HIV AND STBBI TESTING: THE IMPLICATIONS OF SHIFTING POLICY ENVIRONMENTS

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Abstract

The transition to an integrated approach to HIV and Sexually Transmitted and Blood-borne Infection (STBBI) prevention will impact testing services in Nova Scotia. In order to respond to the consequences of this policy-level decision, this study explored stakeholders' perceptions of integration and its consequences. Guided by a social constructivist framework, this study included a policy literature review, and as the main data collection activity, two rounds of one-on-one semi-structured stakeholder interviews.

Eight participants participated in twelve separate interviews; stakeholders represented the community, health care and policy levels from both HIV and STBBI prevention. Transcripts were analyzed using a thematic analysis methodology. Three key thematic areas were identified: Integration as promoting efficiency or creating competition, promoting integrated testing, and the need for policy-level support. Together, these three thematic areas outline stakeholders' perceptions of integration, its consequences and potential strategies for capitalizing on opportunities or addressing challenges associated with integration.

List of Abbreviations Used

Human Immunodeficiency Virus (HIV)
Sexually Transmitted Blood-Borne Infections (STBBI)
Public Health Agency of Canada (PHAC)
Integrated knowledge translation and exchange (iKTE)
Highly Active Antiretroviral Therapy (HAART)
Chlamydia Trachomatis (CT)
Hepatitis C (HCV)
AIDS Coalition of Nova Scotia (ACNS)
AIDS Coalition of Cape Breton (ACCB)
Halifax Sexual Health Centre (HSHC)
Point-of-care testing (POCT)
Hepatitis B (HBV)
AIDS Service Organizations (ASOs)
Men who have sex with men (MSM)
World Health Organization (WHO)
Halifax Regional Municipality (HRM)
Canadian Institutes of Health Research (CIHR)
Canadian Public Health Association (CPHA)
European Union (EU)
Canadian Interprofessional Health Collaborative (CIHC)
Interprofessional Health Education (IPHE)
Lesbian, gay, bisexual, transgender and/or queer (LGBTQ)
Pre-exposure prophylaxis (PrEP)

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Chapter 1: Introduction

Preventing the transmission and addressing the health and social impact of the Human Immunodeficiency Virus (HIV) and Sexually Transmitted Blood-Borne Infections (STBBIs) remains a public health concern in Canada, and testing remains an important component of the prevention response (Public Health Agency of Canada, 2014b). At present, the Public Health Agency of Canada's (PHAC) shift to an integrated approach to the prevention of HIV and other STBBIs (referred to as integration or an integrated approach) is a policy-level priority among health promotion researchers, community-based organizations, and policy decision-makers who focus on testing in Nova Scotia (Condran, Peddle, Proctor-Simms, & Gahagan, 2013). From a health promotion perspective, health services and the policies that shape them are key determinant of health (Mikkonen & Raphael, 2010). Health policies consists of the "capacities and choices made by government institutions" (Muller, 2012, p. 11) which direct activities such as the allocation of finite resources, the establishment of health priorities, and the implementation of programs (Singer & Castro, 2004). Therefore, the potential positive and negative impacts of a policy-level change such as integration should be carefully considered to ensure that it contributes to, rather than hinders, effective HIV and STBBI testing responses.

HIV and STBBI testing response are shaped by multiple interacting factors (Conrad & Barker, 2010; Mendell & Langlois, 2014; Rayside & Lindquist, 1992; Smith & Whiteside, 2010). At the structural level, these factors include the provision of funding, the presence of services within a geographic location, and health policies. However, these structural factors are influenced by social factors such as culturally prevalent discourses regarding HIV and STBBIs (Conrad & Barker, 2010; Patton, 1996). These discourses reflect the unique history of HIV and STBBIs as well as the grassroots and/or public health responses levied against them (Patton, 1996; Steen, Elvira Wi, Kamali, & Ndowa, 2009). As HIV and STBBI prevention have historically been approached separately from each other (Steen et al., 2009) and shaped by different discourses (Patton, 1996) integration represents the merger of two unique prevention responses. Exploring the potential consequences of a policy-level decision such as integration should involve careful consideration of how these discourses may impact the transition to an integrated approach, and their role in shaping the next generation of testing responses in Nova Scotia. Given the current shifts in the policy landscape, the purpose of this study was to:

1. Explore stakeholders' perceptions of the potential consequences of shifting to an integrated approach to HIV prevention, as they pertain to the promotion and provision of accessible HIV and STBBI testing in Nova Scotia; and
2. Identify potential responses to these consequences, including either strategies for addressing challenges emerging from the intersection of integration and testing, or opportunities for promoting innovation in HIV and STBBI testing.

The following methods were used to address these objectives: First, a policy literature review was conducted to develop an interview guide for use in the following stage. The core data collection activities were two rounds of semi-structured interviews with HIV and STBBI prevention stakeholders. This included service providers, public health officials, researchers, and activists who promote or provide testing in Nova Scotia. In order to account for the role of discourses in shaping prevention responses (Herek, Capitanio, & Widaman, 2003; Smith & Whiteside, 2010), a social constructivist framework guided the conduct of this study (Berger & Luckmann, 1966; Brown, 1995; Schneider & Ingram, 1993) and data were analyzed using a thematic analysis approach (Braun & Clarke, 2006). During the analysis of interview transcripts, emphasis was placed on identifying key challenges and opportunities associated with integration, and strategies for addressing or capitalizing on them as necessary. In order to support collaborative responses to integration, findings were shared with participants through an integrated approach to knowledge translation and exchange (iKTE) (Canadian Institutes of Health Research, 2015). This approach allowed participants to contribute to data analysis, which helped to minimize the impact of my own biases (and those of individual participants) on the interpretation of data. This also helped to ensure that my analysis and findings were grounded within participants' experiences.

Three key thematic areas were identified. These included:

1. Integration as a means to promote efficient STBBI prevention responses, or as a source of competition between PHAC-funded organizations;
2. Promoting integrated testing: Normalizing testing and expanding access; and
3. The need for high-level coordination and support from provincial and federal governments, policy makers, funding agencies and health care managers.

By drawing on the Pan-Canadian Health Promoter Competencies (Pan-Canadian Network for Health Promoter Competencies, 2015), this thesis concludes by demonstrating the relevance of HIV and STBBI integration to the field of health promotion, and by identifying how health promoters can provide leadership during this transition.

Chapter 2: Literature Review

2.1 Overview

The purpose of this chapter is to situate my thesis within the current HIV and STBBI testing literature, and to demonstrate the need for exploring the potential consequences of integration from a perspective that accounts for multiple unique discourses. This chapter begins with an overview of the role of testing as a key element of HIV and STBBI prevention. Following this, I will highlight the importance and potential impact of integration, as a change in health policy, on testing responses. This will involve a brief discussion of the history of HIV and STBBI prevention within North America. By discussing these histories, I will clarify how unique social discourses have characterized the responses levied against HIV and STBBIs. This chapter will conclude with a summary of these issues and a description of how they led to the identification of my key research objectives.

2.2 HIV and STI Prevention Through Testing

Within Canada, testing services remain a critical element of the prevention and control of the HIV and STBBIs (Public Health Agency of Canada, 2014b). Testing is primarily employed as a means of secondary prevention, where the emphasis is placed on identifying individuals who have been exposed, initiating treatment, and limiting the potential for forward transmission (Weinhardt, Carey, Johnson, & Bickham, 1999). Testing can also be used as a form of primary prevention, as the process of pre- and post-test counseling provides an opportunity to discuss strategies for avoiding exposure with persons who receive negative test results (Weinhardt et al., 1999). It is ideal to identify

HIV and STBBI exposure as early as possible, as individuals who are aware of their status are likely to engage in behaviours that prevent transmission such as condom use (Dombrowski, Harrington, & Golden, 2013; Marks, Crepaz, & Janssen, 2006; Weinhardt et al., 1999), and untreated infections can have severe long-term consequences (Fisman & Laupland, 2011; Genc & Mardh, 1996; Singh & Romanowski, 1999).

Marks et al. estimated that HIV transmission from individuals who were unaware of their status occurs at a rate 3.5 times higher than from individuals who are aware of their status (2006). It has also been estimated that the proportion of HIV-positive individuals who are unaware of their status range from 21% in Canada (Public Health Agency of Canada, 2015b) to one quarter in the United States (Marks et al., 2006). Once an individual receives a diagnosis, adherence to Highly Active Antiretroviral Therapy (HAART) can prevent HIV from developing into AIDS, reduce an individual's viral load, and thereby reduce the possibility of forward transmission (British Columbia Centre for Excellence in HIV/AIDS, ND; Canadian Public Health Association, 2006).

It has been estimated that more than three quarters of *Chlamydia Trachomatis* (CT) infections have no visible symptoms (Penny & Lesperance, 2012). Untreated CT can result in infertility in men and pelvic inflammatory disease in women, as well as chronic pelvic pain and ectopic pregnancy (Fisman & Laupland, 2011; Genc & Mardh, 1996). Untreated syphilis can result in coronary and neurological complications (Fisman & Laupland, 2011; Singh & Romanowski, 1999), while both CT and syphilis can be transmitted to infants during prenatal development and birth, which results in severe lifelong medical complications (Fisman & Laupland, 2011; Genc & Mardh, 1996; Singh & Romanowski, 1999). STBBIs can also increase an infected individual's biological susceptibility to HIV infection (Fisman & Laupland, 2011; Fleming & Wasserheit, 1999; Singh & Romanowski, 1999; World Health Organization, 2007).

In Nova Scotia, new cases of HIV and STBBIs continue to present a public health challenge. While in 2014 the detection of new syphilis cases decreased for the first time since 2010, the reported rate of CT has gradually increased since 2005 and during 2014 it was "the most frequently reported disease" within Nova Scotia (Nova Scotia Health and Wellness, 2014, p. 4). In 2013, the reported rate of Hepatitis C (HCV) in Nova Scotia was higher than the national average, and the overall rate of HCV in the province has increased since 2011 (Nova Scotia Health and Wellness, 2014). While HIV has been identified at a rate lower than the national average, many new cases have been among populations such as men who have sex with men (MSM) and/or who inject drugs (Nova Scotia Health and Wellness, 2014). From a health promotion perspective, ensuring that testing services are available, and that individuals are able to access them when needed, is a critical issue of health equity (Gahagan, Condran, & Hajizadeh, 2015). This requires an approach to sexual health promotion that accounts for factors which may influence an individual's ability to locate and access testing services. These factors include the knowledge, behaviour and attitudes of individuals and communities, the social and structural contexts within which testing is provided, and the health care policies that shape these environments (Canadian AIDS Treatment Information Exchange, 2015; Fortenberry et al., 2002; Gahagan, Fuller, Hatchette, & Poirier, 2010; Provincial HIV/AIDS Strategy Steering Committee, 2003).

2.3 Testing in Canada and Nova Scotia

With a few exceptions such as perinatal HIV testing, the delivery of HIV and STBBI testing is patient-driven in Nova Scotia (Gahagan, Fuller, Delpech, Baxter, & Proctor-Simms, 2010). While a physician can ask an individual if they wish to receive testing during a regular visit, the individual in question must ultimately give consent before testing can be initiated (Canadian Public Health Association, 2006; Public Health Agency of Canada, 2014b). Out of the four Atlantic Provinces, only Nova Scotia has an official HIV prevention strategy (Nova Scotia Advisory Commission on AIDS, 2014). However, it has been noted that the current provincial model of service provision does not ensure equitable access to or promotion of testing for all populations, or for all geographic communities (Gahagan, Fuller, Proctor-Simms, Hatchette, & Baxter, 2011). For example, while current policies within Nova Scotia require that pregnant women be offered testing, there is no policy to ensure that the partners of pregnant women, or women who are not pregnant, are offered testing (Gahagan et al., 2011). Therefore, in many cases individuals must seek out and attempt to initiate testing on their own. However, the socio-cultural context of the province presents barriers that prevent or discourage some individuals from doing so, and resource constraints within the provincial health care system make it difficult to provide dedicated sexual health services in some regions.

There are a variety of barriers that prevent individuals from seeking or accessing testing services. These barriers include the stigmatization of HIV and STBBIs, negative perceptions of the populations most affected by HIV, a lack of awareness of exposure risks, and a lack of services within their geographic community (Canadian AIDS

Treatment Information Exchange, 2015; Fortenberry et al., 2002; Gahagan, Fuller, Hatchette, et al., 2010). Individuals may be unwilling to seek testing due to a fear of being identified by friends or family members. The negative impact of stigma on testing uptake has been indicated as particularly critical in rural communities where social networks are smaller and dedicated sexual health services are not available (Pyra Management Consulting Services Inc, 2008; Stanley, 2005). Therefore, community-based organizations such as the AIDS Coalition of Nova Scotia (ACNS) and the AIDS Coalition of Cape Breton (ACCB) play an important role in the promotion of testing, other forms of prevention, and the provision of support services for persons living with HIV and STBBIs (AIDS Coalition of Cape Breton, ND; Kirkland, Patten, Krahn, Peddle, & Gaspar, 2014; Nova Scotia Health, 2004).

Currently, only a small number of dedicated sexual health service centers in Nova Scotia are able to offer on-site specimen collection for HIV or STBBI testing. For example, the Halifax Sexual Health Centre (HSHC), and the ACCB in Sydney, are the only sites that focus on sexual health and regularly offer on-site specimen collection (AIDS Coalition of Cape Breton, ND; Halifax Sexual Health Center, ND). This is an important consideration in Nova Scotia, as 43 percent of the population was reported as living in rural areas as of 2011 (Statistics Canada, 2011). Individuals who live outside of these regions must travel to Halifax or Sydney, schedule testing through ACCB, or seek testing from blood collection clinics or family physicians (AIDS Coalition of Cape Breton, ND; Gahagan et al., 2011). However, concerns related to stigma and confidentiality may cause some individuals to avoid seeking testing at these sites.

Currently, there are several testing methods that may help mitigate the negative impact of social stigma, and present opportunities for providing testing in small or rural communities. These methods differ in how the specimen is collected, who collects the specimen and administers the test, the time necessary for results, the location at which testing is conducted, and the reporting procedures employed to provide test results. In Nova Scotia, most HIV and STBBI testing is conducted using samples collected through blood-draw, urine collection, or vaginal, ureteral, rectal, or throat swabs (Nova Scotia Department of Health and Wellness, 2014; Public Health Agency of Canada, 2015a). The health care provider who collects the sample often records the client's name and contact information to provide results after the test is processed in the provincial laboratory. This method is referred to as nominal testing. Non-nominal testing is also available in STBBI clinics and involves the use of a code rather than an individual's name (Nova Scotia Department of Health and Wellness, 2014). Anonymous testing was introduced in Halifax in 1994 and later in Sydney, and is now available in Port Hawkesbury and Antigonish by appointment (AIDS Coalition of Cape Breton, ND; Gahagan, Fuller, Delpech, et al., 2010; Gahagan, Stein, & Campbell, 2012; Pyra Management Consulting Services Inc, 2008). With anonymous testing, the client's name is not recorded. Instead, the client provides a pseudonym which is used to track their test results, and calls the clinic for results after a period of two or three weeks (Nova Scotia Department of Health and Wellness, 2014). Anonymous testing has the benefit of alleviating some concerns regarding confidentiality, and research has demonstrated that some clients may prefer it to nominal and non-nominal testing for this reason (Gahagan et al., 2012).

Elsewhere in Canada, other testing methods are used to address the barriers of stigma, accessibility, and physical proximity to testing. These methods include point-of-care testing (POCT) and home-based or unsupervised self-testing. POCT provides an individual with an initial test result within a short period of time, and can be administered using only a small amount of blood (Broeckaert & Challacombe, 2015; Tooley, 2010). This mode of testing could be useful for ensuring that individuals are not lost during the HIV care cascade (Broeckaert & Challacombe, 2015; Wilton & Broeckaert, 2013). The HIV care cascade refers to the process of transitioning from testing and diagnosis to appropriate treatment and support services such as HAART for those who test positive for HIV (Broeckaert & Challacombe, 2015; Wilton & Broeckaert, 2013). With home-based or unsupervised self-testing, an individual requests a testing kit from a service provider, collects their own sample (usually urine) at home, and returns it by mail for analysis. These methods can provide a means of access for populations for whom social stigma or geographic proximity to service are barriers (Novak & Karlsson, 2006; Pant Pai et al., 2013). Although currently unavailable for non-laboratory use within Canada, multiplex platforms permit testing for multiple STBBIs using one blood sample which is usually obtained via finger-prick. For example, the MedMira Laboratories Multiplo HIV/HCV test can detect HIV types 1 and 2, Hepatitis B (HBV), and HCV using a single blood sample and provide results in minutes (Medmira Laboratories, ND). Pant Pai et al. (2014) used MedMira’s Rapid TP/HBV/HIV/BCV Antibody Test Miriad to identify syphilis, HCV, HBV and HIV in Montreal, Canada, and Mumbai, India. Their findings suggested that the populations sampled (persons who used injection drugs, in Canada) preferred the multiplex POCT to conventional blood-draw based testing due to the convenience of clarifying their status on multiple infections through a single test (Pai et al., 2014). Overall, it has been suggested that populations considered ‘high priority’ for prevention programming due to being at ‘high risk’ for exposure, such as persons who inject drugs, may prefer POCT and multiplex platforms to conventional blood-draw based testing (Downing et al., 2001; Pai et al., 2014; Peralta, Griffin-Deeds, Hipszer, & Gahlib, 2007). For the purpose of this study, these methods will be collectively referred to as ‘innovations in HIV and STBBI testing’ due to their potential for mitigating persistent barriers that limit the uptake of testing services in Nova Scotia.

At present, HIV POCT is available in most large Canadian cities such as Montreal, Quebec (SPOT, ND) and Vancouver, British Columbia (British Columbia Centre for Disease Control, 2014). Meanwhile, companies such as MedMira Laboratories and bioLytical Laboratories are in the process of developing multiplex testing platforms, or having them approved for use in Canadian and international jurisdictions (bioLytical Laboratories, 2015; Medmira Laboratories, ND). However, these testing methods are not available within Nova Scotia, although initiatives are underway to promote the utilization of these approaches (Gahagan et al., 2015). While this situation may reflect some combination of a lack of policy-level action, the prioritization of other health concerns over testing, a lack of resources or an intentional resistance to novel testing practices, it remains that the current policy landscape could be described as limiting equitable testing practices. Health services and the policies that shape them are considered a key determinant of health in Canada (Mikkonen & Raphael, 2010). Health policies influence the allocation of resources and establishment of priorities (Muller, 2012; Singer & Castro, 2004) and therefore have a role in the provision and promotion of testing that should be carefully considered. At present, one important example of the role of policy in HIV and STBBI prevention is PHAC's transition to an integrated approach to HIV prevention (Arthur, 2013; Public Health Agency of Canada, 2012). While this transition represents an opportunity to promote testing innovation in Nova Scotia, it also represents a source of uncertainty and challenges for many AIDS Service Organizations (ASOs), service providers, and activists. These challenges, which include changes to funding structures and the need for shifting organizational mandates, will be discussed in the following section.

2.4 Integration

In 2012, PHAC announced as part of the Federal Initiative to Address HIV/AIDS in Canada, it would move towards an integrated approach to HIV prevention (Arthur, 2013; Public Health Agency of Canada, 2012). It was stated that:

> "Many people living with and vulnerable to HIV/AIDS have complex health needs and may be vulnerable to other communicable diseases, such as sexually transmitted infections and other blood-borne diseases.
>
> Federal HIV/AIDS programs will be linked with other programs, as appropriate, to ensure an integrated approach to program implementation. Programs will address barriers to services for people living with or vulnerable to multiple infections and conditions that have an impact on their health. Those affected will play a key role in overcoming these barriers." (Public Health Agency of Canada, 2012, para. 4).

The transition to an integrated approach to HIV prevention represents a substantial reorientation of federal funding policy. The integrated approach acknowledges that HIV and STBBIs share similar transmission routes (e.g. condomless sex), and disproportionately affect similar populations (e.g. men who have sex with men [MSM] or persons who inject drugs). It also acknowledges that the treatment and care needs of these populations include similar concurrent physical and mental health issues (Smylie, 2014). By providing ‘holistic’ or “needs-based comprehensive services” (Soto, Bell, & Pillen, 2004, p. 50), it is expected that organizations operating under an integrated approach will be better able to meet the needs of high priority populations who see the highest rate of HIV or STBBI diagnosis (Smylie, 2014; Soto et al., 2004; Ward & Fenton, 2007). Other potential benefits include reduced HIV stigma at service locations (Tombros, 2005), increased efficiency of the care cascade (Smylie, 2014; Soto et al., 2004), and a more efficient use of health care funding (Tombros, 2005). Finally, it should be noted that while the provincial government funds the provision of testing within Nova Scotia, PHAC provides community-based organizations with the majority of funding for prevention- activities such as capacity-building opportunities and the promotion of testing (Kirkland et al., 2014; Nova Scotia Health, 2004; Public Health Agency of Canada, 2016). Under the federal integration proposed by PHAC, federal funding would only be provided to organizations who took an integrated approach to prevention. Provincial funding for testing services, on the other hand, could remain largely unchanged.

The prospect of integration has raised concerns among service providers, healthcare policy makers, community-based organizations, and researchers within the health sector, in particular within the HIV and STBBI prevention silos. The World Health

Organization (WHO) defines the health sector as “the people, institutions and resources, arranged together in accordance with established policies, whose primary purpose is to promote, restore and maintain health” (World Health Organization, ND, para. 1). Referring to HIV prevention as occurring within a ‘silo’ (or being ‘siloed’) draws attention to the fact that HIV prevention activities have often been separate from prevention activities aimed at other STBBIs such as HCV (Canadian Treatment Action Council, 2014; Steen et al., 2009). Organizations located within these silos may experience difficulty in shifting organizational mandates, incorporating new testing procedures into existing initiatives, and operating under unfamiliar policies (Kirkland et al., 2014). These challenges could impede the promotion of testing within the province. Alternatively, integration may present novel opportunities for strengthening prevention and testing within Nova Scotia. For example, integration is intended to improve prevention programming for high priority populations. As innovations in testing such as POCT may be preferred over conventional blood-draw based testing (Pai et al., 2014), integration may provide an opportunity to leverage the policy-level changes required to permit the use of these platforms in support of integrated prevention programs. However, capitalizing on these opportunities and aligning testing with integrated prevention activities will require greater collaboration between and across sectors and silos.

Specific structural and social challenges to collaborative integrated prevention responses have been identified. Integration may promote conflict or increased competition between organizations currently working to promote or provide testing services. For example, at the structural level, integration may result in the loss of some jobs among PHAC-funded organizations due to organizational restructuring (Condran et al., 2013; Rogers, 2005; Tombros, 2005). Competition for finite funding may breed resentment between organizations who were previously funded through separate streams, and hinder the initiation of collaborative prevention initiatives such as the promotion of testing. At the social level, the prospect of integration may threaten the identity and sense of history of individuals and organizations who have participated in the HIV/AIDS movement. Concern and uncertainty have been expressed regarding the underlying intent of, and language surrounding, integration. For example, some individuals and organizations may view integration as the “dismantling [of] a thirty-year movement” (Condran et al., 2013, p. 2), and terminology such as “the end of AIDS exceptionalism” may have contributed to this sentiment (Smith & Whiteside, 2010). For these reasons, the potential consequences of integration could extend beyond structural considerations such as funding, and extend into the realm of the social perceptions of policy makers, activists, service providers and researchers. In this context, the term ‘consequences’ refers to the potential positive and negative impacts of integration. This term is used to emphasize the importance of policy change in the promotion of health overall (Golden, McLeroy, Green, Earp, & Lieberman, 2015) and in HIV/STBBI prevention specifically. It has been suggested that the field of health promotion should pay greater attention to the policy process (Bryant, 2002; Golden et al., 2015) as it can have a variety of impacts on health services and outcomes, such as destabilizing community-based organizations (Patton, 1996) or privileging the needs of some groups over others (Bryant, 2002). The use of this term draws attention to the positive or negative impact of changing federal funding guidelines on the promotion or provision of HIV and STBBI testing, with an emphasis on the potential negative impacts. Therefore, this term was selected because it highlights the role of policy change in health promotion and draws attention to the potential of a decision such as integration to negatively impact ongoing prevention and testing within Nova Scotia.

2.5 Merging the Sectors: Historical Perspectives on the Prevention Discourse and AIDS Exceptionalism

In order to articulate the differences between HIV and STBBI prevention responses associated with the 'siloed' approach to prevention, we must look to the unique histories of these infections and examine the social discourses which have over time influenced their perception (Patton, 1996). Social discourses, which refer to prevailing attitudes, stories and perceptions of the nature of illness such as HIV and other STBBIs and the people they affect, have implications for the ways in which these illness and populations are constructed within medical literature and elsewhere (Conrad & Barker, 2010). In relation to the field of health promotion, these discourses can influence the types of prevention responses that are initiated, the funding that is allocated to support specific prevention goals, and the policies that are developed to shape the overall landscape of testing and prevention (Conrad & Barker, 2010; Patton, 1996).

While HIV is considered an STBBI, historically it has been treated separately from infections such as CT, syphilis, and HCV (Steen et al., 2009) due to differences in the impact of social stigma, the progression of these diseases and the potential for treatment. As a result, there are significant differences between the prevailing discourses pertaining HIV and other STBBIs. For example, the early identification of HIV infections among gay men in New York and San Francisco led to the widespread assumption that only 'gay sex' placed individuals at risk for HIV/AIDS infection, which public health nomenclature referred to as ‘Gay Related Immune Deficiency’ during the early years of the epidemic (Patton, 1996). It has been suggested that the social stigma associated with this disease reflects discriminatory attitudes directed towards gay men in the United States at this time (Ainslie, 1999; Canadian AIDS Treatment Information Exchange, 2015; Smith & Whiteside, 2010).

As a result of this association, discourses pertaining to HIV have presented it as a biological condition, a sign of immorality, a social justice issue, and a threat to public health. Therefore, the thirty-year history of the HIV social activism movement has been shaped by the biomedical transmission and progression of the disease, and also by a complex interaction of social and political factors (Mendell & Langlois, 2014; Patton, 1996; Rayside & Lindquist, 1992; Smith & Whiteside, 2010). The responses levied against HIV/AIDS have been directly shaped by competing or overlapping public health and grassroots discourses (Patton, 1996). Historically, the AIDS movement has drawn on extensive social mobilization among gay men and women, and concerned itself not only with health in the terms of presence or absence of disease, but also in improving the social and political standing of those impacted by HIV/AIDS (Ainslie, 1999; Patton, 1996; Smith & Whiteside, 2010). Combined, the biological expression and social or political reaction to HIV propelled it to a unique standing within public health and the term “AIDS exceptionalism” has been applied to describe the unique status of this disease (Smith & Whiteside, 2010).

In the case of many STBBIs, it is possible for an individual to be cleared of infection provided that they are able to receive appropriate treatment. While now considered a manageable disease, it is not yet possible to ‘cure’ an individual of HIV and treatment must be maintained through the individual's life. Historically, STBBI prevention in North America has primarily been approached through a public health framework where the focus has been on limiting transmission and preventing occurrence of late-stage symptoms (Steen et al., 2009; see Powers & Faden, 2006 for discussion of social justice and public health ethical frameworks). In contrast, contemporary HIV prevention grew out of social justice-oriented movement which was initiated through grassroots community mobilization (Patton, 1996; Rayside & Lindquist, 1992; Smith & Whiteside, 2010). Perhaps for these reasons, the prevalent discourses regarding STBBI prevention have never constructed these infections as being 'exceptional.' Consequentially, while integration has been described as 'the end of AIDS exceptionalism in Canada,' no parallel discourse has been identified for the STBBI prevention silo. While STBBI prevention is now informed by population health and social determinant of health frameworks (e.g. Canadian Public Health Association, ND), the shift towards sexual health promotion is a relatively recent development. Even within sexual health promotion literature, emphasis continues to be placed on changing individual behaviour rather than altering social environments through action on the social determinants of health (Golden & Earp, 2012; Salazar et al., 2010).

2.6 Statement of Problem

The previous section illustrates the historical and contemporary differences between the HIV and STBBI silos and associated prevention responses. These responses have been shaped by unique discourses, and by action across different levels of the health sector (for example, from the level of health policy as opposed to that of grassroots, community-based organizations). While there is overlap between the HIV and STBBI silos in regards to work with high priority populations, modes of transmission, and the impact of stigma, it remains that the socially constructed nature of prevention responses must be considered as we move towards integration. At present, it is unclear how merging the unique histories, discourses and prevention approaches of these silos through integration will impact the next generation of testing responses within Nova Scotia.

2.7 The Current Study

From a health promotion perspective, there is a need to ensure that the provision of testing services aligns with community-based approaches to prevention despite being funded through different sources. It is also important to ensure that all aspects of the provincial prevention response are well situated to make the most of the new integrated landscape (Nova Scotia Advisory Commission on AIDS, 2014). Improving the state of testing within Nova Scotia will require coordinated and collaborative responses to the challenges and opportunities that this landscape presents. Therefore, this qualitative study aimed to identify potential consequences of integration, as perceived by key stakeholders, and outline steps to pre-emptively respond to them. Exploring the role of discourses in shaping the stakeholders' perception of integration, its consequences, and potential responses was a key element of this study. Specifically, the goals of this study were to:

1. Explore stakeholders' perceptions of the potential consequences of shifting to an integrated approach to HIV prevention, as they pertain to the promotion and provision of accessible HIV and STBBI testing in Nova Scotia; and
2. Identify potential responses to these consequences, including either strategies for addressing challenges emerging from the intersection of integration and testing, or opportunities for promoting innovation in HIV and STBBI testing.

Given that PHAC will no longer fund stand-alone AIDS prevention initiatives as of 2017, it was also important that the knowledge generated through this study be developed and shared with relevant stakeholders. Therefore, an iKTE framework (Canadian Institutes of Health Research, 2015) was used to direct this study, engage stakeholders in the interpretation of data, and facilitate the mobilization of findings. The following chapter of my thesis will provide greater detail on the methods that I used in this study, including the theoretical framework, methods for data collection and analysis, and iKTE strategy.

Chapter 3: Methods

3.1 Overview

This chapter describes the methods used in my thesis. Guided by a social constructivist framework, this study started with a policy literature review to inform the development of the initial interview guide. The core data collection activities consisted of two rounds of semi-structured one-on-one stakeholder interviews. The purpose of the first round of interviews was to explore participants' perceptions of integrations and its potential consequences, and to outline responses to these consequences. The purpose of the second round of interviews was to review findings with participants, and to discuss in greater detail the responses identified in the first round. All data were analyzed using a thematic analysis methodology. Key themes were identified through an iterative theory-driven analysis aimed at interpreting current discourses regarding integration, its consequences and potential responses. In order to interpret findings in a manner relevant to the field of health promotion, the final examination of key thematic areas was structured based on the Pan-Canadian Health Promoter Competencies (PCNHPC, 2015).

3.2 Situating Myself in This Research

At the time of undertaking this thesis, I occupy multiple roles related to both health promotion and public health advocacy. In addition to being a student of health promotion, I am also a health promotion researcher who regards access to and uptake of testing as a critical part of HIV and STBBI prevention landscape in Canada, including the importance of collaboration in relation to testing and the need for mobilization of research-based knowledge. Further, I am engaged in public health activism within the province and highly concerned with the role of policy decisions in shaping health outcomes. These factors have contributed to my focus on the role of health policy change in prevention and testing, as well as my use of qualitative methods iKTE. More personally, as a bisexual man who only began to work in HIV prevention within the past five years, there are several realities that have contributed to my decision to study the role of policy in prevention in testing. These include the fact that HIV infection is potentially manageable, the acknowledgement of social and structural drivers of infection within many contemporary prevention discourses, and the fact that the provincial prevention response is currently undergoing a policy-driven transition.

3.3 Theoretical Framework

This qualitative study was guided by a social constructivist theoretical framework. Emerging from the work of Berger and Luckman (1966), social constructivism holds that knowledge is socially constructed through a process of discursive interaction that involves individuals and groups who exist in separate, but often overlapping, spheres of influence (Berger & Luckmann, 1966). This perspective suggests that “the meanings of phenomena do not necessarily inhere in the phenomena themselves but develop through interaction in a social context” (Conrad & Barker, 2010, p. s67). A social constructivist framework was selected for this study because it provides a means of exploring how social discourses can influence the perception of illness and the populations that they effect (Brown, 1995; Schneider & Ingram, 1993) as well as the development of policy and practice (Conrad & Barker, 2010). A social constructivist framework also allows for the consideration of multiple contrary discourses without requiring that one be identified as ‘best’ or ‘most accurate’ (Berger & Luckmann, 1966; Conrad & Barker, 2010).

As described in Chapter 2, the perceptions of and responses to integration are shaped by multiple competing and complementary discourses within and between silos. Therefore, a social constructivist framework was considered ideal as it acknowledges the existence of these silos as unique spheres of influence and permits the reproduction of this complexity throughout data collection and analysis. Finally, a social constructivist perspective acknowledges that these discourses can have tangible impacts on the lives of individuals and our collective responses to health issues such as HIV and STBBIs.

3.4 Data Collection Methods

3.4.1 Collection of Policy Documents

The purpose of the policy literature review was to inform the development of the first-round interview guide. The identification of materials for inclusion in this review was informed by the framework outlined by Levac, Colquhoun and O'Brien (2010), with the exception that this process was conducted by a single reviewer. Material for the policy literature review consisted of policy documents that govern or inform the provision of HIV and STBBI testing in Nova Scotia. These documents were gathered through a search provincial and federal agency websites, and through recommendations made by interview participants. The inclusion criteria stipulated that documents had to pertain to the provision of HIV and/or STBBI testing within Nova Scotia, be readily accessible to the public, and take a public health approach to the promotion or provision of testing. Documents specific to federal legal arguments regarding the criminalization of HIV non-disclosure, or provincial acts such as the Health Protection Act were not included. Technical manuals for specific forms of testing such as POCT were also excluded. Federal documents were included if they were relevant to the provision of testing in Nova Scotia. In total, seven documents were included for in-depth review through a manual thematic analysis. These documents are listed in Appendix A.

3.4.2 Recruitment of Participants and Collection of Interview Data

An in-depth semi-structured interview methodology was selected because it would allow me an opportunity to learn about participants' "attitudes, feelings, and definitions of situations" (Van Den Hoonaard, 2012, p. 78). Further, semi-structured interviews allowed participants to have some control over the course of the interview (Van Den Hoonaard, 2012). This study targeted HIV and STBBI prevention stakeholders as potential participants, including health care policy decision makers, service providers, representatives of community-based organizations, and researchers. I included these individuals because of their expertise and familiarity with HIV and/or STBBI testing. It was expected that they would be able to articulate the prevailing discourses within their respective silos, the potential consequences of integration and strategies that were perceived as necessary to respond to these consequences. Further, through the use of a semi-structured interview methodology, it was expected that participants would be able to direct the course of their interview toward the most pressing issues facing their silo and identify issues or topics that I would otherwise be unaware of.

Recruitment for the first round of interviews was conducted using an e-mail recruitment message. My supervisor and I forwarded this message, as well as a copy of the consent script, to stakeholders across Nova Scotia. Included in this message was a request that each recipient forward it to colleagues who may be able to participate. Contact information was obtained through our existing professional networks within the province; the recruitment e-mail was sent to individuals and organizations for whom we already had contact information. We did not ask that recipients of the recruitment e-mail inform of us of whom they had forwarded the recruitment e-mail to. Individuals who expressed an interest in participating were able to contact me via telephone or e-mail. Screening took place when potential participants contacted me. Inclusion criteria stipulated that participants must reside within the province of Nova Scotia, be able to understand English, and be at least eighteen years of age. Morris (2002) and Taut (2008) caution that over-representation of specific stakeholder perspectives can introduce bias into the findings of a study. Therefore, participants were recruited and screened through a purposive snowball sampling. As the interviews progressed, stakeholders were excluded if they represented a silo or level that was already well represented by previous participants. For example, if community- and policy-level participants were well represented in the study, further potential participants from these levels would have been declined participation and emphasis would have been placed on recruiting health care providers instead. During the latter stages of recruitment, emphasis was placed on connecting with potential participants from levels not yet represented among participants. This was done to ensure the representation of diverse perspectives and discourses from multiple silos and levels.

One-one-one interviews were chosen (as opposed to focus group interviews) to preserve the anonymity of participants. Nova Scotia is a relatively small province with a limited number of individuals working in HIV and STBBI prevention. As some potential participants were faced with concerns related to job security, or for whom speaking on certain topics could have negative personal or professional consequences, it was deemed more important to preserve anonymity than to observe the social construction of HIV and

STBBI prevention discourses through focus group interviews. Further, there may have been perceived or actual conflict between some potential participants in a focus group setting, which would have complicated the interview process.

All interviews were conducted one-on-one via telephone and took between one and one-half hours. Participants were not provided compensation for their time. The teleconference interview approach was chosen in order to accommodate the busy schedules of potential participants, minimize need for travel, and facilitate inclusion of participants from regions outside the Halifax Regional Municipality (HRM). All interviews were recorded using an audio recording device with permission of the participants and later transcribed for analysis which was conducted using NVivo 10. Ultimately eight participants participated in this study across the two rounds for a total of twelve interviews. One second-round interview was conducted in two sessions as per the participant's request. A copy of the first- and second-round interview guides can be found in Appendices B and C, respectively.

The purpose of the first round of interviews was to explore participants' perceptions of integration, its potential consequences, and outline responses to these consequences. The initial analysis of first-round interview transcripts served to generate the interview guide for the second round interviews. Participants who took part in the first round of interviews were offered the opportunity to take part in the second round but this was not a condition of participation. The second round of interviews served three main purposes. First, it served as a member-checking exercise that enabled me to ground my analysis within their perceptions. This also helped to reduce the impact of my own biases throughout data analysis. Second, it enabled me to explore in greater detail the potential responses to the consequences of integration that participants identified during the first round. Third, it served as an iKTE activity.

3.5 Integrated Knowledge Translation and Exchange

Given the complex nature of HIV and STBBI prevention and testing, the pending changes in federal funding policy, and the need to initiate effective and timely responses, this study incorporated elements of an iKTE framework. The Canadian Institutes of Health Research (CIHR) describe iKTE as research that incorporates "…knowledge users … [as] members of the research team [who] participate in many stages of the research process" (CIHR, 2015, para. 2). While it was not possible to involve knowledge users in all phases of this study, the research objectives that guided this study reflected key questions and concerns identified by the Atlantic Interdisciplinary Research Network through a consultation process conducted 2013 (Condran et al., 2013). Further, at the end of each first-round interview, participants were provided the opportunity to indicate whether they perceived additional consequences potentially emerging from integration, or whether they could identify important issues that were not addressed during the interview. This allowed participants to highlight issues that they perceived as most salient. Finally, the second stage of interviews allowed me the opportunity to engage participants in the interpretation of data and provided them with an opportunity to learn about my preliminary findings. This enabled me to share with them what I had learned about the concerns, challenges and opportunities facing stakeholders in other silos and levels.

3.6 Ethical Considerations

As the in-depth interviews were conducted via telephone, participants were able to select a time and location that was convenient for them, afforded privacy, and where they felt most comfortable. During the consent process, each participant was able to indicate whether they were willing to be contacted for a second interview and whether they were comfortable with anonymized quotations being used in the final report. Participants were able to retract consent to the use of quotations after each interview. One participant requested that quotations from their interview not be used in reports or presentations.

First-round participants who initially agreed to take part in a second interview were informed that they could later withdraw from participation in the second round. Participants in the second round of interviews did not review the transcripts of other participants. Instead, they were provided with an aggregate of the themes identified up to that point. Following each interview, participants were given a one-month period to request the opportunity to review their interview transcript. If after reviewing their transcript they felt uncomfortable with what was discussed, they were able to request that their interview be removed from the analysis. The digital interview recordings were stored on two password-protected devices, which were kept in a locked filing cabinet owned by my supervisor. Printed transcripts were also stored in this locked cabinet. The transcriptionist and I used Dalhousie University's file share platform to transfer interview recordings and completed transcripts to each other. Ethics review and approval for this study was obtained through the Dalhousie University Health Sciences Research Ethics Board (REB # 2015-3516).

3.7 Data Analysis Methods: Thematic Analysis

An in-depth thematic analysis methodology was selected to analyze interview and policy literature data. Braun and Clarke describe thematic analysis as “a method for identifying, analyzing and reporting patterns (themes) within data” (2006, p. 79). Thematic analysis also allows the interpretation of these patterns through a theoretical framework such as social constructivism (Braun & Clarke, 2006). Thematic analysis was chosen for this study because when combined with social constructivism, it supports the exploration of discourses prevalent within participants’ respective silos and levels (Braun & Clarke, 2006). From a health promotion perspective, this permitted me to explore multiple perspectives of integration, to ground this exploration in the historical and contemporary state of HIV and STBBI prevention within Nova Scotia, and examine how these discourses contribute to the proposed responses that participants identified. By building on participants’ experiences and the histories of their silos, I was more readily able to draw on existing strengths and opportunities, and identify potential responses that meet the needs of multiple stakeholders.

Braun and Clarke outline a series of decisions that must be reported in order to demonstrate the rigorous application of a thematic analysis methodology (Braun & Clarke, 2006). These decisions include whether to employ a theoretical or inductive analysis, whether to provide a description of the entire data set or only a specific element, whether to examine latent or semantic content, and finally, to outline what constitutes a theme (Braun & Clarke, 2006). This study employed a theoretical thematic analysis, as analysis was guided by the social constructivist framework and research objectives. During analysis, I performed a detailed examination of specific elements of the data which were judged as being relevant to the research objectives. Segments of the interview transcripts that did not address these topics were not included in the analysis. My analysis examined the latent level of content: In keeping with a social constructivist framework, emphasis was placed on interpreting how prevailing discourses within participants' respective silos could have contributed to their attitudes and statements. Including participants in the interpretation data helped to ensure that my interpretation was grounded in their experiences, insofar as it was possible to do so. Data analysis was conducted iteratively to ensure that participants' meanings were preserved through the identification and interpretation of themes (Smith & Firth, 2011). This helped to ensure that each subsequent stage of analysis was firmly grounded in the findings of the previous stage, and that a consistent narrative was woven across all stages.

Clearly defining what qualifies as a theme is an important step in conducting a thematic analysis (Braun & Clarke, 2006). In this study, themes were considered to be consistent, prominent, and/or recurring units of meaning which were present across multiple interviews within the overall data set (Braun & Clarke, 2006; Creswell, 2013). Themes could also be prominent within a single interview, or a specific sub-set such as interviews with community-level participants. These units of meaning had to convey information that helped me meet my research objectives. In other words, when I considered these discrete units of meaning together, through comparison or contrast, they helped to tell the overall story contained within the data set relative to my research objectives (Braun & Clarke, 2006; Creswell, 2013).

3.8 Data Analysis Method: Policy Literature Review

The purpose of the policy literature review was to inform the development of the first-round interview guide. Therefore, the document analysis was conducted separately from that of the interview data. Policy literature review documents were coded manually, beginning with an initial review of all seven documents to familiarize myself with their content (Braun & Clarke, 2006; Levac et al., 2010). Document segments were coded to identify instances where integration was discussed either directly or indirectly. The analysis of coded segments was informed by an iterative analytic framework used in the Our Youth, Our Response study to inform the development of an interview guide through the review of policy documents (Our Youth Our Response Team, ND). Coded segments were compared across documents to identify prominent high-level themes regarding the discussion (or lack of discussion) of integration. This resulted in an interview guide that tied the broader issue of integration into the specific context of HIV and STBBI testing and prevention in Nova Scotia. A copy of the first-round interview guide can be found in Appendix B.

During the analysis of the first- and second-round interviews, I occasionally returned to the policy literature when participants made reference to one of these documents. Policy literature documents were not coded as part of the interview analysis, although references were made to them during the interpretation of findings. This iterative approach provided a means of triangulating my findings through comparison of participants' comments, my own observations, and existing policy documents (Creswell, 2013).

3.9 Data Analysis Methods: Interview Coding Procedure

The same overall process that was used to analyze first-round interviews was also used to analyze second-round interviews. Analysis began with a read-through of each transcript to familiarize myself with the data (Braun & Clarke, 2006). Field notes were kept in a research journal during interviews and as I was coding the transcripts to help track my initial observations and impressions of the content (Creswell, 2013). These notes were then considered relative to the research objectives in order to assess which portions of the transcript likely contained relevant information. Through this process I generated a list of 'lean codes' which Creswell describes as labels that identify relevant portions of the data set and organize them based on which key aspects of the research questions they represent (2013). Lean codes for the first round were informed by the research objectives and first-round interview guide, while lean codes for the second round were informed by the results of the first-round analysis.

At this stage, the lean codes were applied to a sub-set of four transcripts. My supervisor conducted an independent review of these four transcripts at this time. Inter-rater reliability was determined through discussion of lean codes and of the overall content of the transcripts. This led to revisions of the initial list of lean codes. Following these revisions, the lean codes were applied to the entire data set. The 'node view' function of NVivo was then used to extract text segments coded for each lean code. These segments were reviewed to assess in greater detail how each lean code related to the research objectives, the social constructivist framework, and to the other lean codes. This led to the development of new codes which outlined specific elements of each lean code (Creswell, 2013); I referred to these as 'descriptive codes.' The list of descriptive codes was then reviewed with my supervisor, revised, and applied to the full data set. Following this step, all transcripts were reviewed again individually in NVivo (not in node view) to ensure that analysis preserved their original meaning.

3.10 Data Analysis Methods: Identification and Organization of Key Themes

For the analysis of participant interviews, this study employed a theory-driven thematic analysis. This was guided by a social constructivist framework for the purpose of meeting specific research objectives through an in-depth examination of specific segments of the data. An underlying intent of this study was to provide concrete recommendations to inform integrated strategies for promoting and providing testing in Nova Scotia. These decisions determined, in large part, the process by which codes were examined and compared, and ultimately organized into key themes (Braun & Clarke, 2006; Creswell, 2013).

During the analysis of first-round interviews, lean codes represented the elements of participants' work and the most salient potential consequences of integration. These codes tended to cover the breadth of multiple interview transcripts. Descriptive codes served to delve more deeply into participants' experiences within their silos, discourses pertaining to integration, and their perceptions of specific ways in which integration could impact their (or other) silo(s). Lean and descriptive codes were grouped into themes based on the 'story' that they told relative to the research objectives (Creswell, 2013): Starting with the identification of prominent discourses pertaining to the purpose or meaning of integration, participants often shifted on their own to discussing a potential consequence that reflected their perception of integration. Once having identified a consequence of integration, participants were able to suggest strategies that could be implemented in response. During the analysis of second-round interview transcripts, lean codes reflected the potential responses that were identified during the first round. Descriptive codes were used to identify the specific steps needed to mobilize these responses. Therefore, the coding of second-round interviews tied participants' suggestions back to the key thematic areas from first-round interviews and elaborated on potential responses. Table 1 provides an overview of the rubric used to identify relevant material within the data set through coding, and the translation of codes into key thematic areas.

Table 1: Decision rubric for coding of transcripts and organization of codes into themes

Stage of analysis	If…	Then…
Lean coding	Section of transcript relates to one of research objectives; and/or Section of transcript pertains to participant's experience, work history, silo / level, etc. in a way that helps to understand what discourses shape their comments.	Code as lean code. Code label is derived from research objective that text relates to or social / experiential factors contributing to statement as per social constructivist framework.
	Section of transcript does not relate to research objective; for example, if participant is discussing an unrelated work project, or the weather.	Section of transcript is not coded; section is excluded from analysis.
Descriptive coding	Section of transcript has been coded with lean code, and Provides detail as to how lean code relates to research objective; and/or Helps to understand what is 'going on' in text; helps to address research goal.	Code as descriptive code. Code label is derived from what participant says, and/or how the text in question relates to research objective.
Revision of code list and identification of relevant codes	A code contributes some information that helps to address research objective; Code refers to a unique concept that is not encapsulated within another code; and Code is present across the majority of transcripts, within a sub-set (e.g. transcripts from health care providers); or Code features prominently within a single interview, or participant in question has unique experience or knowledge that is captured in code, and relevant to research objectives.	Code is kept and incorporated into analysis.
	Code is present within one or more interviews but does not contribute key information that is relevant to research objective.	Code is set aside from analysis, but retained within NVivo.
	Code contains content that cannot be readily distinguished from the content of another code; and Both codes contribute important knowledge relative to the research objective.	Codes are merged and incorporated into analysis. New code label is derived from the insight that this code contributes to the analysis.
Organization of codes into key thematic areas	Several codes overlap physically on the coded transcript; These codes also relate to each other in terms of content; when taken together, they help to tell a 'story' that relates to the research objectives; These codes identify a perception of integration, one (or more related) consequence(s) of integration, and potential solutions; and When taken together, do these lean and descriptive codes help to address both research objectives in a way that can be clearly distinguished from other key thematic areas.	Incorporate into 'thematic area.'

Chapter 4: Findings

4.1 Overview

This chapter provides an in-depth description of the key themes identified during data analysis. This will begin with an overview of the three key thematic areas that were identified, followed by an in-depth exploration of each of these thematic areas. This chapter will conclude with a brief synthesis of these thematic areas to highlight the overall 'story' that I identified. This synthesis will serve as a transition into the next chapter, where I will discuss my findings relative to literature on HIV and STBBI prevention and testing, as well as the relevance of my findings to the field of health promotion.

Seven participants took part in the first round of interviews. Four first-round participants took part in the second round of interviews. Another round of recruitment was conducted using the same method as the first round of recruitment. This yielded one additional second-round participant. No participants requested the opportunity to review their transcripts, or that their transcript be removed from the analysis. Three key thematic areas were identified through the coding and analysis of interview transcript data. These key thematic areas were:

1. Integration as a means to promote efficient STBBI prevention responses, or as a source of competition between PHAC-funded organizations;
2. Promoting integrated testing: Normalizing testing and expanding access; and
3. The need for high-level coordination and support from provincial and federal governments, policy makers, funding agencies and health care managers.

Emphasis was placed on interpreting the data set rather than describing it (Vaismoradi, Turunen, & Bondas, 2013). Therefore, results are not presented in terms of the number of participants who discussed a given topic. Instead, emphasis is placed on exploring the discourses and/or disciplinary backgrounds, experiences and histories that contributed to the identification of specific perceptions, consequences and responses.

4.2 Policy Literature Review: Informing the Interview Guide

Among the policy literature review documents, two made reference to the value of prevention approaches that reflect PHAC's stated intent of integration. These two documents were Nova Scotia's Strategy on HIV/AIDS (PHASSC, 2003) and the Nova Scotia Standards for Blood Borne Pathogen Prevention (Nova Scotia Health, 2004), both of which pre-date PHAC's announcement of integration in 2012. A third document, the recent review of Nova Scotia's Strategy on HIV/AIDS, made direct reference to integration and the need to respond to the challenges that it presents (Nova Scotia Advisory Commission on AIDS, 2014). PHAC's HIV Screening and Testing Guide also discussed the value of integrating testing services to address HIV, STBBIs and other related health issues or services (Public Health Agency of Canada, 2014b). Therefore, during the first-round of interviews I sought to explore the role of these documents in the promotion and provision of testing, and on how prevention strategies within the province currently reflect the underlying intent of integration. This was in addition to exploring participants' perceptions of integration, its consequences and associated responses. This process aided in my interpretation of results through a social constructivist framework.

4.3 Integration as Promoting Efficiency, or Creating Competition

4.3.1 Formal and Informal Approaches to Integration

While the history of the HIV/AIDS movement in Nova Scotia was not discussed by participants in detail, a strong sense of personal identity was expressed by participants from the HIV silo. Participants who worked in other areas such as the STBBI silo or within the provincial health care system recognized and respected this identity. I noted that many community- and health care organizations within the HIV and STBBI silos had worked together previously. This may have been because Nova Scotia is too small, and resources too scarce, to permit a completely siloed approach to prevention.

Participants shared their concerns about the underlying purpose of integration, describing it as being driven by two possible objectives: One being a desire on the part of PHAC and/or the federal government to save money, and the other being to promote effective prevention responses. However, the potential value of an integrated approach to testing and prevention was a prevalent theme that cut across multiple interviews. Integration, as defined by PHAC, shared many similarities with ‘informal’ approaches that community-based and health care organizations have employed for many years. Participants often identified these similarities at the beginning of their interviews without any prompting on my part.

> *“I would say from [number of years], we have basically been working on an integrated approach without even being told we had to.”*
>
> *Interview #2*

I observed that participants characterized the value of both PHAC's 'formal' and participants' informal integrated approaches through discourses of efficient strategies, client service and health promotion. Participants from community and health care organizations described their approaches to informal integration as a natural progression of their ongoing prevention activities, which included the promotion of testing. These approaches were described by participants as reflecting best practice evidence and the results of biomedical and social science-based health research.

> *"...in the past two years that based on research that has come to light ... we have started to already expand the testing that we encourage to include other STIs and that's because, ... the research has started to tell us that having another STI is a significant ... risk factor in the transmission of HIV as well."*
>
> *Interview #7*

Therefore, integration as outlined by PHAC (2012) would, by altering funding guidelines, formalize approaches already in place within some PHAC-funded organizations. Formalized integration was described by participants as having the potential to promote programming that would be more efficient or effective than responses developed under a siloed model. For example, it was suggested that integrated testing programs that utilize multiplex POCT platforms could increase early detection and reduce the health impact and health care expenditures associated with unidentified and untreated STBBIs. Integration may also help to reduce the duplication of services, although the mechanism for this effect was not clear.

> *"…but I think there's potential impact through this integration of looking at providing services in a more adequate fashion and also minimizing duplication…"*
>
> *Interview #2*

4.3.2 Increasing Efficiency or Competition?

While participants did describe integration as potentially promoting efficient prevention responses, this was intersected by concerns regarding the potential impact of integration on community-based organizations and prevention activities. For example, integration may ultimately promote duplication of services as organizations who alter their mandates to incorporate new topics may 'encroach' on the ongoing activities of other organizations. This duplication could result from overlap in terms of geographic community (region of the province), subject matter (STBBIs, HIV, and/or harm reduction services), or population being served (MSM, youth, Aboriginal populations, etc.).

> *"…if you have several different community-based organizations who are all taking an integrated approach then in a way it kind of would lead to duplication because if you're all focusing on several different areas or subjects then that's naturally going to be duplication."*
>
> *Interview #1*

I observed a concern among participants that this overlap could also lead to increased competition between organizations currently funded by PHAC to do HIV and/or HCV prevention work. This competition could be compounded through the introduction of funding guidelines that permit 'outside' organizations to apply for funds previously reserved for HIV prevention. These outside organizations may not have familiarity with HIV (or STBBIs) and some may be supported primarily through funding from other sources. Therefore, these new ‘competitors’ could have resources that PHAC-funded organizations lack. As an example, one participant suggested that by developing population-oriented programs that address sexual violence and multiple associated health risks including HIV or STBBI transmission, organizations who work to prevent violence against women may be able to apply for funds previously reserved for HIV prevention work.

4.3.3 Collaboration, Coordination and a Formalized Agreement

I observed a critical need for ongoing and increased collaboration as part of effective integrated prevention strategies that help organizations make best use of limited resources. Participants also indicated that coordination between organizations with overlapping mandates would be required to provide comprehensive services, to avoid duplication, and to minimize competition for PHAC funding.

> *“…when I look at the [organization 1] in relation to the [organization 2] and stuff that I think they both kind of know in their own mind that they’re going to need each other a bit more if it’s an integrated approach right rather than I’ll just do my thing, you do your thing.”*
>
> *Interview #6*

It was suggested that a formal agreement between PHAC-funded organizations could help to coordinate grant applications, program development, and minimize duplication and competition (where possible). This agreement could also promote collaborative programming.

> *"…there needs to be some, not necessarily boundaries, but some understanding of, and a memorandum of understanding, so that the work does get done and it's done in an adequate fashion and it minimizes the duplication."*
>
> *Interview #2*

Participants indicated that the purpose of this agreement should be to outline what issues, populations, or geographic regions each organization was responsible for. As part of this agreement, organizations would not apply for funding or develop programs that would encroach on areas falling under the mandate of other organizations. Instead, organizations would collaborate in order to address key issues that lay at the intersection of organizational mandates. In this sense, interorganizational collaboration was highlighted as a key element of effective integrated prevention responses. However, participants suggested that developing and formalizing this agreement would require support from outside of these community-based organizations, such as from PHAC. For example, one of the foundational steps in developing an agreement between PHAC-funded organizations would be coordinating funding policies across federal and provincial agencies. This issue will be discussed later in this chapter. Finally, developing, formalizing and mobilizing this agreement would require that participating organizations have increased ability to share materials and information.

4.3.4 Sharing Materials and Information

Sharing information and educational or promotional materials between organizations was identified by participants as a strategy for promoting collaboration. It would also help community-based organizations make the most of limited resources. Participants recommended the development of an internet-based platform that could facilitate collaboration and the sharing of information and materials.

> *"…having something like a list serve for the community-based organizations in the Atlantic provinces and it could be pretty simply set up just as a closed Facebook page and people could pose questions like hey does anybody have a brochure on such and such…"*
>
> *Interview #1*

One community-level participant stated a preference for borrowing or adapting existing materials which had been produced by other organizations instead of developing novel materials themselves. It was suggested that in instances where other organizations have relevant experience or expertise, this process would ultimately save time and prevent duplication. By providing an opportunity for day-to-day engagement, this process could also strengthen connections between organizations as they work to collaboratively address gaps in knowledge and resources.

4.4 Promoting Integrated Testing: Normalizing Testing and Expanding Access

4.4.1 From Exceptional to Normal and Back Again

During the interviews, participants drew a clear connection between the unique social, political and medical history of HIV and its 'exceptional' status. However, it was also suggested that the historical and ongoing separation of HIV from other STBBIs through prevention efforts, health care, and epidemiological surveillance may have contributed to its continued stigmatization. Integration was described as providing an opportunity to incorporate testing services into the regular health maintenance of Canadians. Participants suggested that, similar to normalizing HIV testing (Public Health Agency of Canada, 2014b), this process could reinforce discourses that present HIV as a concern for the general population as opposed to those that characterize it as a concern only for high priority populations. However, I observed a tension between the need for HIV to be perceived as unique, and for the potential value of moving away from a stand-alone model of prevention. Prevailing discourses regarding HIV continue to differ from those related to other STBBIs. This difference reflects the unique history of prevention efforts as well as the current state of epidemiological surveillance data, treatment options and outcomes, and representation of HIV and other STBBIs in public, medical and health discourse, as well as in Canadian media and law. The differences between these discourses were identified by participants, and apparent through the ways in which they discussed these infections and related testing and prevention initiatives.

While the need for HIV to retain its 'exceptional' status was questioned and criticized by some participants, it was clear through other comments and my own observations that many persisting issues continue to set it apart from other STBBIs. As the transition to an integrated approach draws closer there is a pressing need to strike a balance between initiatives aimed at normalizing HIV testing and initiatives aimed at preserving the safety and confidentiality of specific populations. Therefore, I began to suspect that an integrated approach to testing may be more complicated than simply testing ‘everyone for everything at once.’ Some current models of testing and pre- and post-test counseling may be insufficient to support effective integrated approaches to testing.

4.4.2 Testing in Clinical and Community Settings

Integration was described by participants as an opportunity to expand testing services in both clinical and community settings. In the case of clinical settings, participants suggested that this could involve incorporating testing into the regular health maintenance of Canadians and the regular activities of a greater range of health care professionals. Dentists were discussed as an example of a new group of health professional who could be involved in the provision of testing, although I was the one who raised this possibility to structure the discussion of expanding testing in clinical settings. Participants also discussed opportunities for expanding testing services into community-level settings such as mobile methadone clinics or women’s shelters. Some community- and health care-level participants voiced a strong preference for providing testing in community settings as opposed to hospitals. Based on comments made by participants, and on my observations in the data, I began to suspect that clinic and community-based settings may present different opportunities for integrated testing.

4.4.3 Holistic Approaches to Testing

Organizations who provide STBBI testing are often supported through provincial rather than federal funding. While I suspected that participants viewed integration as representing a lesser magnitude of change for these service sites, the underlying intent of integration did appear to resonate with service providers. Integrated testing was likened to a 'holistic' approach to testing. Participants described holistic approaches to testing as linking testing with treatment services, and with additional supports that span a variety of needs across multiple social determinants of health. Testing programs that, as part of pre- or post-test counseling, helped street-involved clients connect with safe housing options were offered as an example.

Through reflection on the interview data, I began to suspect that these holistic approaches to testing may be better suited for promoting integrated testing in community settings rather than clinical settings. I also identified an emerging discussion on whether holistic approaches to testing should position testing as the central program component, or as supplementary to other services such as housing or addictions treatment. Participants suggested that for individuals who use injection drugs, or for street-involved populations, testing may not be perceived as a priority. Instead, personal safety and access to shelter, food and services such as addictions treatment could rank higher as concerns. Therefore, providing testing in conjunction with services aimed at meeting these needs could ultimately increase accessibility and uptake on the part of priority populations.

> *"You're not going to get people tested who are in the throes of addiction or mental health. ...once you get somebody engaged in a service like [methadone*

> *maintenance], or even the needle exchange ... then there's the opportunity to start having a conversation around other parts of health and screening for STBBIs would be a natural part of that."*
>
> *Interview #5*

Participants suggested that peer-based testing, or testing administered by members of community-based organizations could potentially be useful in these contexts, as well as alternatives to traditional blood-draw based testing. These alternatives could include anonymous testing, POCT, multiplex platforms and different forms of pre- and post-test counseling. However, before these approaches to testing can be enacted, the health care providers who deliver testing will require additional training and education.

4.4.4 Educating Health Care Providers

The transition towards integration renders visible the necessity of specialized training for health care providers who administer testing. Participants suggested that integrated approaches to testing should involve health care providers who are aware of the social and political factors that influence exposure risks and accessibility. However, one participant suggested that students within the health professions may not be receiving the training that they need to deliver appropriate services to persons seeking testing.

> *"I'm not totally convinced that even [post-secondary institution(s)], that through their [health] courses, that they're doing a huge amount of work on HIV ... the doctors that are being turned out. ... I think there needs to be something done around the curriculum as well to really sort of bring this to the forefront ..."*
>
> *Interview #1*

Further training and guidance are required before effective integrated testing programs can be implemented. Community-level participants indicated that recently they had greater success engaging students through community colleges as opposed to universities. These opportunities enabled them to provide guidance on appropriate strategies for providing testing and for addressing misconceptions regarding HIV. Based on comments made by participants, I suspected that increasing the visibility of community-based organizations could represent an opportunity to increase awareness of the need for prevention and testing services, and reduce the stigmatization of HIV among emerging health care professionals.

Participants suggested that in the case of established health care professionals, these individuals would need to be taught about how to discuss HIV and STBBIs with patients or clients, the difference between STBBIs such as HIV and HCV, and the role that social stigma plays in willingness to seek, access or accept testing. In all instances, in-depth training and education would be required to successfully incorporate informed consent and counseling procedures that reflect the nature of the setting in question and the background of the person administering the test. Health professionals would also need to understand how the stigmatization of HIV, STBBIs, testing and persons living with HIV could take place within their work places. This included both the stigmatization of testing and the stigmatization of persons living with HIV.

> *"You know they have some conversations around harm reduction and they have a conversation around that things like homophobia and heterosexism and stigmatization and things like that so they're not further marginalizing people. And making them comfortable so that they can,… if I were HIV-positive or had*

> *Hep-C, I would, and just getting that questionnaire, I would be very reluctant to select the Yes, unless I was comfortable knowing, well who has access to that information, first of all, that I was going to be treated. Cause we know people have had all kinds of bad experiences with health care professionals with respect to their HIV status, even when they're not there for that per se."*
>
> *Interview #8*

While the creation of new testing opportunities in clinical settings was identified as a potential integrated approach to testing, it was acknowledged that this may catch some people off guard. For example, one participant noted that many people would not expect their dentist to talk to them about HIV or HCV. Therefore, they stated that it would be important to ensure that health care professionals are able to discuss this topic in a sensitive manner, preserve confidentiality and deliver appropriate counseling. Work is also needed in novel and traditional clinical settings to ensure that 'auxiliary' staff such as receptionists are knowledgeable about sensitivities related to testing.

> *"And so doing training with those various health care professionals and their auxiliary co-workers, because sometimes people never get beyond the reception desk… And it's something that's been largely overlooked for most of the past thirty years but within the past decade in particular, we're now putting more and more attention on that because we realize that sometimes the only barrier is just getting in and getting out of the doctor's office."*
>
> *Interview #12*

Despite a need for this training, participants suggested that administrators and management within health care and/or educational institutions could be resistant to the introduction of HIV, STBBIs and testing into existing curricula. Further, normalizing testing, providing testing in novel community or clinical settings, and holistic approaches to testing would all require increased linkages between services, organizations and sectors. However, participants from all levels questioned whether or not these linkages exist at present. It seemed as though some participants thought that it may be difficult, and possibly impossible, to promote testing as an integrated prevention strategy within a health care system and policy landscape that were described as being ‘not integrated’ or ‘fragmented.’ Therefore, I observed a need for professional associations, health care advocacy organizations, as well as provincial and federal governments to support an increased focus on these topics.

4.5 A Need for Policy-level Support: Coordinating and Mobilizing Effective Policies

4.5.1 Integration within a Non-integrated System

Many participants noted that integration will occur within a broader health system where many components are not currently integrated. Therefore, greater linkages are needed between the HIV and STBBI silos in order to promote testing as an integrated testing strategy. Linkages are also needed between other areas within the health sector such as between individual health and social services, clinics and the provincial health authority.

> *"There's huge opportunity for collaboration, I just don't know if the roadblocks are going to be more complex and more difficult when you're dealing with non-health authority and health authority."*
>
> *Interview #3*

Further linkages are needed between the health sector and other sectors such as education, community services and justice.

Based on my literature and policy review, I was aware that the impact of integration would not be uniform within the HIV silo. Some levels within this silo, such as provincially-run clinics and blood collection sites, are not supported by PHAC funding. Therefore, integration will not require these organizations to alter their activities. Conversely, participants suggested that organizations who are funded by PHAC to do prevention work, but not by the province, may be unlikely to follow provincial guidelines (such as the Nova Scotia Standards) unless legally required.

> *"…As I mentioned earlier, we get no money from the province to do any prevention work. … whatever they identify as a priority has no bearing on the work that we do when we're doing…"*
>
> *Interview #7*

Community- and policy-level participants suggested that increased coordination and collaboration between provincial and federal governments, and among funding agencies, was needed to advance integrated approaches to testing and prevention.

> *"…the government is always asking us to provide proof of greater collaboration in what we do, but yet there is very little to no collaboration within the inter-governmental departments both provincial, municipally or federally. …So I think that that particular piece needs to be addressed in order to …[move] a lot of these things forward."*
>
> *Interview #10*

It struck me that aligning funding policies was of particular importance to participants. However, one participant suggested that while the province funds testing services, provincial departments or decision makers may not perceive themselves as being a part of the HIV or STBBI silos, or as part of an integrated response to HIV and other STBBIs.

4.5.2 Resistance to STBBI Policy and Silence Regarding Integration

There was near unanimous agreement among participants that the support of federal and provincial policy decision makers and funding agencies will be critical for ensuring a successful transition to an integrated approach to prevention. The discourses used to characterize this support ranged from a need for oversight from funding agencies to promote collaboration among the community and health levels, to a need for clarity related to how funding guidelines will change under an integrated approach. Overall, participants suggested that more needed to be done at the policy level to promote testing as an integrated prevention strategy. This could include increasing collaboration between the provincial and federal government, as well as between government departments. For example, provincial and national guidelines for HIV and STBBI prevention and control do not always address the topic of integration or provide guidance for aligning testing with other integrated prevention initiatives. While the Nova Scotia Standards do articulate the need for integrated approaches and outline specific roles and responsibilities of various stakeholder levels (Nova Scotia Health, 2004), one participant noted that the Standards were never officially mobilized. In this context, I interpreted a failure to 'mobilize' this policy as indicating that while guidelines were developed, they were not enacted or enforced. Participants suggested that some policy makers may be resistant to the idea of addressing HIV and STBBI prevention at the policy level and therefore the failure to mobilize the Nova Scotia Standards may stem in part from prevailing discourses pertaining to these infections and testing services.

> *"…there'd have to be willingness on the part of the policy makers to really have the conversations around that too [because] there's almost like this unwritten … it's there but not overtly-acknowledged, almost resistance to the idea."*
>
> *Interview #5*

Even through discussion of this issue, my participants and I were unable to determine whether it seemed that this resistance was due to the stigmatization of HIV and STBBIs, or due to policy decision makers perceiving other health issues as being higher priority. However, participants noted that allies and champions for HIV and STBBI prevention are present within the current policy landscape, and integration was described as an opportunity to change resistant attitudes and shift prevention and testing into the policy mainstream. Now is the time to identify these allies, develop and strengthen relationships, and raise the profile of HIV and STBBI testing as a key health issue. This could serve to address a concern voiced by participants: increasing the recognition among policy-level stakeholders of their own critical role in supporting HIV and STBBI prevention and testing.

Towards the end of the second round of interviews, participants identified the recent change in federal governments as a unique opportunity to address broader systemic issues that could impede integration. When compared to the previous federal government, some participants described the new Liberal government as being more willing to discuss potential changes to health care policies, and more interested in supporting collaborative prevention-oriented health promotion initiatives. One participant cautioned that while the federal government would be in a position to promote and support the coordination of federal and provincial funding policies, there is likely a limited window during which this opportunity can be seized. Other provincial and national organizations must be involved in advocacy efforts to raise the profile integration, of HIV and STBBI testing, and to address ongoing gaps at the policy level.

4.5.3 Position Statements to Drive Advocacy

Participants suggested that it could be useful to have provincial and national professional associations issue position statements. Initially, it was suggested that these statements should advise health professionals on how integration will impact their work regarding HIV and STBBI testing, and what they should do to prepare for this transition. Here, the objective was to raise the profile of testing and generate dialogue regarding integration across multiple sectors.

> *"…the push has to come from a lot of different angles. So yah, [government agency] and their recommendation, medical associations, and physicians'*

> *groups, and community-based organizations and then people who are working with homeless and people in food shelters, and people at immigrant services…"*
>
> *Interview #2*

During the second round interviews, some specific opportunities for developing position statements were discussed. Policy-level participants identified the Canadian Public Health Association (CPHA) as an acknowledged leader in the area of public health advocacy, and suggested that the CPHA has a useful procedure in place for developing and disseminating position statements. As specific opportunities for these position statements were discussed, community- and policy-level participants articulated a need for advocacy documents that call for increased coordination and collaboration between governments and funding agencies. Because coordination and collaboration are needed among governments and funding agencies before change can be implemented at the health service and community levels, the need for policy-level support ultimately seemed to be more important than informing health professionals about the potential impacts of integration.

4.5.4 Revising, Reanimating and Mobilizing Effective Policies

The presence of support from the policy level may represent the cornerstone of an effective transition to an integrated approach. From the perspective of many participants, securing the support of politicians, policy makers and health care managers is a critical 'first step' in preparing for integration within the province.

> *"In terms of the integrated approach, I mean I think that needs to be driven by policy because no education makes any sense unless the thing is actually going to*

> *happen. So again I think the policy piece needs to come first before you even need to concern yourself with how do we communicate this to people who are going to be implementing it, whether it's doctors, whether it's public health nurses, whatever the specific context is, or whether it's arms-length community organizations that are doing it through volunteers or self-testing, or whatever they end, the end process might be."*
>
> *Interview # 12*

Similar to the definition used in Health Promotion literature, participants described policies as dictating what can be done, by whom, and where. In this context, policies may represent the formalization of high-level support. Therefore, policy-level support could be demonstrated through the development of new policies or the revision and reanimation of older policies. In either case, the development, revision and mobilization of these policies would need to be informed by research and the work of community-based organizations.

The Nova Scotia Standards (Nova Scotia Health, 2004) were identified by participants as a policy document that could offer much needed guidance, provided that it was properly updated and animated.

> *Interviewer: "I mean would something like [the Nova Scotia Standards] be useful if it were updated and if it were actually mobilized?"*
>
> *Participant: "Sure I think that if it was part of a plan to move forward on increasing access to testing in the province, yes I do. I think that would be a key step."*
>
> *Interview #5*

This document outlines the need for prevention approaches that reflect the social determinants of health and build upon collaborative partnerships. The roles of various levels of the HIV and STBBI silos, such as the government and community-based organizations, are clearly outlined (Nova Scotia Health, 2004). Given the need for coordination between governments and funding agencies, I also interpreted a need for clearly articulating the roles of both federal and provincial agencies within the revised version of this document. Therefore, federal and provincial advocacy and consultation would be required to ensure that all necessary parties are aware of and in agreement with this policy.

4.6 A Brief Synthesis of Findings

This chapter provided an overview of the key findings identified during my thesis. Overall, this study suggests that there is a pressing need to promote coordination and collaboration across all levels of the HIV and STBBI prevention silos, and between these silos, in order to promote testing as an integrated prevention response. Making the most of integration at the community level will require coordinated efforts to share resources and strategically apply for funding under new guidelines. Providing holistic testing services, reducing stigma and normalizing testing will require increased education for health professionals and stronger linkages between a variety of health and community services. However, these responses are hindered by a lack of coordination and collaboration at the policy level, in particular among provincial and federal governments and funding agencies. One necessary task may be adapting provincial funding policies in light of federal integration, and increasing collaboration at the policy will be a critical first step in this process. During the next chapter of my thesis, I will explore the potential responses identified in this chapter against literature on testing. This will help to consider some potential strategies for addressing the consequences of integration. As the policy-level change described by participants will not occur without leadership, I will also explore the potential role of health promoters in supporting integration through policy-level advocacy.

Chapter 5: Discussion

5.1 Overview

The objective of this qualitative study was to explore HIV and STBBI prevention stakeholders' perceptions of the potential consequences of an integrated approach to prevention on the provision of testing, and to identify responses to these consequences. Through the analysis of 12 interviews, three thematic areas were identified. Each of these thematic areas traced the role of social discourses in constructing HIV and STBBI prevention and testing responses in Nova Scotia in the past, at present, and in the future. Underlying each of these thematic areas was the need for collaboration between silos and sectors, and in particular, between health care management, governments and funding agencies. This analysis was enhanced through the application of a social constructivist framework which enabled me to explore, compare and contrast a variety of stakeholders' perspectives, their experiences, and the history of HIV and STBBI prevention in Nova Scotia. However, not all aspects of the social constructivist framework were fully utilized through analysis. While participants' experience within their own silo and level was considered to aid in interpreting their perception of integration, this was not reported on an individual basis during the presentation of findings. This was primarily due to concerns regarding confidentiality and anonymity on the part of participants. However, the lived and work experience of participants was considered through analysis, and further incorporated into the interpretation of findings through the inclusion of second-round interviews as a member-checking exercise.

Overall, integration was conceptualized as a policy-level decision that could either promote effective coordinated testing and prevention strategies or place increased strain on one element of a larger response. From a health promotion perspective, it is critical that efforts be taken to realize the former option over the latter. Therefore, I will now discuss my findings in relation to literature on health promotion approaches to testing in order to explore the potential responses identified by participants. Then I will discuss my findings in relation to the Pan-Canadian Health Promoter Competencies (PCNHPC, 2015). By doing so, I will demonstrate the relevance of shifting policy environments as a key concern for the discipline of health promotion, and outline the potential role of health promoters in addressing the consequences of integration.

5.2 Discussion of Responses Identified During Analysis

5.2.1 Agreements to Promote Collaboration

At the level of community based organizations, one strategy for promoting effective integrated approaches to prevention could include a formalized agreement between PHAC-funded (and other) organizations. This potential strategy is similar to PHAC's recent call for letters of intent from the HIV and Hepatitis C Community Action Fund (Public Health Agency of Canada, 2016). This call for funding reflects an integrated approach to HIV and HCV prevention and encourages collaborative "community alliances" where multiple organizations work together on a single project. It should be noted that the Community Action Fund does not provide funding for the direct provision of services such as testing, as these services fall under the jurisdiction of individual provinces (Public Health Agency of Canada, 2016). While the programs supported by the Community Action Fund have not yet been implemented, the need for and value of multi-jurisdictional, multi-pronged, and collaborative approaches to prevention has been demonstrated in HIV and STBBI prevention literature.

For example, in the United States, the Get Yourself Tested (GYT) program involved collaboration between community-based and health organizations, educational institutions, the Planned Parenthood Federation of America, and MTV (Friedman, Bozniak, et al., 2014; Friedman, Brookmeyer, et al., 2014). This multi-state program promoted youth-oriented testing as well as collaboration and resource-sharing between participating organizations. GYT managed to promote the accessibility and uptake of testing services at participating locations, and supported the collection of data to improve the delivery of federal funding to community-based organizations (Friedman, Bozniak, et al., 2014; Friedman, Brookmeyer, et al., 2014). The Ending HIV program in Australia focused on re-framing HIV prevention messaging around 'ending HIV' rather than only preventing new infections (Calmette, 2014). This program involved the "radical rethinking" (Calmette, 2014, p. 283) and coordination of HIV responses across multiple community-based and health care organizations, as well as the use of shared tools to promote the uptake of testing. In the European Union (EU), the results of an analysis of sexual health promotion programming (which includes testing) across multiple countries suggested that multi-jurisdictional coordination is needed across all levels and silos to improve prevention (European Centre for Disease Prevention and Control, 2013). However, this must be guided by "the creation of a set of overarching guiding principles…" (ECDPC, 2013, p. 36). While collaborative approaches to prevention have successfully promoted testing in other contexts, the results of my study highlight that policy-level support would be a critical element of developing and implementing these strategies within Nova Scotia.

5.2.2 Information Sharing Platforms

In regards to internet-based resources for sharing information and materials between organizations, participants discussed the viability of using Facebook as a central platform. While social media platforms such as Facebook permit the collaborative production and sharing of information of materials, many community-based organizations primarily utilize them for engaging with or disseminating materials to target populations (Gold et al., 2011; Lovejoy & Saxton, 2012; Ramanadhan, Mendez, Rao, & Viswanath, 2013). However, these platforms can also be used to share information and build networks among organizations and health professionals (Lee Ventola, 2014; Lovejoy & Saxton, 2012). Within Nova Scotia, organizations such as the Nova Scotia Health Promotion Clearinghouse previously offered services that resembled the platform described by participants. On the national scale, organizations such as CATIE provide similar services although these are not always tailored to the Nova Scotian context. However, ACNS currently provides an offline platform for community-based organizations to share knowledge, information and materials through their annual Knowledge Exchange Forum (AIDS Coalition of Nova Scotia, ND). This event could provide a starting-point for the future development online platforms.

5.2.3 Educating Health Care Providers

Participants described a need to educate health care providers to support normalization of testing or holistic approaches to testing. Given that these forms of care will likely involve a variety of health professionals in their delivery, there could be value in approaching this education through an interprofessional collaboration framework. Within Canada, the provision of holistic, person-centered services is a core principle of the Canadian Interprofessional Health Collaborative's (CIHC) National Interprofessional Competency Framework (2010). The CIHC holds that interprofessional education, which involves health professionals working and learning together to facilitate collaboration within professional settings, can strengthen the delivery of health services and "enable optimal health outcomes" (Canadian Interprofessional Health Collaborative, 2010, p. 8). Dalhousie University currently has an Interprofessional Health Education (IPHE) program (Dalhousie University, ND) and this program could provide an opportunity to teach health profession students about normalization and holistic approaches to testing. Canadian educational institutions are amendable to IPHE, however challenges related to the incorporation of IPHE programming in existing curricula and student schedules have limited its application (Curran, Deacon, & Fleet, 2005). Further, a Cochrane review on the impact of IPHE on student or professional behaviour and patient outcomes was unable to identify consistent positive effects across multiple studies (Reeves, Perrier, Goldman, Freeth, & Zwarenstein, 2013). However, individual programs did report positive effects (Reeves et al., 2013). More research is needed to identify optimal strategies for delivering IPHE, and for supporting the application of these principles to fully normalize testing or support holistic approaches to testing. More research is also needed on how to provide similar training to established health professionals in order to have a more immediate impact on testing in Nova Scotia.

5.2.4 Parallel Approaches to the Promotion of Testing: Holistic Testing and Normalization

Normalization and holistic approaches to testing were identified as two unique approaches for framing testing as an integrated prevention strategy. The results of this study suggest that these two approaches could be utilized simultaneously to target different populations: Holistic approaches may be more appropriate for targeting high priority populations, while normalization could serve to extend testing to the 'general public.' However, distinguishing between 'at-risk' and 'general' populations can obfuscate the health needs of individuals and the exposure risks that they face (Patton, 1996). Going forward with integrated testing, it will be important to attend to the difference between the stigmatization of HIV and other STBBIs, and the stigma associated with high priority populations. This was highlighted when one participant cautioned that efforts to reduce the stigmatization of certain populations should be considered as separate from, although overlapping with, the promotion of testing. For example, normalizing testing would not do away with the social discourses that prevent lesbian, gay, bisexual, transgender and/or queer (LGBTQ) youth from disclosing their orientation, or persons struggling with addition from talking to health care providers. Therefore, holistic approaches to health care provision should address barriers such as social stigma as they relate to testing and as they relate to other health services such as mental health or addictions treatment. Throughout all of these approaches to testing and holistic service provision, careful attention must be paid to maintaining 'three Cs' of testing: Consent, confidentiality and counseling (Canadian HIV/AIDS Legal Network, 2006; UNAIDS & World Health Organization, 2004).

There were similarities between my participants' description of holistic testing and PHAC's description of integration (e.g. Smylie, 2014). In both cases, emphasis was placed on meeting the unique prevention needs of high priority populations, and enabling them greater access to services such as testing. My participants also identified a need for enabling greater access to other health services and social supports. In these instances, testing may be secondary to other health or social services. My findings suggest a need for exploring whether holistic approaches to testing for priority populations may be best implemented in community-based settings as opposed to clinical settings. Community-level testing programs have been implemented in Canadian cities such as Montreal, Toronto and Vancouver. These programs have successfully enabled access to POCT through settings such as parks, bars, bath houses and community health centers (Asghari et al., ND; Tooley, 2010). HIV and HCV testing has been successfully integrated into the provision of health services such as methadone treatment (Xia, Chen, Tucker, Wang, & Ling, 2013). Incorporating POCT into women's shelters may be useful as these settings are often prepared to provide counseling services to clients on a variety of complex and challenging subjects (Draucker et al., 2015). While more research is needed to determine optimal strategies for promoting testing in these settings, including providing appropriate counseling and linkages to treatment and care (Draucker et al., 2015), these examples can provide valuable insight into the development of testing programs that align with an integrated approach to prevention.

Future research should examine whether normalization may be most useful in reaching populations traditionally considered 'low-risk' for HIV and other STBBIs. Incorporating testing into the general health care maintenance of Canadians may be useful in promoting uptake among populations such as older Canadians (50+ years) and heterosexual populations, who represent a growing proportion of new HIV cases (Public Health Agency of Canada, 2014a). As the PHAC has called for testing to become a routine component of health maintenance through normalization (Public Health Agency of Canada, 2014b), 'normalized testing' may ultimately become more integrated into clinical rather than community services. However, careful attention must be paid to the unique nature of these clinical settings. To again use the example of dental clinics, the provision of testing in this setting may be acceptable to some clients and provide an increased number of opportunities for identifying infection (Blackstock, King, Mason, Lee, & Mannheimer, 2010; Brondani & Chang, 2014). However, many clients may not be comfortable discussing HIV or other STBBIs with their dentist (Siegel et al., 2012) and not all Canadians have regular access to dental care. Some dentists may not be comfortable administering testing (Brondani & Chang, 2014; Siegel et al., 2012), and some question whether or not dentists should administer post-test counseling (Vernillo & Caplan, 2007). There are also challenges associated with the cost of administering the test, ensuring that proper counseling procedures are in place, and that measures are in place to ensure linkage to treatment and care (Blackstock et al., 2010; Vernillo & Caplan, 2007). Some dentists may even be concerned with the impact of HIV stigma on the public perception of their clinics (Siegel et al., 2012). Similar issues would need to be considered when incorporating testing into other clinical settings in order for this approach to support the normalization of testing.

5.2.5 Policy-level Support and Collaboration

Participants in my study have indicated that securing greater coordination and support from the policy level is a critical first step in ensuring a successful transition to an integrated approach. Policy-level guidance has been identified as a critical element of sexual health promotion (ECDPC, 2013) and in the promotion of positive health outcomes overall (Golden et al., 2015). The support of government agencies is critical in this process, and building this support represents a key public health concern in Canada (Raphael, 2010). While position statements and policy advocacy from agencies such as CPHA could aid in the development or revision of policy, these messages are not always successfully delivered to their intended audiences (Bryant, Raphael, Schrecker, & Labonte, 2011). The process of policy change is of critical importance, but it is guided by political ideology as well as research-derived evidence (Bryant, 2002; Masuda, Zupancic, Crighton, Muhajarine, & Phipps, 2014). As the types of high-level changes that participants called for are unlikely to occur without guidance and advocacy, there may be a role for health promoters to play in this process (Golden et al., 2015; Masuda et al., 2014). Therefore, I now turn to discussion of how policy development should be a key priority for the field of health promotion, and provide examples of how health promoters can guide the revision, animation and/or development of effective policies related to integration and testing.

5.3 Policy Change as a Priority for Health Promotion in Nova Scotia

5.3.1 Planning and Evaluating Health Promotion Action to Support Integration

Health promotion is a multidisciplinary field which targets change across a variety of domains to empower communities and promote positive health outcomes (PCNHPC, 2015; World Health Organization, 1986). The planning and implementation of health promotion programming must reflect research and best practice-based evidence, as well as the experience, needs and knowledge of the communities we serve (PCNHPC, 2015). The data presented in this study reflect the perceptions, experience and expertise of diverse HIV and STBBI prevention stakeholders with extensive knowledge of testing in the province. Many participants possessed an in-depth knowledge of policy development and/or the impact of policy on the provision or promotion of testing. Therefore, the results of this study provide an index of strengths, needs and opportunities for promoting testing as a component of integrated prevention within Nova Scotia. While high level coordination and collaboration, as well as policy support, are needed to promote integrated testing responses, advocating for these changes may be beyond the scope of community-based organizations and health care providers. As the transition to an integrated approach draws closer, the role of health promoters may be to advocate for these policy-level changes, highlight specific areas where clarity and coordination are required, and facilitate engagement across all levels to close existing gaps.

5.3.2 Advocating for Effective Policy

According to the health promotion competencies, health promoters should "…contribute to the development of, and advocacy for, policies to improve health and reduce inequities" (PCNHP, 2015, p. 8). The Ottawa Charter for Health Promotion identifies advocating for and participating in the development of effective public policies as foundational responsibilities for the field of health promotion (World Health Organization, 1986). HIV and STBBI testing services have been identified as critical components of the Canadian prevention response (Public Health Agency of Canada, 2014b), while the accessibility of these services is a key health equity concern (Gahagan et al., 2015; Gahagan et al., 2011). Within the broader health promotion literature, a need for increased emphasis on policy-level rather than individual-level change has been noted (Golden et al., 2015; Raphael, 2008, 2010). Therefore, health promoters should recognize integration as an opportunity to reinvigorate our discipline by leading policy-level change to improve health outcomes. As a key element of health promotion is building capacity and mobilizing communities (PCNHPC, 2015), it may be useful to treat policy decision makers as the community who needs to be mobilized towards supporting integration.

5.3.3 Building and Mobilizing Collaboration Across Levels

Mediating between different sectors and building collaborative networks are core elements of health promotion, as outlined in the Ottawa Charter (World Health Organization, 1986). Health promoters must be able to "facilitate community mobilization and build community capacity around shared health priorities," and "work collaboratively with partners and across sectors to enhance the impact and sustainability of health promotion action" (PCNHPC, 2015, p.8). Multiple discourses depict integration as having the potential to build capacity within organizations and promote collaborative prevention strategies. Given the interdisciplinary nature and foundational values of health promotion, health promoters may have a responsibility to act as leaders in the development of new collaborations, and in the strengthening of existing relationships. Health promoters could work with professional associations and organizations like the CPHA to develop position papers that outline the need for increased coordination at the policy level, and guide the translation of these documents into policy-level action.

Within Nova Scotia, the ongoing work of the Nova Scotia Advisory Commission on HIV/AIDS represents an attempt at mobilizing action at the policy level (e.g. Nova Scotia Advisory Commission on AIDS, 2014). Rather than providing services such as testing, the Commission works to create linkages within and across sectors to promote HIV prevention. The Commission is currently undertaking activities aimed at engaging novel and non-traditional partners in HIV and STBBI prevention. This includes government officials at the policy level, both within and outside of the health sector.

Despite some calls for the re-allocation of funds from the Commission to other areas of HIV prevention (Nova Scotia Advisory Commission on AIDS, 2014), the results of this study would suggest a continued and critical role for this organization.

This study suggests that once a foundation of policy-level collaboration and coordination is in place, it will be possible to promote integration across other levels of the provincial HIV/STBBI response. For example, the post-secondary education of students within the health professions would first require the support of decision makers and administrators within educational institutions. From there, educators will need to work with established health care professionals and community-based organizations to ensure that students are adequately prepared to deliver integrated testing. Creating broad and diverse partnerships is a key step in promoting testing in new clinical (Siegel et al., 2012) and community settings. These testing strategies will also require the availability of POCT and multiplex platforms within Nova Scotia (Gahagan et al., 2015). While integration may provide leverage to enable the use of these testing innovations in Nova Scotia, this will require further collaborative action, research-based evidence and advocacy from the community and policy levels (Gahagan et al., 2015). This is an important step in initiating integrated testing strategies, whether based on normalizing testing or providing holistic approaches to service delivery.

5.3.4 Diversity and Inclusiveness

In order to identify and reduce health inequities, health promoters must understand how the social determinants of health contribute to health outcomes (PCNHPC, 2015). Given that health services are a key determinant of health (Mikkonen & Raphael, 2010), health promoters should work to ensure that the positive impact of policy changes on health services is maximized. Within Nova Scotia there are a variety of community-based organizations who serve specific geographic regions or populations. Some of these organizations have histories which extend well over twenty years. These organizations possess considerable expertise and have established meaningful connections to high priority populations within the province. In many cases, these organizations will experience the most profound consequences of integration. As these organizations are as diverse as the populations they serve, health promoters have an important role to play in ensuring that the policy landscape of integrated prevention is inclusive of these organizations and enables them to thrive.

Chapter 6: Limitations

Several limitations of this study should be noted. First, this study does not reflect the perspectives of service users and therefore the results of this study are not intended to provide insight into how integration could impact accessibility from their perspective. As one of the key findings of this study was the need for policy-level coordination and support, it is important to note that service user perspectives are not reflected in key findings or iKTE activities. The results of my study suggest that the impact of integration should be examined from the perspectives of service users, both in terms of priority populations, and in terms of the broader 'general public.' Exploring these topics could provide valuable insights for promoting holistic and normalization-based testing as appropriate for the populations in question. Within Nova Scotia, specific populations and geographic regions have higher reported rates of STBBIs and could benefit from targeted prevention and testing activities. These populations include persons who inject drugs, MSM, Aboriginal populations and youth (Nova Scotia Health and Wellness, 2014; Public Health Agency of Canada, 2014c, 2015b), while geographic regions of concern include the former Cumberland Health Authority and Cape Breton District Health Authority (Nova Scotia Health and Wellness, 2014). Future research should explore the impact of integration on the accessibility of testing among these populations or regions, determine strategies for holistic testing, and drive policy-level advocacy.

During participant recruitment, emphasis was placed on ensuring diverse representation of silos, levels and geographic regions of the province. However, two issues should be identified regarding the representation of participants: First, the HIV and STBBI prevention silos within Nova Scotia are relatively small, and some stakeholders may not have sought participation due to concerns related to anonymity. Concerns related to organizational restructuring and potential loss of employment through integration may have prevented some stakeholders from coming forward. Second, no health care providers participated in the second round of interviews and while several second-round participants were involved in work across the entire province only one lived outside of the HRM. Therefore, the strategies discussed during second-round interviews may have been more appropriate for implementation in Halifax rather than in other communities. The discussion of clinical / community and holistic testing / normalization may also lack some important nuance due to the lack of opportunity to explore these issues in-depth with service providers. Future research and knowledge translation activities should engage health care providers, particularly those who work in rural communities across the province.

The collection and analysis of policy documents was complicated by the merger of Nova Scotia's health authorities into a single region. As a result, the analysis of policy documents focused on material from the Department of Health and Wellness and PHAC as opposed to the provincial health authorities. However, this review was sufficient to inform the development of the first-round interview guide. In the future, a comprehensive policy analysis could be useful in further exploring opportunities for promoting policy-level coordination and support. In particular, an in-depth analysis of federal and provincial funding policies would be useful in adjusting provincial policies in light of the federal integration of prevention funding.

The distinction between the HIV and STBBI silos was not as central to the potential consequences of integration as I initially expected. I also learned that this distinction is not uniform across all levels. For example, community-based organizations from either silo may regularly work together, whereas participants identified a lack of collaboration at the policy level. While my initial assumptions regarding the HIV and STBBI silos guided my analysis at the outset, I was able to shift my focus towards the policy-level divisions that participants identified as most prominent. This was due in large part to using the second-round interviews as a member-checking exercise. Finally, it should be noted that the emphasis on testing itself reflects an important prevention discourse. From the community level, issues such as the availability of pre-exposure prophylaxis (PrEP) are also key elements of the current prevention discourse. However, an in-depth exploration of this issue was outside the scope of this study. As PHAC funding supports prevention as opposed to the delivery of testing (Public Health Agency of Canada, 2016), there is likely a need to explore integrated prevention strategies that draw on technologies such as PrEP as opposed to (or in addition to) testing.

Chapter 7: Conclusion

Participants described discourses pertaining to integration that paralleled the motivations described by PHAC. These discourses, and prevention strategies that followed from them, pre-date PHAC's transition toward integration. Patton (1996) cautions that historically AIDS activists' meanings and ideas can be "taken up and modified by officials, rendering activism partially successful, but without affording activists any stable base of power" (P.18). It is not my intent to suggest that this is an underlying motivation of integration. However, it remains that this potential consequence should be considered across all sectors, silos and levels within Nova Scotia. Alterations to funding policies could easily remove the stable base of power of many community-based organizations. Therefore, the formalization of a long-standing practice of informal integration could have very real consequences for community-based organizations and activists. This would, in turn, have consequences for the provision of testing, as community-based organizations help to promote and advocate for these services in addition to implementing other prevention strategies and providing supports for persons living with HIV (AIDS Coalition of Cape Breton, ND; Kirkland et al., 2014; Nova Scotia Health, 2004). Overall, the consideration of multiple diverse discourses, perspectives and experiences through a social constructivist framework was critical in understanding the potential consequences of integration, and strategies for addressing them, as perceived by HIV and STBBI prevention stakeholders. The findings of this study suggest that through the coordination of provincial and federal funding polices, increased coordination, collaboration and support at the policy level, through specialized training and education of health professionals, and through greater collaboration between new and old allies, the de-stabilization of PHAC-funded community-based organizations can be avoided.

Within Canada, the field of health promotion has been criticized as prioritizing individual behaviour and lifestyle-oriented approaches over initiatives intended to produce social and political change (Masuda et al., 2014; Raphael, 2008). The transition to an integrated approach to HIV and STBBI prevention represents a key opportunity for health promoters to contribute to much needed policy-level change, to demonstrate leadership, and to champion collaborative and evidence-informed approaches to the upstream prevention of illness. Policy-level changes such as the coordination of funding policies are unlikely to occur without direct action and the targeted translation of research-, practice- and community-based knowledge (Bryant, 2002; Masuda et al., 2014). From a knowledge translation perspective, integration represents an ideal opportunity to merge the strengths of two historically separate responses. The North American HIV movement is a unique grassroots-led initiative characterized by discourses which parallel the philosophical and methodological underpinnings of health promotion (e.g. Patton, 1996; PCNHPC, 2015; World Health Organization, 1986). Modern public health approaches to the prevention of STBBIs reflect an increased awareness of the role of social factors in transmission and prevention (Canadian Public Health Association, ND). When further considered in light of a federal government who has demonstrated a desire to engage in an open and collaborative dialogue on issues related to health, the integrated landscape may indeed represent a unique opportunity to reinvigorate and strengthen our provincial testing response (Kirkland et al., 2014). Promoting the policy-level changes identified in this study represents an opportunity to address inequities in testing access within Nova Scotia which resonates with the philosophical and methodological underpinnings of health promotion. Therefore, integration represents an opportunity to reinvigorate HIV and STBBI testing through policy-level coordination, and the field of health promotion in Nova Scotia through demonstration of leadership in creating environments conducive to positive health outcomes.

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Appendix A: Policy Literature Review Bibliography

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Appendix B: First-round Interview Guide

First-Round Interview Guide for "HIV and STBBI Testing: The Implications for Shifting and Socially Constructed Policy Environments."

Preamble: *[This will be read to the participant following completion of the consent screening script.]* HIV prevention in Nova Scotia has been largely approached separately from the prevention of other sexually transmitted and blood-borne infections. However, in 2012 the Public Health Agency of Canada (PHAC) announced that it would be transitioning to an integrated approach to HIV prevention. This will mean that in the future, PHAC-funded services and organizations aimed at HIV prevention will be required to simultaneously address the prevention of other STBBIs.

The shift to an integrated approach to HIV prevention is likely to have a number of consequences for the provision of HIV and STBBI testing in Nova Scotia. Therefore, this study has the following two objectives: First, to explore your opinions and perceptions of the potential consequences of shifting to an integrated approach to HIV prevention, as they pertain to the provision of accessible HIV and STBBI testing; and second, to identify potential responses to these consequences. Please note that there are no right or wrong answers to these questions: I am looking to learn about your perspective of this issue, and what you think needs to be done to support the transition to an integrated approach to HIV prevention.

QUESTION 1. Can you describe your work in relation to promoting or providing HIV and/or STBBI testing in Nova Scotia?

Probe A. Would you say the type of work you do places more emphasis on HIV testing / prevention, or STBBI testing / prevention?

QUESTION 2. Based on your experience as *[participant's position / occupation]* what is your understanding of the (PHAC) shift to an integrated approach to HIV and STBBI prevention? *[If requested, discuss the definition of an integrated approach to HIV prevention with participant.]*

Probe A. Based on the work that you do, can you describe your perspectives on the Public Health Agency of Canada's motivation to transition to an integrated approach?

Probe B. Policy documents such as the Nova Scotia Advisory Commission on HIV/AIDS *Strategy on HIV/AIDS* (2003) and the Department of Health and Wellness's *Standards for Blood Borne Pathogens Prevention Services in Nova Scotia* (2004) describe the importance of integrated approaches to prevention before the Public Health Agency of Canada's announcement in 2012. Can you describe any impact that these documents have had on past and current HIV and STBBI prevention initiatives?

QUESTION 3. There are a number of other significant issues that impact HIV and STBBI testing in Nova Scotia. Can you tell me about any such issues that you feel must be considered as we transition to an integrated approach?

Probe A. For example, do you see the criminalization of HIV non-disclosure influencing the landscape of integrated HIV prevention? If so, then in what ways? *[If requested, discuss the definition of the criminalization of HIV non-disclosure.]*

Probe B. What about the issue of social stigma, as it relates to HIV and/or STBBI testing? How might social stigma interact with integrated approaches to prevention?

QUESTION 4. Based on your understanding of HIV and STBBI prevention, can you describe how integration could impact the provision of testing within Nova Scotia? These consequences can be either positive or negative, or a bit of both.

Probe A. For example, negative consequences would include things that make it more difficult to promote testing or provide accessible testing.

Probe B. For example, positive consequences would refer to opportunities to promote innovative testing approaches that could improve availability, accessibility, and uptake.

QUESTION 5. Given what we have discussed regarding the potential impact of integration on the provision of testing in Nova Scotia, can you tell me about some specific consequences that you perceive as being relevant to your work?

Probe A. What are some potential responses to these consequences: How could we respond to challenges, or take advantage of new opportunities?

Probe B. What resources do you think are needed to support these responses?

Probe C. To what extent do you think that collaboration between organizations and sectors will impact these responses?

QUESTION 6. Is there anything you would like to add or share about testing for HIV STBBI in Nova Scotia?

Probe A. Is there anything that you think should have been covered during this interview, but was not?

Appendix C: Second-round Interview Guide

Preamble [read to participants]

This interview is part of the second round of data collection for my thesis. Overall, the purpose of my thesis is to look at the potential consequences of shifting to an integrated approach to HIV and STBBI prevention, and to brain-storm potential responses. During the first round of interviews, I talked to participants about their perceptions of integration, some potential consequences (both positive and negative), and things that could be done in response to these consequences. Since then, I have started reviewing the comments made by participants, and I would like to base our discussion on what I think I have found during my review.

During this discussion, I want to focus on these potential responses to the consequences of integration. This will involve briefly discussing the consequences described by participants. However I would like to dedicate most of this interview to exploring the things that we can do to address the challenges or opportunities associated with integration. I will briefly describe to you the things that I think I found. You will have time to ask questions about these things, and then we will discuss them. There are no wrong answers: I'm looking to hear your thoughts and opinions on potential responses to the challenges associated with integration.

The following questions will be used to guide our discussion of the potential responses:

- What is needed to initiate this response, and sustain it over the coming years?
    - What resources are needed?
    - What kinds of additional capacity-building would support this response?

- From your perspective, how do you see your own work fitting into each potential response?
    - Is this something that is outside the remit of your position, or your organization?
    - What support would you need to contribute to this response?

- Who could contribute to this response, and how can they be engaged?

- Who are the new partners that we should be engaging in this work?

Integration as promoting efficiency, or creating competition

[Read to participants] Some participants said that integration would promote more effective HIV and STBBI testing and prevention responses than the current stand-alone model. For example, by addressing multiple infections simultaneously, testing programs would increase early detection and thereby reduce the long-term cost on the health care system overall. Integration may also help to reduce the duplication of services. Many participants indicated that their organization was already using an integrated approach, although in an unofficial capacity. Integration, as outlined by the Public Health Agency of Canada, would formalize this approach by changing the current guidelines for funding.

However, there are also concerns: Integration may in truth promote duplication of services, as organizations may be focusing on new areas already covered by other organizations. Changes to funding structures could also lead to increased competition between organizations currently funded by the PHAC to do AIDS-related work, and further by introducing new funding guidelines that could allow new organizations to compete for these funds. Some of these organizations may not have familiarity with HIV or STBBIs, and some may be supported primarily through funding from other sources, and have resources that AIDS service organizations lack.

Potential responses

- An agreement / coordination between PHAC-funded organizations to communicate and coordinate work plans in a way that prevents duplication and reduces competition (where possible).
- Platforms for sharing information and materials between organizations, rather than requiring everyone to develop new material.

Additional probing questions (not to be included on interview guide for participants)

- *What actions can be taken to reduce duplication of services rather than promote it?*
- *What kinds of pre-emptive steps can be taken to minimize competition between organizations as they compete for funds under an integrated approach?*
- *How can organizations with established history, experience, and expertise emerge as leaders for novel integrated approaches to HIV and STBBI testing and prevention?*

Reducing stigma and normalizing HIV testing

[Read to participants] Integration could potentially help to reduce the stigma surrounding HIV and other STBBIs, and promote the normalization of HIV testing. Treating HIV together with STBBIs (rather than separately) could help people see it as less of a stand-alone issue. It may make health professionals less likely to talk clients out of getting an HIV test. Increasing the frequency with which health professionals offer testing could also address barriers posed by stigma by making testing more commonplace. Finally, encouraging HIV testing for people outside of the usual "priority populations" such as men who have sex with men (MSM) could also help reduce HIV stigma by helping people see HIV testing as important for everyone rather than just specific populations.

However, there are issues with this: Many participants indicated that HIV is different from other STBBIs in terms of how it is transmitted, treated, and perceived by federal and provincial governments, and by the general public. While some sources suggest that HIV is no longer "exceptional" in the way it once was, there are persisting issues that still set it apart from other STBBIs. Because of these differences, integrated testing may be more complicated than simply testing for "everything at once." Current models of testing may not be sufficient to support an effective integrated approach.

Potential responses

- Promoting a person-centered approach to testing, which includes linkages to treatment, and supports that span multiple social determinants of health (such as housing). This may involve anonymous testing, rapid point-of-care testing, and different forms of pre- and post-test counseling.
- Provide education, training, and support for health professionals at all stages of their careers. This education should help them understand what testing under an integrated approach would entail, and what they can do to provide safe and confidential testing services using this approach.

Additional probing questions (not to be included on interview guide for participants)

- *What standards should be in place to ensure that professionals who are providing testing are doing so in an appropriate manner?*
- *When promoting testing with a person-centered approach, what needs to be done to ensure that people are receiving the correct information?*

Policy-level leadership: Providing guidance and creating linkages outside of HIV/STBBI prevention

[Read to participants] There was an almost unanimous agreement among participants that the support of policy decision makers will be critical for ensuring a smooth and successful transition to an integrated approach. For example, provincial and national guidelines for HIV and STBBI testing do not always address the topic of integration, or provide guidance for operating within an integrated landscape. Many participants noted that the integration of HIV and STBBI testing will occur within a broader health system where many components are not currently integrated. In order to promote and provide testing in a truly integrated manner, linkages are needed between HIV and STBBI prevention, and other areas of health care, and other areas such as education, community services, and justice. Even within HIV and STBBI prevention, not all areas are supported through PHAC funding; therefore the impact of integration will not be felt in the same way.

Potential responses

- Encourage provincial and national professional associations to issue position statements to advise members on how integration will impact their work, and what they should do to prepare for this transition.
- Revise and animate provincial and national guidelines for HIV and STBBI testing to reflect the integrated approach. This should include those directly connected to the PHAC, and those that are not.

Additional probing questions (not to be included on interview guide for participants)

- *What organizations should be providing statements? What are the most useful in-roads with these organizations, and how can we best reach out to them?*
- *What specific guidelines need to be revised or updated?*
- *Who are the new partners we should be engaging? Who has not been involved in HIV/STBBI prevention or testing, but should be under an integrated approach?*