualitative approaches, with the final result providing deeper insights to the problems of access to

government health facilities for SRH services in the study area, than by either the quantitative or qualitative approaches alone.

9.2 SUMMARY OF FINDINGS

This section presents a summary of findings for each of the specific objectives.

9.2.1 Factors Associated with Multiple Sex Partnerships

Gender differences existed in engaging in multiple sex partnerships among immigrant youth in Hillbrow across various independent variables. The demographic and socioeconomic determinants of multiple sex partnerships in the 12 months prior to the survey were gender, age group, current economy activity, marital status, importance of religion, wealth index, number of people in a household, number of rooms occupied by a household and number of other households sharing. The migration-related variables that were determinants of multiple sex partnerships were migration status, duration of residence in Hillbrow, reason for staying in Hillbrow and exposure to SRH/FP messages in Hillbrow. The factors related to the community social processes in the study area, which were determinants of multiple sexual partnerships were discrimination in Hillbrow, personal safety and security concerns and depression/negative feelings. The section has thus demonstrated the application of the social determinants of health perspectives that economic and social conditions such as socioeconomic status, education, neighbourhood and physical environment, availability of employment, social support networks, and access to health care, which are factors outside the individual, do influence the health status. The social determinants of health framework by the Commission of the Social determinants of health (CSDH) led by Solar and Irwin (2010) provided an understanding of the determinants of multiple sex partnerships among immigrant youth in Hillbrow.

9.2.2 Determinants of inconsistent condom use

The level of inconsistency of condom use in this study is disturbingly very high, as seven out of ten reported inconsistent condom use, compared with national studies in South Africa. This study established that among the sexually active females, almost three-quarter were found to use condoms inconsistently. Being married or cohabiting was a strong predictor of inconsistent condom use among all the respondents. Migration status was not a predictor of inconsistent condom use in this study, because both documented and undocumented migrants were inconsistent condom users. The findings however suggest that duration of residence in Hillbrow was a predictor of inconsistent condom use in

the study. This study further revealed that not having social support in South Africa was associated with inconsistent condom use among the immigrant youth.

9.2.3 Predictors of Access to Government Health Facilities for SRH Services

The socio-demographic predictors of access to a government facility for SRH services were gender, age group, level of education attained, wealth index and number of people living in a household, and number of other households sharing room. The migration and community social processes that were predictors of access to a government health facility for SRH services were duration of residency in Hillbrow, experiences of discrimination, negative feelings of depression, anxiety and sadness, and having social support in South Africa. The knowledge and information predictors of access to a government health facility for SRH services were source of information and knowledge of where to obtain a contraception. The BMHSU by Andersen (1995) was useful in explain the findings of this study.

9.2.4 Perceptions and Experiences on Access to Government Health Facilities for SRH Services

The perceptions and experiences of immigrant youth on access to a government health facility for sexual and reproductive health services in Hillbrow was discussed. This study found that immigrant youth in Hillbrow lacked correct information on SRH issues and that they were not accessing SRH information and services from the government health facilities in their community, though there are two public health facilities within 10-15 minutes' walk from the residents. Four main themes were identified as reasons for lack of access to SRH services from government health facilities in this study. These were: bad treatment and negative attitudes to foreigners by clinic staff, discrimination against foreigners, documentation and judgmental attitudes.

With regards how immigrants circumnavigate the barriers to accessing SRH services, different types of alternatives were discussed, ranging from purchase of contraceptive pills from street vendors who brought the contraceptives from Zimbabwe, to the use of bicarbonate of soda and traditional herbs procured from the *Sangoma*. Other sources that were identified included use of condoms always, visiting private doctors and visiting other government clinics outside Hillbrow.

Unplanned pregnancy was established as a significant problem in the community. Visiting backstreet abortion specialists out of desperation was common due to lack of access to SRH services. Many youth did not know that adolescent/youth friendly services exist in Hillbrow and those that knew about it described the appalling attitudes of the nurses which prohibited them from using the services. Both males and females cited the availability of alcohol and clubs in their community as a major cause of unplanned pregnancies. In conclusion, it was clear that immigrant youth lacked access to SRH services from government health facilities. Correct information and services on family planning was missing. The social environment of Hillbrow exposes the youth to alcohol and clubs.

9.2.5 Convergent Mixed Methods Findings

The joint display table depicted both quantitative and qualitative findings, as well as the interpretations and meta-inferences. The mixed methods domain follows the components of the conceptual framework for this study. The survey results show the socio-demographic, migration, community social processes and awareness (availability of information) factors that are determinants of access to a government health facility for SRH services by immigrant youth in Hillbrow. The qualitative findings developed themes that provided an understanding of the perceptions and experiences of immigrant youth on access to government health facilities for SRH services in Hillbrow. The convergent mixed methods provided meta-inferences from both findings to show the extent to which the quantitative and the qualitative results converge and produce a comprehensive and expanded insight on access to government health facility for SRH services by immigrant youth in Hillbrow.

9.3 CONCLUSION

The number of immigrants in South Africa has been on the increase since independence, with immigrant youth aged 18-34 being in the majority (Statistics South Africa, 2015). Migration has been associated with risky sexual behaviours such as engaging in multiple sex partnerships and having unprotected sex. Immigrant youth are worst affected by the high risk sexual behaviours and its consequences as a result of their demographics, due to feelings of invincibility, peer pressure, absence from family and association with new sex partners. There is a dearth of surveys on risky sexual behaviours among immigrants in South Africa, and therefore the scarcity of evidence on risky sexual behaviour, especially, in Hillbrow community that has a high concentration of immigrants.

Access to services for sexual and reproductive health by adolescents and youth have been serious public health concerns globally since the Cairo Conference in 1994. Mobility, health risks and vulnerabilities of immigrants have increased these concerns. South Africa has progressive and comprehensive SRH policies and guidelines, but despite these, a gap exists on the universal access to SRH at the point of service delivery where policy implementation takes place. Lack of clarity on guidelines regarding immigrants' access to SRH services, or subjective interpretations at the point of service delivery prevents immigrant youth from accessing these SRH services. This thus disrupts the universality of access to SRH services and makes the achievement of SDG 3.7 unattainable in South Africa. Research gaps exist on access to government health facilities for SRH services by immigrants in Hillbrow. Sexual relationships and social interactions are very common encounters between immigrants and native-born in South Africa. Sexual relationships between native-born with access to SRH services and immigrant youth without access to SRH information and services results in the re-infection of the native-born. This

ultimately affects the SRH indicators, leading to poor SRH outcomes in the general population as well as low levels of SRH indicators at district and national levels among South African youth generally.

This study set out to establish the determinants of multiple sex partnerships and inconsistency of condom use among immigrant youth in Hillbrow, Johannesburg, using household surveys. In addition, the study examined the predictors of access to government health facilities for SRH services by immigrant youth through the household survey. It further sought to understand the perceptions of immigrant youth on their access to government health facilities for SRH services in Hillbrow using focus group discussions. Finally, the study used mixed methods techniques to merge the quantitative results and the qualitative results. Further analysis was developed in the joint display table, which provided a deeper insight into the barriers to accessing SRH services, than the quantitative or the qualitative results separately.

This study proffered various findings, contributing to the body of literature and methodology. Based on the study hypotheses, the following findings were made:

1. Gender differences existed in engaging in multiple sex partnerships with the females having more multiple sex partners in the 12 months prior to the survey;
2. There was an association between age of respondents and multiple sex partnerships; with respondents aged 25-34 engaging in multiple sex partnerships compared to their younger counterparts.
3. Migration status and duration of residence in Hillbrow were associated with multiple sex partnerships.
4. Discrimination, personal safety and security concerns, feelings of fear, anxiety and depression were associated with multiple sex partnerships.
5. Gender differences existed in inconsistent condom use with the females using condoms inconsistently more than the males.
6. Respondents aged 25-34 used condoms more inconsistently compared to their younger counterparts.
7. Longer duration of residence in Hillbrow was associated with inconsistent condom use.
8. Negative feelings of fear, anxiety and depression were associated with inconsistent condom use.
9. Gender differences existed in physical access to a government health facility for SRH services;
10. Female respondents aged 25-34 had access to a government health facility for SRHR services.
11. Longer duration of residence in Hillbrow was associated with access to a government health facility for SRH services;
12. Females who have faced discrimination in Hillbrow were prone to have access to a government health facility for SRHR;

13. Negative feelings of fear, anxiety and depression were associated with access to a government health facility for SRH services.
14. Having a reliable source of information and adequate knowledge of where to obtain information on SRH were associated with access to a government health facility for SRH services.
15. Immigrant youth perceived themselves as lacking information on SRH. They were convinced that they do not have access to government health facilities in Hillbrow.
16. Four main themes identified as reasons for lack of access to SRH services from government health facilities in this study were: bad treatment and negative attitude towards foreigners by clinic staff, discrimination against foreigners, documentation and judgmental attitudes.
17. The convergent mixed methods produced a more comprehensive insight on access to a government health facility for SRH services, than would have either the quantitative and qualitative methods alone.

9.4 CONTRIBUTIONS

This study contributes to the body of literature on the social determinants of health among immigrants. The socio-economic determinants of multiple sex partnerships were: level of education, current economic activity and wealth index. The migration-related determinants included migration status, duration of residence and reason for staying at Hillbrow. The neighbourhood and physical environment that were determinants of immigrants' health in this study were discrimination in Hillbrow and personal safety and security concerns in the study site, and social support. The social determinants of inconsistency of condom use were the migration and neighbourhood environment. The migration-related determinants were duration of residence and reason for staying in Hillbrow while having negative feelings of depression, fear, anxiety and depression and social support, were the neighbourhood and social support networks factors. Socio-economic factors were not determinants of inconsistent condom use in this study.

This thesis contributes to the body of literature on the use of the Behavioural Model of Health Service Utilization (BMHSU) by Andersen (1995) and further extends the methods by studying access to government health facilities for SRH services using both quantitative, qualitative and mixed methods techniques. Based on this model, the predisposing factors of health service utilisation among immigrant youth were gender and age. The enabling factors include the wealth index at household level, highest level of education attained among the males, while the community resources that inhibited access to government health facilities for SRH services were discrimination in Hillbrow, negative feelings of fear, anxiety and depression. In this study, the perceived need was not an applicable factor because participants reported their perceived need for SRH services from government health facility but they did not get access to the services. The last component of BMHSU, which is the consumer satisfaction,

include the provider characteristics, quality of service provided, convenience and availability of the service were majorly found as the factors of lack of access to SRH services. Participants identified their lack of SRH information, and reasons for lack of access to SRH services at the government health facilities for SRH services included bad treatment and negative attitude to foreigners by clinic staff, discrimination against foreigners, documentation and judgemental attitude. This thesis has also contributed to the mixed methods technique, specifically the more comprehensive and expanded insight provided by the convergent mixed methods technique in this study.

In conclusion, this thesis applied the Social Determinants of Health framework and the Behavioural Model of Health Service Utilization (BMHSU) by Andersen (1995) in the examination of the determinants of risky sexual behaviours and access to sexual and reproductive health services among immigrant youth. Based on the findings, this thesis consolidates the notion explored by previous researchers (Castañeda et al. 2015; and Spoel et al. 2019) that immigration is a social determinant of the health of immigrant youth in Hillbrow, Johannesburg, South Africa. Irrespective of migration status, being an international migrant predisposes immigrant youth to lack of access to reproductive health services in government health facilities in Hillbrow. Gender differences exist in risky sexual behaviours among the immigrant youth, with the females being more likely to have multiple sex partners and be inconsistent condom users.

9.5 POLICY IMPLICATIONS

The findings of this study suggest a number of important policy implications. While past research on the conundrum of access to healthcare by immigrants (Alfaro-Velcamp, 2017 and Stevenson, 2019) suggests that undocumented immigrants struggle to obtain access to healthcare, the qualitative, quantitative and mixed methods findings of the current research corroborate the experience that immigrant youth in Hillbrow lack access to SRH services. Both documented and undocumented immigrants were denied access and the very few who had access were treated in demeaning ways. This has been noted by other researchers (Crush and Tawodzera, 2014), to be a result of “institutional xenophobic attitudes” of the healthcare workers. A policy gap exists in enabling access to SRH from government health facilities in Hillbrow. The Department of Health needs to make the guidelines succinct and clear, training and re-training staff in order to ensure compliance such the guidelines.

Despite the views of researchers that “South Africa's laws, policies and guidelines on contraceptive service provision in the public sector are progressive, comprehensive, and promote integrated, rights-based service delivery” (Lince-Deroche et al. 2016), immigrant youth living in Hillbrow have been denied access to contraceptive service provision as a result of tardy treatment and negative attitude to foreign nationals by clinic staff, discrimination against foreign nationals, documentation and judgmental attitudes. Lack of access to government health facilities for SRH information and services by international migrants, either because they are turned back, harassed and humiliated, thus beg the question on the progressiveness of the policies and guidelines. In addition, it counters the claims of comprehensive, integrated and rights-based service delivery that the sexual and reproductive health programmes of the Department of Health is anticipated to provide nationally.

The findings from this study have also demonstrated that the South African government may not be able to meet its SDG indicators for SDG3.17 on the universal access to sexual and reproductive health services. In addition, South Africa committed to the 2030 Agenda for Sustainable Development in which Member States recognised that “the dignity of the individual is fundamental and that the Agenda’s Goals and targets for all nations and people and for all segments of society.” The SDG identified international migrants among the vulnerable people that should not be left behind. Immigrant youth living in Hillbrow, Johannesburg have, however, been left behind in terms of access to government health facilities in Hillbrow. The South African government needs to effectively deal with the problem of discrimination against foreign nationals in Hillbrow, and in the country at large.

This study has further verified that immigrant females had higher levels of risky sexual behaviour (inconsistency of condom use and multiple sex partners) than their male counterparts. This could be linked to coerced sex and the skewed power dynamics that exist due to socio-economic status and power, which increases the likelihood of transactional sex. This has major implications for the

Department of Women, Children and Persons with Disabilities, non-governmental organizations and interest groups working on reducing the spread of HIV and AIDs, as well as the Department of Health.

For the Department of Women, Children and Persons with Disabilities, this is manifest in the form of a failure to realize some of the objectives laid out in their 2015-2020 strategic plan, such as ensuring access to SRH services for all women. The attainment of the “HIV Free Generation” goal by the National Department of Health seems unrealistic due to this observed lack of access to information and SRH services for immigrant youth.

This thesis has implications for NGOs, interest groups and other stakeholders, by showing a greater need for the creation of programmes that provide SRH information and services, such as STI services to youth and building on the HIV testing services.

The study found that migration-related factors, socioeconomic factors, and community social processes are determinants of multiple sex partnerships and inconsistent condom use. This could be due to the close relationship between migration, poverty and lack of opportunity. This has implications on the policies that focus on job creation for the youth by both the State and various stakeholders. These institutions and frameworks need broad enough to include immigrant youth in their policy recommendations, as well as addressing some of the needs of the migrant communities.

9.6 RECOMMENDATIONS

The following are the recommendations emanating from this research:

1. Policies and guidelines on access to health care facilities by immigrants should be made succinct and clear to the health care facility workers and not left to the subjective interpretations of service providers.
2. Programmes on SRH in Hillbrow should be strengthened to target the immigrants who have been denied access to SRH information and services by government health facilities.
3. There should be awareness programmes on SRH targeting youth in Hillbrow. These should be well advertised and open to all youth resident in Hillbrow.
4. The Department of Health should strengthen its monitoring and evaluation systems; and random visits should be made to the two health facilities in Hillbrow.
5. Health care facility workers should desist from harassing immigrants on the authenticity of their South African identity documents or any other immigration document.
6. Health care professionals at the facilities need to be educated on the mental health implications of discriminatory treatment of foreign nationals.

7. SRH policies and programmes should intensify education on the importance of consistent use of condoms.
8. Practical sessions should be held in strategic places in the community, explicating specifically the consequences of risky sexual behaviours and how to curb them.
9. The Department of Health should make posters on SRH available.
10. Information, Education and Communication on sex, sexual and reproductive health and rights should not be limited to school-going youth and younger cohorts. Community-based organizations should target women aged 25-34 for SRH messages.
11. There should be national level campaigns via media - radio talk shows, educational entertainment series- that emphasise the importance of females taking charge and responsibility for using condoms. This could socialise the population and possibly improve consistency of condom use with females.
12. Community leaders in migrant-dense communities should be targeted for SRH information with clear messages on ways that gender roles and socialisation increase risky sexual behaviours and negative health outcomes such as STIs, HIV/AIDS, infertility and death. Such messages should discuss the power dynamics as well as female socialisation which may also contribute to inconsistency of condom use.
13. Non-Governmental Organizations that offer Sexual and Reproductive Health services should provide information and services in migrant-dense communities. Such NGOs should offer free service that runs independently of government clinics, and they should clearly state that immigrants are welcome.
14. There is need for improved funding for Sexual and Reproductive Health services, such that SRH services could be offered to those who need them most.

Recommendations by Participants

1. Participants called for the training and re-training of health facility workers to stop discrimination and judgemental attitudes;
2. The participants in this study sought the provision of alternative sources of information on SRH in Hillbrow;
3. They called for the removal of documentation as a condition to accessing SRH services;
4. They also suggested that stakeholders should make STI information and testing available like the HIV testing;
5. Participants asked for improved parental communication about sex and SRH information;
6. Nurses who are younger should be employed;

7. One interesting recommendation was a call for the inclusion of foreigners as part of the staff and volunteers in the Hillbrow area.

Recommendation for Future Study

This study examined the perspective of immigrant youth in Hillbrow with regards access to health services. Further studies are needed in order to understand the supply side factors by the health facility workers.

This study should be replicated in other geographical areas of South Africa with high population density of immigrants. These should include both urban formal, urban informal and rural areas with immigrants.

A comparative study involving international, internal and non-migrants should be conducted, to ascertain the levels of risky sexual behaviours and information on SRH among the youth. This would assist with adequate planning of interventions for all the youth in Hillbrow.

A qualitative study that uses the phenomenological research approach should be carried out at the two Government Health facilities in Hillbrow. This will provide a better understanding of the lived experiences of immigrant youth regarding access to the Government Health Facilities for SRH services.

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ANNEX

ANNEX 1 QUESTIONNAIRE



Questionnaire Record

No.

SEXUAL BEHAVIOUR OF IMMIGRANT YOUTH AND THEIR ACCESS TO REPRODUCTIVE HEALTH SERVICES IN HILLBROW, SOUTH AFRICA

QUESTIONNAIRE

A	GEOGRAPHIC AND INTERVIEWER INFORMATION	Code
Location name		
Street name		
House number		
Person number of respondent	Head of household =01 Spouse = 02 Son/Daughter=03 Niece/nephew =04 Other relative =05	
Interviewer's name		
B	Recruitment statement: Hello, my name is _____. We are conducting a research study about sexual behaviour of immigrant youth and their access to reproductive health services here in Hillbrow. Your household has been chosen randomly and I would like to ask your household members between ages 18-34 a few questions.	
Provide a <u>copy of the informed consent form</u> and <u>study information sheet</u> . When informed consent form has been signed by respondent giving permission to continue, then proceed to full interview.		
Obtain consent to participate in the study? Yes =1 No =2		
If Yes, record interview time below and proceed to Section 1. If No, thank the respondent for their time. Note the visit result and end interview.		
C	Interview details	

Date of visit	Year		Month		Day		Response
Final response code							
Time code 1= 8:30-10:30 2= 10:30-12:30 3= 12:30-14:30 4= 14:30-16:30 5= 16:30-later				Response code 1= Interview completed 2 = Refusal by respondent 3= Other -----			
Sex of respondent (Record biological sex). Do not ask respondent				Male		1	
				Female		2	

SECTION 1: BACKGROUND INFORMATION

READ TO THE PARTICIPANT:

Thank you for agreeing to participate in the interview. As I mentioned earlier, you are free to stop the interview any time or skip questions that you do not wish to answer. I'd like to start by asking you some questions about your age, education, and work status.

Q101	In what month and year were you born?	Month	
		Year	
		Don't know year 98	
Q102	How old were you on your last birthday?	Age in complete years	
COMPARE 101 AND 102 FOR CONSISTENCY			
Q103	How many people are in this household?		
Q104	How many people in this household are between the ages 18-34 years?		

Q105	Home language of respondent	<table border="1"> <tr><td>English</td></tr> <tr><td>French</td></tr> <tr><td>Swahili</td></tr> <tr><td>Shona</td></tr> <tr><td>Ndebele</td></tr> <tr><td>Yoruba</td></tr> <tr><td>Chichewa</td></tr> <tr><td>Igbo</td></tr> <tr><td>Krio/Pidgin English</td></tr> <tr><td>Other (Please specify)</td></tr> </table>	English	French	Swahili	Shona	Ndebele	Yoruba	Chichewa	Igbo	Krio/Pidgin English	Other (Please specify)	<table border="1"> <tr><td>01</td></tr> <tr><td>02</td></tr> <tr><td>03</td></tr> <tr><td>04</td></tr> <tr><td>05</td></tr> <tr><td>06</td></tr> <tr><td>07</td></tr> <tr><td>08</td></tr> <tr><td>09</td></tr> <tr><td>10</td></tr> </table>	01	02	03	04	05	06	07	08	09	10
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French																							
Swahili																							
Shona																							
Ndebele																							
Yoruba																							
Chichewa																							
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Q106	Which is the country of birth of household head	Please state country																					
Q107	What is the level of education of the head of household?	<table border="1"> <tr><td>Incomplete Primary</td></tr> <tr><td>Complete Primary</td></tr> <tr><td>Incomplete Secondary</td></tr> <tr><td>Complete Secondary/Matric</td></tr> <tr><td>Incomplete tertiary education- (Technicon/University)</td></tr> <tr><td>Complete Tertiary</td></tr> <tr><td>Post Graduate</td></tr> </table>	Incomplete Primary	Complete Primary	Incomplete Secondary	Complete Secondary/Matric	Incomplete tertiary education- (Technicon/University)	Complete Tertiary	Post Graduate	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>7</td></tr> </table>	1	2	3	4	5	6	7						
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Q108	Country of birth of respondent	Please state country																					
Q109	Have you ever attended school?	Yes No	1 2 If 2 → Q112																				
Q110	Are you currently attending a formal school?	Yes No	1 2																				
Q111	What is your highest level of education?	<table border="1"> <tr><td>Incomplete Primary</td></tr> <tr><td>Complete Primary</td></tr> <tr><td>Incomplete Secondary</td></tr> <tr><td>Complete Secondary/Matric</td></tr> <tr><td>Incomplete tertiary education- (Technicon/University)</td></tr> <tr><td>Complete Tertiary</td></tr> <tr><td>Post Graduate</td></tr> </table>	Incomplete Primary	Complete Primary	Incomplete Secondary	Complete Secondary/Matric	Incomplete tertiary education- (Technicon/University)	Complete Tertiary	Post Graduate	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>7</td></tr> </table>	1	2	3	4	5	6	7						
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Q112	Current migration status of head of household	<table border="1"> <tr><td>South African citizen</td></tr> <tr><td>Naturalised South African citizen</td></tr> <tr><td>Permanent resident</td></tr> <tr><td>Refugee status</td></tr> <tr><td>Work permit</td></tr> <tr><td>Asylum seeker</td></tr> <tr><td>Undocumented migrant - No paper</td></tr> </table>	South African citizen	Naturalised South African citizen	Permanent resident	Refugee status	Work permit	Asylum seeker	Undocumented migrant - No paper	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>7</td></tr> </table>	1	2	3	4	5	6	7						
South African citizen																							
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		Other (please specify) No response	8 96
Q113	What is your religious affiliation?	Catholic Protestant/other Christian Islam/Muslim Judaism Hindu Traditional religion No religion Other Christian Others (specify)	1 2 3 4 5 6 7 8 9
Q114	How important is religion to you?	Very important Important Not very important Not important	1 2 3 4
Q115	What is your marital status	Married Single Not married, living with a partner Separated Divorced Widowed	1 2 3 4 5 6
Q116	Are you currently engaged in any economic activity? (economic activity means - employment, job, income generating activity)	Yes No	1 2
Q117	What is your main economic activity in the past 6 month?	Employed (Full time) Employed (Part time) Student Unemployed Others, Please state	1 2 3 4 5

If 4Q201

Q118	What was your average monthly income in the last six months?	No income	1
		Less than R1,000	2
		R1,000-4,999	3
		R5000-9,999	4
		R10,000 and above	5
		Other (specify)	6
		Prefer not to answer	99

SECTION 2: HOUSEHOLD INFORMATION
READ TO THE PARTICIPANT:
I would like to ask you some questions about your household and type of facilities used in this household.
A household is the people living in the same dwelling and usually eating together for at least 4 nights per week or more.

Q201	How many rooms does your household occupy? Excluding bathroom, toilet or kitchen	1	1
		2	2
		3	3
		4	4
		5	5
Q202	How many other households do you share your rooms with?	1	1
		2	2
		3	3
		4	4
Q203	What kind of toilet facility do members of your household usually use?	Flush to piped sewer	1
		Flush to pit latrine	2
		Pit latrine	3
		Others, specify	4
Q204	What type of energy/fuel does your household mainly use for cooking?	Electricity	1
		Solar energy	2
		Gas	3
		Paraffin	4
		Coal/wood	5
Q205	Do you have a separate room used for cooking?	Yes	1
		No	2
Q206	What type of energy does this household use for heating/warming?	Electricity	1
		Solar energy	2
		Gas	3
		Paraffin	4

		Coal/wood	5
Q207	Does your household have any of the following in working condition ?		
a	A radio	Yes No	1 2
b	A television	Yes No	1 2
c	Landline telephone	Yes No	1 2
d	A desktop or laptop computer	Yes No	1 2
e	A refrigerator	Yes No	1 2
f	Vacuum cleaner	Yes No	1 2
g	Microwave oven	Yes No	1 2
h	Washing machine	Yes No	1 2
Q208	Does any member of your household own any of the following and in a working condition ?		
a	Cell phone	Yes No	1 2
b	Bicycle	Yes No	1 2
c	Motorcycle	Yes No	1 2

d	A car/bakkie/van/truck	Yes No	1 2
Q209	How is the refuse or rubbish in this household mainly disposed of?	By local authority/private company once a week By local authority/private company less than once a week Community members Communal refuse dump Own refuse burned	1 2 3 4 5
	SECTION 3: MIGRATION STATUS READ TO THE PARTICIPANT: Now I will read you some questions on how long you have been a resident of this community and your migration status. Please remember this information is confidential and no one will have access to any of the information.		
Q301	When did you come to South Africa? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	Days Weeks Months Years 	

Q302	In your home country where were you living?	<table border="1"> <tr><td>City</td></tr> <tr><td>Town</td></tr> <tr><td>Rural area</td></tr> </table>	City	Town	Rural area	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> </table>	1	2	3												
City																					
Town																					
Rural area																					
1																					
2																					
3																					
Q303	Before moving to Hillbrow, where were you staying? (Please specify)	Country Province Suburb Location	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> </table>	1	2	3	4														
1																					
2																					
3																					
4																					
Q304	What was your reason for moving to South Africa?	<table border="1"> <tr><td>Better employment opportunities</td></tr> <tr><td>School</td></tr> <tr><td>Marriage</td></tr> <tr><td>War/political unrest in my country</td></tr> <tr><td>Better health facility</td></tr> <tr><td>To stay with a relative</td></tr> <tr><td>Other (please specify)</td></tr> </table>	Better employment opportunities	School	Marriage	War/political unrest in my country	Better health facility	To stay with a relative	Other (please specify)	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>96</td></tr> </table>	1	2	3	4	5	6	96				
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Other (please specify)																					
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96																					
Q305	What was your reason for moving to Hillbrow?	<table border="1"> <tr><td>Better employment opportunities</td></tr> <tr><td>School</td></tr> <tr><td>Marriage</td></tr> <tr><td>Cheaper accommodation</td></tr> <tr><td>Better health facility</td></tr> <tr><td>To stay with a relative</td></tr> <tr><td>Other (please specify)</td></tr> </table>	Better employment opportunities	School	Marriage	Cheaper accommodation	Better health facility	To stay with a relative	Other (please specify)	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>96</td></tr> </table>	1	2	3	4	5	6	96				
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Other (please specify)																					
1																					
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96																					
Q306	What is your current migration status in South Africa?	<table border="1"> <tr><td>South African citizen</td></tr> <tr><td>Permanent resident</td></tr> <tr><td>Work permit</td></tr> <tr><td>Study permit</td></tr> <tr><td>Refugee status</td></tr> <tr><td>Asylum seeker</td></tr> <tr><td>No paper</td></tr> <tr><td>Naturalised South African citizen</td></tr> <tr><td>Other (Please specify)</td></tr> </table>	South African citizen	Permanent resident	Work permit	Study permit	Refugee status	Asylum seeker	No paper	Naturalised South African citizen	Other (Please specify)	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>7</td></tr> <tr><td>8</td></tr> <tr><td>9</td></tr> </table>	1	2	3	4	5	6	7	8	9
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8																					
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		No response	96
Q307	Do you speak any local South African languages	Yes No	1 2 If 2, proceed to Q401
Q308	If yes, which of the languages do you speak?	IsiZulu IsiXhosa Sesotho Setswana Xitsonga SiSwati Tshivenda Afrikaans English IsiNdebele Sipedi	1 2 3 4 5 6 7 8 9 10 11
Q309	How fluent are you in these languages?	Very fluent (Speak, read and write) Not very fluent (Speak, do not read and write) Not fluent (Speak with difficulty)	1 2 3
	Section 4: Concerns about the community Read to the participant: Now I would like to ask you some questions about the concerns you may have had in this community and how it may have affected you.		
Q401	Have you ever experienced discrimination issues since you arrived in South Africa? Discrimination means been treated differently or refused access to something because the person is a foreigner for instance.	Yes No	1 2
Q402	Have you ever experienced personal safety and security concerns since you came to South Africa? Personal safety and security concerns means having been robbed of personal	Never Sometimes Often Always No response	1 2 3 4 5

	belongings, mugged, your personal belongings stolen.		
Q403	Have you ever experienced personal safety and security concerns since you came to Hillbrow?	Never Sometimes Often Always No response	1 2 3 4 5
Q405	Have you ever experienced physical assault or violence since you came to South Africa? Physical assault means physical harm or unwanted physical contact or touch on you.	Never Sometimes Often Always No response	1 2 3 4 5
Q406	Have you ever experienced physical assault or violence since you came to Hillbrow?	Never Sometimes Often Always No response	1 2 3 4 5
Q407	Have you ever experienced xenophobia since you came to South Africa? Xenophobia means to be treated differently and to have received any type of abuse because people are afraid of you since you are a foreigner.	Never Sometimes Often Always No response	1 2 3 4 5
Q408	Have you ever experienced xenophobia since you came to Hillbrow?	Never Sometimes Often Always No response	1 2 3 4 5
Q409	How often do you have negative feelings such as blue mood, despair (feeling hopeless), anxiety (afraid), depression?	Never Seldom Quite often Very often Always	1 2 3 4 5

Q410	Do you have anyone here in South Africa who you trust and with whom you can discuss very important and private issues?	Yes No	
			1
			2

SECTION 5: INFORMATION, KNOWLEDGE AND ACCESS TO SEXUAL AND REPRODUCTIVE HEALTH SERVICES

READ TO PARTICIPANT: I would now like to ask you some questions about programs you have seen and or been a part of in this community, and where you learned about sexual or reproductive health, pregnancy, and planning.

Q501a	Have you received any information in the past six months about how to live a healthy sexual life, prevent unwanted pregnancies and treatment of sexually transmitted infections?	Yes No	<table><tr><td>1</td></tr><tr><td>2</td></tr></table>	1	2																
1																					
2																					
Q501b	If yes, from where did you receive such messages? Circle all responses	<table><tr><td>Posters</td></tr><tr><td>Television/Radio</td></tr><tr><td>Health centre/community clinic</td></tr><tr><td>Private clinic</td></tr><tr><td>Government hospital</td></tr><tr><td>Parents</td></tr><tr><td>Peer educator</td></tr><tr><td>Teacher</td></tr><tr><td>Friends</td></tr></table>	Posters	Television/Radio	Health centre/community clinic	Private clinic	Government hospital	Parents	Peer educator	Teacher	Friends	<table><tr><td>1</td></tr><tr><td>2</td></tr><tr><td>3</td></tr><tr><td>4</td></tr><tr><td>5</td></tr><tr><td>6</td></tr><tr><td>7</td></tr><tr><td>8</td></tr><tr><td>9</td></tr></table>	1	2	3	4	5	6	7	8	9
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9																					
Q502a	Have you received any information in <u>the past six months</u> about family planning specifically? (What it is, how to use it, where to get it, etc.)?	Yes No	<table><tr><td>1</td></tr><tr><td>2</td></tr></table>	1	2																
1																					
2																					
Q502b	If yes, what was the <u>main</u> source of information? <u>CIRCLE ONLY ONE ANSWER</u>	On the radio/TV In a community meeting From a religious leader From a teacher/peer educator From a community health worker From neighbors From friends From an association of girls/women From relatives Other (specify)	<table><tr><td>1</td></tr><tr><td>2</td></tr><tr><td>3</td></tr><tr><td>4</td></tr><tr><td>5</td></tr><tr><td>6</td></tr><tr><td>7</td></tr><tr><td>8</td></tr><tr><td>96</td></tr></table>	1	2	3	4	5	6	7	8	96									
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FAMILY PLANNING KNOWLEDGE AND ACCESS

READ TO PARTICIPANT: In this section, I am going to ask you questions about family planning methods, including where to get them and how they work. As I mentioned earlier, if you feel uncomfortable, we can skip a question and move on to the next section.

CHECK FOR PRESENCE OF OTHERS BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY

Q503	Have you heard of any of the following contraception methods (ways to avoid getting pregnant)				
a	Daily pill (women take a pill every day to avoid becoming pregnant)	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1					
2					
b	Intra uterine device (IUD) (women have a loop or coil placed inside them by a doctor or nurse to prevent pregnancy for about a year)	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1					
2					
c	Implants/Norplant (women can have one or more small rods placed in their upper arm by a doctor or nurse to prevent pregnancy for one or more years)	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1					
2					
d	Male condom (men put a rubber sheath on the penis before sexual intercourse)	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1					
2					
e	Female condom (women can place a sheath in their vaginal before sexual intercourse)	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1					
2					
f	Injectables/Depo (women can have an injection by a health provider that stops them from becoming pregnant for about 2 months)	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1					
2					
g	Emergency contraception/morning after pill (pill taken after having unprotected sex to prevent pregnancy)	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1					
2					
h	Safe days/cycle beads (colourful beads showing days that are safe for women to have sexual intercourse without getting pregnant)	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1					
2					
i	Withdrawal (men can be careful and pull out before climax)	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1					
2					
j	Vasectomy/male sterilisation (men can have an operation to	Yes No	<table border="1"> <tr><td>1</td></tr> </table>	1	
1					

	avoid having any more children)		2
k	Tubal ligation/Female sterilisation (women can have an operation to avoid having any more children)	Yes No	1 2
Q504	Do you know of a place in this area where you can obtain a family planning method?	Yes No	1 2
Q505	Do you know a place in this area where you can obtain any of the following family planning methods:		
i	Daily pill	Yes No	1 2
ii	IUD	Yes No	1 2
iii	Male condom	Yes No	1 2
iv	Female condom	Yes No	1 2
v	Injectables/Depo	Yes No	1 2
vi	Implants/Norplant	Yes No	1 2
vii	Emergency contraception (morning after pill)	Yes No	1 2
viii	Cycle beads	Yes No	1 2
ix	Vasectomy (male sterilisation)	Yes No	1 2
x	Tubal ligation (Female sterilisation)	Yes No	1 2
Q506a	In the last 12 months, have you or your sexual partner done anything to prevent or delay getting pregnant?	Yes No	1 2

Q506b	If No, is there any reason?	<table border="1"> <tr><td>They make me sick</td></tr> <tr><td>They make me uncomfortable</td></tr> <tr><td>Fear of weight gain</td></tr> <tr><td>It makes me not to enjoy sex</td></tr> <tr><td>My religion</td></tr> <tr><td>I want a baby</td></tr> <tr><td>Others (specify)</td></tr> </table>	They make me sick	They make me uncomfortable	Fear of weight gain	It makes me not to enjoy sex	My religion	I want a baby	Others (specify)	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>95</td></tr> </table>	1	2	3	4	5	6	95								
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Q507	Have you ever had sexual intercourse?	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2																				
1																									
2																									
Q508	Are you or your sexual partner currently doing anything or using any method to delay or avoid getting pregnant?	Yes No If 2, proceed to Q511	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2																				
1																									
2																									
Q509	Which method are you using?	<table border="1"> <tr><td>Female sterilisation</td></tr> <tr><td>Male sterilisation</td></tr> <tr><td>IUD</td></tr> <tr><td>Injectables/Depo</td></tr> <tr><td>Implants</td></tr> <tr><td>Pill</td></tr> <tr><td>Male condom</td></tr> <tr><td>Female condom</td></tr> <tr><td>Emergency contraception</td></tr> <tr><td>Safe days/cycle beads</td></tr> <tr><td>Withdrawal</td></tr> </table>	Female sterilisation	Male sterilisation	IUD	Injectables/Depo	Implants	Pill	Male condom	Female condom	Emergency contraception	Safe days/cycle beads	Withdrawal	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>7</td></tr> <tr><td>8</td></tr> <tr><td>9</td></tr> <tr><td>10</td></tr> <tr><td>11</td></tr> </table>	1	2	3	4	5	6	7	8	9	10	11
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11																									
Q510	Where did you obtain the contraception method you are using?	<table border="1"> <tr><td>Government hospital</td></tr> <tr><td>Govt. clinic/community health centre</td></tr> <tr><td>Community health worker</td></tr> <tr><td>Private hospital/clinic</td></tr> <tr><td>Chemist/pharmacy</td></tr> <tr><td>Private doctor</td></tr> <tr><td>Other private medical sector</td></tr> <tr><td>workplace clinic</td></tr> <tr><td>Public place/community centre</td></tr> <tr><td>Shop</td></tr> <tr><td>Friend/relative</td></tr> </table>	Government hospital	Govt. clinic/community health centre	Community health worker	Private hospital/clinic	Chemist/pharmacy	Private doctor	Other private medical sector	workplace clinic	Public place/community centre	Shop	Friend/relative	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>7</td></tr> <tr><td>8</td></tr> <tr><td>9</td></tr> <tr><td>10</td></tr> <tr><td>11</td></tr> </table>	1	2	3	4	5	6	7	8	9	10	11
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9																									
10																									
11																									
Q511	How far is the government clinic from your place?	<table border="1"> <tr><td>10-15 minutes' walk</td></tr> <tr><td>15-30 minutes' walk</td></tr> <tr><td>over 30 minutes' walk</td></tr> <tr><td>I don't know/Not sure</td></tr> </table>	10-15 minutes' walk	15-30 minutes' walk	over 30 minutes' walk	I don't know/Not sure	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> </table>	1	2	3	4														
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2																									
3																									
4																									

Q514	I have the following challenges in using the SRH services of the health facility in my area (choose which is applicable):															
a	High cost	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2											
1																
2																
b	Discrimination	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2											
1																
2																
c	Attitude of the health facility staff	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2											
1																
2																
d	Waiting time	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2											
1																
2																
e	Language barrier	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2											
1																
2																
f	Distance	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2											
1																
2																
g	Safety concerns and fear	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2											
1																
2																
h	I do not know about the services	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2											
1																
2																
i	I do not think I need SRH services	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2											
1																
2																
j	I do not have the necessary documentation	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2											
1																
2																
Q515	Before coming to South Africa, have you ever used any method to delay or avoid pregnancy?	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2											
1																
2																
Q516	Which method(s) have you ever used? Circle all that applies	<table border="1"> <tr><td>IUD</td></tr> <tr><td>Injectables</td></tr> <tr><td>Implants</td></tr> <tr><td>Pill</td></tr> <tr><td>Male condom</td></tr> <tr><td>Female condom</td></tr> <tr><td>Emergency contraception</td></tr> </table>	IUD	Injectables	Implants	Pill	Male condom	Female condom	Emergency contraception	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> </table>	1	2	3	4	5	6
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1																
2																
3																
4																
5																
6																

		safe days/cycle beads Withdrawal Other traditional method Female sterilization Male sterilization	7 8 9 10 11 12
Q517	Ask respondents aged 18-24 only Do you know a youth-friendly place in this area where you can obtain a contraceptive method?	Yes No If 2, proceed to Q520	1 2
Q518	Do you use the youth friendly services?	Yes No	1 2
Q519	If no, what are your reasons?	Poor service Long waiting line Attitude of health staff Lack of confidentiality Lack of preferred method Disrespectful/judgemental staff	1 2 3 4 5 6
Q520	Would you say you were more exposed to sexual and reproductive health messages in your country of origin than you are now in South Africa or would you say you have similar access to those messages?	Definitely more exposed More exposed More or less the same Less exposed Definitely less exposed	1 2 3 4 5
Q521	Would you say you were more exposed to messages on family planning in your country of origin than you are now in South Africa or would you say you have similar access to those messages?	Definitely more exposed More exposed More or less the same Less exposed Definitely less exposed	1 2 3 4 5
If Q507 is 2 (Never had sexual intercourse), proceed to Q612			
Q601	When was the last time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER	Days Weeks Months	

	MUST BE RECORDED IN YEARS. IF THE RESPONDENT SAYS FEW HOURS AGO, PUT 00 IN THE DAYS AGO RESPONSE	Years Prefer not to answer.....98	
Q603	How old were you when you had sex for the very first time? Record actual number.		
Q604	In total, how many sexual partners did you have in the past 12 months? Record actual number		
Q605	The last time you had sexual intercourse with your most recent sexual partner, was a condom used?	Yes No	1 2
Q606	How often do you use condoms during sexual intercourse?	Never Sometimes Always	1 2 3
Q607	How old is your most recent sexual partner? (age in years)		
Q608	In the past 12 months, have you had sex or have been sexually involved with anyone in exchange for gifts, food, cash or accommodation?	Yes No	1 2
Q609	Have you ever become pregnant or got your sexual partner pregnant without planning for it?	Yes No If 2, proceed to Q612	1 2
Q610	What happened to the pregnancy	I/We decided to keep the pregnancy Aborted the pregnancy	If 1 Q613
Q611	If pregnancy was aborted, what type of abortion was done?	Medical abortion Self-induced abortion Backstreet abortion experts Drank pills given by backstreet abortion experts Other (specify) No response	1 2 3 4 5 96

Q612	If pregnancy was aborted, where was the procedure done?	<table border="1"> <tr><td>Public hospital</td></tr> <tr><td>Private clinic</td></tr> <tr><td>Marie Stopes abortion clinic</td></tr> <tr><td>Backstreet abortion experts</td></tr> <tr><td>Drank some medicine/pills</td></tr> <tr><td>Traditional method</td></tr> <tr><td>No response</td></tr> </table>	Public hospital	Private clinic	Marie Stopes abortion clinic	Backstreet abortion experts	Drank some medicine/pills	Traditional method	No response	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>96</td></tr> </table>	1	2	3	4	5	6	96		
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No response																			
1																			
2																			
3																			
4																			
5																			
6																			
96																			
Q613	How often do you drink alcohol?	<table border="1"> <tr><td>Never</td></tr> <tr><td>I no longer drink</td></tr> <tr><td>Very rarely</td></tr> <tr><td>Less than once a week</td></tr> <tr><td>1-2 days a week</td></tr> <tr><td>3-4 days a week</td></tr> <tr><td>5-6 days a week</td></tr> <tr><td>Every day</td></tr> </table>	Never	I no longer drink	Very rarely	Less than once a week	1-2 days a week	3-4 days a week	5-6 days a week	Every day	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>7</td></tr> <tr><td>8</td></tr> </table>	1	2	3	4	5	6	7	8
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Q614	On a day that you have an alcoholic drink, how many standard drinks do you usually have? (A standard drink is a 330ml can of regular beer, a tot of spirits or mixed drink)	<table border="1"> <tr><td>13 or more standard drinks</td></tr> <tr><td>9-12 standard drinks</td></tr> <tr><td>7-8 standard drinks</td></tr> <tr><td>5-6 standard drinks</td></tr> <tr><td>3-4 standard drinks</td></tr> <tr><td>1-2 standard drinks</td></tr> </table>	13 or more standard drinks	9-12 standard drinks	7-8 standard drinks	5-6 standard drinks	3-4 standard drinks	1-2 standard drinks	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> </table>	1	2	3	4	5	6				
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Q615	Have you ever had sex while drunk?	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2														
1																			
2																			
Q616	Have you ever tested for HIV?	Yes No If 2, thank the respondent and end the interview	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2														
1																			
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Q617	When was the last time you tested for HIV?	Month Year	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2														
1																			
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Q618	Did you receive any counselling before and after the HIV test?	Yes, before and after Yes, before only Yes, after only No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> </table>	1	2	3	4												
1																			
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4																			
Q619	Do you know your HIV status?	Yes No	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2														
1																			
2																			

END OF INTERVIEW

READ TO PARTICIPANT: WE HAVE REACHED THE END OF THE INTERVIEW. THANK YOU FOR TAKING THE TIME WITH US TODAY TO PROVIDE THIS VALUABLE INFORMATION. AS I MENTIONED AT THE BEGINNING, NO PERSONAL INFORMATION IS COLLECTED ON THIS SURVEY. YOUR RESPONSES ARE CONFIDENTIAL

DO YOU HAVE ANY QUESTIONS?

ANNEX 2: FOCUS GROUP DISCUSSION GUIDE

FOCUS GROUP DISCUSSION GUIDE FOR IMMIGRANT YOUTH

Introduction: Good morning/afternoon. My name is Nkechi Obisie-Nmehielle. Thank you so much for your time and your effort to come for this interview.

(Read the information document to all participants). This interview will be recorded to enable me remember what is discussed, I will not be able to write every information shared while listening to you at the same time. Sharing your experiences regarding access to sexual and reproductive health services here in Hillbrow matter so much and no experience shared is less important. Please note that it is important to allow every participant to have the chance to share their own experiences, as every experience matters.

An important rule of this interview is Confidentiality. You are not allowed to discuss any information or other people's experiences outside this session. Once again, thanks for your time.

PARTICIPANT DEMOGRAPHIC INFORMATION

Venue: _____

FGD No.: _____ Description: _____

Date: ____ / ____ / ____ Number of participants _____
 Day Month Year

Age group		
Gender	1 Male	2 Female
Number of participants		

1. What are your experiences as immigrant youth living in Hillbrow, regarding access to information and sexual and reproductive health services here in Hillbrow?

[Examples of sexual and reproductive health information include information on how to have a healthy sexual life, prevention of unwanted/unplanned pregnancies, and protection from STIs. Sexual and reproductive health services include access to contraceptives, different

family planning methods, safe abortion, STI testing and treatment, HIV testing and counselling and treatment.

Probe: Would you say you are able to get information and other needed SRH services in the health centers in this community.

Have you experienced situations where you were denied services because you were a foreigner or due to lack of documentation?)]

2. What are the barriers/challenges you have encountered in accessing sexual and reproductive health information and services here in Hillbrow?
3. How do you deal with and overcome the barriers mentioned above in trying to access sexual and reproductive health services?
4. Are you aware of youth friendly services here in Hillbrow (SRH services for people aged 18-24). Do you use them? If yes, what are your experiences? If No, why not?
5. In your opinion, what has changed since you arrived in the South Africa in general, and specifically Hillbrow, in terms of your access to sexual and reproductive health services? (For example, there is much more information on radio and in communities here in Hillbrow, it is easier to get contraceptives and desired family planning methods etc.)
7. What are your experiences with unplanned pregnancies? How do you deal with unplanned pregnancies and the issues of abortion, including post-abortion care? (Probe: How do you go about having an abortion if you choose to?)

ANNEX 3: LETTER FROM IKAKENG COMMUNITY DEVELOPMENT CENTRE



15 Soper Street
Berea
Johannesburg
2198
Reg No.197-377 NP●
TEL: 011 614 2153 CELL: 072 366 2469
Email:mokgesiphilemon@gmail.com

Date:11th December 2019

To Whom It May Concern

Re: Provision of board room to conduct Focus Group Discussion on “Sexual Behaviour of Immigrants Youth and their Access to Reproductive Health Services in Hillbrow”

The Ikageng Community Development situated within Berea number 15 Soper & Tudhope hereby acknowledge that we are aware of the research titled “Sexual behaviour of immigrant youth and their access to reproductive health services in Hillbrow”.

The lead researcher, Ms Nkechi Obisie-Nmehielle a PhD student from the North-West University has informed us about the research and we understand the importance of her study.

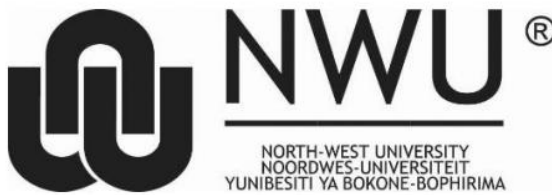
We shall make a boardroom in our secured premises available to her, to conduct Focus Group Discussions and necessary interviews with her research participants.
Kindly feel free to contact me on 0723662469 if you need further clarity.

Yours Sincerely

A handwritten signature in black ink, appearing to be "Mashilo", written over a horizontal line.

Mr Mashilo Philemon Mokgesi
Chairperson
Ikageng Community Development
15 Soper & Tudhope Street
Berea
Johannesburg
2198
Cell: 0723662469
Email: mokgesiphilemon@gmail.com

ANNEX 4: APPROVAL OF ETHICS APPLICATION



PO Box 1174, Vanderbijlpark
South Africa, 1900

**Human and Social Sciences Research Ethics
Committee**

Tel: +27(16) 910-3441

Web: <http://www.nwu.ac.za>

Email: Chrizanne.VanEeden@nwu.ac.za

18 December 2019

Dear Ms Obisie-Nmehielle and Prof. I. Kalule-Sabiti

APPROVAL OF ETHICS APPLICATION: -NWU-01909-19-S7

***Sexual behaviour of immigrant youth and their access to reproductive health services
in Hillbrow, South Africa***

The Human and Social Sciences Research Ethics Committee (HSSREC) has reviewed the changes and amendments to your research project and reached the conclusion that the above ethics application can now be *approved with no further changes*.

Kindly send copies of the final informed consent forms to Daleen Claasens
(Daleen.Claasens@nwu.ac.za) to be stamped and signed for use during your research.

The HSSREC administrator will forward your application to SRCE, requesting your Ethics Clearance Certificate.

Yours sincerely

Prof C van Eeden
Chairperson: HSSREC