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HIV vulnerabilities among heterosexual African, Caribbean and other Black men in London, Ontario

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A thesis submitted in partial fulfillment of the requirements for the Master of Science degree in Geography

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Abstract

Heterosexual African Caribbean and Black (ACB) men are overwhelmed with HIV infections in Canada relative to other racial groups. Epidemiological evidence suggests that heterosexual contact is the most common route of HIV transmission among ACB populations. Despite their heightened HIV vulnerabilities, evidence from community consultation and local research shows that heterosexual ACB men tend to face challenges accessing HIV related services. Moreover, there is a dearth of literature on how ACB men build resilience against their HIV vulnerabilities in the Canadian context. This dissertation is part of an Ontario wide HIV study across four cities—Windsor, Ottawa, Toronto and London in Southern Ontario called weSpeak with the overall aim of improving ACB men’s sexual health. As part of the larger study, the overarching objective of this dissertation therefore, was to identify from an intersectional theoretical lens, the interlocking factors that influence ACB men’s uptake of HIV testing services and how knowledge of their sexual partner’s HIV status informed their protective behaviours. A cross-sectional survey was administered to 156 individuals between March 2018 and February 2019. Negative log-log link function analytic techniques were employed in assessing access to HIV testing services and preventive behaviours among heterosexual ACB men. Findings show that about half of heterosexual ACB men did not know the HIV status of their regular female sexual partners. Importantly, those who did not know the HIV status of their regular female sexual partners were more likely to use condoms compared to those who had knowledge of their regular partner’s status. Results further show that having difficulty accessing healthcare constrained heterosexual ACB men’s uptake of HIV testing services. The constitutive effect of demographic, behavioural and structural factors better explained the difficulties associated with the uptake of HIV testing services than the disaggregated component parts. The overall lack of knowledge of

heterosexual ACB men's regular female sexual partner's HIV status is a major concern and points to the need for programmes that encourage regular testing and disclosure of HIV status within intimate relationships. Similarly, heterosexual ACB men's HIV vulnerabilities need to be understood as requiring a holistic solution rather than the frequent focus on behavioural explanations that are often ascribed to Black men's heightened HIV vulnerabilities.

Keywords: HIV vulnerabilities, HIV testing, Access to healthcare, Knowledge, Condom use, Heterosexual African Caribbean and Black men, London Ontario, Canada

Dedication

This dissertation is dedicated to my late uncle and his wife Mr. and Mrs. Paul-Kant for the many sacrifices they made for me while alive. May your souls rest in perfect peace. Fond memories of your words of encouragement keep me moving even when all seemed to be despair. I also dedicate this work to the almighty God for giving me the strength and good health in my academic journey.

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Chapter 1

1. Introduction

This dissertation investigates Human Immunodeficiency Virus (HIV) vulnerabilities and resilience building strategies among African Caribbean and other Black (ACB) men in London, Ontario. The study is part of a larger Ontario-wide study that seeks to meaningfully engage self-identified heterosexual ACB men in a critical dialogue about their heightened HIV vulnerabilities and to identify pathways to resilience building in the Canadian context. This chapter provides a background to the study and population distribution of HIV in Canada, followed by the research problem and objectives. The chapter ends with an outline of the structure to the remainder of the dissertation and summary of the chapter.

1.1. Background to the study

Acquired Immune Deficiency Syndrome (AIDS) caused by HIV, given its association with moral decadence (Smith, 2003), is arguably the single most dreaded disease in human history and remains a major global public health concern today. It is directly linked with most other deadly diseases including cancer, tuberculosis, candidiasis and Kaposi sarcoma (Yarchoan & Uldrick, 2018). HIV, if not detected early and managed, weakens the immune system's ability to identify and fight pathogens in the patient's body, which creates a conducive environment for the development of other opportunistic diseases. Recent evidence suggests that about 77.3 million people have been infected with HIV globally and over 35 million have already died from AIDS-related illness since the start of the epidemic in the 1980s (UNAIDS, 2018). These statistics are most likely underestimates given a considerable amount of undiagnosed HIV positive patients both in developing and developed countries.

The brunt of the HIV epidemic has disproportionately affected specific regions and populations. For instance, sub-Saharan Africa (SSA) constitutes about 15% of the global population, yet it is home to more than two-thirds of the global burden of the HIV virus with the epicenter in southern Africa (HIV/AIDS & World Health Organization, 2006; Kharsany & Karim, 2016). Current HIV infection trends in SSA however, have shown declining trends, with a reduction of over 33% between 2005 and 2013 (Kharsany & Karim, 2016). Similarly, AIDS related mortalities have been reduced by about 42% in southern Africa and 24% in western and central Africa between 2010 and 2017 (UNAIDS, 2018). In the Caribbean— the African annex, reduction in mortality rate was similar (23%) to that of western and central Africa. These modest achievements have largely been attributed to an increasing awareness of the virus, a significant scale-up in the uptake of antiretroviral therapy (ART) and specific HIV policy interventions in these regions (De Cock, Jaffe, & Curran, 2012). ART has significantly transformed the fatality of the disease into a more chronic and manageable condition (Kharsany & Karim, 2016). Globally, annual HIV-related mortalities have been reduced from a peak of 1.9 million in 2004 to under one million in 2017 largely due to an increasing uptake of ART services.

The debate between HIV prevention and management/treatment has been ongoing. Those in favour of prevention over management argue that the continuous supply of the ART to all people living with HIV will not be (economically) sustainable in the future. This concern arises due to the ever-increasing number of people living with HIV and possible withdrawal of funding and subsidies as a result of competing health priorities in particular contexts, if new infections are not reduced drastically (Baidoobonso, 2013; Oomman, Bernstein, & Rosenzweig, 2007). Also, compared with the general population, even people with low HIV viral suppression often report poor health conditions (Miners et al., 2001; Shokoohi et al., 2019). In fact, evidence shows that the

ART is not readily accessible by the most vulnerable populations in society (Chimbindi et al., 2015). Moreover, despite ART demonstrating considerable efficiency in the lives of people living with HIV, its uptake and possible success is dependent principally on timely knowledge of self-HIV status. Meanwhile, access to HIV testing services has remained a challenge especially among marginalized populations even in the most developed economies, including the United States and Canada (Levy et al., 2014). Indeed, access to ART is variant, as are the regional and population distributions of the virus due to testing challenges, difficulty adhering to ART and barriers to accessing these services. The challenge with ART services led to the suggestion that prevention of new HIV infections through mechanisms such as consistent condom use, keeping a single sexual partner, and the use of pre- and post- exposure prophylaxis (PrEP and PEP) constitutes the most practicable remedy to the HIV epidemic. Those who advocate for prevention argue that the limited resources available should be directed towards preventive strategies rather than life-long management of a chronic viral condition. Further, they argue that prevention should remain the best and most viable strategy until a permanent HIV cure is secured. Despite evidence that a Berlin patient and most recently a patient in London (UK) have been ‘cured’ of HIV through a stem cell transplant, there are still lingering uncertainties and concerns about considerable traces of the virus in these patients and whether their viral loads will remain undetectable and untransmittable in the future.

Even though preventing HIV infection is recommended, it is very difficult to adhere to. HIV prevention requires up to date knowledge of self and sexual partner’s HIV status, how the virus is transmitted, diligent attention to risk factors for HIV contraction or transmission, behavioural change, willingness and ability to access testing services and most importantly, deliberate policy priorities. Yet, appropriate attention to HIV risk factors, especially at the

individual level is impacted by multiple factors including behavioural, social, cognitive and structural determinants (Boerma & Weir, 2005). Research focused on HIV prevention therefore needs to identify these determinants as layers that constitutively influence peoples' sexual risk behaviours and uptake of HIV health services. Through such an approach, researchers can adequately account for the social context, lived experiences of people, behaviours and structural factors that influence HIV risk and vulnerabilities that have become the 'new normal' (Baidooobonso, 2013).

1.2. Distribution of HIV prevalence in Canada

Even though the HIV prevalence rate has remained below endemic levels in Canada, geographical variations among sub-populations and ethno-racial groups exist. For instance, in 2016, evidence showed a staggering 2,344 new cases of HIV infections representing an 11.6% increase from the previous year (Bourgeois et al., 2017). Curiously, racial/ethnic minority groups including heterosexual ACB men bear a disproportionate burden of the virus. In addition to the heterosexual ACB population, other vulnerable groups impacted by HIV include Indigenous populations, men who have sex with other men (MSM), injection drug users (IDU) and heterosexual Black women (Haddad, Li, Totten, & McGuire, 2018). In the most recent census, whereas Blacks constitute about 3.5% of the Canadian population, they nevertheless accounted for 21.9% of new HIV positive cases (Public Health Agency, Canada, 2017). Although studies in other North American contexts have shown comparable HIV risk behaviours between Blacks and other racial groups (Millett, Peterson, Wolitski, & Stall, 2006), heterosexual Black men in particular have been overwhelmed by the HIV epidemic in the North American context.

Various studies have attempted to unpack the reasons for the high rates of HIV among ACB men. Evidence from community consultation and local research shows that among other factors,

heterosexual ACB men tend to face access challenges to HIV-related services (Husbands, Oakes, & Ongoiba, 2014; Robertson, 2013). While support services are generally available in some parts of Canada for people living with HIV, heterosexual ACB men may feel excluded largely due to the design of these programmes and services and the social construction of their HIV vulnerabilities. Stereotypical portrayals in the media as heterosexual ACB men being responsible for infecting women with HIV serves as a hindrance to accessing HIV-related services because they feel stigmatized and they engage in self-blame. Even so, access to HIV-related services transcends walking into an agency and asking for help (i.e. testing services) especially among populations that have been victimized and stereotyped (Husbands et al., 2014; Robertson, 2013). Meanwhile, studies have revealed that more than half of all new HIV infections occur among people who are unaware of their HIV-positive status or that of their sexual partner's (Marks, Crepaz, & Janssen, 2006; Williamson, Dodds, Mercey, Hart, & Johnson, 2008). Lack of knowledge of self-HIV status or that of a sexual partner(s) has far-reaching consequences given that knowledge of self or sexual partner's HIV status is fundamental for reducing transmission of the virus through preventive measures including condom use and timely initiation of PrEP and/or PEP. In the Canadian context however, there is limited research on access to HIV testing services and how knowledge of a sexual partner's HIV status influences heterosexual ACB men's utilization of condoms.

1.3. Research problem and objectives

While the 11.6% HIV incidence increase between 2015 and 2016 in Canada was described as only a 'slight increase', the Canadian AIDS Society suggests the posture was to downplay the pervasiveness of the virus (Canadian AIDS Society, 2018). The society further described it as the most incongruous interpretation of the HIV dataset since the start of the epidemic because this

figure represents the largest percentage increase in HIV since 1997 (see Table 1.1) (Canadian AIDS Society, 2018). Even though the MSM category remains the dominant exposure group (44.1%) in the Canadian context, the proportion of other exposure categories have also remained consistently high. For instance, in 2017, heterosexual contact accounted for the second highest exposure category (32.3%) followed by the IDU (15.1%) (Jonah et al., 2017). In fact, in Canada, HIV transmission through heterosexual contact has increased from 29.2% in 2014 to about 32.3% in 2017 (Jonah et al., 2017; Public Health Agency of Canada, 2014). Studies have shown that people from Africa and the Caribbean countries are over represented in the heterosexual exposure category with evidence suggesting people who identified as ACBs being over 12 times more vulnerable to HIV infection than other racialized groups in Canada (Baidooobonso, Bauer, Speechley, Lawson, & BLACCH, 2013a).

Table 1. 1 National annual HIV diagnoses rates from 1996 to 2016 in Canada

Year	Number of cases	% change from previous year	Rate per 100,000
1996	2712	----	9.1
1997	2444	-9.9	8.1
1998	2262	-7.4	7.5
1999	2176	-3.8	7.1
2000	2062	-5.2	6.7
2001	2195	6.5	7.1
2002	2436	11.0	7.7
2003	2441	0.2	7.7
2004	2493	2.1	7.8
2005	2455	-1.5	7.6
2006	2509	2.2	7.7
2007	2403	-4.2	7.3

2008	2599	8.2	7.8
2009	2364	-9.0	7.0
2010	2300	-2.7	6.7
2011	2276	-1.0	6.6
2012	2073	-8.9	5.9
2013	2060	-0.6	5.8
2014	2053	-0.3	5.8
2015	2100	2.3	5.8
2016	2344	11.6	6.4

Source: (Canadian AIDS Society, 2018)

Further, while HIV distribution can be generalized geographically in Canada, Ontario accounts for the highest proportion of new HIV cases in 2016 with specific populations in specific cities bearing a disproportionate burden of the virus (Bourgeois et al., 2017; Jonah et al., 2017). Thus, the provincial figures may have masked inter-city variations where striking differences in HIV prevalence rates exist. For instance, London with a population of 383,825 and geographically located to the southwest of Ontario, has more than double the provincial HIV prevalence rate (Public Health Agency of Canada, 2014). In response to these alarming rates, the Middlesex and London Health Unit in 2016 declared HIV as a health emergency with accompanying policy interventions such as increasing the supply of free and safe injection needles and the creation of safe injection spaces for IDUs. Even though a focus on IDUs is important, there are concerns that the results of such policy priority would be dwarfed by other equally pervasive modes of HIV transmissions including homosexual and heterosexual contacts if not given equal importance. Husbands et al. (2017), indicate that MSM have received urgent attention in the HIV literature and policy discourse in the Canadian context. Consequently, HIV incidence among MSM has been decreasing, while heterosexual infections have been increasing (Ling et al., 2015). This suggests

that heterosexual transmission seems to be less salient in the HIV literature and policy discourse, especially in London, Ontario. This is in spite of heterosexual contact being the most common route of HIV infections among ACB men (Bourgeois et al., 2017). In view of the popular notion that Black men are inherently sexually irresponsible and generally disinterested in their own health (Millett et al., 2006), it is argued that Black men's reputed irresponsible behaviours are not independent of the prevailing structural and unfavourable social conditions within which they live. ACB men's idealized HIV vulnerabilities are anchored within the structural drivers of their communities, some of which may only be visible in their behaviours. Hence, my overarching research question is: What are the HIV vulnerabilities and resilience building strategies among heterosexual ACB men in London, Ontario? This question will be addressed under the following research objectives:

1. To examine heterosexual ACB men's knowledge of their sexual partner's HIV status and their resilience building strategies i.e. condom use behaviours in London, Ontario.
2. To examine how the intersection of demographic, behavioural, and structural factors influence heterosexual ACB men's access to and utilization of HIV testing services in London, Ontario.

These objectives will be operationalized based on the following research hypotheses:

1. Heterosexual ACB men at risk of contracting HIV will adopt preventive measures including condom use.
2. The interactive effect of demographic, behavioural and structural factors can better explain heterosexual ACB men's access to HIV services rather than the disaggregated components.

These hypotheses will be tested quantitatively within the broader epistemological concepts of health geography. The study is intended to contribute to our understanding of the factors that intersect to heighten heterosexual ACB men's HIV vulnerabilities in the Canadian context and how knowledge of sexual partner's HIV status informs condom use behaviours. The study is also intended to identify heterosexual ACB men's resilience building strategies and how policymakers can take advantage of these strategies to implement robust programmes to reduce Black men overall HIV vulnerabilities. Fletcher and Sarkar (2013), defined resilience as a positive psychological, behavioural and/or social adaption in times of adversities that draw upon the individual's capacity and available family or community resources against an existing or impending problem. Resilience in the context of this study is conceptualized as strategies, including condom use that heterosexual ACB men adopt to minimize their risk of contracting HIV.

1.4. Geographies of health and HIV/AIDS

The questions of 'where' and 'how' border on core themes of geography as a field of scientific enquiry and Gatrell and Elliott (2014), expertly demonstrate how health and these geographical concepts are intricately linked. This connection was proficiently established when Gatrell and Elliott concluded that our health is heavily dependent on where we live and how we navigate the prevailing healthcare system. They further noted that health and geography are inextricably linked, in that, people are exposed to differential health conditions at different geographical locations and times and the availability and kind of services they receive for these health conditions vary spatio-temporally. Unlike epidemiologists who are guided by the biomedical model in the study of the etiology of diseases and mortality in a given population, health geographers are concerned with the spatial distribution of diseases as well as the distribution of health facilities with skilled health personnel/services (Gatrell & Elliott, 2014; Mkandawire,

2011). Health geographers are therefore often interested in examining how distance, which could be measured in real time or monetary cost, influences the utilization of health services. Health geographers are also interested in who and why the same health condition impacts specific populations differently than others in the same geographical setting. From the foregoing, research within the broader field of health geography has traditionally been classified into two main strands including the study of patterns, causes and spread of disease, and secondly, the planning and provision of health services (Dummer, 2008). Available health facilities are often mapped out to flag areas where such new facilities can be located to facilitate geographical access (Brown, McLafferty, & Moon, 2010).

A third strand of health geography however, has recently emerged (Mkandawire, 2011). This seemingly new strand which has its roots in what Engel (1977) described as the ‘biomedical model’ constitutes a sound framework for understanding and treating disease but lacks relevance to the social, behavioural and psychological dimensions of health. In this third strand, health geographers are concerned with how societal structures and organizations determine access to resources and power which often form the fundamental basis for population health disparities (Brown et al., 2010). Indeed, geographers are increasingly interested in how resource distribution and social factors impact on a population’s health and how sub-populations differently access health services (Richmond & Ross, 2009). Beyond the normative description of health inequalities, they examine how such differences emerge and are perpetuated (Richmond & Ross, 2009).

The focus of this dissertation is on this third strand which is in fact, an offshoot from the two traditional strands (Mkandawire, 2011). The conceptualization underpinning the philosophical basis of this strand is the call for an extension of attention to the determinants of health that encompasses structural, demographics, socioeconomic and behavioural factors. It is strongly

argued that available material resources determine population patterns of morbidity and mortality in as much as behavioural factors. Wilkinson (1996) unequivocally stated that there has never been any doubt that standards of living, levels of poverty and power dynamics are principal determinants of populations' health not just in countries of the global south but also in the developed economies of the global north. Despite extensive work on strands one and two, the same cannot be said of the third strand. With regards to the former strands, health geographers have been in the forefront of HIV/AIDS research. In fact, earlier maps of HIV spread helped to explain the spatial dynamics of HIV/AIDS (De Cock & Weiss, 2000; Kandwal, Garg, & Garg, 2009). In the second strand, research on availability and access to HIV services have significantly improved the uptake of ART service and a consequent reduction in HIV related mortalities (De Cock et al., 2012). In highly impacted regions, improved access to ART services has significantly reduced HIV related mortalities (UNAIDS, 2018). In most geographical settings however, discourses of HIV vulnerabilities have largely been limited to biologic and behavioural explanations. Consequently, scholars are increasingly calling for attention to broader determinants of health and how these determinants intersect to produce and reinforce health conditions that have come to stay as the new normal.

1.5. Structure of the study

This dissertation uses an integrated-article approach, organized into six chapters including this chapter. Due to the integrated nature of the dissertation, whereby some chapters are stand-alone articles, there is some repetition. Chapter 2 reviews contemporary literature on ACB population HIV vulnerabilities in the North American context. It also establishes the theoretical tenets of the study by conceptualizing heterosexual ACB men's HIV vulnerabilities within the broader theory of intersectionality, theory of reasoned action and theory of planned behaviour.

These theories complement each other to explain how health disparities and behaviours influence HIV vulnerabilities among heterosexual ACB men. Together, these theories further set the stage and provide theoretical grounds for testing the research hypotheses. Chapter 3 details the epistemological and methodological approaches employed in answering the research hypotheses. The chapter goes on to locate the study within the broader scope of the weSpeak project and describe the study design, and the techniques used in collecting the data. It ends with the statistical analytic approach based on the research objectives. Chapters 4 and 5 present the two manuscripts that constitute this dissertation. Chapter 4 explores how heterosexual ACB men's knowledge of their sexual partner's HIV status influences their condom use behaviours (to be submitted to journal of AIDS and Behavior) while, chapter 5 currently under review with journal of AIDS and Behavior, examines the intersection of demographic, behavioural, and structural factors that influence heterosexual ACB men's access to and utilization of HIV health services. The last chapter, chapter 6, presents a summary of results and the methodological and theoretical contributions of the study followed by policy recommendations, the limitations of the study and directions for future research.

1.6. Summary

This introductory chapter lays the foundation of this dissertation and highlights clinical advances that have significantly transformed what was in the past extremely fatal into a more chronic and manageable condition. A brief review of the concepts that have been advanced for HIV prevention rather than management of a life-long chronic condition are discussed in this chapter. The chapter also described racial disparities in the distribution of HIV and justifies the rationale for a heterosexually focused HIV research in the Canadian context. The research hypotheses which are informed by the study objectives were also presented in this chapter, HIV

and the field of health geography were tied together with a brief structure given for the remainder of the dissertation.

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Chapter 2: Literature review and theoretical approaches

2. Introduction

The underlying factors underpinning Black and other marginalized populations HIV vulnerabilities, especially in the North America, are complex and research that does not recognize these complexities often misses important opportunities for improving the health of these subgroups. For instance, prevailing narratives in the North American context have constructed Black men as wanton and their manhood as inherently problematic and supposedly in need of repair and correction (Walcott, 2009). Heterosexual Black men are stereotyped as active transmitters of HIV and lack the urgency for prevention (Higgins, Hoffman, & Dworkin, 2010). These stereotypes privilege victim blaming which tend to conceal power relations that shape racialized differences in HIV prevalence. This chapter synthesizes prevailing narratives in contemporary literature that have tried to explain Black men's HIV vulnerabilities especially in North America. Due to the constitutive nature of the factors influencing Black men's HIV vulnerabilities, appropriate theoretical constructs within the broader field of health geography have been adopted to explore the research hypotheses. The epistemological basis of these theoretical constructs is well established in the methodological techniques of this enquiry. Recognizing the importance of the multiple social status positions that inform ACB's health in the Canadian context, I structured this chapter into the following sub-themes: access to HIV care, structural determinants of HIV vulnerabilities, behavioural determinants and demographic determinants of HIV vulnerabilities. Each of these themes will be discussed in relation to how they uniquely and interdependently impact HIV vulnerabilities.

2.1. Access to HIV care

Broadly, access to healthcare is the ability of a patient to gain entry into a healthcare system (Dionne-Odom et al., 2009). Unlike in low- and middle-income countries where access to HIV healthcare is frequently an issue of geographic distance, availability of services and skilled health personnel or an economic problem, it is more complicated in high income countries including Canada. According to Dionne-Odom et al. (2009), stigma and discrimination are very common and pervasive in most communities in the North American context which tend to complicate access to HIV care even among the educated and those who can pay for their healthcare or have health insurance. It is even more complex for those with unique individual characteristics including unemployment, immigration status, accommodation problems, and for those that have been gravely stereotyped (Stone, Ojikutu, Rawlings, & Smith, 2009). Even though HIV testing may be free in most health facilities in Canada, the aforementioned systemic challenges often tend to undermine the uptake of HIV testing services among vulnerable populations including the ACB community.

Meanwhile, HIV testing is probably the most important step in the HIV prevention and management continuum and informs the behaviour of both HIV negative and positive patients. Late HIV diagnosis implies late entry into care, poor response to treatment and serves as a high-risk factor for transmitting the virus to other people. An assessment of low-income individuals in 16 cities in the United States revealed that African Americans and young adults were more likely to be diagnosed late which puts them at greater risk of progression into AIDS, a chronic stage of the HIV virus (CDC, 2003). Despite African and Caribbean men's heightened HIV vulnerabilities in Canada as already indicated in the previous chapter, studies have shown that they are less likely than other racialized groups to know about their HIV serostatus. While 14% of those currently

living with HIV in Canada do not know their status, more than 20% of African and Caribbean men living with HIV do not know about their HIV serostatus (CHABAC, 2016; Shimeless & Bailey, 2011). Even when they are aware, by the time that they are diagnosed, they are typically at advanced stages of infection (Fakoya, Reynolds, Caswell, & Shiripinda, 2008). The driving forces of late HIV diagnosis are complex and constitutive and require an intersectional theoretical lens to appreciate.

According to Mikkonen and Raphael (2010), everyday living conditions and experiences are better placed in explaining health disparities than biomedical factors that are commonly referenced in the public health literature. These conditions and experiences including income, education, employment and job security, housing, immigration status, race and discrimination represent the social determinants of health and are observed to be useful in contemporary health research for understanding population health disparities (Mikkonen & Raphael, 2010). For example, in the United States, Black immigrants are identified as a vulnerable population at an increased risk of poor psychological and physical health with limited access to professional healthcare (Derose, Escarce, & Lurie, 2007). Accordingly, addressing the health needs of this population is even more challenging because of its heterogeneous nature, the multiple intersecting factors influencing their health needs, and federal and state policies restricting some immigrants' access to professional healthcare (Derose et al., 2007). These challenges are common among ACB populations seeking healthcare in the Canadian context.

2.2. Structural determinants of HIV vulnerabilities

2.2.1. Immigration

An estimated 244 million people are said to be living temporarily or permanently in countries other than their country of birth (United Nations, 2015). It is further estimated that about

75% of these migrants were born in low- and middle-income countries and over half of them currently reside in high income countries in Europe, Australasia and North America. Migration has been identified as a risk factor for health complications both for the migrant as a person and the receiving population at large. According to the Joint United Nations Programme on HIV/AIDS and the Institute of Medicine, migrants increased risk of HIV infection results from family and community disintegration, social exclusion, discrimination, increased sexual freedom and financial hardships in their new environments (Steel et al., 2003). For instance, their new social, physical and economic environments confer challenges on immigrants upon arrival in Canada with greater consequences for integration (Ochoa & Sampalis, 2014). Immigrants are often confronted with challenges of social exclusion and discrimination, with the concomitant repercussions of low self-esteem, unemployment and meagre earnings (Baidooobonso, 2013). Entry status to a large extent dictates the pace of integration for most Canadian immigrants. For instance, entry status determines access to the labour market, employment rights and benefits, legal citizenship status and access to health services (Llácer, Zunzunegui, Del Amo, Mazarrasa, & Bolúmar, 2007; Ochoa & Sampalis, 2014). Due to a lack of employment opportunities or non-legal immigrants/workers who defy all odds to work, they often end up working in precarious conditions and abusive spaces (Brabant & Raynault, 2012) which feedback into deleterious health outcomes.

Cultural belief systems, conceptions and misconceptions about HIV also partly explain immigrants' HIV vulnerabilities in the receiving communities. Even though previous studies have suggested migrants acquire HIV prior to migrating, current scientific evidence suggests this trend is changing. For instance, Alvarez-del Arco et al. (2017) conducted research on place of HIV acquisition in nine European countries and observed that 63% of the patients acquired the HIV virus after arriving in their new environment. In another study conducted in France, the authors

found that almost half (49%) of the study sample got infected in the host community (Desgrees-Du-Lou et al., 2015). Similar studies in North America have given reason to believe that a significant proportion of immigrants contracted the virus on North American soils. Wiewel et al. (2015), for instance, studying place of HIV acquisition among immigrants in New York City found that 61% of newly diagnosed HIV patients acquired the virus after arrival in the United States. Similarly, a nationally representative HIV transmission network analysis between the period 2001-2013 reveals that among foreign born persons linked to at least one other person in the network, 62% were linked to a partner born in the United States (Valverde, Oster, Xu, Wertheim, & Hernandez, 2017). The high prevalence of HIV among immigrants in their new countries is attributable to a combination of factors including stigma, increased sexual risk behaviours, lack of knowledge on available health services and how to access them, as well as misconceptions that the destination country is an HIV safe haven. For instance, in a study among Ethiopian and Eritrean immigrants in the UK, it came to light that the participants had adequate knowledge of HIV transmission but avoided condom use because they believed that the UK was an HIV free environment (Barrett & Mulugeta, 2010). Also, because sexual practices tend to concentrate within racial groups especially for immigrants who went through comprehensive health screening including HIV testing during the immigration process, they believed their sexual partners were as safe as they were (Barrett & Mulugeta, 2010).

2.2.2. Discrimination

Until recently, few scientific investigations had explicitly integrated discrimination based on multiple social status positions in health research and this led to some scholars calling for its integration in intersectionality enquiries (Bastos, Celeste, Faerstein, & Barros, 2010; Lewis, Cogburn, & Williams, 2015; Scheim & Bauer, 2019). Discrimination is a psychosocial stressor

that negatively impacts both prevention and management of health conditions. Even though most studies have measured discrimination subjectively by asking participants about their perceived discriminatory experiences, subjective assessment has proven to be reliable and a good measure of individual social experiences and how it influences health outcomes (Vang & Chang, 2018). The extent of discrimination experienced by Black populations in North America, irrespective of whether measured by subjective or objective means, reflects an extended intergroup dynamic that provides an important insight for understanding Black men's health and health seeking behaviours (Reitz, 2007; Vang & Chang, 2018).

Discrimination and its produced elements led to unethical medical experimentation and untreated syphilis among racialized Black males between 1932 and 1972 by the United States Public Health service (Fairchild & Bayer, 1999; List, 2005). This historical incidence may still linger and reinforce Black men's reservations toward the North American healthcare system. Hence, blaming heterosexual ACB men's heightened HIV vulnerabilities, the low uptake of HIV testing and the non-use of treatment services in the North American context without due diligence to these historical antecedents will not tell a complete story. In fact, discrimination is not only limited to the area of healthcare, but it is very evident in every sphere of the Black man's life including the labour market, education, housing and income which are not independent of the general wellbeing and health outcomes of Black people.

2.2.3. Access to a family physician

Family or primary care physicians in most developed countries, including Canada, are the foundation of healthcare and serve as a linchpin for improved access, connecting care and ensuring continuous care and routine medical screening for patients and families (Schoen et al., 2009). For many Canadians, a family physician is the first point of contact in times of ill health, preventive

or chronic care and counseling services. Importantly, their service is private and anonymous, and they tend to know the patient's family health history which are fundamental in providing HIV health services. Despite the plurality and importance of family physicians in the Canadian healthcare system, it is not as easy for specific populations to have family physicians as it is for the general Canadian population. A qualitative study conducted among Black immigrants in the Dixie-Bloor neighbourhood of Toronto (Mississauga), for instance, reveals the challenges Blacks generally encounter when looking for a family physician (Asanin & Wilson, 2008). One respondent indicated that he spent nine years looking for a doctor and therefore had to rely on other distant physicians that required travelling several kilometers by bus to see them. For some families, they were unable to find a physician who was willing to accept them as patients. Participants who ended up depending on walk-in clinics often had to wait several hours to see a physician. Meanwhile the stigma associated with the HIV virus and spaces does not encourage most people to wait several hours in such spaces to get tested. The inability to have access to a family physician may have also denied these individuals access to counseling services and preventive health information including HIV testing services.

2.2.4. Education, employment and income

Education and good health are positively correlated and people with higher education often report better health conditions and increased life expectancy (Sasson, 2016). Education influences health through a variety of pathways (Baidooobonso, 2013). Even though research on level of education and HIV risk behaviours or vulnerabilities have produced mixed results especially in developing countries, educated people are generally equipped with the knowledge, awareness and ability to appropriately decode public health preventive and management messages. However, most studies on educational attainment in the United States shows that Black populations lag

behind most other minority populations (Portes, Fernández-Kelly, & Haller, 2005; Teresa Abada, Feng Hou, 2008). Evidently, in Southeastern United States, one of the hardest hit HIV regions, a low level of education has partly explained the high prevalence of HIV among Blacks (Schafer Katherine et al., 2017).

Higher education is also associated with greater likelihood of a good job, job security and higher earnings with a trickledown effect on access to, and utilization of health services. For individuals already working, the work space provides not only financial benefits but also a source of structure, a sense of identity, social support, purpose and even reduces the amount of time spent engaging in risky sexual behaviours (Blalock, Mcdaniel, & Farber, 2002). Previous studies that accounted for employment as a variable of interest demonstrated that unemployed individuals often exhibit depression, anxiety, risky sexual behaviours and suicidal ideations especially among HIV seropositive patients (Blalock et al., 2002; Kelly et al., 1998). Indeed, Blalock et al. (2002) noted that unemployed individuals are more likely to be immunocompromised compared with employed individuals.

In the Canadian context, extended health insurance plans are nested within employer-based arrangements whereby such arrangements provide extra health coverage for employees when they need it. This, however, means that groups and individuals such as Blacks with difficulties getting employment in professional fields, even when they have the required qualification, tend to miss out on such extended health coverage and therefore lack access to some health services financially. For instance, Blacks in the Canadian labour market are more likely than other racial groups to work in precarious conditions where such extended benefits are not covered. Even though the labour market in principle is expected to be 'race blind' an examination of factors that inform workplace recruitment decisions reveals that race and ethnicity are visible predictors of job

placement (Akbar, 2019; Pager & Shepherd, 2008). An analysis of labour dynamics in the United States and Canada indicate that Blacks are discriminated against in the labour market and of the somewhat smaller share of Blacks in the labour market in the United States in particular, nearly one-half are unemployed (ASA, 2005; S. Brown, 2018).

Evidence suggests that visible minority populations including the African and Caribbean populations have come to live with wage discriminations in the Canadian context (Lands, 2013; Swidinsky & Swidinsky, 2002). For instance, an analysis of the income gap deficit between male immigrants (including Blacks) and White native borns with comparable levels of education was about 14.3% (Bowleg, 2004a; Swidinsky & Swidinsky, 2002). One explanation that has been offered for this wide gap is that education and work experiences obtained outside of Canada may not bear the same weight articulated by Canadian employers (Baker & Benjamin, 1994). This explanation, though laudable is far from convincing because Blacks with Canadian education and training still face challenges similar to those experienced by Black immigrants. These challenges are relayed and translated into other facets of their lives including difficulties accessing health services and risky health behaviours.

2.3. Behavioural determinants of HIV vulnerabilities

Heterosexual Black men's reputed lower rates of condom use, presumed likelihood of multiple concurrent sexual partnerships compared to other races, hegemonic masculine ideals and their propensity for bisexual orientation have become a blue print and standard explanation of their HIV vulnerabilities (Coleman, 2007; Millett, Malebranche, Mason, & Spikes, 2005). Scientific evidence has, however, demonstrated a complex relationship between risky sexual behaviours and social status positions with those experiencing discrimination, economically disadvantaged, or lacking social support often engaging in risky sexual behaviours (Bowleg, Burkholder, et al., 2013;

Reed et al., 2013). In this section, I demonstrate how behavioural factors can serve as risk factors for HIV infections, whilst recognizing that these factors can be shaped and reinforced by the social, economic and political environment within which such behaviours occur. I also demonstrate how some of these behaviours are not unique to only Black men, yet, are always privileged as standard interpretations of their HIV vulnerabilities. The section starts with masculinity and continues with a review of multiple sexual partnership and condom use which are major behavioural issues within the ACB HIV vulnerabilities literature.

2.3.1. Masculinity

Previous studies that have attempted to account for the heightened HIV prevalence among Black men have attributed it to irresponsible sexual risk behaviours that tend to conform with traditional masculine ideals that predisposes Black men to HIV infections. For instance, Bowleg et al. (2013), opine that Black men are socialized to be hyper-masculine and heterosexual and as part of their masculine behaviours tend to have concurrent sexual partners and avoid protective measures. Bowleg (2004) suggests that in the context of sexuality, traditional masculine ideals accordingly encourage men to be sexually active, ever ready for sex, perceive penetration as the ultimate goal of sex and control every aspect of their sexual relationships. Traditional masculinity is therefore problematized to correspond to hegemonic masculinity with those subscribing to it often reluctant to relinquish the status of supremacy despite being subjected to greater health risk (Jacques-Aviñó et al., 2019). Nevertheless, masculinity is a social construct with varying social expectations and interactions in different contexts. Therefore, depending on the context, judging Black men and their behaviours can sometimes become stereotyping (Fleming, DiClemente, & Barrington, 2016). Furthermore, masculinity is not only limited to what men can do, but what society expects of them as well. Hence, a complete alignment or non-alignment with masculine

expectations give a Black man his ‘authentic’ social identity. Fante-Coleman et al. (2019) found that women’s masculine expectations from Black men require them to be providers of condoms during sexual affairs. This expectation arises because society perceives women who carry condoms around for precautionary reasons as promiscuous.

It is important to note that hegemonic masculinity is not unique to only Black men. Evidence suggests that White and Latino adolescent males with masculine ideals were more than, or as likely as Black adolescents to have multiple sexual partners in the past year, exhibit negative attitudes towards condom use and have low consistent condom use. For instance, a predominantly White sample of college men with hegemonic ideals were found to hold negative attitude towards condom use and less likely to use condoms during their most recent intercourse (Noar Seth and Morokoff, 2002; Rosenberger et al., 2012). Black men have comparable masculine ideals with other races, yet, disparate HIV prevalence rates. This calls for the need for explanations that go beyond mere stereotyping. In fact, even though masculinity has been problematized undisputedly in the HIV literature, there have been evidence of it serving as a sense of urgency for some Black men in the Canadian context. Findings from the qualitative phase of the weSpeak study shows that Black men interpret masculinity to mean being interested and responsible for one’s health. Husbands et al. (2017) also observed that, as part of heterosexual Black men’s masculine identity, they discuss issues of sex and their health conditions with their significant others as opposed to the popular narrative of being too secretive with their health.

2.3.2. Multiple sexual partnership

Engaging in sex with more than one sexual partner within the same or overlapping time periods has been found to be independently associated with heterosexually HIV infection (Adimora et al., 2006). Yet, studies in North America show that multiple concurrent sexual

partnership is common among Black men and serves as a high risk factor for HIV transmission (Gorbach & Holmes, 2003). Multiple sexual partnership is sometimes explained as a masculine identity where heterosexual Black men especially the youth, engage in multiple sexual exploits as a way of proving their masculinity (Kabiru & Orpinas, 2009). In fact, Frye et al. (2013) narrowed African American heterosexual men heightened HIV vulnerabilities to lack of condom use and multiple sexual partnering. In an empirical study, Braithwaite & Thomas (2001) suggest early sexual debut, age heterogamy and frequent change of sexual partners as responsible for the heightened HIV vulnerabilities among the Caribbean population. Missing from these strands of studies and discourses is how systemic and structural factors contribute to their increasing HIV vulnerabilities. Indeed, studies in the United States found Black men to have lower or comparable number of sexual partners as other races yet were more likely to be infected with HIV than their comparable counterparts (Millett, Peterson, Wolitski, & Stall, 2006). Though a high-risk factor for HIV transmission, the current discourse on heterosexual ACB men's multiple concurrent sexual partnership alone does not fully explain heterosexual ACB men's heightened HIV vulnerabilities in the Canadian context.

2.3.3. Condom use

Due to the multiple benefits associated with the correct and consistent use of condoms, its uptake has been widely advocated. In addition, condoms are cost effective and can reduce the risk of contracting the virus even among serodiscordant partners. Current scientific strides at HIV prevention including PrEP and PEP and evidence that effective adherence to ART reduces HIV transmission (Karim & Karim, 2011) especially among serodiscordant partners have been timely. While these biomedical discoveries may have revolutionized the HIV discourse, currently, PrEP is not FDA-approved for people under 18 years and is not also economically accessible by the

most marginalized population (Morgan, Moran, Ryan, Mustanski, & Newcomb, 2018; Strauss et al., 2017). Even though condom use alone is not a sufficient condition for reduced heterosexual ACB men's HIV vulnerabilities, its use remains a grey tool for HIV prevention among marginalized populations.

It remains unclear if Black men are uniquely less likely to use condoms than other men. Several factors including reduced sexual gratification (Crosby, Sanders, Yarber, Graham, & Dodge, 2002), risk perceptions (Houlding & Davidson, 2003), condom use efficacy (Purcell et al., 2006), perceived social judgement and condom use attitude (Godin, Gagnon, Lambert, & Conner, 2005) have been found to influence consistent condom use among heterosexual men irrespective of race or ethnicity. There is also evidence that condom use varies by the type and length of relationships (Milam, Richardson, Espinoza, & Stoyanoff, 2006). What is less addressed in the literature to date is how knowledge of a sexual partner's HIV status influences heterosexual ACB men's condom use behaviours. At a time when people are increasingly aware of their vulnerabilities to HIV, it is important to understand how heterosexual ACB men respond to condom use given uncertainties surrounding their sexual partners' HIV status for appropriate policy interventions.

2.4. Demographic factors and HIV vulnerabilities

2.4.1. Marital status and risk of HIV infection

As far back as the 1990s, researchers recognized that marital status could be a risk factor for HIV infection even though the direction has since been unclear (Shisana et al., 2004). This recognition was triggered by increased calls for abstinence as the blue print for reduced HIV infections. Studies on marital status and HIV infection following this recognition have since produced contradictory results. For instance, studies conducted in Uganda and Zimbabwe found

low incidence of HIV among married or cohabiting individuals compared with never married women (Gregson, Zhuwau, Anderson, Chimbadzwa, & Chiwandiwa, 1995; Nalugoda et al., 2014). In similar studies conducted in Nigeria and four other African cities including Yaounde, Conotou, Ndola and Kisumu, previously or currently married participants had higher HIV prevalence than those who were single (Fagbamigbe, Adebayo, & Idemudia, 2016; Lagarde et al., 2001).

Rationally, it is expected that people at high risk of contracting the HIV will adopt precautionary measures not only when the partner is HIV-positive but also when there are uncertainties surrounding the partner's HIV status (Braksmajer, Leblanc, El-Bassel, Urban, & McMahon, 2019; Corbett, Dickson-Gómez, Hilario, & Weeks, 2009). In marital relationships however, the risk of HIV infection is directly linked to low or non-use of condoms especially when unfaithfulness prevails in the relationship (Shisana et al., 2004). Protective measures including consistent condom use in marital sexual affairs are often rare due to trust and perceived low risk of contracting HIV. It has been established that relationship type influences knowledge of sexual partner's HIV status and empirical studies have shown that knowledge of partner's HIV-positive status significantly reduces risk of contracting the virus (Bunnell et al., 2005; Niccolai, Farley, Ayoub, Magnus, & Kissinger, 2002; Pinkerton & Galletly, 2007). In the current literature however, knowledge of a sexual partner's HIV status and the adoption of precautionary measures is limited.

2.4.2. Age and HIV vulnerabilities

Globally, age has been identified as an important risk factor for HIV infection, with the youth being disproportionately overburdened. In the United States, young adults, particularly those younger than age 30, constitute approximately half of all people living with HIV (Griffith et al., 2019). Even though some of these individuals acquired the virus prenatally, most of them contracted it during adulthood due to risky sexual behaviours including condomless sex, mixing

sex with drugs and alcohol, concurrent multiple sexual partnerships, age mixing and unfavourable structural factors (Griffith et al., 2019). In Canada, between 2013 and 2017, adults between the ages of 20 and 49 years represented more than half of all people living with HIV and those less than 30 years of age constitute about a quarter of newly diagnosed HIV cases annually (Haddad et al., 2018; Palmer et al., 2018). Despite the heightened HIV vulnerabilities among young adults, it is suggested that they are often less likely to get tested for their HIV status compared with the older population. Understanding the social determinants of health and lived experiences of individuals have been central in unpacking the heightened HIV vulnerabilities within specific populations and age groups. For instance, youth in underserved communities including the ACB community experience economic, political and social challenges such as poverty, discrimination and racism which constitutively aggravate their HIV vulnerabilities (Ilhan, Abdullahi, Sané Dube, Kathe Roger, 2019). Employment and stable incomes are important financial resources that enable access to health services and treatment including preventive materials (condoms, PrEP and PEP) and prescription drugs (Ilhan, Abdullahi, Sané Dube, Kathe Roger, 2019) yet, young people are often likely to be unemployed, and those employed earn lower incomes.

2.4.3. Religion

Historically, religion has stood as a source of support for African Americans in North America. Religion fosters positive support for its members and non-members alike, thus serving as therapeutic space for people in despair and in need of healing (Drumhiller, Nanín, Gaul, & Sutton, 2018). Though the role of religion in the HIV epidemic discourse has produced mixed results, it is believed that harnessing the positive aspects offers potential for reducing HIV vulnerabilities among marginalized populations in specific contexts. Clearly, many religious teachings on sex discourage premarital sex and sex outside wedlock which arguably constitute

some of the best ways of curbing sexually transmitted infections including HIV. Religious beliefs and teachings are considered a source of moral interdiction for many believers and inform the development of personal attitudes and values throughout the life course (Drumhiller et al., 2018; Edwards, Haglund, Fehring, & Pruszynski, 2011). Some religious organizations encourage male circumcision, a biologic risk factor for HIV infection (Mkandawire, Dixon, Luginaah, Armah, & Arku, 2014; Siegfried, Muller, Deeks, & Volmink, 2009). This has given many governments the impetus to rally support for religious organizations for increased teachings on sexual morality, increased awareness of preventive care and testing services for sexually transmitted infections (Titilayo, Agunbiade, & Kehinde, 2009). A study on African youth in Windsor found that religion influenced sexual experiences and contributed to the formation of sexual networks among people with similar religious values and beliefs which accordingly reduced their chances of contracting HIV (Baidoobonso, 2013).

Despite these positive potentials, some religious doctrines, beliefs and practices have equally fostered the spread of HIV. For instance, the position of many religious organizations on sexual orientation though may be context specific, influence how people negotiate the religious terrain and their sexual preferences. The inability to publicly profess sexual orientation especially among bisexuals and MSM in specific contexts increases their risk of contracting the virus, lowers their chance of testing for HIV and adhering to treatment services. Similarly, individuals' religious affiliations may influence condom use behaviours, number of sexual partners and increased stigma within these religious organizations.

2.5. Theoretical approaches

This dissertation employed three theoretical frameworks: theory of reasoned action, theory of planned behaviour and intersectionality theory to examine the research questions since no single

theory can fully explain the multiple factors that influence health and health seeking behaviours of marginalized populations. Using these different but related theories enable an understanding of the nuanced ways ACB men adopt resilient building strategies and navigate the healthcare system in context. While the theory of reasoned action and theory of planned behaviour helped in understanding how knowledge of a sexual partner's HIV status informs condom use, intersectionality theory recognizes that access to and utilization of HIV testing services is constitutive and cannot be adequately understood without an intersectional lens. The following two sections detail the theoretical underpinnings of each framework and relate them to the research questions.

2.5.1. Theory of reasoned action and theory of planned behaviour

Condom use has been widely advocated with clinical evidence suggesting that effective use of condoms reduces one's chances of contracting or transmitting the virus by over 95% (Foss, Watts, Vickerman, & Heise, 2004). In reference to the first research objective: to examine heterosexual ACB men's knowledge of their sexual partners' HIV status and their resilience building strategies (i.e. condom use), it is theorized that condom use is an element of behaviour that requires structural support. Regardless of knowledge of sexual partner's HIV status and prevailing systemic factors that permeate cognitive actions, condom use is an element of reasoned action and a planned behaviour that is premeditated. To this end, I draw insights from the theory of reasoned action and theory of planned behaviour to examine heterosexual ACB men's knowledge of their sexual partners HIV status and condom use behaviours.

The Theory of Reasoned Action (TRA) is underpinned by the assumption that an individual's intention to adopt a particular preventive health behaviour is informed by their attitude

towards that behaviour and the impact of perceived subjective norms as shown in Figure 2.1 (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Intention reflects inner-self- motivation backed by a conscious effort to exercise a certain level of desired behaviour. The attitude towards a particular behaviour, in this context, consistent condom use, is therefore a reflection of the individual's evaluations of adopting that behaviour including the perceived consequences of its use or non-use. For instance, a person may perceive using condom with a sexual partner whose HIV status is unknown as a protective mechanism from sexually transmitted infections and unwanted pregnancies. On the contrary, although an individual may know the benefits of condom use in the context of uncertainty of a partner's HIV status, the perception that condom use reduces sexual gratification may serve as a barrier. The final decision to use condoms will therefore result from the cumulative assessment of these perceived consequences and trade-offs thereof. The second dimension of this theory, perceived subjective norms, mirrors societal expectations for individuals to adopt a given healthy behaviour. It is conceptualized that significant referents including family physicians, friends and sexual partners have expectations which the individual is expected to comply with (Godin et al., 1996). For instances, a family physician may advice his/her client to use condoms especially when the client does not know the sexual partner's HIV status. In the African context where traditional expectations and norms on sexual chastity prevail, a heterosexual ACB man's decision to use condoms in a regular relationship may trigger suspicions of relationship trust and infidelity (Ackermann, 2003). Thus, the decision to use condoms with a regular partner becomes an outcome of the individual's subjective assessment of the consequences of non-use and the normative pressure from his environment.

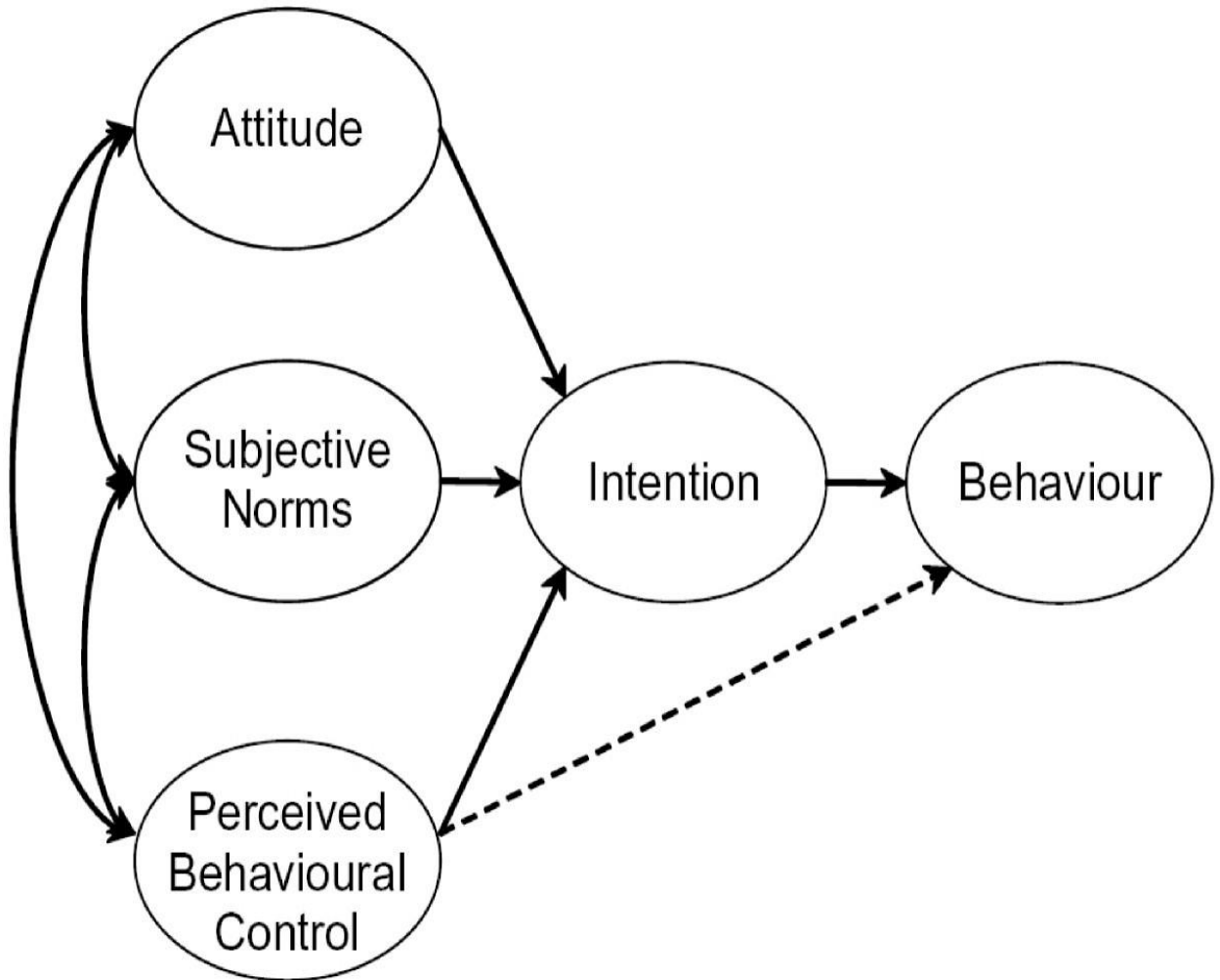


Figure 2. 1 The theory of planned behaviour

Source; (Ajzen, 1991)

The Theory of Planned Behaviour (TPB) conceptualizes the uptake of a given preventive action such as condom use as a product of attitude, perceived subjective norms and perceived behavioural control (see Figure 2.1) (Ajzen & Fishbein, 1980). Attitude and perceived subjective norms in the context of the TPB are understood precisely as they are theorized in the TRA. The third component of the TPB—perceived behavioural control—was a later addition to account for other factors that were not originally considered in order to broaden its explanatory power (Ajzen

& Fishbein, 1980; Baban & Craciun, 2007; Godin et al., 1996). Perceived behavioural control is understood as individual's conception and perception of how difficult or easy undertaking a particular healthy behaviour is likely to be (Ajzen, 1991). It also reflects internal factors including information and knowledge of prevailing conditions as well as external factors such as resources and social support. It can therefore be argued that heterosexual ACB men's intention to use condoms in the context of knowledge of a sexual partner's HIV status will be shaped by the perceived level of risk, ability to acquire condoms and social support from their sexual partners.

2.5.2. Intersectionality theory

Research shows that peoples' lived experiences are fluid and intertwined by several social factors and can therefore not be accurately understood by prioritizing single categories or the simple summation of these categories (Hankivsky, 2012). Hankivsky (2012), therefore posits that 'researchers situated within the fields of women's and/or men's health, should continue to explore, discuss and debate the implications of intersectionality and find ways to more systematically adopt and apply intersectionality as a framework for improved understanding of and response to the complexities of people's lives and experiences' (p. 1719). Based on the multiple marginalizations of heterosexual ACB men, it is useful from an intersectional perspective to understand the complex interplay of heterosexual ACB men's social status positions and how that influence their utilization of HIV testing services in the Canadian context.

Intersectionality theory was originally conceptualized by USA Black feminist writers who challenged universally gendered experiences and postulated that experiences of Black women were (re)shaped by race or ethnicity, class, unequal power dynamics and resource control (Collins, 2002; Davis, 2011). Crenshaw (1989), argued that multiple marginalizations such as those suffered

by Black-American women were mutually constitutive and therefore could not be fully grasped or ameliorated through approaches that treated them as distinct units of enquiry. Contrary to the understanding that class, race or ethnicity and socioeconomic status (see Figure 2.2) are independent factors, intersectionality theory posits that they are mutually constitutive and together, they produce and reproduce inequality(ies) that gives rise to the ‘new normal’ (Collins, 2002; Crenshaw, 2005). Thus, intersectional studies differ from conventional unitary and multiple approaches to research which are often typically presented using simple additive models.

In unitary analysis, a single category of social status position is of primary concern to the researcher. In contrast, with the multiple approach, more than one social status position is of interest, but operates under an additive assumption and treats multiple marginalizations and vulnerabilities as individual layers (Hancock, 2007). Even though this allows for the consideration of multiple vulnerabilities, it deviates from an intersectional conceptualization. For instance, using such an approach, the uptake of HIV health services by a heterosexual ACB man in Canada will be assumed to be adequately understood by simply adding the individual health impacts of being Black and having masculine ideals, being an immigrant or being unemployed. Hence, focusing on individual themes such as behavioural factors alone to examine complex issues such as racialization and HIV prevention may be insufficient since several factors (e.g. age, religion, education, employment, discrimination, immigration etc.) work simultaneously and constitutively to define and shape behaviours and impact health vulnerabilities (Viruell-Fuentes, Miranda, & Abdulrahim, 2012).

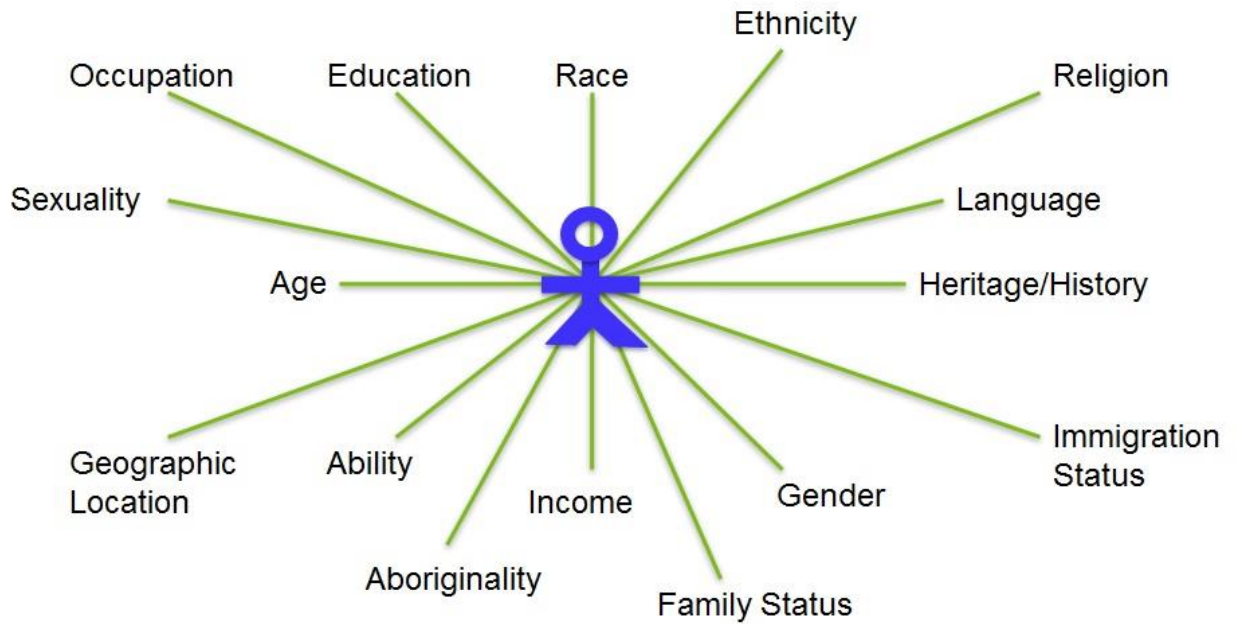


Figure 2. 2 Intersectionality framework

Source: (Leach, 2019)

Context, discourses and holistic experiences of marginalized populations form the basis of intersectionality and thus, deviates from other theoretical approaches that privilege behaviours and norms of ACB men as independent determinants of their HIV vulnerabilities and the uptake of health services (Weber & Parra-Medina, 2003). In this context, Carmen et al. (2013) and Viruell-Fuentes et al. (2012) argue that demographic and behavioural factors intersect with structural vulnerabilities to predispose heterosexual ACB men not only to HIV vulnerabilities but other health challenges including high blood pressure, mental health and cardiovascular complications. Intersecting factors such as immigration status, socioeconomic factors, having a personal/family physician, and discriminatory experiences rather than their individual effects best explain heterosexual ACB men’s uptake of health services. Hence, defining the uptake of HIV testing based on the narrative that Black men are disinterested in their own health is problematic (Szekeres, 2008).

2.6. Summary

The underlying factors underpinning the Black population's HIV vulnerabilities in the North American context are complex yet, prevailing narratives have often privileged only behavioural factors in attempting to unpack their HIV vulnerabilities. This chapter synthesized prevailing narratives in contemporary literature that have tried to explain Black men's HIV vulnerabilities especially in North America. Conscious of the importance of the multiple social status positions that influence ACB's health in the Canadian context, this chapter was structured into the following sub-themes: access to HIV care, structural determinants, behavioural determinants and demographic determinants of HIV vulnerabilities. Each of these themes was discussed in relation to how they uniquely and interdependently impact HIV vulnerabilities. Appropriate theoretical constructs within the broader field of health geography were adopted and discussed in relation to the research hypotheses.

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Chapter 3: Research methodology

3. Introduction

This chapter presents the methodology (quantitative) that was used in operationalizing the research hypothesis. The chapter is deemed necessary because in each of the two manuscripts that constitute this dissertation, the methods are not as detailed as in this chapter due to journal requirements on word count. The chapter begins with the ontological and epistemological praxis of this enquiry and the justification for the choice of study design. The chapter goes on to introduce the weSpeak study, the study design, sampling, recruitment and data collection techniques, and ends with data management and analytic strategy. The chapter also discusses how the study design is integral and relevant to the theoretical approaches that informed this inquiry.

3.1. Ontology, epistemology and study paradigm

Every scientific enquiry is based on a specific paradigm understood as a set of linked assumptions about what is to be known (Kuhn, 2012). The choice of scientific paradigm often is informed by the ontological position of the researcher (Sale, Lohfeld, & Brazil, 2002). Accordingly, ontology is the theory of existence, concerned with what exists, and is based on a paradigm about reality and truth (Hitchcock & Hughes, 1995). Ontology may also refer to the values a researcher embraces about what can be known and what others believe to be factual or a reality. The ontological position therefore forms the basis of knowing which leads to another important concept in the scientific enquiry—epistemology. Guba & Lincoln (1994), posit that epistemology is concerned with the nature and scope of knowledge and seeks to address fundamental questions such as: how do we know what we know and what is the nature of the relationship between the researcher and what can be known? It is therefore suggested that the

epistemological orientation of a researcher determines the methodological approach in any quest of knowing (Yeganeh & Chrysostome, 2004). The methodological approach informs what can be produced as knowledge.

Scholars have noted that, reality can be objective or subjective based on the methodological process of that knowledge creation (Lincoln, Lynham, & Guba, 2011). Objectivists suggest that for any reality to be considered objective, the scientific method demands replicable facts and must be publicly observable which are present only in the field of overt behaviour. Subjective phenomena including perception, conception, intention, and repressing can therefore be studied only indirectly through their connections with overt behaviours (Boring, 1964; Nagel, 1961). In contrast, subjectivists argue that the most important unique feature of human behaviour is in its subjective meaning and that any enquiry or science that downplays the importance of this meaning and purpose is not a social science (Boring, 1964; Diesing, 1966; Nagel, 1961). Closely related to objectivists and subjectivists perspective of reality are the philosophical paradigms of post-positivism and constructivism. Whereas 'post-positivists claim the world exists apart from our understanding of it, constructivist argue that the world is created by our understanding of it' (Morgan, 2014 p.4). In this study, I conceive the two positions as equally important due to the very nature of knowledge creation. In fact, peoples' interpretations of prevailing phenomena (i.e. HIV vulnerabilities among ACB men) are inherently limited by the nature of their environment and policy frameworks which tend to inform ascribed discourses. Dewey (2008), conceptualized a combination of these two philosophical positions as a pragmatic paradigm. In this dissertation, I adopt the pragmatic paradigm.

Pragmatism is a way of knowing through which the researcher tends to restore subjectively assigned and objective meanings of actions and behaviours (Žukauskas, Vveinhardt, &

Andriukaitienė, 2018). The prominence of pragmatism as a paradigm in social science research has largely been due to its frequent linkage with a mixed-methods approach (Gage, 1989; Howe, 1988; Morgan, 2014). Indeed, pragmatism is often perceived as uniquely linked to a mixed-methods approach. This seemingly wrong conception is due to some paradigmatic claims that qualitative research must be linked with constructivism while quantitative research is connected to post-positivism (Morgan, 2014). Morgan (2014), noted that in both cases there might be an affinity between paradigms and methods but there are no entrenched specifics that connect paradigms with particular set of methods. Morgan then argued that pragmatism can serve as a philosophical paradigm in social science research irrespective of that research being quantitative, qualitative or mixed-methods. Importantly, Denzin (2010) noted that expanding discussions of pragmatic research paradigms beyond traditional methodological procedures hold potentials for addressing issues of social justice, politics of hope and empowerment. In relation to this study, addressing the problem of HIV vulnerabilities through the weSpeak study among marginalized populations will require not only the provision of condoms, attempting to change peoples' behaviours and encouraging testing services but also addressing issues of power relations, social justice, equity and empowerment of subdued populations.

3.2. The weSpeak study

The weSpeak Study was launched in London, Ottawa, Toronto and Windsor in 2015 with funding from the Ontario HIV Treatment Network (OHTN) and the Canada Institute of Health Research (CIHR). weSpeak is a community-based research initiative that sought to meaningfully engage self-identified heterosexual ACB men aged 16 years and older in a critical dialogue about their HIV vulnerabilities and identify pathways to building resilience against their increasing

vulnerability. The weSpeak interdisciplinary team comprise of researchers from disciplines including nursing, geography, sociology, women studies and epidemiology from the four cities in southern Ontario.

iSpeak, the forebearer of the current study—weSpeak, was implemented between 2011-13 among self-identified heterosexual ACB men living in Ontario. Ontario has almost two-thirds of Canada's Black population and about 50% of all Blacks living with HIV in Canada (Husbands et al., 2017). The iSpeak study was informed by the apparent disconnect between the burden of HIV among ACB men and the invisibility in community responses to HIV in ACB communities. iSpeak drew on focus group narratives to examine the emergence of HIV vulnerabilities among heterosexual ACB men, and the extent to which they acknowledge and engage their heightened HIV vulnerabilities. Results from this exploratory study warranted a more extensive study—weSpeak, on heterosexual ACB men's HIV vulnerabilities that until recently has largely been absent in both policy and scholarly literature. The weSpeak study provides a good context for examining ACB men's access to HIV services and the association between knowledge of their regular sexual partner's HIV status and condom use behaviours for improved prevention strategies.

3.3. Study design

A study design refers to the overall strategy that a researcher employs to integrate the various components of the study in a coherent and logical manner (De Vaus & de Vaus, 2001; Trochim, 2006). High quality scientific research requires good planning that meets a standardized criteria of ethical approval, data collection, analysis of data and interpretations of findings (Süt, 2014). According to Süt (2014), scientific studies can be categorized into basic studies, experimental, economic evaluation, meta-analysis or observational studies. Observational studies can further be classified as descriptive or analytical (inferential). In this study, I adopt the

analytical/inferential observational study design. Analytical studies are cross-sectional study designs that are conducted at a specific time period in a given geographical location and does not require any follow-up enquiries (Dawson, Trapp, & Greive, 2004). Analytical/inferential studies explain associations between sample exposure groups and a particular outcome of interest and tries to extrapolate it to other members of the group (Süt, 2014). The ability of analytical/inferential studies to assess association between groups and a particular outcome of interest i.e. diseases necessitated the choice of quantitative analytic strategy. Quantitative methods were also deemed appropriate because of the very nature of the research questions and the epistemological orientation of the study. In fact, as suggested by earlier scholars including Elliott (1999), the research question determines the method.

3.4. Sampling

The very nature of the weSpeak study required sampling participants who self-identify as heterosexual ACB males, living in London Ontario, and aged 16 years or older that could speak English or French. According to the 2011 Canada population and housing census, the population of Black men aged 15 years or older and residing in London Ontario is about 4,290 (see Table 3.1). Participants were recruited proportionally to this population using Slovin's formula for sample size estimation with a 0.09 margin of error. Based on this formula, a sample of 124 responses is sufficient for statistical analysis but to increase scientific rigour, robustness and generalizability of findings, 200 respondents were targeted. This was also necessitated by experiences of low response rate from earlier studies that focused on similar hard to reach populations (Baidoobonso, 2013; George et al., 2012), and also to make room for surveys and responses that may be missing key variables.

Table 3. 1 Age Distribution of ACB Males in London, Ontario

Age	Total number	% of Black Population
0– 14	1,850	30.1
15 –24	1,165	19.0
25 –34	665	10.8
35 – 44	790	12.9
45 – 54	740	12.1
55 – 64	520	8.5
65 – 74	265	4.3
75+	145	2.3
Total	6,140	100

Source: (Statistics-Canada, 2016)

3.5. Recruitment and data collection

The weSpeak study is in two phases: qualitative and quantitative. The focus of this dissertation is on the latter. A cross-sectional survey was conducted between March 2018 and February 2019 as part of the larger weSpeak project across four cities—Windsor, Ottawa, Toronto and London. The research tool was developed in French and English languages and hosted online. Backtranslation was used to ensure compatibility of the two versions. Participants could respond to the survey either in French or English depending on preference and language proficiency. To some extent, the survey questions were informed by responses from the qualitative phase. The study employed venue-based sampling and community recruitment techniques to reach diverse respondents. The community recruitment technique involved recruiting participants from community events such as sporting events, seminars, ACB programmes and initially identified respondents’ social networks. The venues that were visited to recruit participants included university campuses, barbering shops, churches, mosques, AIDS Services Organizations (ASO) and coffee shops. All the Research Assistants (RAs) were chosen from the ACB community in order to demonstrate a sense of belonging among participants and trained to conduct the survey using tablets. The RAs introduced the survey to participants face-to-face and those who consent to

take part in the study entered their responses online. This also enhanced some level of trust and confidentiality between respondents and enumerators as the RAs could not access nor recognize participants' responses once completed.

Some participants also contacted the researchers through phone calls, email, and text messages after being introduced to the survey by earlier participants. Those who agreed to take part in the survey met with RAs at venues convenient to them. The survey took an average of 45 minutes to complete. Survey questions centered on HIV knowledge, access to healthcare, condom use, sexual behaviours, HIV testing and discriminatory experiences in the Canadian context. Overall, we contacted 200 individuals and successfully administered 156 surveys giving a response rate of 78%. This rate is high compared with similar studies in this context (Baidooobonso, Bauer, Speechley, Lawson, & Team, 2016). Standard ethics guidelines of voluntary participation, consent of participation and confidentiality of responses were duly observed as approved by the University of Western Ontario Non-Medical Research Ethics Board. Those who met the inclusion criteria were required to sign a consent form and were given an assurance of anonymity per Western University Trio-Council regulations. As part of the RA training, it was highly demanded of them to respect all ethics requirements. All RAs were also required to sign a confidentiality agreement. Even though participants were encouraged to complete the survey, instructions were explicit that they could stop at any time if they did not want to continue or felt uncomfortable with the demands of the survey. Participants received a CDN \$20 honorarium for their time and participation at the end of the survey.

3.6. Data cleaning and analytic strategy

The dataset was downloaded from a central data repository managed by only one of the research coordinators as part of ethical demands to conceal respondents' identity. The data was

cleaned in Statistical Package for Social Sciences (SPSS) version 22 and exported to STATA version 14 for analysis. Data cleaning involved checking consistency of responses and dropping uncompleted survey responses or responses that were missing key variables. As part of the data cleaning, I also coded and or recoded the variables of interest to conform to the choice of analytic techniques.

The analysis focused on answering the two research hypotheses: 1) Heterosexual ACB men at risk of contracting HIV will adopt preventive measures including condom use. 2) The interactive effect of demographic, behavioural and structural factors can better explain heterosexual ACB men's access to HIV services rather than the disaggregated components. For research hypothesis one, the outcome variable is 'condom use', which was informed by my quest to understand heterosexual ACB men's risk awareness level and their uptake of precautionary measures. The 'condom use' variable was created from a binary response question that asked participants if they used condoms during their most recent intercourse with their regular female sexual partner. Those who responded 'Yes' were coded as '1' and '0' if they responded 'No'. The negative log-log multivariate link function was used. This was deemed appropriate because the dependent variable, condom use, is binary in nature with a skewed distribution (Smith & McKenna, 2012) towards those who did use condoms during their most recent intercourse. In the case of research hypothesis two, the dependent variable is 'HIV testing'. This variable was derived from a binomial response question whether respondents have ever tested for HIV coded as No=0 and Yes= 1. The negative log-log link function was also used due to the above reasons. In each analysis, several theoretically relevant variables were controlled for with details presented in the methods section of each manuscript.

3.7. How the theoretical and methodological approaches integrate

The theory of planned behaviour stresses the role of cognitive factors in human behaviours (Baban & Craciun, 2007). Even though it further recognizes the role of both internal (personal skills, abilities, knowledge and information) and external (barriers and enablers that are not within the control of an individual) factors in human behaviours (Ajzen & Fishbein, 1980; Baban & Craciun, 2007), it overemphasized the role of individual level factors. By realizing heterosexual ACB men's HIV vulnerabilities and their uptake of HIV health services is equally an issue of structure as it is with behaviour, I adapted intersectionality theory— a broader theoretical framework to examine the relationship between their access to healthcare and the uptake of HIV testing services.

Intersectionality theory recognizes the simultaneous role of behavioural, demographic and structural factors in health outcomes and applies deconstructionist critical thinking to identify how interlocking systems of power and privilege impact marginalized groups in society (Gressgård, 2008). The most important conceptualization of intersectionality theory in this study is its theorization that people's social positions and experiences are fluid and constitutive and can only be appreciated by viewing them simultaneously. For instance, how will an unemployed African or Caribbean immigrant's access to HIV healthcare differ from an employed non-immigrant's access to healthcare in the Canadian context? This conceptualization calls for an interaction analysis which is better placed within quantitative methodological approach. Intersectionality therefore presents an innovative and unique theoretical approach for researchers situated within quantitative health studies to understand and observe the nuances rooted in the structural drivers of society (Hankivsky, 2012; Rouhani, 2014).

3.8. Summary

This chapter gave a detailed account of the methodology that was employed in answering the research questions. Specifically, the study employed the quantitative cross-sectional study design due to the nature of the research objectives. The chapter explained the ontological and epistemological underpinnings of this enquiry and the justification for the choice of study design. The chapter further demonstrates how the study paradigm holds potential for addressing issues of power relations, social justice, equity and empowerment of marginalized populations. The weSpeak study was briefly introduced followed by the study design and a chronological presentation of how the data was collected and analyzed.

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Chapter 4: Knowledge of Sexual Partner's HIV Serostatus and Condom Use Behaviour among Heterosexual men of African Descent in London, Ontario

Abstract

Evidence suggests that heterosexual contact is the primary route of HIV transmission among African Caribbean and Black (ACB) men in Canada. The predominantly heterosexual HIV transmission among ACB men is partly due to lack of knowledge of their sexual partners' HIV status. Although empirical studies point out adequate knowledge of sexual partner's HIV-positive status as important factor for reducing the risk of contracting HIV, there is particularly a dearth of literature on heterosexual ACB men's knowledge of their sexual partner's HIV serostatus and the practice of safer sex in Canada. To fill in part of this gap, we draw insights from the theory of planned behaviours and data (n=156) from a study of heterosexual ACB men in London, Ontario (weSpeak study), to examine how knowledge of a partner's HIV status influences condom use as a protective measure. We fit negative log-log link function to estimate the relationship between knowledge of a sexual partner's HIV status and condom use among ACB men. The findings of multivariate analysis show that ACB men who know their partner's HIV status are less likely to use condoms (OR=0.233, P<0.01) compared to those who do not know, controlling for other theoretically relevant covariates. Similarly, participants who reported being single (OR=0.86, P<0.001) are less likely to use condoms. On the other hand, higher education (3.525 P<0.05), being employed (4.779, P<0.05) and earning over 60 thousand dollars a year (OR=6.801, P<0.05) are associated with higher likelihood of using condoms. These findings are discussed within the broader field of HIV prevention among minorities' health.

4. Introduction

Epidemiological evidence suggests that African Caribbean and Black (ACB) men account for a disproportionate proportion of new HIV infections in Canada and heterosexual contact is the most common route of transmission among partners without knowledge of their HIV-positive serostatus (Eyawo et al., 2010; Public Health Agency of Canada, 2018). Findings from clinical studies in sub-Saharan Africa, where HIV/AIDS has exacted its heaviest toll, reveal that about 59% of women reported their husbands did not know about their HIV-positive status (Kiula, Damian, & Msuya, 2013). In fact, between 20 and 45% of African HIV-positive patients accessing antiretroviral services in Tanzania, Kenya, Namibia and Nigeria did not know the HIV status of their sexual partners (Amaran, 2012; Bachanas et al., 2013). In South Africa, Simbayi et al. (2007) reported that, 39% of HIV-positive men and women had sex with partners who did not know their HIV serostatus in the last three months and unprotected sex was common among both. Studies in the United States also depict similar patterns, with more than half of all new HIV transmissions occurring among people who are unaware of their HIV-positive status or that of their sexual partners' (Marks et al., 2006; Williamson et al., 2008). This lack of knowledge has far reaching consequences given that knowledge of a sexual partner's HIV status is fundamental in reducing transmission of the virus through preventive measures including condom use and timely initiation of Pre- and Post-exposure prophylaxis. Indeed, empirical studies have shown that knowledge of a sexual partner's HIV-positive status significantly reduces risk of contracting the virus (Bunnell et al., 2005; Niccolai et al., 2002; Pinkerton & Galletly, 2007). In addition, knowledge of a partner's HIV status increases HIV risk awareness and empowers the couple to make shared decisions on how to protect their health while engaging in an active sexual life (Bachanas et al., 2013; Irungu et al., 2012). Shared sexual decisions reduce risk of contracting or transmitting the virus in marital

relationships as well as infecting unborn children with the virus through Pre/Post-exposure prophylaxis and consistent condom use (Vu et al., 2012). Further, knowledge of a partner's HIV status enhances support for people living with HIV and also motivates individuals to initiate antiretroviral treatment and adhere to it (Aluisio et al., 2011; Ware et al., 2009).

In the Canadian context however, there is a dearth of literature on the link between heterosexual ACB men's knowledge of their sexual partners HIV serostatus and condom use. For instance, Baidoo-Boonso et al.'s (2016) work in London, Ontario focused on proximate and social determinants of condom use among ACBs in general. The few existing studies in other contexts including Africa and the United States that attempted exploring this relationship have also focused on HIV-positive patients accessing antiretroviral services (Bachanas et al., 2013; Niccolai et al., 2002). What this study adds is a direct focus on heterosexual ACB men's knowledge of their sexual partner's HIV status and condom use behaviours. We draw on data from the 'weSpeak project' which was implemented across four cities in Ontario (Windsor, Ottawa, Toronto and London) in 2015 to examine how heterosexual ACB men's knowledge of their sexual partner's HIV status influence their attitude towards protective sex in the form of condom use. Findings will contribute to the literature on HIV prevention among heterosexual ACB men given their heightening vulnerability to HIV in Canada.

4.1. Theoretical approach

Regardless of knowledge of sexual partner's HIV status, condom use is an element of reasoned action and planned behaviour that is premeditated. To this end, we draw insights from the theory of reasoned action and theory of planned behaviour to examine heterosexual ACB men's knowledge of their regular sexual partner's HIV status and condom use behaviours. The Theory

of Reasoned Action (TRA) is underpinned by the assumption that an individual's intention to adopt a particular preventive health behaviour is informed by their attitude towards that behaviour and the impact of perceived subjective norms (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Intention reflects self-inner motivation backed by a conscious effort to exercise a certain level of desired behaviour. Attitude towards a particular behaviour, in this context, consistent condom use, is therefore a reflection of the individual's evaluations of adopting that behaviour including the perceived consequences of its use or non-use. For instance, a person may perceive using condom with a sexual partner whose HIV status is unknown as a protective mechanism from sexually transmitted infections and unwanted pregnancies. On the contrary, although an individual may know the benefits of condom use in the context of uncertainty of a partner's HIV status, the erroneous perception that condom use reduces sexual gratification may serve as a barrier. The final decision to use condom will therefore depend on the cumulative assessment of these perceived consequences and trade-offs thereof.

The second dimension of this theory, perceived subjective norms, mirrors societal expectations for individuals to adopt a given health behaviour. It is conceptualized that significant referents including family physicians, friends and sexual partners have expectations which the individual is expected to comply with (Godin et al., 1996). For instances, a family physician may advice his/her client to use condom especially when the client does not know the sexual partner's HIV status. In the African context where traditional expectations and norms on sexual chastity prevail, a heterosexual ACB man's decision to use condoms in a regular relationship may trigger suspicions of relationship trust and infidelity (Ackermann, 2003). Thus, the decision to use condoms with a regular partner becomes an outcome of the individual's subjective assessment of the consequences of non-use and the normative pressure from his environment.

Theory of Planned Behaviour (TPB) conceptualizes the uptake of a given preventive action including condom use, as a product of attitude, perceived subjective norms and perceived behavioural control (Ajzen & Fishbein, 1980). Attitude and perceived subjective norms in the context of the TPB are understood precisely as they are theorized in the TRA. The third component of the TPB—perceived behavioural control, was a later addition to the TRA to account for other factors that were not originally considered in order to broaden its explanatory power (Ajzen & Fishbein, 1980; Baban & Craciun, 2007; Godin et al., 1996). Perceived behavioural control is understood as individual's conception and perception of how difficult or easy undertaking a particular healthy behaviour is likely to be (Ajzen, 1991). It also reflects internal factors including information and knowledge of prevailing conditions as well as external factors such as resources and social support. It can therefore be argued that heterosexual ACB men's intention to use condoms in the context of knowledge of a sexual partner's HIV status will be shaped by the perceived level of risk, ability to acquire condoms and social support from their sexual partners.

4.2. Situating the weSpeak project

Canada has made a remarkable progress towards bringing the HIV epidemic under control in recent years and the prevalence rate has remained below endemic levels. Notwithstanding this progress, some populations within specific provinces and cities in Canada have relatively higher HIV prevalence rates. For instance, in 2016, Ontario alone accounted for 37.6% of new HIV positive cases in Canada (Bourgeois et al., 2017). Although Black people account for less than 5% of Ontario's total population, they make up the largest proportion of people living with HIV, and those who contract it through heterosexual contact account for about one-fifth of all HIV-positive patients in Ontario (Husbands et al., 2017; Remis, Swantee, & Liu, 2013). The high prevalence of

HIV resulted in the city of London declaring HIV as health emergency in 2016. This declaration was followed by the establishment of safe injection sites and the provision of safe injection needles for injection drug users to control spread of the virus. Other routes of HIV transmission including heterosexual contact, however, have largely been absent in the HIV policy framework.

In the context of the increasing HIV vulnerability among heterosexual ACB men in Ontario, the weSpeak project was launched in 2015 with funding from Ontario HIV Treatment Network (OHTN) and the Canada Institute of Health Research (CIHR). weSpeak is a community-based research initiative that sought to meaningfully engage self-identified heterosexual ACB men aged 16 years and older in a critical dialogue about their HIV vulnerabilities and identify pathways to building resilience to HIV risk. The weSpeak team includes researchers and research coordinators from disciplines including nursing, geography, sociology, women studies and epidemiology.

4.3. Materials and methods

4.3.1. Recruitment and data collection

A cross-sectional survey was conducted between March 2018 and February 2019 as part of the larger weSpeak project across four cities in Ontario—Windsor, Ottawa, Toronto and London. The project employed venue-based sampling and community recruitment techniques to reach diverse hard-to-reach respondents (Muhib et al., 2016). The community recruitment technique involved recruiting participants from community events such as sporting events, seminars, ACB programmes and initially identified respondents' social networks. University campuses, barbering shops, churches, mosques, AIDS Services Organizations (ASO) and coffee shops are the venues respondents were recruited from. Participants who self-identified as male,

heterosexual, ACB, living in London Ontario, and aged 16 years and older were eligible for the study. Men who met the criteria signed a consent form, which among other things assured them that their identity would be protected and the information they provide would remain confidential. Participants received a CDN \$20 honorarium for their time and participation at the end of the survey.

Participants who agreed to take part in the survey met with a fieldworker at a venue convenient for the participant. The survey took an average of 45 minutes to complete. Survey questions centered on HIV knowledge, condom use, sexual behaviours, access to healthcare, HIV testing and discriminatory experiences in the Canadian context. Participants responded to the survey either in French or English, depending on preference and language proficiency. We used backtranslation to ensure compatibility of the two versions. We contacted 200 individuals and successfully administered 156 surveys giving a response rate of 78 %. This response rate is high compared with similar studies in the Canadian context (Baidooobonso et al., 2016). Ethical clearance was obtained from the University of Western Ontario Research Ethics Board.

4.3.2. Survey measures

The outcome variable for this study, ‘condom use’, was created from a question that asked participants if they used a condom during their most recent intercourse with their regular female sexual partner. Those who responded ‘Yes’ were coded as ‘1’ and ‘0’ if they responded ‘No’. The focal predictor variable in this analysis is knowledge of their sexual partner’s HIV status. Participants were asked if they knew the HIV status of their regular female sexual partner. Those who responded ‘Yes’ was coded as ‘Know their partner’s status’ = 1 and ‘No’ coded as ‘Don’t know’ = 0. Guided by the theories of Reasoned Action and Planned Behaviour, we controlled for

several theoretically relevant covariates, including attitude and knowledge of HIV transmission variables, demographic and socioeconomic factors. We observed the variation in the magnitude and direction of the relationship between our main dependent variable i.e. knowledge of HIV status of sexual partner and condom use. HIV transmission and attitudinal variables included, having multiple sexual partners coded as No=0 and Yes=1, masculinity and knowledge of HIV transmission. Because HIV transmission knowledge and masculinity are multifaceted concepts, we used simple additive approach to create continuous scales. We tested reliability of the scales and found them to be highly correlated with alpha values of 0.82 and 0.76 for masculinity and knowledge of HIV transmission respectively. The scales include 9 masculine variables and 10 HIV transmission knowledge variables (see Appendix B for knowledge and masculinity items). Demographic factors including age (0=Above 40 years, 1=40-20 years, 2=Less than 20 years), marital status (0=Married/currently in a relationship, 1=Single), religion (0=Other, 1=Muslim, 2=Christian) and place of birth (0=Canadian born, 1=Immigrant) were also controlled for. Finally, socioeconomic factors such as level of education (0=College education and below, 1=Above college education), employment status (0=No, 1=Yes), and annual income measured in thousands of Canadian dollars (0=No income, 1=Less than 20, 2=20-39, 3=40-59, 4=60 and above) were also adjusted.

4.3.3. Data analysis

Our analytic strategies for examining heterosexual ACB men's knowledge of their sexual partners' HIV status and condom use behaviours comprised descriptive, bivariate and multivariate analysis involving a negative log-log link function. The descriptive statistics present detailed characteristics of the study sample and bivariate analysis examines the unadjusted association

between the predictor variables and condom use among heterosexual ACB men. Finally, to account for the effect of possible confounding factors, we employed the negative log-log multivariate link function because the distribution of the dependent variable, condom use, was highly skewed (Smith & McKenna, 2012) towards those who used a condom during their most recent intercourse. Standard logistic regression analysis presupposes relatively symmetric distribution of possible outcomes of the dependent variable and using it would have resulted in biased estimates. In model 1, we controlled for knowledge of sexual partner's HIV status, attitudinal variables and HIV transmission knowledge. We controlled for demographic factors in model 2 and finally, socioeconomic variables in model 3. To account for any possible effect of homogeneity of responses, we introduced a cluster variable called survey ID to minimize potential bias in the estimation of standard errors that may arise from a dependence of responses. Results from the regression models are presented in odd ratios (OR) and an OR greater than 1 imply heterosexual ACB men are more likely to use condom and the converse is true.

4.4. Results

Descriptive statistics presented in Table 1 indicate that 75% of heterosexual ACB men reported using a condom during their most recent intercourse and almost half (47%) did not know the HIV status of their regular female sexual partners. More than half of the participants reported having one sexual partner (56%), being single (58%), having attained more than college education (51%) and being employed (55%). About 36% earned no income and 33% were aged between 20 and 29 years. The majority were Christians (72%) and most were born outside of Canada (74%).

Table 4. 1 Descriptive statistics on knowledge of sexual partner's HIV status and condom use

	Percent
Condom use during last intercourse	
Yes	75
No	25
Knowledge of partner HIV status	
Know	53
Don't know	47
Masculinity (mean score)	31.9 (SD=5.8)
Have multiple sexual partners	
No	56
Yes	44
HIV knowledge (mean score)	44.9 (SD=5.3)
Marital status	
Married/relationship	42
Single	58
Age	
40 and above	26
30-39	26
20-29	33
15-19	15
Religion	
Other	19
Muslim	9
Christian	72
Place of birth	
Canadian born	26
Immigrant	74
Have family physician	
Yes	44
No	56
Level of education	
Above college	51
College or below	49
Employment status	
Unemployed	45
Employed	55
Income (000)	
No income	36
<20	21
20-39	14
40-59	10
60 and above	19

Table 2 shows the results of bivariate regression between condom use and each of the predictor variables. Participants who knew the HIV status of their regular female sexual partners

were less likely (OR=0.50, P<0.01) to use a condom during their most recent intercourse when compared to their counterparts who did not know. Also, participants who were employed were more likely (OR=1.877, P<0.05) to use a condom during their most recent intercourse. Similarly, respondents with college education or above (OR=1.299, P<0.05), earn between 40-59 thousand dollars (1.427, P<0.05) and above 60 thousand dollars (OR=1.374, P<0.01) were more likely to use a condom. Single heterosexual ACB men were less likely to use a condom during their most recent intercourse with their regular partners.

Table 4. 2 Bivariate analysis of knowledge of sexual partner's HIV status and condom use

Variable	OR(SE)
Knowledge of partner HIV status	
Don't know	1.000
Know	0.50(0.176)**
Masculinity	
Have multiple sexual partners	1.03(0.03)
No	1.000
Yes	0.843(0.28)
Knowledge on HIV transmission	
Marital status	1.104(0.23)
Married/relationship	1.000
Single	0.437(0.16)**
Age	
40 and above	1.000
30-39	0.776(0.37)
20-29	0.611(0.27)
15-19	0.865(0.50)
Religion	
Other	1.000
Muslim	0.514(0.29)
Christian	1.104(0.48)
Place of birth	
Canadian born	1.000
Immigrant	1.336(0.47)
Have family physician	
No	1.000
Yes	1.050(0.34)**
Level of education	
College and below	1.000
Above college	1.299(0.43)**
Employment status	

Unemployed	1.000
Employed	1.877(0.66)**
Income (000)	
No Income	1.000
<20	0.929(0.39)
20-39	1.171(0.61)
40-59	1.427(0.91)**
60 and above	1.374(0.67)***

P<0.05, *P<0.01

The multivariate regression results presented in Table 3 are largely consistent with the bivariate findings. Model 1 controlled for the effect of behavioral factors and the results show that heterosexual ACB men who knew their regular female sexual partners' HIV status were less likely (OR=0.408, P<0.05) to use a condom during their most recent intercourse. In model 2, we adjusted for demographic factors and being single (OR=0.124, P<0.01) and Muslim (OR=0.158, P<0.05) predicted lower odds of using a condom during the most recent intercourse even when their regular sexual partners' HIV status was unknown. After controlling for socioeconomic factors in model 3, the results showed that men who knew their regular partner's HIV status remained significantly less likely (OR=0.233, P<0.01) to use a condom during their most recent sexual intercourse. However, attaining more than college education (OR=3.525, P<0.05) and earning 60 thousand dollars and above per year predicted higher odds (OR=6.801, P<0.05) of using a condom during most recent intercourse. The inclusion of socioeconomic variables did not significantly change the effect of knowledge of sexual partner's HIV status and condom use. However, single heterosexual ACB men, were less likely (OR=0.86, P<0.001) to use a condom in their last sexual encounter with a regular partner.

Table 4. 3 Multivariate analysis of knowledge of sexual partner's HIV status and condom use

	Model 1	Model 2	Model 3
Knowledge of partner's HIV status			
Don't know	1.000	1.000	1.000
Know	0.408(0.21)*	0.241(0.12)**	0.233(0.12)**
Masculinity			
	1.032(0.03)	1.026(0.03)	1.059(0.04)
Have multiple sexual partners			
No	1.000	1.000	1.000
Yes	0.503(0.23)	1.628(0.91)	2.349(1.29)
HIV transmission knowledge			
	0.950(0.03)	0.928(0.04)	0.922(0.04)
Marital Status			
Married/relationship		1.000	1.000
Single		0.124(0.08)**	0.86(0.06)***
Age category			
40 & above		1.000	1.000
30-39		0.809(0.45)	0.694(0.45)
20-29		0.653(0.37)	0.747(0.45)
15-19		0.454(0.37)	0.318(0.27)
Religion			
Other		1.000	1.000
Muslim		0.158(0.13)*	0.136(0.16)
Christian		0.687(0.39)	0.699(0.48)
Place of birth			
Canadian born		1.000	1.000
Immigrant		1.199(0.52)	1.392(0.77)
Level of education			
College and below			1.000
Above college			3.525(2.18)*
Employment status			
Unemployment			1.000
Employed			4.779(2.95)*
Annual income			
No income			1.000
<20			1.839(1.09)
20-39			4.736(3.37)*
40-59			3.927(3.55)
60+			6.801(5.07)*
ll	-70.215	-60.725	-52.601
aic	150.430	145.450	141.202
bic	164.919	180.225	193.363

*P<0.05, **P<0.01, ***P<0.001

4.5. Discussion and conclusions

Although recent advances in scientific and clinical discoveries have significantly transformed the face of HIV from its initial conception as a fatal virus into a manageable chronic

condition, precautionary measures including consistent condom use remain the most effective strategy for curbing spread of the virus (Kharsany & Karim, 2016; Weller & Davis-Beaty, 2002). While several studies have demonstrated the importance of consistent condom use for preventing transmission of HIV and other sexually transmitted infections, there is a dearth of evidence on how knowledge of a sexual partner's HIV status shapes condom use behaviours. Overall, our findings show that heterosexual Black men in London who knew the HIV status of their regular sexual partners were less likely to use condoms compared to those who had no knowledge of their regular sexual partner's HIV status. Our findings contradict earlier studies including those by Bachanas et al. (2013) and Conserve et al. (2012) who found high level of consistent condom use among study participants that knew their sexual partner's HIV status compared to their counterparts who did not. This in part, can be explained by the fact that, unlike our study, the sample in their study primarily focused on HIV-positive patients attending clinic.

Similarly, Frye et al. (2013) found a general lack of condom use among heterosexually active Black regular sexual partners in the United States who did not know about each other's serostatus. Although their study further found consistent condom use among casual and new sexual partners, condom use became inconsistent as the relationship between sexual partners flourished. This suggests that as heterosexual ACB men stay longer in a relationship, trust in their sexual partners tend to increase and their self-perceived risk of contracting HIV and other STIs diminishes. It even becomes more probable when there is shared and open sexual health discussions in relationships. This argument tends to emphasize the concepts of attitude and perceived subjective norms as postulated in the theory of reasoned action. Indeed, in relationships where there are open sexual discussions, perceived subjective norms will tend to favour low condom use due to low perceived risk. Thus, the element of low perceived risk, trust among sexual

partners and the desire to eliminate suspicion may undermine condom use among heterosexual ACB men who knew their female sexual partner's HIV status.

Heterosexual ACB men's likelihood of using condoms with a regular sexual partner whose HIV status was not known may be explained as a resilience building strategy in direct response to being more aware of the dangers of and risk to HIV infection in the Canadian context. Consistent with other studies, ACB men may be adapting and readjusting in the face of multiple personal and social challenges in response to their prevailing disadvantaged disposition (Kurtz, Buttram, Surratt, & Stall, 2012; Rabkin, Remien, Williams, & Katoff, 1993). Significantly, the use of condoms when a partner's HIV status is unknown suggests that ACB men in this context may have an informed understanding of personal risk of contracting the virus and the motivation to eliminate or reduce that risk of infecting others. This attitude towards risk supports Fishbein & Ajzen's theoretical argument that people who perceive positively valued outcomes from practicing a given behaviour will exhibit a positive attitude towards that behaviour (Fishbein & Ajzen, 1975; Montano & Kasprzyk, 2015). Put in the context of the dominant narrative about Black men and HIV, this finding runs contrary to frequent narratives that ACB men are sexually aggressive and tend to engage in reckless sexual behaviours. This narrative frames Black men as generally disinterested in their own health—not to mention the health of their sexual partners.

Heterosexual ACB men's knowledge of their sexual partner's HIV status and condom use behaviours may also be influenced by structural factors including education, unemployment and income. Even though these factors alone cannot fully account for the relationship between knowledge of sexual partner's HIV status and condom use, they speak directly to Fishbein & Ajzen (1975) theoretical conception that, intentions about a particular healthy behaviour are not always volitional. For instance, men who are employed, earn high annual incomes and have attained

higher education were more likely to use condoms in this study compared with their other counterparts. Within the broader field of health geography, this finding demonstrates the uneven distribution of HIV vulnerabilities among marginalized populations. Among the poor for instance, intention to use condoms with a sexual partner whose HIV status is unknown could be undermined by the psychological impact of not meeting everyday basic needs as well as access challenges to preventive materials including condoms. As conceptualized in our theoretical framework, perceived behavioural control can influence condom use among heterosexual ACB men in as much as attitudinal and social normative factors. Further, education increases assertiveness and awareness about prevailing health risks while available resources enable access to preventive services. Despite the potential of these factors for good health and wellbeing, Black men in the Canadian context are more likely to be unemployed, underemployed or earn lower incomes even when they have a comparable level of education as other racial groups (Swidinsky & Swidinsky, 2002). To address Black and other marginalized populations HIV vulnerabilities in the Canadian context, these inequalities will have to be prioritized.

This study has some limitations worth highlighting. The sample size is relatively small. This is because of the sensitive nature of HIV and the concomitant difficulty in recruiting participants for such surveys. However, earlier studies have used similar sample size in the Canadian context for similar reasons (Baidooobonso et al., 2016). Secondly, social desirability bias may have led to possible underreporting of instances where a condom was not used.

Notwithstanding these limitations, our study has implications for HIV prevention and offer some policy directions for health policymakers in the Canadian and similar contexts. Although condom use alone is not enough for the prevention of HIV transmission and/or contraction, Black men in this study demonstrate that they are willing to engage their HIV vulnerabilities and take

precautionary measures to reduce their risk of infection. Unfortunately, in the Canadian context, there are limited sexual health services targeted at the Black population and in instances where they exist, the service providers are typically not their own race and therefore may not always understand the sexual health needs of Black populations. The positive association between socioeconomic factors and condom use suggests that addressing heterosexual Black men's HIV vulnerabilities is as much about addressing structural challenges as it is about attempting to change their sexual behaviours. In fact, focusing on changing Black men sexual behaviours as a blueprint solution to their HIV vulnerabilities will remain less effective if pressing structural challenges are not first addressed. When Black men are confronted with contextual pressing issues, adherence to preventive measures including consistent condom use could elude them.

4.6. References

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Chapter 5: An Intersectional Approach to HIV Vulnerabilities and Testing among Heterosexual African Caribbean and other Black Men in London, Ontario: Results from the weSpeak Study

Abstract

Heterosexual African Caribbean and Black (ACB) men are a vulnerable group to HIV infection in Canada, but little is known about their uptake of HIV testing services. Studies on ACB men's HIV vulnerabilities have largely focused on behavioural factors including having multiple partners, condom use and masculine ideals. While these studies have contributed significantly to the current HIV prevention success in Canada, little attention has been paid to the intersection of structural and behavioural factors that work constitutively to reinforce Black men's HIV vulnerabilities. Drawing insights from intersectionality theory we examined the multiple factors that intersect at the individual level to influence effective uptake of HIV testing services among heterosexual ACB men in London, Ontario. We fitted logistic regression models to 156 individual surveys that were collected between March 2018 and February 2019. The survey covered questions on HIV testing, access to healthcare, behavioural and structural factors. Our findings demonstrate that those who had difficulty accessing healthcare (OR=0.190, $p<0.05$), experiencing discrimination (OR=0.177, $p<0.05$) and being young [16-19 years] (OR=0.025, $p<0.05$) were less likely to test for HIV. Immigrants were more likely (OR=6.71, $p<0.05$) to test for HIV. Even though the probability of testing for HIV increased after accounting for the effect of structural factors, the marginal increase was higher for those without any difficulty in accessing health services than those with difficulty. Policies on access to HIV health services among heterosexual ACB men need to take into consideration the access challenges that exist among this population. Recognizing these challenges has potential for ensuring health equity which is the crux of the Canadian healthcare policy.

5. Introduction

In 2016, heterosexual contact accounted for 33% of new HIV transmission cases in Canada and Black men from Africa and the Caribbean regions were over represented (Public Health Agency of Canada, 2018). For instance, whereas African, Caribbean and other Blacks (ACBs) represent about 2.5% of the Canadian population according to the 2011 census, they nevertheless accounted for 13.6% of all new HIV infections attributed to heterosexual contact in 2016 (Public Health Agency of Canada, 2018). Despite their heightened HIV vulnerabilities, studies have shown that ACB men are less likely than other racialized groups to know about their HIV serostatus. In Canada, while 14% of those living with HIV do not know their status, more than 20% of ACBs living with HIV do not know about their HIV serostatus (CHABAC, 2016; Shimeless & Bailey, 2011). Even when they know, by the time that they are diagnosed, ACB men are typically at advanced stages of infection (Fakoya et al., 2008). This is despite the emphasis on timely HIV diagnosis for Canada to achieve the UN Sustainable Development Goal (SDG) 3, target 3.3 and the UNAIDS 90-90-90 targets. Target 3.3 of the SDGs aims at ending the AIDS epidemic by 2030 whereas the first of the UNAIDS targets seeks to diagnose 90% of all people living with HIV by 2020 (UNAIDS, 2017). Importantly, timely detection of the virus helps patients to live normal lives and reduce the risk of spreading the virus. Yet, in Canada, HIV testing among ACBs has generally been low partly due to challenges accessing healthcare compared to other racialized groups (Canadian HIV/AIDS Black, 2016).

The Canadian publicly funded and universally accessible healthcare system is grounded on the principle that need and benefits from health services, rather than the ability to pay, should determine access to healthcare (House of Commons, 1984; Law et al., 2005). Even though this policy is intended to reduce barriers to healthcare access, paradoxically, how the existing model is

carried out creates structural and contextual barriers that continue to impede access to healthcare particularly for marginalized populations (Law, Kratzer, & Dhalla, 2014). Moreover, even though the policy is sound in principle, its implementation barely takes into consideration the ways different cultural groups perceive and construct health, how that influences their need for health services and structural factors including employment, income, immigration status, and discriminatory experiences intersect to influence their effective use of health services (Betancourt et al., 2016; Gardezi et al., 2008). It is therefore important to recognize the intersection of culture, ethnicity/race, systemic and structural factors that shape ACB men's access to and use of health services in the Canadian context.

In Canada, HIV research on racialized minority groups, including African and Caribbean populations, have often focused on individual behaviours such as multiple sexual partnership, condom use, age heterogeneity, and masculine ideals (Arnold, Rebchook, & Kegeles, 2014; Parent, Torrey, & Michaels, 2012; Skovdal et al., 2011) while others have focused on intrapersonal factors including knowledge and attitudes towards HIV prevention and health services (Boyce, Doherty, Fortin, & MacKinnon, 2003). It is however important to note that behavioural and intrapersonal factors are not independent of the associated social setting but rather the social environment and structural forces constitutively shape peoples' behaviours and intrapersonal perspectives and psychology. Indeed, researchers have pointed out that ACB men's HIV vulnerabilities and their low uptake of HIV services in the Canadian context have largely been blamed on behavioural and intrapersonal factors (Husbands et al., 2017). This is despite evidence suggesting that marginalized populations experience a disproportionate burden of HIV and other diseases due to their interconnected marginalized social positions (Bauer, 2014). While studies that focused on individual behavioural risk factors may have contributed to controlling HIV below

endemic levels in Canada, little attention has been paid to the structural factors that intersect with behavioural factors to reinforce and compound the challenges that ACB men face in accessing HIV health services in the Canadian context (Logie, James, Tharao & Loutfy, 2013; Logie et al., 2011). Consequently, Mays et al. (2004), posit that HIV prevention research needs to shift from a focus on behavioural and intrapersonal factors towards an intersectional approach for an improved understanding of heightened HIV vulnerabilities facing ACB men.

Heterosexual men are at increased risk for HIV infection in Ontario, Canada and men from hetero-endemic regions—Africa and the Caribbean are overburdened (Wheeler et al., 2017). In 2017, people who self-identified as Blacks represented about 25% of all new HIV-positive cases and 48.6% were attributed to heterosexual contact (Haddad et al., 2018; Public Health Agency of Canada, 2018). Despite heterosexual ACB men’s heightened HIV infection rate, Wheeler et al. (2017) indicated that there is a dearth of research focused on their utilization of HIV health services in Canada. Most studies and HIV policy interventions have often identified men who have sex with other men (MSM), injection drug users (IDU) and heterosexual Black women as priority groups with little attention to heterosexual ACB men (Carmen Logie, LLana James, Wangari Tharao, 2013; Parent et al., 2012). It is however ironic to consider heterosexual Black women as a priority group without identifying heterosexual Black men as partners in the HIV prevention discourse since most of these women contract it from their heterosexual male partners (Ganle, 2016). Indeed, Husbands et al. (2017) posit that ‘HIV prevention in the context of heterosexual contact can only be successful if both men and women are engaged as full constituents’ (p. 10). To this end, and as part of a larger weSpeak study across four Cities in Ontario (Toronto, Ottawa, London and Windsor), we examine how the intersection of behavioural, demographic and

structural factors shape heterosexual ACB men's access to HIV testing services in London, Ontario.

5.1. Theoretical approach

According to Mikkonen and Raphael (2010), everyday living conditions and experiences are better placed in explaining the health of Canadians than biomedical factors that are commonly referenced in the public health literature. These conditions and experiences including income, education, employment and job security, housing, immigration status, race, social discrimination, represent the social determinants of health and are observed to be useful to contemporary health research in understanding population health disparities (Mikkonen & Raphael, 2010). For example, in the United States, Black immigrants are identified as a vulnerable population at an increased risk for poor psychological, and physical health with limited access to professional healthcare (Derose et al., 2007). Accordingly, addressing the health needs of this population is even more challenging because of its heterogeneous nature, the multiple intersecting factors influencing their health needs, and federal and state policies restricting some immigrants' access to professional healthcare (Derose et al., 2007).

Research shows that, peoples' lived experiences are fluid and intertwined by several social factors and can therefore not be accurately understood by prioritizing single categories or the simple summation of these categories (Hankivsky, 2012). Hankivsky (2012), therefore posits that 'researchers situated in the fields of women's health, and/or men's health, should continue to explore, discuss and debate the implications of intersectionality and find ways to more systematically adopt and apply intersectionality as a framework for improved understanding of and responses to the complexities of people's lives and experiences' (p. 1719). Based on the multiple marginalizations of heterosexual ACB men, it is useful from an intersectional perspective

to understand the complex interplay of heterosexual ACB men social status positions and how that influence their utilization of HIV testing services in the Canadian context.

Intersectionality theory was originally conceptualized by USA Black feminist writers who challenged universally gendered experiences and postulated that experiences of Black women were (re)shaped by race or ethnicity, class, unequal power dynamics and resource control (Collins, 2002; Davis, 2011). Crenshaw (1989), argued that multiple marginalizations such as those suffered by Black-American women were mutually constitutive and therefore could not be grasped or ameliorated through approaches that treated them as distinct units of enquiry. Contrary to the understanding that class, race or ethnicity and socioeconomic status are independent factors, intersectionality theory posits that they are mutually constitutive and together, they produce and reproduce inequality(ies) that gives rise to the ‘new normal’ (Collins, 2002; Crenshaw, 2005). Thus, intersectional studies differ from conventional unitary and multiple approaches to research which are often typically presented using simple additive models.

In unitary analysis, a single category of social status position is of primary concern to the researcher while with the multiple approach, more than one social status position is of interest, but it operates under an additive assumption and treat multiple marginalizations and vulnerabilities as individual layers (Hancock, 2007). Even though this allows for the consideration of multiple vulnerabilities, it deviates from an intersectional conceptualization. For instance, using such an approach, the uptake of HIV health services by a heterosexual ACB man in Canada will be assumed to be adequately understood by simply adding the individual health impacts of being Black and having masculine ideals, being an immigrant or being unemployed. Hence, focusing on individual themes such as behavioural factors alone to examine complex issues such as racialization and HIV prevention may be insufficient since several factors (e.g. age, religion,

education, employment, discrimination and immigration etc.) work simultaneously and constitutively to define and shape behaviours and impact health vulnerabilities (Viruell-Fuentes et al., 2012).

Context, discourses and holistic experiences of marginalized populations form the basis of intersectionality and thus, deviates from other theoretical approaches that privilege behaviours and norms of ACB men as independent determinants of their HIV vulnerabilities and the uptake of health services (Weber & Parra-Medina, 2003). In this context, Carmen et al. (2013) and Viruell-Fuentes et al. (2012) argue that demographic and behavioural factors intersect with structural vulnerabilities to predispose heterosexual ACB men not only to HIV vulnerabilities but other health challenges including high blood pressure, mental health and cardio vascular complications. Intersecting factors such as immigration status, socioeconomic factors, having a personal/family doctor, and discriminatory experiences rather than their individual effects best explain heterosexual ACB men's uptake of health services. Hence, defining the uptake of HIV testing based on the discourse that Black men are disinterested in their own health is problematic (Szekeres, 2008).

Intersectionality offers quantitative researchers a unique theoretical opportunity for understanding the health and social inequities embedded in the structural drivers of societies and the lived experiences of individuals (Hankivsky, 2012). Unlike other quantitative theoretical approaches, intersectionality allows researchers to measure differences between groups using both additive and interactive approaches (Dubrow, 2008). Conventional quantitative techniques often employ only the additive approach to examine the individual effects of the predictor variables. Critics, however, eschew this technique because it assumes people's experiences as independent, separate and at best, a summation of those experiences (Cuadraz & Uttal, 1999; Weber & Parra-

Medina, 2003). Hence, intersectionality driven analysis emphasizes the need for multiplicative—interaction term(s) in quantitative statistical modeling.

5.2. Situating the weSpeak project within the study context

While HIV prevalence is generally below endemic levels in Canada, the province of Ontario is the most afflicted. For instance, in 2017, Ontario accounted for the highest proportion (38.9%) of new HIV cases in Canada (Haddad et al., 2018). Within Ontario however, the city of London, with a population of 383,825 and geographically located in the southwest of Ontario, halfway between Toronto and Detroit, has more than double the provincial HIV prevalence rate (Public Health Agency of Canada, 2014). As a result, in 2016, the Middlesex and London Health Unit declared HIV as a health emergency with accompanying policy interventions such as increasing the supply of free and safe injection needles, and the creation of safe injection spaces for injection drug users. However, heterosexual contact, which is the common route of HIV infections among ACB communities has largely been neglected both in policy and literature (Bourgeois et al., 2017). In this regard, the weSpeak project was implemented to engage with self-identified heterosexual ACB men aged 16 years and older, and living in one of four cities (Toronto, Windsor, Ottawa and London) about their HIV vulnerabilities and resilience building for an enhanced community driven response to their heightened HIV susceptibilities. iSpeak, the forebearer of the current study, weSpeak, was implemented between 2011-13 among self-identified heterosexual ACB men living in Ontario, the province where almost two-thirds of Canada's Black population resides and with about half of all Blacks living with HIV (Husbands et al., 2017). iSpeak drew on focus group narratives to examine the emergence of HIV vulnerabilities among heterosexual ACB men, and the extent to which they acknowledge and engage their heightened HIV vulnerabilities. Results from this exploratory study warranted a more extensive

study— weSpeak, on heterosexual ACB men HIV vulnerabilities that until recently has largely been absent in both policy and scholarly literature. Given the 2016 London and Middlesex Health Unit HIV policy initiatives that largely overlooked heterosexual contact as a risk factor, we limit our analysis to the intersection of demographic, behavioural and structural factors and how they shape heterosexual ACB men uptake of HIV testing services in London.

5.3. Methods

5.3.1. Recruitment and data collection

The data for this study comes from the quantitative phase of the larger weSpeak study that was conducted between March 2018 and February 2019. The weSpeak project pragmatically employed a community-based peer recruitment strategy and a venue-based sampling technique in recruiting a wide range of respondents with each approach augmenting the shortcomings associated with the other. For the venue-based approach, respondents were recruited from spaces where Black people congregate: barbershops, churches, mosques and AIDS service organizations. The community-based approach involved recruiting participants from community events, sporting activities, University campuses and referrals by initial participants. These approaches have been recommended and proven successful in similar studies that recruited difficult-to-reach populations (Baidoobonso et al., 2013; Baidoobonso et al., 2016; Ogilvie et al., 2008). To ensure anonymity and gain participants' trust, the researchers introduced and explained the survey to participants face-to-face through one-on-one contact even though it was an online survey. Those who expressed interest self-administered the survey from the online portal. Participants who were interested but could not respond immediately were rescheduled at a later date, time and venue convenient to them.

The researcher team members first ascertained the eligibility of the respondents by checking to ensure participants meet the inclusion criteria of: being a heterosexual, ACB, male, aged 16 years and older, and living in London for at least the greater part of the year. Those who started the survey but did not qualify on any of these inclusion criteria were automatically locked out while those who qualified went on to sign a consent form. Individuals who pretested the survey completed it in 35 to 60 minutes, but most of the respondents completed it within 45 minutes. The survey collected information on six key areas including: participants' demographic characteristics, sexual behaviours, access to and use of healthcare services, HIV-testing, care and treatment, HIV knowledge and beliefs, and discriminatory experiences in the Canadian context. Overall, we contacted 200 individuals and successfully interviewed 156 respondents given a response rate of 78%. This rate is high compared to similar earlier studies in the Canadian context (Baidoo-Boonso et al., 2016). Each respondent was offered an honorarium of CDN \$20 at the end of the survey. Standard ethics guidelines of voluntary participation, consent of participation and confidentiality of responses were duly followed as approved by the University of Western Ontario Non-Medical Research Ethics Board.

5.3.2. Measures

The construction of our dependent variable 'HIV testing' was informed by two major global HIV targets—the UNAIDS 90-90-90 targets and the SDGs target 3.3. This variable was derived from a binomial response question whether respondents have ever tested for HIV coded as No=0 and Yes= 1. The focal independent variable is access to HIV healthcare. Respondents were asked if they experienced any difficulties in getting the healthcare they needed in the past twelve months. Those who responded 'No' were coded as without difficulty=0 and those who responded 'Yes' as with difficulty=1. Guided by the intersectional theoretical approach, we

controlled for several blocks of confounding variables including demographic, behavioural, and structural factors. Demographic factors included: age (0=above 50 years, 1=49-40 years, 2=39-30 years, 3=29-20 years, 4=Less than 20 years); marital status (0=Married, 1=Single, 2=In a relationship); and religion (0= Other, 1=Muslim, 2=Christian). Behavioural variables include: condom use during last sexual intercourse (0=No, Yes=1); having multiple sexual partners (0=No, Yes=1) and masculine ideals. Because masculinity is a multidimensional concept, we employed the simple additive approach to combine nine variables which were highly correlated with a Cronbach alpha of 0.82 to create a continuous variable called masculinity. A higher score on the scale means endorsing masculine ideologies. Finally, structural factors included immigration status (0=Black Canadian, 1=Immigrant); level of education (0=University education, 1=College education, and 2=High school and below); employment status (0=Unemployed, 1=Full-time employed, and 2=Part-time employed); annual income measured in thousands of Canadian dollars (0=No income, 1=Less than 20, 2=20-39, 3=40-59, 4=60 and above); having a family doctor (0=No, 1=Yes), and experiencing discrimination. Discrimination was also created using simple additive approach due to the multifaceted nature of the concept. We combined five variables which were highly correlated with a Cronbach alpha of 0.79 to create this variable (see Appendix B for discrimination and masculinity items).

5.3.3. Statistical analysis

Our analysis started with a detailed description of the sample characteristics of heterosexual ACB men in the study. To measure the impact of the independent variables on heterosexual ACB men's uptake of HIV testing services, we conducted bivariate analysis. To further understand the net contributions of behavioural, demographic and structural factors, we modeled the likelihood of heterosexual ACB men testing for HIV using the negative log-log link

function. We used the negative log-log link function because of the skewedness in the distribution of the dependent variable towards those who have tested for HIV. Using other statistical techniques would have resulted in biased estimates.

The central tenet of intersectionality in quantitative analysis is the introduction of interaction term(s) in the later stages of the model building (Rouhani, 2014) as presented in the formula below.

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4(X_1X_2) + b_5(X_1X_3) + b_6(X_1X_2X_3) + \varepsilon,$$

where Y is the outcome of interest, b_{1-6} are the coefficients of the covariates, x_{1-3} are the covariates, and ε denotes the unaccounted variables in the model (error term). b_4 , b_5 , and b_6 however, contain interaction terms. Hence, we sequentially modeled four blocks of theoretically relevant variables. In model 1, we included the main independent and behavioural variables. We introduced demographic variables in model 2 while structural factors were controlled in model 3. Finally, we introduced the interaction terms in the fourth model. Because standard regression analysis such as the negative log-log link function often assume heterogeneity of responses, we introduced a cluster variable (survey ID) in our models to account for the effect of any possible homogeneity. Findings are reported with adjusted odds ratios (ORs). An OR greater than 1 indicates that heterosexual ACB men were more likely to test for their HIV status and an OR less than 1 indicates lower odds of doing so.

5.4. Results

Table 1 shows descriptive statistics of our study sample. About two-thirds (65%) of the sample have ever been tested for HIV and more than one-third (37%) reported experiencing difficulties accessing healthcare in the last 12 months. The majority reported being single (52%),

not having more than one sexual partner (76%) and using a condom during their last sexual intercourse (75%). Moreover, more than half (58%) of the respondents had a college education or below, were Black Canadians (53%), and had a family doctor (57%). About one-third (33%) of the sample were aged between 20-29 years, unemployed (37%) and 10% did not earn regular income. We also observed that, 72% of the respondents were Christians.

Table 5. 1 Descriptive statistics of heterosexual ACB men and HIV testing

	Percent
Ever tested for HIV	
Yes	65
No	35
Access to healthcare	
Without difficulty	63
With difficulty	37
Condom use during last sex	
No	25
Yes	75
Have multiple sexual partners	
No	76
Yes	24
Marital status	
Married	31
Single	52
In a relationship	17
Religion	
Other	19
Muslim	9
Christian	72
Age	
50 and above	12
40-49	16
30-39	26
20-29	32
16-19	14
Immigration status	
Canadian	53
Immigrant	47
Level of education	
University	42
College	28
High school	30
Employment status	
Unemployed	37
Full time employed	45
Part time employed	18

Income (000)	
No Income	10
<20	35
20-39	22
40-59	21
60+	12
Have family doctor	
No	43
Yes	57

Results from unadjusted bivariate analysis are shown in Table 2. We found that level of difficulty accessing healthcare was significantly associated with testing for HIV. Specifically, those who had difficulty (OR=0.40, p<0.001) accessing healthcare were less likely to test for HIV. Moreover, behavioural, demographic and structural factors were all significantly associated with testing for HIV. For instance, respondents who used condoms during their last sexual intercourse (OR=0.75, p<0.01) were less likely to test for HIV compared with their counterparts who did not. Similarly, having multiple sexual partners was associated with higher odds of testing for HIV (OR=1.47, p<0.05). For demographic factors, being single (OR=0.23, p<0.001) and aged between 16 and 19 years (OR=0.19, p<0.001) and 20-29 years (OR=0.71, p<0.05) were less likely to test for HIV than their counterparts. Respondents who are full-time employed (OR=1.37, p<0.01) were more likely to test than their unemployed counterparts. Further, immigrants (OR=2.43, p<0.01) were more likely to test for HIV than Canadian heterosexual ACB men. Also, respondents with college education (OR=0.42, p<0.05), high school and below (OR=0.13, p<0.001) and reported ever experiencing discrimination were less likely (OR=0.36, p<0.05) to test for their HIV status.

Table 5. 2 Bivariate analysis of access to healthcare and HIV testing among heterosexual ACB men

	OR(SE)
Access to healthcare	
Without difficulty	1.000

With difficulty	0.405(0.11)***
Condom use during last sex	
No	1.000
Yes	0.752(0.26) **
Have multiple sexual partners	
No	1.000
Yes	1.470(0.52) *
Masculinity	1.594(0.19)
Marital status	
Married or ever married	1.000
Single	0.236(0.10)***
In a relationship	0.480(0.26)
Religion	
Other	1.000
Muslim	1.267(0.68)
Christian	1.427(0.48)
Age	
50 and above	1.000
40-49	2.437(1.79)
30-39	1.277(0.72)
20-29	0.711(0.36) *
16-19	0.191(0.10)**
Immigration status	
Canadian	1.000
Immigrant	2.428(0.73)**
Level of education	
University	1.000
College	0.421(0.18)*
High school and below	0.135(0.05)***
Employment status	
Unemployed	1.000
Full-time employed	1.377(0.14)**
Part-time employed	0.753(0.25)
Income (000)	
No Income	1.000
<20	3.485(1.51)**
20-39	1.686(0.71) **
40-59	2.087(0.92)*
60+	5.380(3.59)*
Have family doctor	
No	1.000
Yes	1.115(0.31)
Experience discrimination	1.265(0.20)

*P<0.05, **P<0.01, ***P<0.001

Results from the adjusted multivariate analysis are presented in Table 3. We observed that experiencing difficulty in accessing healthcare was associated with about 44% and 35% lower odds of testing for HIV after accounting for behavioural and demographic variables in models 1 and 2 respectively. We further observed that having trouble accessing healthcare was significantly

associated with 19% and only 5% lower odds of testing for HIV after accounting for the effect of structural factors and the interaction terms in models 3 and 4 respectively. Even though the interaction between immigration status and difficulty accessing health services was not significant, that of access difficulty and employment was statistically significant. Other variables that were significantly associated with higher odds of testing included being an immigrant (OR=4.84, $p<0.05$), full-time employment (OR=1.4, $p<0.05$) and earning less than CDN \$20 thousand a year. Also, those who were younger than 30 years, used a condom during their last intercourse, and experienced discrimination were all less likely to have tested for HIV.

Table 5. 3 Multivariate analysis of access to healthcare and HIV testing among heterosexual ACB men

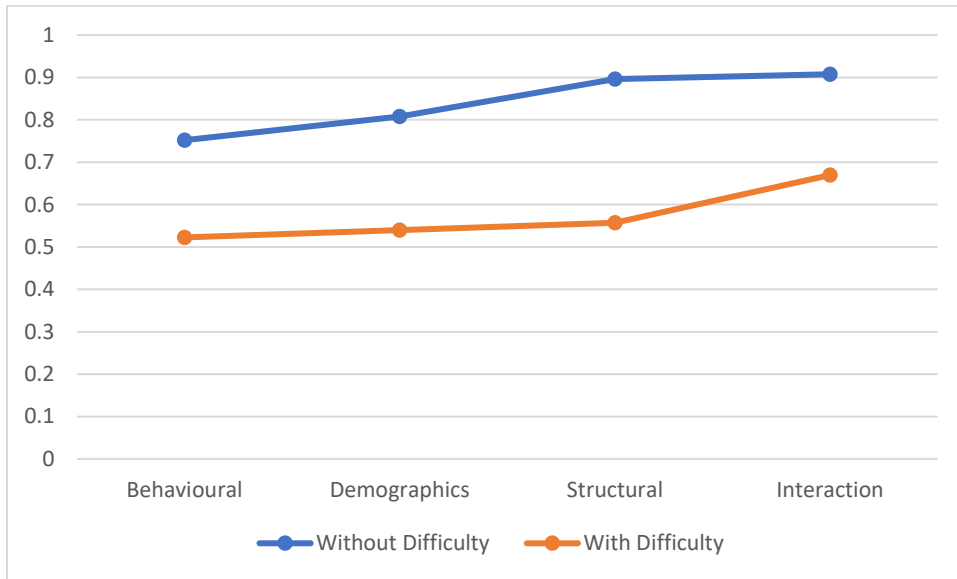
	Model 1	Model 2	Model 3	Model 4
Access to healthcare				
Without difficulty	1.000	1.000	1.000	1.000
With difficulty	0.439(0.13)**	0.346(0.13)**	0.188(0.10)**	0.050(0.04)***
Use condom during last sex				
No	1.000	1.000	1.000	1.000
Yes	0.589(0.24)	0.492(0.24)	0.397(0.21)	0.225(0.14)*
Have multiple sexual partners				
No	1.000	1.000	1.000	1.000
Yes	1.031(0.40)	1.223(0.57)	1.627(0.87)	1.516(0.90)
Masculinity	1.510(0.19)	1.588(0.28) **	2.490(0.62)***	2.507(0.74)**
Marital status				
Married		1.000	1.000	1.000
Single		0.479(0.25)	0.674(0.37)	0.467(0.27)
In a relationship		1.114(0.77)	1.732(1.16)	1.008(0.77)
Religion				
Other		1.000	1.000	1.000
Muslim		0.738(0.49)	1.895(1.82)	1.631(1.84)
Christian		0.817(0.35)	0.499(0.27)	0.642(0.38)
Age				
50 and above		1.000	1.000	1.000
40-49		1.456(1.12)	1.099(0.71)	1.452(0.98)
30-39		0.852(0.54)	0.354(0.26)	0.483(0.41)
20-29		0.476(0.31)	0.136(0.09)**	0.165(0.13)*
15-19		0.103(0.07)**	0.038(0.04)**	0.074(0.08)*
Immigration status				

Canadian			1.000	1.000
Immigrant			3.054(1.75)**	4.846(2.94)*
Level of education				
University			1.000	1.000
College			0.599(0.37)	0.736(0.47)
High			0.256(0.16)*	0.303(0.20)
Employment status				
Unemployed			1.000	1.000
Full-time employed			1.199(0.15)*	1.40(0.04)***
Part-time employed			1.021(0.55)	0.342(0.29)
Income (000)				
No income			1.000	1.000
<20			3.848(2.08)*	3.181(2.73)*
20-39			1.860(1.22)	1.879(1.25)
40-59			0.982(0.79)	0.768(0.68)
60 and above			3.103(3.18)	3.766(5.38)
Have family doctor				
No			1.000	1.000
Yes			1.339(0.58)	1.709(0.84)
Discrimination			0.825(0.22)*	0.611(0.31)*
Without difficulty # Black Canadian				1.000
With difficulty # Immigrant				0.321(0.39)
With difficulty # Unemployed				1.000
With difficulty # Full-time employed				3.759(2.53)**
With difficulty # Part-time employed				2.289(2.28)*
N	156.000	156.000	156.000	156.000
ll	-87.251	-66.916	-45.810	-42.388
AIC	184.503	159.833	139.620	138.777
BIC	199.655	199.229	212.350	220.599

*P<0.05, **P<0.01, ***P<0.001

Figure 1 further highlights the nuances that are often overlooked by other conventional studies on ACB men uptake of HIV services. We observed a consistent increasing probability of testing for HIV for both those with and without difficulty accessing health services after controlling for demographic and behavioural factors. It is important to note that even though the probability of testing increased for both groups after controlling for structural factors, the marginal increase was higher for those without difficulty. Interestingly, however, this relationship switched after introducing the interaction terms. Thus, we observed that the probability of testing further

increased for both groups but was now relatively higher for those with difficulty accessing healthcare than those without difficulty as shown in figure 5.1.



5. 1 The interactive effect of behavioural, demographic and structural factors on HIV testing

5.5. Discussion and conclusions

This study examined access to healthcare and HIV testing among heterosexual ACB men in London, Ontario through an intersectional theoretical lens. Our findings demonstrate the complex interplay of behavioural, demographic and structural factors in the uptake of HIV testing services among heterosexual ACB men in London. Further analysis revealed that even though accounting for the effect of behavioural, demographic and structural factors has potential for increasing the uptake of HIV testing services, the effect is not randomly distributed across the general population. Rather, the marginal impact of structural factors in particular tends to relatively favour those already without difficulty accessing health services. The interactive effect of our analysis, however, demonstrates that the relative disadvantaged position of those with difficulty

accessing health services could be mediated by employment and immigration related challenges. Therefore, it is important to note that heterosexual ACBs heightened HIV vulnerabilities and the low uptake of HIV health services is more nuanced than it appears. As suggested by earlier scholarship, heterosexual Black men are a heterogeneous group (Derose et al., 2007; Husbands et al., 2017) and thus, are differently exposed at the intersection of behavioural, demographic and structural factors. Consequently, fixation on discourses that situate ACB men's general HIV vulnerabilities with single policy targets such as focusing only on changing their sexual behaviours will remain ineffective unless tackled from an intersectional perspective. Thus, given the overarching influence of structural factors on access to healthcare, HIV vulnerabilities and the uptake of HIV health services by heterosexual ACB men may be less informed by only behavioural factors, but rather, by an interaction between an unequal burden of existing structural forces and behavioural characteristics. This suggests that the Canadian healthcare system which is grounded on the principle of need and benefits from health services, rather than socio-economic and demographic factors determining access to healthcare, may not have bridged the gap in the uptake of health services.

Our findings support conclusions from earlier studies where Africans in the UK and Black Americans in the USA encounter similar structural challenges in accessing HIV related health services (Burns et al., 2007; Flowers et al., 2006; Levy et al., 2014). In Canada, a growing body of literature demonstrates increasing structural difficulties in accessing health services among minority populations (Donnelly, 2006; Thomson, Chaze, George, & Guruge, 2015; Wu, Penning, & Schimmele, 2005) despite its well-intended healthcare policy of inclusive accessibility. Indeed, behavioural factors bear some responsibility for heterosexual ACB men's lower rates of testing for HIV but these (negative) behaviours are not unique to only Black men despite their profound

history of marginalization in the North American context including Canada. There may be other explanations about why it is predominant among Black population given some of these behaviours could be mediated by historical and unfavourable structural factors. In this analysis, even though there was no initial statistically significant difference between those that are unemployed and part-time employees, the effect of the interaction terms suggests otherwise. Thus, even though other barriers may limit heterosexual ACB men's utilization of HIV health services, employment opportunities, for instance, could serve as an exit route for some of those facing challenges accessing health services. This may emphasize how employment as a social determinant of health influences health and health seeking behaviours among heterosexual ACB men. The full benefits of the existing Canadian health insurance in particular is tied to private and employer-based arrangements as the provincial health plans do not cover extended health benefits (Asanin & Wilson, 2008). Yet, in Canada, Blacks experience higher rate of unemployment and are more likely to work in the informal job sector and precarious conditions where health insurance is often not provided (Lochhead, 2003).

Further, self-identified heterosexual Black Canadians were less likely to test for HIV than their Non-Canadian counterparts. A possible explanation could be the mandatory health screening during the immigration process where prospective immigrants are tested for a number of STIs including HIV (Jonah et al., 2017). It is also probable that selected ACB immigrants to Canada, mostly from originating countries in the Africa and Caribbean where there is high prevalence of HIV are conscious of their health (Luginaah et al., 2005), have previously tested for their HIV status before migrating to Canada. Further contextualizing this finding within the healthy immigrant effect, the selection of people with higher educational achievement to Canada may make immigrants more assertive of their own health including testing for HIV. Also, unequal

power dynamics and resource distribution within ACB communities in the Canadian context may limit heterosexual Black Canadians' access to HIV health services. Empirical evidence shows that Black Canadians earn lower incomes on average than the general population and also have the lowest relative earnings of any racialized group (Rodney & Copeland, 2009; Swidinsky & Swidinsky, 2002). Scholars have therefore stated that Black Canadians are more vulnerable, likely to suffer health complications and less likely to seek health screening compared with the general Canadian population (Rodney & Copeland, 2009).

The significance of discrimination on the non-uptake of HIV testing is consistent with earlier studies (Lavis, 2002; Levy et al., 2014; Logie et al., 2016; Van Houtven et al., 2005). According to Rodney and Copeland (2009), social-exclusion and discrimination further complicate structural inequalities in accessing social and economic resources and more so, health services. Inadequate access to education, employment opportunities, housing and political power can lead to risky behaviours that are associated with negative health outcomes including development of chronic diseases and poor uptake of health screening services such as HIV testing (Hayward & Colman, 2003). Moreover, fear of being denied employment opportunities, housing, and concerns about social relationships after being diagnosed HIV seropositive may also serve as a systemic barrier for the low uptake of HIV testing (Bolsiewicz et al., 2015; Logie et al., 2016). In fact, other studies have shown that fear of being socially excluded through discrimination after testing HIV-positive remains one of the main disincentives for not being tested and continuously engaging in risky behaviours among both HIV negative and positive individuals (Chesney & Smith, 1999; Doherty et al., 2006; Magee et al., 2006).

Even though the youth generally have been identified as particularly vulnerable to HIV infection in Canada, we observe ACB youth to be less likely to test for HIV. This finding may not

be surprising as factors such as self-stigma– internalization of stigma experiences which tend to diminish self-esteem and self-efficacy, anxiety and fear of living with the virus have been advanced as reasons for young Black men not wanting to test for HIV (Gardezi et al., 2008; Scott et al., 2014). Self-stigma and fear of living with the virus however, are products of the social environment within which young heterosexual ACB men live, and these fears may be a direct translation of their everyday experiences. It is therefore argued that, young ACB men’s decisions not to know their HIV serostatus could be a coping mechanism for their everyday experiences.

Notwithstanding the implications of these findings for health policy, the study is not without limitations. For instance, as with several other HIV related studies especially in London, it was constrained by small sample size. Interaction between access to healthcare and other variables including masculinity and number of sexual partners were not significant (results not shown) possibly due to limited sample size. We also could not control for health insurance due to data limitations. The study used convenient sampling technique which could compromise heterogeneity of the sample. However, we introduced a cluster variable to augment any potential homogeneity of the sample. Lastly, sexual related discussions and issues of HIV have remained sensitive topics among ACB communities which may have led to possible underreporting. Based on these limitations, future studies can examine type of health insurance and the uptake of HIV services among ACB populations using nationally representative datasets.

Despite these limitations, our study results are critical for policy consideration. It is one of the few studies that have examined the uptake of HIV services among heterosexual ACB men from an intersectional lens. Even though Canada has made a remarkable progress in controlling the HIV virus in recent years, more needs to be done particularly for ACB communities. Policies on access to HIV health services among ACB populations need to take into consideration the nuances that

exist among this population. For Canada to achieve target 3.3 of the SDGs and the UNAIDS 90-90-90 targets, it is crucial to scale-up access to HIV testing services among vulnerable groups. Anti-racism policies are also required to minimise the discriminatory treatments Black men suffer in the labour market, educational and health sectors. Heterosexual ACB men may have good reasons to be cautious of their HIV status and who gets access to their health information given pervasive and racist tropes about defective Black bodies (Charles & Blackpoint, 2012; Husbands et al., 2017). Therefore, it is increasingly important to have culturally inclusive and safe spaces where heterosexual ACB men feel a sense of belonging, connection and trust when testing for HIV and using other health screening services. Finally, this study reveals that research on ACB men's health needs to apply an intersectional theoretical lens to gain a comprehensive understanding of ACB men's experiences and health needs, and to reduce the social disparities that compromise their health.

5.6. References

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Chapter 6: Summary, Discussion and Conclusions

6. Introduction

Relative to other racial groups, heterosexual ACB men have been overburdened with HIV in the Canadian context. Although heterosexual contact is the primary route of HIV transmission among heterosexual ACB men in Canada, there has been limited research and policy programmes targeted at their sexual health particularly their uptake of HIV testing and relevant knowledge about their sexual partner's HIV status. The overarching objective of this dissertation therefore was to examine the factors that influence the uptake of HIV testing services among heterosexual ACB men and how knowledge of their sexual partner's HIV status informed their condom use behaviours, using an intersectional theoretical lens. This stems from the understanding that addressing a complex health problem like HIV is as much about how we understand attitudes and behaviours as it is about understanding the systemic structures within which people negotiate their sexual relationships and health. The findings of this study are intended for informing policy and programmes on HIV towards building resilience and reducing HIV vulnerabilities among self-identified heterosexual ACB men. The findings could also be useful in informing health policy in similar contexts towards addressing the health needs of other marginalized populations. This chapter presents key findings from the study and discusses the factors that are associated with heterosexual ACB men's uptake of HIV testing services and resilience building with a focus on knowledge of partner's HIV status and condom use. The chapter further demonstrates how the two research objectives/hypotheses integrate, the contributions of the study, the implications for policy, limitations of the study and concludes by highlighting some directions for future research.

6.1. Summary and discussion of key findings

The research objectives were operationalized based on the following research hypotheses: 1) Heterosexual ACB men at risk of contracting HIV will adopt preventive measures including condom use. 2) The interactive effect of demographic, behavioural and structural factors can better explain heterosexual ACB men's access to HIV services rather than the disaggregated components. Each of these hypotheses constitute a manuscript (see chapters 4 and 5). In this section, a summary of the findings and discussion of each hypothesis is presented.

6.1.1. Hypothesis 1: Heterosexual ACB men at risk of contracting HIV will adopt preventive measures including condom use

This hypothesis, which seeks to address the first research objective, was supported by the study findings. Participants who knew the HIV status of their regular sexual partner were less likely to use condoms compared to those who had no knowledge of their regular sexual partner's HIV status. This finding, is inconsistent with earlier studies including Bachanas et al. (2013) who reported consistent condom use among study participants who knew their sexual partner's HIV status in Tanzania, Kenya and Namibia. The work of Conserve et al. (2012) in Tanzania also found consistent condom use among participants who knew their sexual partner's HIV status compared to their counterparts who did not. This observation can be explained by the fact that Conserve et al's study sample, unlike this study, focused principally on HIV-positive patients accessing HIV clinical services. In a similar study in the United States, consistent condoms use among casual and new heterosexual partners tend to diminish as sexual partners begin to develop trust in each other (Frye et al., 2013). Also, the urgency to use condoms may diminish due to the ability of the ART to suppress the viral load to undetectable and untransmittable levels even among serodiscordant sexually active partners. Other available preventive measures including PrEP and PEP could also

diminish condom use urgency. These potential behavioural expositions tend to give credence to the theoretical concepts of attitude and perceived subjective norms as explained in the theory of reasoned action.

Despite popular narratives about the recklessness of ACB men, the fact that those who did not know the HIV status of their regular sexual partners tend to use condoms demonstrates a resilience building strategy to an increasing awareness of their HIV vulnerabilities. Invariably, this finding runs contrary to the popular narrative that suggests ACB men to be risk averse when it comes to their sexualities. ACB men are mostly reputed to be generally reckless with their sexual behaviours and disinterested in their own sexual health. The consciousness to adopt preventive measures under such circumstances supports theoretical arguments that anticipations of positive outcomes from a given behaviour will encourage positive practices (Fishbein & Ajzen 1975). For instance, ACB men's positive attitude towards condom use when they did not know their sexual partner's HIV status may be driven not only by informed risk of contracting HIV and the motivation to reduce the risk of infecting their sexual partners, but also as a way of preventing unwanted pregnancies. In the context of ACB HIV vulnerabilities, this emerging resilience can be understood as a coping mechanism in response to their disadvantaged disposition within the Canadian HIV/AIDS programming context (Kurtz et al., 2012; Rabkin et al., 1993).

Heterosexual ACB men who likely knew their sexual partner's HIV status to be negative and were less likely to use condoms may be operating within a notion of perceived lower risk of contracting HIV. Yet, in the context of low uptake of HIV testing services, this perception needs to be discouraged because of the long latency and asymptomatic nature of the virus within the early period of infection (Hernandez-Vargas & Middleton, 2013). Hence, educating the ACB population about the relevance of preventive measures including regular condom use irrespective

of sexual partner's HIV status should remain a priority in HIV prevention. This could be achieved by targeting prevailing narratives in ACB communities that frame condom use as unpleasurable (Crosby et al., 2016; Crosby & Mena, 2017; MacPhail & Campbell, 2001). It is also necessary to demystify longstanding narratives that equate asking for the use of condoms during sex to be a sign of promiscuity or lack of trust for one's sexual partner (Konkle-Parker et al., 2018). Furthermore, there is the need to foster an understanding in ACB communities that a sexual partner suggesting the use of condoms is a call for precaution and has nothing to do with infidelity in the relationship. Since significant referents including wives/husbands have expectations in relationships as posited in the theory of planned behaviour, the ability to inculcate precaution against sexually transmitted infections as one of those expectations could be fundamental to controlling the spread of HIV.

As already indicated in chapter four, the theory of planned behaviour postulates that intentions about a particular healthy behaviour are not always volitional. Heterosexual ACB men's knowledge of their sexual partner's HIV status and condom use behaviours could therefore be influenced by structural factors including education, unemployment and income. Heterosexual ACB men who are employed, earn a high annual income and have attained higher education were more likely to use a condom in their most recent intercourse. This finding demonstrates the uneven effect of structural factors on the distribution of HIV vulnerabilities among marginalized populations. For instance, the psychological impact of being poor and the inability to access preventive materials could undermine effective use of condoms among the poor and unemployed heterosexual ACB men. This also supports the theoretical conceptualization that perceived behavioural control can influence condom use among heterosexual ACB men. That notwithstanding, some of these behaviours are not always volitional.

6.1.2. Hypothesis 2: The interactive effect of demographic, behavioural and structural factors can better explain heterosexual ACB men's access to HIV services rather than the disaggregated components

The hypothesis above has three components including behavioural, structural and demographic factors and in the next three sections, I will discuss each in detail. The study findings largely support this hypothesis. For instance, having trouble accessing healthcare is associated with lower odds of testing for HIV after accounting for behavioural and demographic factors. It is further observed that structural factors influenced ACB men's ability to access healthcare and therefore their ability to go for HIV testing. This finding reinforces the notion that Blacks encounter structural challenges accessing HIV related healthcare despite the free healthcare policy in Canada.

6.1.2.1. Behavioural determinants of HIV vulnerabilities

Behavioural factors obviously bear some responsibility for heterosexual ACB men's lower rates of testing for HIV. For instance, this study reveals that participants who used a condom during their most recent intercourse were less likely to test for their HIV status. This became significant only after introducing the interaction terms between difficulty accessing health services and immigration status and difficulty accessing health services and employment status. The impact of the interaction terms on this relationship tends to demonstrate the importance of intersectionality in complex health issues such as HIV among minority populations. The lower likelihood of those who used a condom in their most recent intercourse to get tested for HIV could possibly be due to perceived lower risk of getting infected especially if a condom is used properly and consistently.

In fact, those who displayed masculine tendencies were more likely to get tested for HIV in this study. This finding is in contrast to most studies on masculinity and the uptake of HIV services (Chirawu et al., 2010; Skovdal et al., 2011). In the study context however, this is not surprising given the number of research programmes (BLACCH, ACCHO, MaBwana, iSpeak) that have been targeted at Black populations in recent times. In fact, this finding supports results from the iSpeak study and qualitative phase of the weSpeak project which demonstrate that Black men's construction of masculinity is different from what is in popular media and public narratives. In the qualitative phase of the weSpeak study, heterosexual ACB men conceptualized masculinity to mean taking care of one's self first, including the uptake of health screening services, and then you can take care of your family and everyone else. This finding is also consistent with results from similar study in South America where participants' reported masculine ideals were different from society's popular perceived aggressive masculine norms (Fleming, Andes, & DiClemente, 2013). Contrary to the popular narrative that Black men are secretive about their health, Husbands et al., (2017) found that some heterosexual ACB men feel very comfortable and are open to discussing HIV and their health with people they find social connectedness with.

6.1.2.2. Structural determinants of HIV vulnerabilities

Even though behavioural factors cannot be absolved from heterosexual ACB men's HIV vulnerabilities, these negative behaviours are not unique to only Black men in the North American context (Husbands et al., 2017; G. A. Millett et al., 2006). There are many other explanations why Black men are overburdened with HIV in the North American context. The findings from this study show that heterosexual ACB men's behaviours could be mediated by unfavourable structural forces. For instance, even though several factors may have limited heterosexual ACB men's utilization of HIV health services, those employed were particularly more likely to get tested for

their HIV status compared to the unemployed and this relationship even became stronger after introducing the interaction between immigration status and access to healthcare and employment status and access to healthcare. This reemphasizes the important role of employment as a social determinant of health and its influence on the health seeking behaviours of heterosexual ACB men. Extended benefits of the Canadian health insurance are covered by private and employer-based arrangements. In Canada, however, Blacks experience a higher rate of unemployment and are more likely to work in sectors that do not provide health insurance (Lochhead, 2003). ACB men who do not have health insurance may have a reason not to get tested because health insurance is a requirement for enrolment in the ART programme in Ontario. This may partly explain why those who do not earn an income are disadvantaged when it comes to utilizing HIV testing services.

Overall, self-identified heterosexual Black Canadians were less likely to get tested for HIV than their Non-Canadian/immigrant counterparts. This observation can be explained in at least three ways. Consistent with earlier finding by Jonah et al. (2017), one possible explanation could be the mandatory health screening during the immigration process as prospective immigrants are screened for various health conditions including HIV. Immigrants from Africa and the Caribbean regions, where HIV is prevalent, may also be conscious of their health and at risk of contracting the virus, may have been previously tested (Luginaah et al., 2005). In addition, unequal power dynamics and resource distribution that border on access to important services in the Canadian context may have limited heterosexual Black Canadians' access to HIV health services.

The finding that discrimination is associated with lower likelihood of testing for HIV supports earlier studies (Lavis, 2002; Levy et al., 2014; Logie et al., 2016; Van Houtven et al., 2005). Social-exclusion and discrimination reinforce structural inequalities in accessing social and economic resources and more importantly health services (Rodney and Copeland, 2009).

Meanwhile, poor access to essential resources such as education, employment opportunities, housing and political power can lead to risky behaviours including high risk survival sex and low uptake of health screening services (Hayward & Colman, 2003). There is evidence that people are discriminated against in areas such as employment, housing and social relations because of their HIV positive status (Bolsekicz et al., 2015; Logie et al., 2016). These experiences serve as systemic barriers and disincentives to the uptake of HIV testing services in the Canadian context.

6.1.2.3. *Demographic determinants of HIV vulnerabilities*

The findings also show that young heterosexual ACB men are less likely to test for their HIV status despite being one of the most vulnerable groups to HIV infections in the Canadian context. This finding is consistent with those by Bagchi et al. (2018) who conclude that self-blame due to stigma from society tends to diminish self-esteem, self-efficacy, increase anxiety and fear of living with HIV (see also France et al., 2019). This finding further supports results from earlier studies in the United States that suggest that youth are not only less likely to test for their HIV status but are also by far, less likely to link, remain in care and adhere to treatment compared with older adults (Rotheram-Borus, Davis, & Rezai, 2018). Several factors including limited access to material resources could explain young men lower likelihood of testing for their HIV status and remaining in care after being diagnosed with HIV. In fact, it is important to note that most of these young men are dependents and mostly do not have full decision making over their health. Apart from attributing this behaviour to masculine tendencies, young heterosexual ACB men's decision not to test for their HIV serostatus could be a coping mechanism shaped by their lived experiences.

6.2. The constitutive effect of behavioural, structural and demographic determinants of HIV vulnerabilities

This dissertation highlights the nuances that are often overlooked by other conventional studies on ACB men uptake of HIV services. The study reveals a consistent increasing probability of testing for HIV for both those with and without difficulty accessing health services after controlling for demographic and behavioural factors. Even though the probability of testing further increased for both groups after controlling for structural factors, the increase is higher for those without difficulty. This relationship however, reversed after introducing the interaction terms to examine heterosexual ACB men's intersectional social positions. Thus, the probability of testing further increased for both groups but remained relatively high for those with difficulty accessing healthcare than those without difficulty.

These findings demonstrate that heterosexual ACB men's HIV vulnerability in London is complexly nested within behavioural, demographic and structural factors. The effect of accounting for behavioural, demographic and structural factors on the uptake of HIV testing services was not randomly distributed across the general population. The marginal impact of structural factors, for instance, tends to favour those already without difficulty accessing health services. The interaction effect between employment and access challenges, and immigration and access challenges demonstrate that those experiencing difficulties accessing health services could be disadvantaged by the mediation effect of immigration and employment status. It is therefore important to note that heterosexual ACB men's heightened HIV vulnerabilities and the low uptake of HIV health services is more complex than it appears. Heterosexual Black men experience differential impacts at the intersection of behavioural, demographic and structural challenges in the uptake of HIV health services yet, are often misconstrued as being a homogeneous group in need of one-size-fits-

all solution. The interactive effect shows that even among marginalized populations, some are more vulnerable than others. Hence, HIV policy frameworks need to shift from conventional disaggregated approaches towards a more constitutive and integrated approach that recognizes varying vulnerabilities even within groups.

6.3. How the hypotheses integrate

The two hypotheses presented in this dissertation investigate HIV vulnerabilities and resilience building strategies among heterosexual ACB men in London, Ontario. In the first manuscript (chapter 4), I examined knowledge of heterosexual ACB men's regular sexual partner's HIV status and their resilience building strategies with emphasis on condom use behaviours. Findings show that about half of heterosexual ACB men did not know the HIV status of their regular sexual partners. Importantly, however, not knowing their regular sexual partner's HIV status was associated with higher precautionary measures including condom use.

Recognizing that condom use alone is not enough to prevent transmission or contraction of HIV, I further examined how the intersection of demographic, behavioural and structural factors influence the uptake of HIV testing services in the second manuscript (chapter 5). The results of this manuscript point to HIV vulnerability as a complex health issue that requires not only behavioural answers but also that these should be considered in combination with structural solutions. The theoretical approach of the second manuscript (intersectionality theory) recognizes the importance of human behaviour on health by making behaviour one of the focused themes in the conceptualization of the second manuscript. The theme of behaviour in intersectionality theory also connects the two manuscripts theoretically.

6.4. Contributions of this dissertation

Taken together, there is extensive literature on Black men's HIV vulnerabilities in the North American context. That notwithstanding, most of these studies have focused on MSM (Brennan et al., 2015; George et al., 2012; Morgan et al., 2018; Venable et al., 2000). This dissertation contributes to the literature on heterosexual ACB men's health by broadening the scope of analysis to understand the constitutive nature of their HIV vulnerabilities and how knowledge of their sexual partner's HIV status, or lack thereof, influences their condom use behaviours. Findings show that participants who did not know the HIV status of their regular female sexual partners were more likely to use condoms during their most recent intercourse. This finding counteracts frequent narratives in the literature that mostly suggest ACB men to be risk averse when it comes to their sexualities. These findings further reveal that accounting for the interactive effect of heterosexual ACB men's social status can better explain their access to and utilization of HIV-related health services rather than attempting to explain ACB men's vulnerabilities from a disaggregated perspective such as the focus on only behavioural factors.

6.4.1. Contributions to theory and methods

The intersectional theoretical framework pioneered by Crenshaw (1989) has been widely used in studying marginalized populations in North America. Until recently, however, its applicability has been limited to qualitative research and other fields of study i.e. feminist and women's studies. The choice of intersectional theoretical approach in this dissertation is appropriate and timely due to the increasing advocacy for its applicability in contemporary quantitative health research (Schein & Bauer, 2019). Intersectionality offers quantitative researchers a unique theoretical opportunity for understanding the health and social inequities

embedded in social structures and the lived experiences of individuals (Hankivsky, 2012). Unlike other quantitative theoretical approaches, intersectionality enables researchers to measure the experiences of people at the intersection of multiple marginalized social identities/positions using both additive and interactive approaches (Dubrow, 2008; McCall, 2008; Scheim & Bauer, 2019). Conventional quantitative techniques often employ only the additive approach in examining the individual effects of predictor variables. This approach assumes people's experiences are independent, separate and at best, a summation of those experiences (Cuadraz & Uttal, 1999; Weber & Parra-Medina, 2003). This dissertation recognized the constitutive nature of heterosexual ACB men's social positions. This conceptualization facilitated the observation of nuances that are often overlooked using conventional theoretical approaches.

In contrast to other studies, this dissertation (see chapter 4) informs us that heterosexual ACB men are interested in their own health and adopting precautionary measures to reduce their risk of contracting STIs including HIV. It is however important to note that the everyday life of Black men in the North American context is dictated by multiple marginalized positions, some of which may suppress their ability to take precautionary measures. Hence, research on the health of marginalized populations needs to move towards the use of intersectionality to gain a comprehensive understanding of their experiences and health needs, and to reduce the social disparities that compromise health. Lastly, the community- and venue-based sampling techniques adopted in recruiting the study participants are unique and innovative approaches in recruiting hard-to-reach populations on a sensitive topic like HIV. Future studies on similar populations can employ such methodological approaches for an improved response rate.

6.4.2. Policy implications of the study findings

This dissertation offers some policy pointers for HIV prevention that policymakers in Canada and similar contexts can draw upon. Perhaps, the most important finding that deserves urgent policy attention is heterosexual ACB men's poor knowledge of their regular sexual partners' HIV status. Strategies targeted at alleviating ACB men's heightened HIV vulnerabilities need to encourage open sexual discussions within intimate relationships. According to Vu et al. (2012), a critical approach in the prevention of HIV among endemic populations is knowledge and disclosure of HIV-serostatus to sexual partners through open discussions. For instance, empirical research shows that disclosure of HIV-positive status is associated with healthy psychological wellbeing, improved adherence to antiretroviral therapy and condom use behaviours (Eisele et al., 2008; Kalichman & Nachimson, 1999; Stirratt et al., 2006; Vu et al., 2012). Heterosexual ACB men maybe increasingly taking steps to build resilience against contracting HIV especially when dealing with the unknown. Although taking precautionary measures is recommended and highly beneficial, the higher rate of non-awareness of their regular sexual partner's HIV status is worrisome and points to the need for more work targeted at encouraging regular testing and disclosure of HIV status.

In fact, even though Canada has made remarkable progress towards controlling the HIV virus in recent years, the disproportionate rate of HIV among ACB means that more needs to be done, particularly for the ACB population. Policies on access to HIV health services among ACB populations need to take into consideration the nuances uncovered in this study. Heterosexual ACB men may have good reason to be cautious of ascertaining their HIV status and who gets access to their health information given pervasive and racist tropes about defective Black bodies (Charles & Blackpoint, 2012; Husbands et al., 2017). It is therefore increasingly important to have culturally

inclusive and safe spaces where heterosexual ACB men feel a sense of belonging, connection and trust when being tested for HIV and using other health screening services. Anti-racism policies are also required to minimize the discriminatory treatments Black men suffer in the labour market, educational sector and health institutions.

6.5. Limitations of the study

This study has some limitations worth highlighting. A large sample size for quantitative analysis often results in statistical power due to the ability to detect subtle effects between groups (Sullivan & Feinn, 2012). As with several other HIV-related research studies, especially in London Ontario, this study was constrained by a relatively small sample size, which could have made it difficult to detect trivial but important variations. The interactions between access to healthcare and other variables including masculinity and number of sexual partners were not statistically significant (results not shown) possibly due to limited sample size. However, given the sensitive nature of HIV and the concomitant difficulty in recruiting participants for such surveys, earlier studies have used similar sample sizes in the Canadian context that resulted in robust test (Baidoobonso et al., 2016). I could not also control for health insurance due to data limitations. Moreover, the study used convenient sampling technique which could compromise heterogeneity of the sample. To control for this potential limitation, I introduced a cluster variable called survey ID to augment any possible homogenous responses. As well, the survey was conducted in English and French, despite the different language backgrounds of ACB populations. Hence, heterosexual ACB men who cannot read or comprehend any of these languages may have been excluded from the survey. Lastly, sexual related discussions and issues of HIV have remained sensitive topics among ACB communities which could lead to possible underreporting.

6.6. Directions for future research

The findings and limitations of this dissertation present directions for future research. Firstly, there is the need for future studies on minority health to adopt intersectionality framework to comprehensively account for the multifaceted dimensions of their vulnerabilities. Using intersectionality offers a unique opportunity for understanding not only minorities' experiences but also the complex nature of their health. Because of the cross-sectional nature of the dataset, it will be difficult to conclude that access challenges are solely responsible for the low uptake of HIV testing services among heterosexual ACB men. A longitudinal study will be able to establish any causal relationship between access and utilization of HIV services over time. Moreover, since there is no previous research to compare heterosexual ACB men's likelihood of initiating precautionary measures when they do not know their sexual partner's HIV status across Canada, it will be important for future research to further test this relationship using a nationally representative dataset. Lastly, future studies can extend the literature on access to HIV services by examining health insurance status and the uptake of HIV services among ACB populations using nationally representative data.

7. References

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Appendices

Appendix A: Research Ethics Approval



Research Ethics

Western University Health Science Research Ethics Board
NMREB Full Board Initial Approval Notice

Principal Investigator: Dr. Isaac Luginaah
Department & Institution: Social Science Geography, Western University

NMREB File Number: 100833
Study Title: weSpeak: Straight Black Men Building Resilience to HIV in Ontario
Sponsor: Canadian Institutes of Health Research

NMREB Initial Approval Date: August 27, 2015
NMREB Expiry Date: August 27, 2016

Documents Approved and/or Received for Information

Document Name	Comments	Version Date
Recruitment Items	Appendix 22 London_Recruitment Flyer Phase 2 (ACB men) Jun 2 2015	2015/06/02
Instruments	Appendix 21 London_weSpeak (Main) Survey Phase 2 (ACB men) Jun 1 2015	2015/06/02
Other	Appendix 20 London_weSpeak participant contact form (All participants) Jun 1 2015	2015/06/02
Other	Appendix 18 London_Focus Group Interview Guide Phase 1 (Community Stakeholders) Jun 2 2015	2015/06/02
Instruments	Appendix 17 London_Demographic and Health Practices Survey Phase 1 (ACB Men) Jun 2 2015	2015/06/02
Other	Appendix 16B London_Individual Interview Guide Phase 1 (ACB men_attended focus groups) Jun 1 2015	2015/06/02
Other	Appendix 16A London_Individual Interview Guide (ACB men_no focus groups) Jun 2 2015	2015/06/02
Letter of Information & Consent	Appendix 14 London_Individual Interview Consent Form Phase 1 (ACB men) Jun 2 2015.docx	2015/06/02
Other	Appendix 6_London weSpeak project summary Jun 1 2015	2015/06/01
Other	Appendix 5_London weSpeak Website Template (new) Jun 1 2015	2015/06/01
Recruitment Items	Appendix 3_London Recruitment Flyer Phase 1 (ACB men non-HIV specific) Jun 1	2015/06/01
Recruitment Items	Appendix 4_London Recruitment Flyer Phase 1 (community stakeholders) Jun 1 2015	2015/05/31
Recruitment Items	Appendix 9_London Scripts for recruiting ACB men_all phases Jun 1 2015	2015/06/01
Instruments	Appendix 8_London Focus Group Ground Rules Jun 1 2015	2015/06/01
Other	Appendix 28 London_Description of Concept Mapping Overall Guide Phase 3 (All participants) June 2.docx	2015/06/02
Other	Appendix 29 London_Online Concept Mapping Survey Phase 3 (Community Stakeholder) Jun 2 2015.docx	2015/06/02
Recruitment Items	Appendix 30 London_weSpeak Recruitment Flyer Phase 3 Concept Mapping (ACB men) Jun 2 2015.docx	2015/06/02
Recruitment Items	Appendix 31 London_weSpeak Recruitment Flyer Phase 3 Concept Mapping (Community Stakeholders) Jun 2 2015.docx	2015/06/02
Other	Appendix 32 London_Community Resources all Phases (All participants) Jun 2 2015.docx	2015/06/02
Recruitment Items	Appendix 2 London Recruitment Flyer Phase 1 (HIV+ ACB men) Jun 2 2015	2015/06/02
Other	Appendix 7 London_List of community agencies for outreach Jun 2 2015.docx	2015/06/01
Recruitment Items	Appendix 10 London a.b.c_Participation Screening Tool (ACB men) Jun 2 2015	2015/06/02
Recruitment Items	Appendix 11 London a.b.Participant Screening Tool (community stakeholders) Jun 2 2015	2015/06/02
Instruments	Appendix 19 London Demographic Survey Phase 1 (Community Stakeholders) Jun 2 2015	2015/06/01
Revised Western University Protocol		2015/07/30
Revised Letter of Information & Consent	Appendix 24 London_weSpeak_E-Survey Consent Form Phase 2 (ACB men)	2015/07/30
Revised Letter of Information & Consent	Appendix 25 London_Concept Mapping Focus Group Consent Form (ACB Men)	2015/07/30
Revised Letter of Information & Consent	Appendix 12 London Focus Group consent form Phase 1 (acb men)	2015/07/30
Revised Letter of Information & Consent	Appendix 13 London Focus Group consent form Phase 1 (Community Stakeholders)	2015/07/30
Other	Appendix 11_London Research Design and Methods Jul 30 2015	2015/07/30
Recruitment Items	Appendix 15 London_Focus Group Interview Guide Phase 1 (ACB men)	2015/07/30
Revised Letter of Information & Consent	Appendix 27 London_weSpeak_Concept Mapping FG Consent Form (Community Stakeholders)	2015/07/30
Revised Letter of Information & Consent	Appendix 23 London_weSpeak_Paper Survey Consent Form Phase 2 (ACB men)	2015/07/30
Revised Letter of Information & Consent	Appendix 26 London_weSpeak_Pre-Concept Mapping Online Survey Consent Form (Community Stakeholders)	2015/07/30

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the above named study, as of the NMREB Initial Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

This is an official document. Please retain the original in your files.

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Appendix B: Survey instrument

weSpeak Study Eligibility Screening

Q1. Do you identify as any of the following: **Black, African, or Caribbean?**

- Yes
 No

Q2. Are you **16 years** or older?

- Yes
 No

Q3. Do you identify as a **man**?

- Yes
 No

Q4. Do you identify as **heterosexual or straight**?

- Yes
 No

Q5. Do you live in one of the following cities: **Toronto, Ottawa, London or Windsor?**

- Yes
 No

****If the participant answers "No" to any single one of the above questions
Participant is not eligible****

Administrative Questions (for completion by interviewer)

Participant Assessment and Data Collection

weSpeak Study Participant Assessment: (both statements must be checked to continue)

Did you check the eligibility of the participant?

Yes, Participant is eligible

Did the participant consent to participate?

Yes, participant consents to participate

Participant Coding: weSpeak—Heterosexual Black Men Building Resilience to HIV in Ontario

weSpeak Survey for African, Caribbean, and Black Canadian Men

Enter TODAY'S DATE below using the format:

DD/MM/YYYY (e.g. 15/04/2015):

Day (dd)		Month (mm)		Year (yyyy)			

Survey Interviewer ID:

INITIALS of your First name and last name		MONTH you were born <i>Example: 06 for June</i>		Last three digits of your POSTAL CODE <i>Example 3A7</i>		

Survey ID:

INITIALS of your First name and last name		MONTH you were born <i>Example: 06 for June</i>		Last three digits of your POSTAL CODE <i>Example 3A7</i>		

Survey for:

ACB men

FOR OFFICE USE ONLY

Data Entry:	Date		Name	
Open-Ended Entry	Date		Name	
Data Verification:	Date		Name	
			Name	

weSpeak Survey

Thank you for participating in the weSpeak study. We know **your time is valuable** and that your participation speaks to your commitment to your community. This survey is a vital part of your participation in **weSpeak**. Completing this survey will take about 30-45 minutes of your time.

Please do your best to answer all questions. Your answers are very important in helping us to gain a better understanding of what shapes the health and wellbeing of African, Caribbean and Black Canadian men and their communities. However, **you may refuse to answer any questions** and you may stop filling out the questionnaire at any time if you wish. Please note, there are no right or wrong answers.

An important reminder about confidentiality

To protect your personal identity, all information provided by you will be identified by a numbered code. Your name or other identifying information will not appear on any publications or reports produced by the study. All your responses will be kept strictly confidential. Only research study personnel will have access to the information you provide.

Please tell us if you have taken part in:

- A weSpeak focus group Yes No
- A weSpeak individual in-depth interview Yes No

SECTION 1: Socio-demographics

Some of the questions in this survey are very personal. Please remember that the answers that you give are completely confidential. We are asking everyone who participates in this survey the same questions.

Factors such as culture, gender, education, income, employment and social and physical environments play an important role in one's health. Therefore, the next few questions are important for this health questionnaire.

Please be assured that, like all other information you provide, your answers to the following questions will be kept strictly confidential.

1.1 Which of the following best describe your ethno-racial identity? (Check ALL that apply.)

- Black
- Black African
- Black Caribbean
- Black Canadian
- Black American
- Black Latin American
- The options do not apply to me. I identify as (please specify):

1.2 How old are you now?

- 16-19 years old
- 20-29 years old
- 30-39 years old
- 40-49 years old
- 50-59 years old
- 60-64 years old
- 65 years and older

1.3 Where do you currently reside? (Check ONE only)

- Toronto or the Greater Toronto Area (e.g. Peel, Halton, Durham, or York regions)
- Ottawa and the Greater Capital Region (e.g. Ottawa-Gatineau, Clarence-Rockland, or Russell)
- London
- Windsor

- Don't know
- Prefer not to answer

1.4 Were you born in Canada?

- Yes → If Yes, go to 1.5
- No → If No, go to 1.4a and 1.4b

- Don't know → If No, go to 1.4a and 1.4b
- Prefer not to answer → If No, go to 1.4a and 1.4b

1.4a Which country were you born in?

Name of country

1.4b How long have you been living in Canada?

- Less than 1 year
- 1 – 2 years
- 3 – 4 years
- 5 – 9 years
- 10 years or longer

- Don't know
- Prefer not to answer

1.5 What is your current residency status in Canada? (Check ALL that apply)

- Canadian citizen
- Landed immigrant or permanent resident
- Convention refugee or protected person (this means you have been formally approved as a refugee)
- Refugee claimant or person in need of protection (this means you have applied to become a refugee but your application has not been approved yet)
- Temporary work permit (temporary foreign worker)
- Study visa (international student)
- Other (specify): _____

- Don't know
- Prefer not to answer

1.6 What was your sex at birth? (Check ONE only)

- Male
- Female
- Intersex
- Other (specify): _____

- Don't know
- Prefer not to answer

1.7 Do you currently identify as a Man?

- Yes
- No

- Don't know*
- Prefer not to answer*

1.7a Do you also identify as a Trans Man?

- Yes
- No

- Don't know*
- Prefer not to answer*

1.8 Which of the following best describes your sexual orientation? (Check ONE only)

- Heterosexual or Straight
- Homosexual or Gay
- Bisexual
- Questioning
- Other (specify): _____

- Don't know*
- Prefer not to answer*

1.9 What is your CURRENT relationship or marital status? (Check ALL that apply to current relationship or marital status)

- Single
- Married
- In a relationship with a steady partner (living together)
- In a relationship with a steady partner (not living together)
- Widowed
- Separated/Divorced
- Other (specify): _____

- Don't know*
- Prefer not to answer*

1.10 What, if any, is your CURRENT faith or religion? (Check ONE only)

- None
- Muslim
- Christian
- African traditional
- The options do not include my religion: (please specify): _____

- Don't know*
- Prefer not to answer*

1.11 What is the highest level of education or training that you have completed? (Check ONE only)

- No formal schooling
- Less than high school
- Some high school
- Completed high school

- Some college, CEGEP, vocational school, trade school, or apprenticeship training
- Completed college, CEGEP, vocational school, trade school, or apprenticeship training
- Some university
- Completed university certificate or diploma e.g. Certificate in Project Management, Human Resources, etc.
- Completed undergraduate university degree (for example B.A., B.Sc., B.Ed)
- Completed graduate or professional university degree (for example M.A., PhD, M.D., LL.B)
- Other (specify): _____

- Don't know*
- Prefer not to answer*

1.12 Over the past six months, what has been your employment status? (Check ALL that apply)

- Employed or Self-employed full time
- Employed or Self-employed part time
- Volunteering
- Unemployed and looking for work
- A full or part time student
- Not working due to disabilities
- Looking after children or other family members
- Retired
- Other (please specify): _____

- Don't know*
- Prefer not to answer*

1.13 Please check all the sources of your income during the past 6 months.

- Income from paid employment
- Income from self-employment
- Investments
- Old Age Security/ Canadian Pension Plan
- Social assistance (e.g., Ontario Works, ODSP)
- Employment insurance
- Unreported income (you were paid “under the table”)
- Other (please specify): _____

- Don't know*
- Prefer not to answer*

1.14 During the past 12 months, what was your estimated total before-tax personal income from all sources? (Check ONE only)

- No personal income
- \$1 - \$19,999
- \$20,000 - \$39,999
- \$40,000 - \$59,999
- \$60,000 - \$79,999
- \$80,000 - \$99,999
- \$100,000 or more

- Don't know*
- Prefer not to answer*

1.15 During the past 12 months, what was the estimated total before-tax income of all household family members (including you) from all sources? (Check *ONE* only)

- No family income
- \$1 - \$19,999
- \$20,000 - \$39,999
- \$40,000 - \$59,999
- \$60,000 - \$79,999
- \$80,000 - \$99,999
- \$100,000 or more

- Don't know*
- Prefer not to answer*

1.16 How many people living in Canada (including yourself, children and adults) depend on your household income?

- 1
- 2
- 3
- 4
- 5
- 6-10
- More than 10

- Don't know*
- Prefer not to answer*

1.17 How many people living outside Canada depend on your household income?

- 1
- 2
- 3
- 4
- 5
- 6-10
- More than 10

- Don't know*
- Prefer not to answer*

1.18 In the past 12 months, considering your household income, how difficult was it for you to meet basic costs for food and living expenses? (Check *ONE* only)

- Very difficult
- Fairly difficult
- A little difficult
- Not at all difficult

- Don't know*
- Prefer not to answer*

1.19 How many times have you moved in the past 2 years?

- 0 times
- 1 time
- 2 times
- 3 times
- 4 times
- 5 times or more

- Don't know*
- Prefer not to answer*

1.20 In your opinion, is your housing situation adequate to your needs? (Check ONE only)

- Very adequate
- Fairly adequate
- Barely adequate
- Not adequate

- Don't know*
- Prefer not to answer*

SECTION 2: Sexual Behaviours

The following section is about your sex life and are asked because sexual behaviours can have very important and long-lasting effects on your health. These questions are very personal and some questions may be sensitive.

Please be assured that your answers will remain confidential.

For the purpose of this survey, 'sex' includes any penetrative sex that is:

- vaginal, (when a penis is put into the vagina)
- anal (when a penis is put into the anus or butt)

By men (male) we mean persons who were considered male at birth and currently identify as male.

By women (female) we mean persons who were considered female at birth and currently identify as female.

By transgender or trans we mean persons whose gender identity or expression differs from their biological sex assigned at birth.

Questions about condoms refer to both male and female condoms.

2.1 How old were you the first time you had penetrative vaginal or anal sex?

_____ (age in years)

- Never had sex → If Never had sex, follow the instructions before 2.23
→ If Never had sex, go to 2.25
- Don't know
- Prefer not to answer

2.2 In your lifetime, have you had sex with women, men, or transgender persons? (Check **ALL that apply**)

- Women
- Men
- Transgender persons
- Don't know
- Prefer not to answer

2.3 Have you had penetrative vaginal or anal sex in the last 12 months?

- Yes
- No
- Don't know

} If No, Don't know or Prefer not to answer,
follow the instructions before 2.23
If No, Don't know or Prefer not to answer, go to 2.25

Prefer not to answer

The terms 'regular' and 'casual' sex partners, and 'sex in exchange for money, drugs, goods or services' will be used.

- A 'regular' sex partner is someone with whom you have or had an ongoing sexual relationship and with whom you may or may not have an emotional relationship.
- A 'casual' sex partner is someone with whom you have had sexual relations once or a few times. For example, a one-night stand.
- 'Sex in exchange for money, drugs, or other goods or services' refers to instances when you have GIVEN or RECEIVED money, drugs, or other goods or services in exchange for sex.

For the purposes of this survey, please note that a sex partner may not belong to more than one group. For example, a sex partner cannot be both a 'regular' and 'casual' sex partner.

The following questions are about penetrative sex with FEMALE PARTNERS in the last 12 months. This includes vaginal (when a penis is put into the vagina) and anal (when a penis is put into the anus or butt).

The next few questions are about your REGULAR FEMALE sex partners, that is, a female with whom you have or had an ongoing sexual relationship and with whom you may or may not have an

2.4 In the last 12 months, how many REGULAR FEMALE sex partners have you had penetrative vaginal or anal sex with? (Check ONE only)

None → *If None, go to instructions before question 2.7*

1 partner

2 partners

3 partners

4 or 5 partners

6 to 10 partners

More than 10 partners

Don't know

Prefer not to answer

2.4a Were any of these partners Trans Women (male-to-female transgender)?

Yes

No

Don't know

Prefer not to answer

2.5 In the last 12 months, how often did you use condoms with your REGULAR FEMALE sex partner(s)? (Check ONE only)

Never → *If Never, go to question 2.5b*

- Sometimes
- Most of the time
- Always

- Don't know*
- Prefer not to answer*

2.5a The last time you had sex with your REGULAR FEMALE sex partner, was a condom used?

- Yes → *If Yes, go to question 2.6*
- No → *If No, go to question 2.5b*

- Don't know* → *If don't know or prefer not to answer, go to question 2.6*
- Prefer not to answer*

2.5b What were the reasons why you did not use a condom the last time you had sex with a REGULAR FEMALE partner? (Check ALL that apply)

- You do not like condoms
- Your partner did not want to use a condom
- You did not think of using a condom
- You did not have a condom at the time
- You wanted your partner to trust you
- You wanted your partner to know that you trust them
- You do not have HIV/AIDS or any other STI
- You did not think that your partner had HIV/AIDS or other STI
- You were with your regular sex partner
- You are HIV-positive but your viral load is undetectable
- Your partner is HIV-positive but her viral load is undetectable
- Both you and your partner are HIV-positive

Other (specify): _____

- Don't know*
- Prefer not to answer*

2.6 What is the HIV status of your most recent REGULAR FEMALE sex partner? (Check ONE only)

- HIV positive
- HIV negative
- You don't know the HIV status of your most recent REGULAR FEMALE sex partner

Prefer not to answer

The next few questions are about your CASUAL FEMALE sex partners, that is, females with whom you've had sexual relations once or a few times. For example, a one-night stand.

2.7 In the last 12 months, how many CASUAL FEMALE sex partners have you had penetrative vaginal or anal sex with? (Check ONE only)

- None → *If None, go to instructions before question 2.10*
- 1 partner
- 2 partners
- 3 partners
- 4 or 5 partners
- 6 to 10 partners
- more than 10 partners
- Don't know*
- Prefer not to answer*

2.7a Were any of these partners Trans Women (male-to-female transgender)?

- Yes
- No
- Don't know*
- Prefer not to answer*

2.8 In the last 12 months, how often did you use condoms with your CASUAL FEMALE sex partner(s)? (Check ONE only)

- Never → *If Never, go to question 2.8b*
- Sometimes
- Most of the time
- Always
- Don't know*
- Prefer not to answer*

2.8a The last time you had sex with your CASUAL FEMALE sex partner, was a condom used?

- Yes → *If yes, go to question 2.9*
- No → *If no, go to question 2.8b*
- Don't know* → *If Don't know, go to question 2.9*
- Prefer not to answer* → *If Prefer not to answer, go to question 2.9*

2.8b What were the reasons why you did not use a condom the last time you had sex with a CASUAL FEMALE partner? (Check ALL that apply)

- You do not like condoms
- Your partner did not want to use a condom
- You did not think of using a condom
- You did not have a condom at the time
- You wanted your partner to trust you
- You wanted your partner to know that you trust them
- You do not have HIV/AIDS or any other STI

- You did not think that your partner had HIV/AIDS or other STI
- You are HIV-positive but your viral load is undetectable
- Your partner is HIV-positive but her viral load is undetectable
- Both you and your partner are HIV-positive

Other (specify): _____

- Don't know*
- Prefer not to answer*

2.9 What is the HIV status of your most recent CASUAL FEMALE sex partner? (Check ONE only)

- HIV positive
- HIV negative
- You don't know the HIV status of your most recent CASUAL FEMALE sex partner
- Prefer not to answer*

The following questions are about sex with MALE PARTNERS in the last 12 months. This includes anal (when a penis is put into the anus or butt) and vaginal (when a penis is put into the vagina) penetrative sex.

The next few questions are about your REGULAR MALE sex partners who are males with whom you have or had an ongoing sexual relationship and with whom you may or may not have an emotional relationship.

2.10 In the last 12 months, how many REGULAR MALE sex partners have you had penetrative anal or vaginal sex with? (Check ONE only)

- None → *If None, go to instructions before question 2.13*
- 1 partner
- 2 partners
- 3 partners
- 4 or 5 partners
- 6 to 10 partners
- More than 10 partners
- Don't know*
- Prefer not to answer*

2.10a Were any of these partners Trans Men (female-to-male transgender)?

- Yes
- No
- Don't know*
- Prefer not to answer*

2.11 In the last 12 months, how often did you use condoms with your REGULAR MALE sex partner(s)? (Check ONE only)

- Never → *If Never, go to question 2.11b*

- Sometimes
- Often
- Always

- Don't know*
- Prefer not to answer*

2.11a The last time you had sex with your REGULAR MALE sex partner, was a condom used?

- Yes → *If yes, go to question 2.12*
- No → *If No, go to question 2.11b*

- Don't know* → *If don't know or prefer not to answer, go to question 2.12*
- Prefer not to answer*

2.11b What were the reasons why you did not use a condom the last time you had sex with a REGULAR MALE partner? (Check ALL that apply)

- You do not like condoms
- Your partner did not want to use one
- You did not think of using a condom
- You did not have a condom at the time
- You wanted your partner to trust you
- You wanted your partner to know that you trust them
- You do not have HIV/AIDS or any other STI
- You did not think that your partner had HIV/AIDS or other STI
- You were with your regular sex partner
- You are HIV-positive but your viral load is undetectable
- Your partner is HIV-positive but his viral load is undetectable
- Both you and your partner are HIV-positive

Other (specify): _____

- Don't know*
- Prefer not to answer*

2.12 What is the HIV status of your most recent REGULAR MALE sex partner? (Check ONE only)

- HIV positive
- HIV negative
- You don't know the HIV status of your most recent REGULAR MALE sex partner

Prefer not to answer

The next few questions are about your CASUAL MALE sex partners, that is a male with whom you've had sexual relations once or a few times, for example, a one-night stand.

2.13 In the last 12 months, how many CASUAL MALE sex partners have you had penetrative anal or vaginal sex with? (Check ONE only)

- None → *If None, go to 2.16 [weSpeak only go to 2.25]*
- 1 partner
- 2 partners
- 3 partners
- 4 or 5 partners
- 6 to 10 partners
- More than 10 partners

- Don't know*
- Prefer not to answer*

2.13a Were any of these partners Trans Men (female-to-male transgender)?

- Yes
- No

- Don't know*
- Prefer not to answer*

2.14 In the last 12 months, how often did you use condoms with your CASUAL MALE sex partner(s)? (Check ONE only)

- Never → *If Never, go to question 2.14b*
- Sometimes
- Often
- Always

- Don't know*
- Prefer not to answer*

2.14a The last time you had sex with your CASUAL MALE sex partner, was a condom used?

- Yes → *If Yes, go to question 2.15*
- No → *If No, go to question 2.14b*

- Don't know* → *If Don't know, go to question 2.15*
- Prefer not to answer* → *If Prefer not to answer, go to question 2.15*

2.14b What were the reasons why you did not use a condom the last time you had sex with a CASUAL male partner? (Check ALL that apply)

- You do not like condoms
- Your partner did not want to use a condom
- You did not think of using a condom
- You did not have a condom at the time
- You wanted your partner to trust you
- You wanted your partner to know that you trust them
- You do not have HIV/AIDS or any other STI
- You did not think that your partner had HIV/AIDS or other STI
- You are HIV-positive but your viral load is undetectable
- Your partner is HIV-positive but his viral load is undetectable
- Both you and your partner are HIV-positive

Other (specify): _____

Don't know

Prefer not to answer

2.15 What is the HIV status of your most recent CASUAL MALE sex partner? (Check ONE only)

HIV positive

HIV negative

You don't know the HIV status of your most recent CASUAL MALE sex partner

Prefer not to answer

This is the last question about sex.

2.16 In the past 12 months, did you have sex with a man who had sex with another man?

Yes

No

Not applicable

Don't know

Prefer not to answer

SECTION 3: Access to and use of health systems and services

3.1 How do you rate your health in general?

- Excellent
- Very good
- Good
- Fair
- Poor

- Don't know*
- Prefer not to answer*

The following section is about access to and use of health care services. This includes your experiences getting health care from a doctor, nurse, or other health care provider.

NOTE!

A 'primary health care provider' is a health care practitioner who provides care to people that

3.2 Do you have a family doctor or a nurse practitioner?

- Yes
- No

- Don't know*
- Prefer not to answer*

3.3 In the past 12 months, did you visit a health care provider or a health facility for medical attention, consultation or health information?

- Yes
- No

- Don't know*
- Prefer not to answer*

} *If No, Don't know or Prefer not to answer, go to question (3.7)*

3.4 In the past 12 months, how often have you used the following health services? (Check ONE response for each item)

	Frequency	<i>Don't know</i>	<i>Prefer not to answer</i>
Family doctor or nurse practitioner	<input type="checkbox"/> 0 <input type="checkbox"/> 3-4 <input type="checkbox"/> 1 <input type="checkbox"/> 5-10 <input type="checkbox"/> 2 <input type="checkbox"/> >10	<input type="checkbox"/>	<input type="checkbox"/>

Emergency service at hospitals	<input type="checkbox"/> 0	<input type="checkbox"/> 3-4	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> 1	<input type="checkbox"/> 5-10		
	<input type="checkbox"/> 2	<input type="checkbox"/> >10		
Medical specialist	<input type="checkbox"/> 0	<input type="checkbox"/> 3-4	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> 1	<input type="checkbox"/> 5-10		
	<input type="checkbox"/> 2	<input type="checkbox"/> >10		
Medical clinics or walk-in clinics	<input type="checkbox"/> 0	<input type="checkbox"/> 3-4	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> 1	<input type="checkbox"/> 5-10		
	<input type="checkbox"/> 2	<input type="checkbox"/> >10		
Community health centres	<input type="checkbox"/> 0	<input type="checkbox"/> 3-4	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> 1	<input type="checkbox"/> 5-10		
	<input type="checkbox"/> 2	<input type="checkbox"/> >10		
Community drop-in centres	<input type="checkbox"/> 0	<input type="checkbox"/> 3-4	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> 1	<input type="checkbox"/> 5-10		
	<input type="checkbox"/> 2	<input type="checkbox"/> >10		
Alternative or complementary medical practitioner	<input type="checkbox"/> 0	<input type="checkbox"/> 3-4	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> 1	<input type="checkbox"/> 5-10		
	<input type="checkbox"/> 2	<input type="checkbox"/> >10		
Needle exchange or harm reduction service	<input type="checkbox"/> 0	<input type="checkbox"/> 3-4	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> 1	<input type="checkbox"/> 5-10		
	<input type="checkbox"/> 2	<input type="checkbox"/> >10		
Detox or drug treatment facility	<input type="checkbox"/> 0	<input type="checkbox"/> 3-4	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> 1	<input type="checkbox"/> 5-10		
	<input type="checkbox"/> 2	<input type="checkbox"/> >10		
Mental health or addictions centre	<input type="checkbox"/> 0	<input type="checkbox"/> 3-4	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> 1	<input type="checkbox"/> 5-10		
	<input type="checkbox"/> 2	<input type="checkbox"/> >10		
Sexual health centre or facility	<input type="checkbox"/> 0	<input type="checkbox"/> 3-4	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> 1	<input type="checkbox"/> 5-10		
	<input type="checkbox"/> 2	<input type="checkbox"/> >10		
AIDS service organization	<input type="checkbox"/> 0	<input type="checkbox"/> 3-4	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> 1	<input type="checkbox"/> 5-10		
	<input type="checkbox"/> 2	<input type="checkbox"/> >10		
Settlement agency	<input type="checkbox"/> 0	<input type="checkbox"/> 3-4	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> 1	<input type="checkbox"/> 5-10		
	<input type="checkbox"/> 2	<input type="checkbox"/> >10		

3.5 In the past 12 months, have you experienced any difficulties getting the health care you needed? (Check ONE only)

Yes

If No, you have not required any health care in the past 12 months, Don't know or

- No
- You have not required any health care in the past 12 months
- Don't know*
- Prefer not to answer*

3.5a What types of difficulties have you experienced in getting the health care you needed? *(Check ALL that apply)*

- No health care provider was available in your area
- The specific service you needed was not available in your area
- You did not know how to find the health care you needed
- You had difficulty getting an appointment, a diagnosis or a referral
- The wait time was too long
- You had transportation problems
- You experienced a language barrier (i.e. you weren't able to communicate with the service provider)
- You could not afford the cost of the service or the service was not covered by your insurance
- Personal or family responsibilities prevented you from getting the health care you needed
- You were unable to leave the house because of a health problem
- The health care provider was insensitive or racist
- The health care provider was of the opposite sex
- You felt like the healthcare provider was trying to give as little services as possible
- You were judged on your appearance, your ancestry, or your accent
- The care was not available after hours or weekends
- The health care provider did not understand your health issue
- You do not have OHIP (Ontario Health Insurance Plan)
- Other (specify): _____
- Don't know*
- Prefer not to answer*

3.6 Where (or from whom) do you get health information? *(Check ALL that apply)*

- Health professional (e.g. doctor, nurse)
- Sexual health clinic
- Spouse, boyfriend, girlfriend, partner
- Counsellor
- Church or other religious organization
- Traditional healer
- Someone who has the same health condition as I do
- Family members
- Male Friends
- Female Friends
- Health internet websites
- Telephone Health Lines
- AIDS organizations (ASOs) (e.g. Black CAP, APAA, ACO, RHAC, ACW etc.)
- Community Health Centre (CHC)
- Support worker or social worker
- Health campaigns on radio / TV / Internet
- Health education at school
- Newspaper, magazines or books

- Brochures or pamphlets
- Other (specify): _____

- Don't know*
- Prefer not to answer*

The following question is about infections that you have or have had in the past.

3.7 Have you ever been told by a health professional (e.g. doctor or nurse) that you have or had any of the following infections? (Check ONE response for each item)

	Yes, in the past 6 months	Yes, more than 6 months ago	No	<i>Don't know</i>	<i>Prefer not to answer</i>
Hepatitis B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hepatitis C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chlamydia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gonorrhoea	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Syphilis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genital or anal warts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Human papillomavirus (HPV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genital herpes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lymphogranuloma venereum (LGV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION 4: HIV testing, care and treatment

The following section is about HIV testing. These questions are about diagnostic tests, which do not include follow-up tests such as those used to monitor CD4 cell counts or viral loads. Again, please be assured that all information you provide will remain strictly confidential.

4.1 Have you ever been tested for HIV?

- Yes → go to question 4.2
- No → go to question 4.5
- Don't know → go to question 4.5
- Prefer not to answer → go to question 4.5

4.2 If you have been tested for HIV, what is your HIV status?

- HIV-positive
- HIV-negative → go to question 4.4
- Don't know → go to question 4.4
- Prefer not to answer → go to question 4.4

4.3 If you are HIV-positive, when were you diagnosed?

- Within the last 6 months
- 7 to 12 months ago
- More than 1 year but up to 2 years ago
- More than 2 years but less than 4 years ago
- 4 years ago or more

- Don't know
- Prefer not to answer

4.4 When is the last time you were tested for HIV?

- In the last six months
- Six months to 11 months ago
- 12 months to 2 years ago
- More than 2 years

- Don't know
- Prefer not to answer

4.5 The following are some of the reasons people give for never getting an HIV test. You have never been tested for HIV because: (Check ALL that apply)

- You never thought about it
- You are afraid to get tested
- You think you are at low risk for HIV infection
- You have had problems getting tested
- You are healthy so you don't think that you need to be tested
- You don't think the test is always right
- You don't think you can get HIV
- If you test positive, you think that nothing can be done
- You think that being HIV positive would affect your personal or professional life
- You think that you know your status

Other (specify): _____

Don't know

Prefer not to answer

SECTION 5: HIV Knowledge and Beliefs

The following section is about your knowledge of HIV, how it is spread and how people can protect themselves from becoming infected.

5.1 From what you know, please answer “Agree” or “Disagree” to the following questions. It is okay to say that you don’t know. This is not a test. (Check ONE response for each item)

Statements	Agree	Disagree	Don't know
Coughing and sneezing DO NOT spread HIV.			
A person can get HIV by sharing a glass of water with someone who has HIV.			
Pulling out the penis before a man climaxes/cums keeps a woman from getting HIV during sex.			
A woman can get HIV if she has anal sex with a man.			
Showering, or washing one's genitals/private parts, after sex keeps a person from getting HIV.			
All pregnant women infected with HIV will have babies born with AIDS.			
People who have been infected with HIV quickly show serious signs of being infected.			
There is a vaccine that can stop adults from getting HIV.			
People are likely to get HIV by deep kissing, putting their tongue in their partner's mouth, if their partner has HIV.			
A woman cannot get HIV if she has sex during her period.			
There is a female condom that can help decrease a woman's chance of getting HIV.			
A natural skin condom works better against HIV than does a latex condom.			
A person will NOT get HIV if she or he is taking antibiotics.			

Having sex with more than one partner can increase a person's chance of being infected with HIV.			
Taking a test for HIV one week after having sex will tell a person if she or he has HIV.			
A person can get HIV by sitting in a hot tub or a swimming pool with a person who has HIV.			
A person can get HIV from oral sex.			
Using Vaseline or baby oil with condoms lowers the chance of getting HIV.			

SECTION 6: Experiences

The following section is about your experiences in the city where you reside, and your day-to-day life. Again, please be assured that all information you provide will remain strictly confidential.

6.1 This set of questions is about your impressions of Black people in your community. Please rate the degree to which you agree or disagree with each statement (by circling a number) on a scale of 1 to 5.

- 1 means you *strongly disagree* with the statement.
- 5 means you *strongly agree* with the statement.

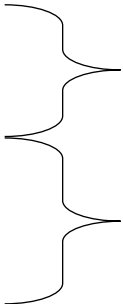
Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
In the city where you live, Black people are willing to help one another.	1	2	3	4	5
Black people are a close-knit community in the city where you live.	1	2	3	4	5
In the city where you live, Black people can be trusted.	1	2	3	4	5
In the city where you live, there are many opportunities to work with Black people on issues that affect the Black community.	1	2	3	4	5

In the city where you live there are many Black community groups that support the community	1	2	3	4	5
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The following questions measure experiences of discrimination in everyday life.

6.2 In your day-to-day life, how often have you been treated with less courtesy than other people? (Check ONE only)

- Almost everyday
- At least once a week
- A few times a month
- A few times a year
- Less than once a year
- Never
- Don't know
- Prefer not to answer



If a few times a year or more, go to question 8.2a

If less than once a year, Never, Don't know, or

Prefer not to answer, go to question 8.3

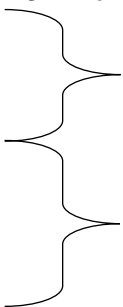
6.2a What were the main reasons why you were treated unfairly? (Check ONE only)

- Your immigration status
- Sexism/gender discrimination
- Racism
- Your religion
- Ageism
- Ableism
- Homophobia
- Transphobia
- Your education
- Your income
- Other (specify): _____
- Don't know
- Prefer not to answer

Each one of these “reasons” will be accompanied by a short explanation/definition

6.3 In your day-to-day life, how often have you received poorer service than other people at restaurants or stores? (Check ONE only)

- Almost everyday
- At least once a week
- A few times a month
- A few times a year
- Less than once a year
- Never
- Don't know
- Prefer not to answer



If a Few times a year or more, go to question 8.3a

If Less than once a year, Never, Don't know, or Prefer not to answer, go to question 8.4

6.3a What were the main reasons why you were treated unfairly? (Check ONE only)

- Your immigration status
- Sexism/gender discrimination
- Racism
- Your religion
- Ageism
- Ableism
- Homophobia
- Transphobia
- Your education
- Your income
- Other (specify): _____

- Don't know
- Prefer not to answer

6.4 In your day-to-day life, how often have people acted as if you are not smart? (Check ONE only)

- Almost everyday
- At least once a week
- A few times a month
- A few times a year
- Less than once a year
- Never

If a Few times a year or more, go to question 8.4a

- Don't know
- Prefer not to answer

If Less than once a year, Never, Don't know, or Prefer not to answer, go to question 8.5

6.4a What were the main reasons why you were treated unfairly? (Check ONE only)

- Your immigration status
- Sexism/gender discrimination
- Racism
- Your religion
- Ageism
- Ableism
- Homophobia
- Transphobia
- Your education
- Your income
- Other (specify): _____

- Don't know
- Prefer not to answer

6.5 In your day-to-day life, how often have people acted as if they are afraid of you? (Check ONE only)

- Almost everyday
- At least once a week
- A few times a month
- A few times a year
- Less than once a year

If a Few times a year or more, go to question 8.5a

Never

If Less than once a year, Never, Don't know, or Prefer

Don't know

Prefer not to answer

not to answer, go to question 8.6

6.5a What were the main reasons why you were treated unfairly? (Check ONE only)

Your immigration status

Sexism/gender discrimination

Racism

Your religion

Ageism

Ableism

Homophobia

Transphobia

Your education

Your income

Other (specify): _____

Don't know

Prefer not to answer

6.6 In your day-to-day life, how often have you been threatened or harassed? (Check ONE only)

Almost everyday

At least once a week

A few times a month

A few times a year

Less than once a year

Never

Don't know

Prefer not to answer



If a Few times a year or more, go to question 8.6a

If Less than once a year, Never, Don't know, or

Prefer not to answer, go to instructions before DBS (A/C

6.6a What were the main reasons why you were treated unfairly? (Check ONE only)

Your immigration status

Sexism/gender discrimination

Racism

Your religion

Ageism

Ableism

Homophobia

Transphobia

Your education

Your income

Other (specify): _____

Don't know

Prefer not to answer

Important Reminder: Please feel free to skip any questions you do not wish to answer. However, we encourage you to complete all questions if possible because in this section of the questionnaire, we would not be able to count your response for the entire question if a single item is missed. In other words, for your responses to be included in our analysis, all questions must be completed.

6.7 This set of questions explores your ideas about being a man. Please rate how important each of the statements is to your identity as a man (by circling a number) on a scale of 1 to 5.

- 1 means not at all important.
- 5 means extremely important

Statements	Not at all Important	Not Important	Neutral	Important	Extremely Important
1. Being physically strong	1	2	3	4	5
2. Expressing anger	1	2	3	4	5
3. Being a good athlete	1	2	3	4	5
4. Having power	1	2	3	4	5
5. Having courage	1	2	3	4	5
6. Fighting for the rights of your people	1	2	3	4	5
7. Being a good lover	1	2	3	4	5
8. Owning a home, property, or car	1	2	3	4	5
9. Being in control in a relationship	1	2	3	4	5
10. Being a good father	1	2	3	4	5
11. Talking about my feelings	1	2	3	4	5
12. Living up to people's expectations	1	2	3	4	5
13. Being active in my community	1	2	3	4	5
14. Loving and respecting women	1	2	3	4	5
15. Challenging stereotypes (refusing to accept stereotypes)	1	2	3	4	5

Statements	Not at all Important	Not Important	Neutral	Important	Extremely Important
16. Seeking help when I need it	1	2	3	4	5
17. Providing for me and my family	1	2	3	4	5

6.8 This set of questions is about stressful events you may have experienced in your life and how you have handled them.

Please rate the degree to which you agree or disagree with each statement (by circling a number) on a scale of 1 to 5.

1 means you *strongly disagree* with the statement.

5 means you *strongly agree* with the statement.

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
There have been more problems than positive experiences with my health status in the past 3 months.	1	2	3	4	5
There have been more problems than positive experiences with my finances in the past 3 months.	1	2	3	4	5
There have been more problems than positive experiences with my family/ friends in the past 3 months.	1	2	3	4	5
There have been more problems than positive experiences with my work/ school in the past 3 months.	1	2	3	4	5
I feel that I am optimistic and concentrate on the positives in most situations.	1	2	3	4	5
I feel that I am a creative, resourceful, and independent person.	1	2	3	4	5
Most people think I am friendly and like to be around me.	1	2	3	4	5
I feel that I am competent and have high self-esteem.	1	2	3	4	5

I have a good relationship with at least one supportive person. (Whether in your family or not)	1	2	3	4	5
I have at least one caring person in my life. (Whether in your family or not)	1	2	3	4	5
I feel that I can trust at least one person in my life. (Whether in your family or not)	1	2	3	4	5
I have at least one person who is interested in my life. (Whether in your family or not)	1	2	3	4	5
I have been able to resolve many (but not all) of my problems by myself.	1	2	3	4	5
I feel that I have control over many (but not all) events in my life.	1	2	3	4	5
I feel that I have coped well with one or more major stressors in my life.	1	2	3	4	5
I have been able to make "the best out of a bad situation" a number of times.	1	2	3	4	5

6.9 This question asks about your feelings on condom use.

Please rate the degree to which you agree or disagree with each statement (by circling a number) on a scale of 1 to 5.

1 means you *strongly disagree* with the statement.

5 means you *strongly agree* with the statement.

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Condoms are uncomfortable.	1	2	3	4	5
The idea of using condoms does not appeal to me.	1	2	3	4	5
Using condoms make sex un-enjoyable.	1	2	3	4	5
Proper use of condoms enhances sexual pleasure.	1	2	3	4	5

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I would avoid using condoms if possible.	1	2	3	4	5
I just don't like the idea of using condoms.	1	2	3	4	5
Men who use condoms show concern and responsibility to their partner(s).	1	2	3	4	5
Using condoms is unmanly.	1	2	3	4	5
Condoms are the best way to protect myself from HIV and against other STIs.	1	2	3	4	5
Suggestion from a sexual partner to use a condom means that your partner does not trust you	1	2	3	4	5

6.10 How well can you communicate in English?

- With no difficulty
 With some difficulty
 With a lot of difficulty
 Prefer not to answer

6.11 How well can you communicate in French?

- With no difficulty
 With some difficulty
 With a lot of difficulty
 Prefer not to answer

This is the end of the survey. Thank you for taking the time to participate.
 E-Questionnaire script: *Please return the laptop or tablet to the interviewer.*
 Paper questionnaire script: *Please return the questionnaire to the interviewer.*

Appendix C: Curriculum vitae

1.0 EDUCATION

Sept. 2017 to date **Master's Student (Health Geography), University of Western Ontario,
Ontario,
Canada**

Thesis Title: HIV vulnerabilities among heterosexual African, Caribbean and other Black men in London, Ontario
Academic Advisor: Prof. Isaac Luginaah

May 2016 **Bachelor of Arts, Geography and Rural Development
Kwame Nkrumah University of Science and Technology (KNUST),
Kumasi, Ghana**
Thesis Title: Shifting livelihood: Exploring the relationship between the presence of University for Development Studies (UDS) and livelihood diversification in Bamahu, Ghana.
Academic Advisor: Prof. Daniel Buor

2.0 TEACHING EXPERIENCE

Sept 2017 to date **Teaching Assistant, University of Western Ontario**

Course Title: 1- Fundamentals of Geography (Geog 1100A & B)
2- Geography of Tourism (Geog 2144A & B)

Aug. 2016-Aug. 2017 **Teaching Assistant, KNUST**

April 2012-August 2012 **Instructor, Mathematics, Mount Sinai Jnr. High School, Bolga-Ghana**

2.1 TEACHING CERTIFICATE

July 2018 **Certificate, The Advanced Teaching Programme
Teaching Support Centre, University of Western Ontario, Canada.**

3.0 RESEARCH EXPERIENCE

April 2018 to date **Field Research Assistant, weSpeak Project, London Site, Department of Geography, University of Western Ontario**

Jan-June 2016 **Undergraduate Thesis Research**

3.1 RESEARCH (Peer Reviewed Journals)

3.1.1 Published

- Buor, D., **Konkor, I.**, 2016. Shifting Livelihood: Exploring the Relationship between the Presence of University for Development Studies (UDS) and Livelihood Diversification in Bamahu, Ghana. *International Journal of Geography and Regional Planning*.
- Woods H., Haruna U., **Konkor I.**, Luginaah I. The Influence of the Community-based Health Planning and Services (CHPS) Program on Community Health Sustainability in the Upper West Region of Ghana. *International Journal of Health Planning and Management*.
- **Konkor I.**, Kansanga M., Sano Y., Atuoye K., Luginaah I. Risk-taking behaviours and timing to first motorbike accident in the Upper West Region of Ghana. *Journal of Transport and Health*.
- **Konkor I.**, Sano Y., Antabe R., Kansanga M., Luginaah I. Exposure to Mass Media Family Planning Messages among Post-Delivery Women in Nigeria: Testing the Structural Influence Model of Health Communication. *The European Journal of Contraception and Reproductive Health Care*.
- **Konkor I.**, Kansanga M., Sano Y., Antabe R., Luginaah I. Community perceptions and misconceptions of motorcycle accident risks in the Upper West Region of Ghana. *Travel Behaviour and Society*.

3.1.2 Under Review

- **Konkor I.**, Lawson E, Antabe R, McIntosh M, Husbands W, Wong J, Luginaah I and weSpeak Team. An intersectional approach to HIV vulnerabilities and testing among heterosexual ACB men in London, Ontario: results from the weSpeak study. *AIDS and Behavior*

3.1.3 Submitted

- **Konkor I.**, Antabe R, McIntosh M, Mkandawire P, Lawson E, Husbands W, Wong J, and Luginaah I. Knowledge of Sexual Partner's HIV Serostatus and Condom Use Behaviour among Heterosexual men of African Descent in London, Ontario. *AIDS and Behavior*

- Sano Y., **Konkor I.**, Antabe R., Regarlie R. Wife beating justification and female genital mutilation in Kenya: Insights from the social learning theory. *Violence Against Women*
- Kansanga M., Sano Y., **Konkor I.**, Ziegler B., Luginaah, I. Food insecurity and smoking cessation: Evidence from the Canadian Community Health Survey. *Canadian Journal of Public Health*

4.0 CONFERENCE PRESENTATION

- Oct 2018* **Canadian Association of Geographers, Ontario Division (CAGONT) Conference at University of Toronto (19-20 October)**
- **Konkor I.**, Sano Y., Antabe R., Kansanga M., Luginaah I. Exposure to Mass Media Family Planning Messages among Post-Delivery Women in Nigeria: Testing the Structural Influence Model of Health Communication. *The European Journal of Contraception and Reproductive Health Care* (paper presentation).
- Oct 2018* **Canadian Association of Geographers, Ontario Division (CAGONT) Conference at University of Toronto (19-20 October)**
- Antabe R., **Konkor I.**, McIntosh M., and Luginaah I. “Where is the space for us?” Everyday challenges of Heterosexual African, Caribbean and Black (ACB) men in accessing HIV/AIDS Services in London Ontario.
- Aug 2018* **Canadian Association of Geographers, Health and Healthcare Study Group and the Environment, Conference at Queens University, Kingston, Ontario, Canada (2-5 August)**
- **Konkor I.**, Kansanga M., Sano Y., Atuoye K., Luginaah I. Risk-taking behaviours and timing to first motorbike accident in the Upper West Region of Ghana. *Journal of Transport and Health* (paper presentation).
- April 2019* **Association of American Geographers conference Washington DC, USA (April 2 – April 7)**
- **Konkor I.**, Kansanga M., Sano Y., Antabe R., Luginaah I. Community perceptions and misconceptions of motorcycle

accident risks in the Upper West Region of Ghana. *Travel Behaviour and Society*.

Workshop **4th Annual IGH Boys and Men’s Health Team Grant meetings**
October 25-26, 2018

5.0 AWARDS

2017-2019 **Western Graduate Research Scholarship (WGRS)**
 CAD\$ 60,846.68

April 2013 **KNUST bursary**
 GHs 300

6.0 EXTRA CURRICULA ACTIVITIES

6.1 National service

Department	Period	Job description
Geography and Rural Development	August 2016 to August 2017	Teaching and Research Assistant

6.2 Voluntary internships

Department	Period	Portfolio	Job description
Lands commission, Bolga	June 2013-August, 2013	Administration	General administrative work, filing of lease documents, site inspection and writing of field reports, sealing of lease documents
Lands commission, Bolga	June 2014-August, 2014	Administration	

Lands commission, Bolga	June 2015-August, 2015	Administration	
Mount Senai International School	Match, 2012-August, 2012		Pupil teaching

6.3 Leadership Positions

Group	Position	Period
Legion of Mary KNUST	Vice president	April 2015-April 2016
Legion of Mary KNUST	Financial secretary	April 2014 to April 2015
Legion of Mary KNUST	Financial secretary	April 2013 to April 2014
Nadowli students' Union	Secretary	December 2014- December 2015
St, Francis Xavier minor seminary	House prefect	May 2009-April 2010

6.4 Groups and Membership

Group	Period
Ghanaian Association of London & Middlesex	September 2017-date
Upper west students' Union, KNUST	September 2012 May 2016
Nadowli District Students' Union, KNUST	September 2012 May 2016
Legion of Mary, KNUST	November 2012 – May 2016
Xavier Past Students' Union, KNUST	September 2012 May 2016
Xavier Minor Seminary soccer team	September 2008 May 2011

6.5 Community services

Group	Activity	Date
Vacation teaching practice	Pupil teaching (Kaleo Junior High School)	June 2016-August 2016
Legion of Mary, KNUST	Visit to the Kumasi Prison	15 th March 2015
Legion of Mary, Xavier Minor Seminary	Visit to the Jirapa Orphanage	-----