

Let your Partners Know...

**Sexually Transmitted Infections Case
Initiated Partner Notification:
Best Approaches in Winnipeg**

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Introduction

Sexually transmitted infections (STIs) present a significant public health concern. *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (GC) are the most common bacterial sexually transmitted infectious diseases in Manitoba. The incidence rate of reported CT and GC in Manitoba are substantially higher than other Canadian provinces, which indicate the need for new control strategies for sexually transmitted infections (STI) (Blanchard, 2002; Elliot et al, 2002). These higher rates are mostly found in the northern parts of the province and in Winnipeg's core area (Elliott et al., 2002).

In August 2010, 4311 cases of CT, 663 cases of GC, and 296 co-infections of both diseases were reported in Manitoba (Manitoba Health, 2010). For the same period, other STIs were also reported. There were 53 cases of Syphilis, and 87 cases of human immunodeficiency disease (HIV). This concurs with the Public Health Agency of Canada (PHAC) projection that Manitoba would have substantially higher rates of Chlamydia and Gonorrhea in 2010 compared to the national average (Public Health Agency of Canada, 2010). Given the high rate of both diseases and the reality that other serious STIs are also very much present, urgent measures are needed to control their spread.

In a recently released overview and analysis of data concerning the Winnipeg Regional Health Authority, it was found that there has been a significant increase in the rates of CT in the period 2006-2008, with youth aged 15 to 24 being mostly affected.¹ Youth in their mid to late teens and early twenties as well as young females appeared to be the most affected by CT. Geographically, within Winnipeg, the rates of STI infection are highest in the core area of Winnipeg (i.e., Point Douglas and Downtown) (Plourde *et al.*, 2011).

Given the significant health implications of untreated individuals with CT and GC, such as pelvic inflammatory disease, infertility, pelvic pains, ectopic pregnancy, and possibly death; and the high rates of infections, initiatives to improve upon the existing STI control strategies should be undertaken in an attempt to reduce and prevent new and recurrent infections in Winnipeg.

Among a number of reasons, including the volume of people tested for STIs, the workload associated with partner notification, and prioritization of other prevention work, the Winnipeg Regional Health Authority (WRHA) began a formal process of encouraging people diagnosed with a STI to notify their own sexual partners. Some written materials have been developed to facilitate provider-patient communication on the matter.

Regardless of the current notification options and those options Public Health might use in the future, the WRHA Public Health program was very interested in making the process of people with infections notifying their own partners as successful as possible. In order to move forward this agenda, the WRHA contracted the Sexuality Education Resource Centre (SERC) to lead an assessment on partner notification in Winnipeg.

¹ Increased in numbers is partially attributed to the introduction of new testing technologies (i.e., accessibility to urine testing and sensitivity of the tests).

SERC, in collaboration with Klinik Community Health Centre, conducted an assessment on **issues and approaches with regards to case initiated partner notification for sexually transmitted infections**. The ultimate goal of this initiative was **to find out what resources will be helpful for cases to notify their own contacts**. The results of this project are meant to assist the Winnipeg Regional Health Authority (WRHA) in expanding the options, so patient-led notification will be increasingly successful.

Project Objectives

The specific objectives of this project were to:

- describe the experiences and views of individuals who have had a sexually transmitted infection or deemed themselves at-risk or interested on the issue in relation to patient-led partner notification;
- describe the experiences and views of health and other providers in daily interaction with newly STI diagnosed individuals vis-à-vis case led partner notification; and,
- determine the best supports required for individuals diagnosed with a STI to tell their partners about the infection.

The Literature

Partner Notification of Sexually Transmitted Infections

Partner notification (PN) has been seen as a cornerstone in the control of STIs. PN involves patients with a STI notifying their sexual partner(s), so that the partner(s) can get tested, treated, and prevent being re-infected (Low et al., 2006; Trelle et al, 2006). PN has four strategies which include:

- patient or self-referral notification method where the infected individual informs his/her partners of their possible exposure and refers them to the appropriate services;
- provider referral notification (also known as contact tracing) where a third party such as a health care provider or a public health specialist serve as a contact tracer or contacts partners on behalf of the patient;
- a contract or conditional referral in which a health professional notifies the sexual partner(s) if the index patient fail to do so within the agreed time frame (Low et al., 2006); and,
- dual referral, whereby the patient and the health care provider notify the partners together (Mimiaga et al., 2009a,b).

Alam and colleagues (2010) found that no single approach is effective for all settings, because of the variation in STI rates and care structures. The literature shows a number of examples on the varying degrees of effectiveness of partner notification. For instance, in a study of adolescents, a large proportion of participants were not notified between the initial interview and a one-month follow-up interview (Fortenberry et al, 2002). In another study with adolescent girls/women, 43% had not notified their partner by the time of their treatment visit, however, 82% of those who had not notified their partner reported that they intended to notify (Chacko et al., 2000). In a systematic review of studies involving men infected with Chlamydia, Hogben and Kissinger (2008) found that between 48% and 79% of men notified their female partners, but between 30% and 55% of the female partners were treated. It is important to note that the studies reporting a high percentage of partners notified used enhanced forms of patient-initiated partner notification.

As result of a systematic review, Macke and Maher (1999) concluded that provider-led partner notification is more successful than patient self-referral. They found that more partners were notified and medically evaluated by provider referral than by patient self-referral.

Barriers to Partner Notification concerning Health Care Providers

Although there is evidence that provider referral is more successful, it does have limitations. Provider referral is more **time consuming** and more **expensive** than patient referral. The physician's **knowledge and attitudes** are also limiting factors. Seubert, Thompson, and Gonik (1999) found that obstetricians and gynecologists lacked knowledge about **how to do follow-up** when a patient has Chlamydia. They found that only 57% knew that Chlamydia is a reportable condition and only 41% identified a need to do partner notification for patients with Chlamydia. Less than half of the obstetricians/gynecologists notified the state health department to do partner notification (for any STI) and less than half used patient referral. In fact, one quarter of participants thought that giving the health department contact information for their patients' partners

was a violation of physician-patient confidentiality. Hogben et al. (2004) had similar findings for a representative sample of American physicians. For example, they found that as high as 37% of physician never reported patients' names to the health department, and that more than 80% used patient referral and less than 5% always used provider referral. The physicians preferred patient referral over provider referral, and viewed patient referral as effective as case reporting. In what appears to be the same study, upwards of 49% of physicians reported they were unsure if they (or the laboratory) were required to report cases of STI infections to the health department (St. Lawrence et al., 2002). Syphilis, HIV, and AIDS were reported to the health department most frequently and Chlamydia was reported least often. Again, more than three quarters of physicians urged their patients to notify their partners, but only between 20% and 30% of physicians actually confirmed that partners were notified. Interestingly, one quarter to one third of physicians instructed their patients to contact the health department and self-notify.

Barriers to Partner Notification concerning People Diagnosed with an STI

Researchers have identified barriers to partner notification. One common barrier to partner notification is that patients have inadequate contact information for their partners, because they have engaged in anonymous or casual sex (Temple-Smith et al., 2010; Mimiaga et al. 2009a, Mimiaga et al., 2008). In Mimiaga et al.'s (2009a) study, the sample of men who have sex with men (MSM) had oral or anal sex with an average of 13 male partners in the past 12 months and one-quarter also had female sex partners. The participants could contact an average of 5.7 sex partners. Approximately half of the sample indicated they had anonymous sex in the past year and, on average, could not contact 7.7 of their partners. Other barriers to partner notification include:

- Embarrassment (Mimiaga et al., 2009a)
- Shame and guilt (Mimiaga et al., 2009a; Chacko et al., 2000)
- Fear of the stigma attached to infection (Liu et al., 2002)
- Fear that partner will find out about the infidelity (Mimiaga et al., 2009a)
- Fear that will be accused of being unfaithful (Thurman et al., 2008)
- Fear of partner's reaction
 - Fear of physical violence (Temple-Smith et al., 2010; Thurman et al., 2008)
 - Fear of partner rejection and termination of relationship (Temple-Smith et al., 2010; Mimiaga et al., 2009a)
 - Fear of bitterness (Temple-Smith et al., 2010)
- Knowing that the partner is not the source of infection (Temple-Smith et al., 2010)
- "Not my concern" mentality (i.e., belief that engaging in this particular behavior comes with risk of infection, and thus there is no obligation to notify) (Mimiaga et al., 2009a)
- Dislike of sexual partner(s) (Mimiaga et al., 2009a)
- Anger towards partner (Thurman et al., 2008)
- No plan to see sexual partner again/relationship is already over (Thurman et al., 2008; Chacko et al., 2000)
- Lack of trust (Chacko et al., 2000)
- Hassle (Chacko et al., 2000)

Again, all this evidence points to the complexities around partner notification. In this study, we focused on patient referral partner notification or case initiated partner notification.

Patient Referral Partner notification

Notification by the index patient has been found to be a “good” method of partner notification compared to other forms of notification strategies among a large sample in three clinics in the UK (Apoola et al., 2006). However, as already discussed, in most sexual health care settings this approach fails to reach half of exposed sexual partners requiring treatment (Low et al., 2004 & Handsfield, 2002). Research on this specific approach to STI partner notification has become more prominent. The literature showcases a number of approaches, including face to face, over telephone, letter, contact slip, and new technologies, such as email, texting, and websites (Hopkins et al, 2010). The following sections discuss each of these approaches.

Approaches to Patient referral partner notification

Face-to-face or by phone communication

Face-to-face communication has been seen as a “gold standard” in patient referral partner notification because it demonstrates respect, courage, caring and opportunity to see partner reaction and offer appropriate support. It has been viewed as more sensitive and respectful than telephone communication. Telephone contact has been found to be insensitive, quick, convenient, and less confrontational. However, this can be used to surmount some of the disadvantages of in-person notification which include nervousness, awkwardness, embarrassment and fear of the partner’s negative reactions (Hopkins et al., 2010). In Chacko et al.’s (2000) study, 52% of the adolescent girls in the study notified their partner(s) in-person and 45% communicated over the phone.

Contact Slip

Contact slips or referral cards include coded information about the patient, such as the patient’s clinic number, a code for the infection, and details of the issuing clinic for each traceable index partner. The goal is that referred partners present the slip at a clinic to receive screening and treatment without providing specific details about the index person or the infection. The contact slip can then cross referenced with index cases in order to establish whether partner notification has occurred and if the contact accessed a clinic other than the one that issued it. The contact slip may include a phone number to call to verify its authenticity (Fenton et al., 1998). This has been demonstrated to be effective and acceptable form of contact tracing of partners with STIs in England and Wales (Wright et al., 2002).

Web-based Technologies

Recently, new communication technologies such as the internet, e-mail, and text messaging have been used to enhance PN (Klausner J. et al., 2000; Levine et al., 2008; Murray, et al., 2006). Personal or anonymous emails and text messaging can be sent to partners to inform them about the likelihood of exposure to STIs (Levine et al, 2008; Mimiaga, et al., 2008; Bilardi et al., 2010). Recent evaluation studies of online partner notification systems have shown that email and text messaging were found to be acceptable, useful, and resourceful ways to contact the index patient’s partner(s) by those affected by an STI (Bilardi et al. 2010a, Levine et al., 2008).

A survey demonstrated that patients would be willing to receive notification of possible exposure to infection via e-mail or other new technologies because of the ease and privacy of online communication (Mimiaga et al., 2008). Other studies have shown that online partner notification is an efficient method for reaching individuals otherwise inaccessible (CDC, 2004; Vest et al, 2007). Recent studies found that only a minority of index patients used new technologies, such as e-mail and SMS, to inform partners. This is because of the sensitivity of the topic, as emails and text messages can be shown to others and the message may not be taken seriously except for in specific circumstances, such as when the partner lives elsewhere, the relationship is casual, and the patient fears abuse or blame by their partner (Biliardi et al. 2010b; Hopkins et al., 2010). SMS was found to be cold impersonal, rude, and a lame form of communication, while email could be read by others and may not be taken seriously. However, if offered a website with anonymous e-mail and SMS services, participants in Biliardi et al.'s (2010) study indicated that they would find such a resource useful and would have contacted more partners had these services been available.

Apoola et al. (2006) found that participants had better access to mobile phones than private letters. However, they found a gender bias. A higher percentage of females rated being informed directly by a partner or by a letter from the clinic as a 'good method' compared to males, while a higher percentage of males rated receiving a text message or email from a clinic as a 'good method' compared to females. There were also racial differences; Asian and Black people were more accepting of a text message from a clinic than White people. Regardless of the approach, participants preferred to be told to contact a clinic than be told they may have been exposed a STI. In another study by Apoola et al. (2007), a significant number of participants were against email and text messaging as a mode of partner notification. They speculated that this was due to the immediacy of the method and not the impersonal nature of the approach. This hypothesis was supported by the fact that more participants preferred letters, which can be just as impersonal as the other approaches.

Websites offer another mode for patient referral partner notification. This approach appears to be particularly suited to individuals who seek sex partners over the internet. One example is inSPOT (<http://www.inSPOT.org/>), a peer-to-peer, web-based, partner notification system developed by Internet Sexuality Information Services and the San Francisco Department of Public Health (Levine et al., 2006). Patients can send their partners electronic postcards (e-cards) through this website. This website has been replicated in Canada (Ottawa). Despite the potential for misuse, less than ten individuals have reported receiving an e-card inappropriately. Others jurisdictions have also successfully used internet-based technology for PN (CDC, 2004).

In a survey on a MSM website, Mimiaga et al. (2008) found that more than 92% of participants said that they would use internet PN. Internet PN could involve either the patient or a public health specialist sending an email from a website to the patients' partners. Mimiaga et al. (2008) stratified their analysis by STI history and HIV status. They found that HIV-uninfected MSM were more likely to use internet PN than HIV-infected MSM; thus, internet PN may be more acceptable to HIV-negative MSM than HIV-positive MSM. Interestingly, MSM who had no history of a STI reported they were more likely to notify their regular partner themselves (either in-person or by email) and have the public health department notify their other sexual partners (via email). MSM participants reported that they would use the services provided in a notification email, including links to information about the STI, testing, treatment, and a phone number to

verify the email's authenticity. Mimiaga et al. (2008) concluded that "If public health officials consider using Internet notification services, they may need to anticipate and address these concerns and will need to use a culturally sensitive social marketing campaign to ensure that those who may benefit from these services are willing to use this modality for PN" (p. 115).

Bilardi and colleagues (2009) found that general practitioner showed preference for using new technology for improving PN of Chlamydia, including a website that they could access and a website that they could refer their patients to.

Expedited partner Therapy/Patient-Delivered Partner Therapy (PDPT)

One approach to improving partner notification is to use Expedited Partner Therapy or Patient-Delivered Partner Therapy (PDPT). This involves giving antibiotics (e.g., a single dose azithromycin) to the infected individual to give their sexual partners without the partner needing to receive a health professional consultation and testing (Smith et al., 2010). PDPT is seen as a controversial practice as it involves a health professional providing medication for individuals they have not clinically evaluated (Trelle et al., 2007). Presently, legislation regulating this practice is inconsistent (Estcourt & Sutcliffe, 2007). PDPT is legislated in 20 states in the USA (www.cdc.gov/std/ept/legal/default.htm). The US Centre for Disease Control and Prevention recommends its use. PDPT is regularly used by some general practitioners in Australia (Bilardi et al., 2009; Heal, Muller, 2008; Keogh et al., 1998). There is no legislation in Canada that allows physicians to dispense medication to individuals that they have not assessed.

Numerous studies suggest treatment of sex partners by PDPT is an accepted, effective and expeditious strategy in partner notification as it decreases the risk of re-infections in index patients and prevents the sequelae of STIs (Bilardi et al., 2009, Golden et al., 2005; Kissinger et al., 1998; CDC, 2006; Schillinger et al., 2003 ; Ayesha et al., 2005). A systematic review found that the rate of persistent or recurrent infections in patient managed with PDPT was lower compared with regular patient referral by information (Trelle et al. 2007). In summary, Trelle et al. (2007) concluded that PDPT may be better than patient referral with and without contact cards, but may not be better than patient referral supplemented with written information for partners. Due to the stigmatization associated with attending a health clinic for STI testing and treatment, access to a general practitioner may affect the timely treatment of a sex partner and this can be combated using expedited partner treatment (PDPT). In one study, general practitioners reported that they did not use PDPT because they were afraid of an allergic reaction by the partners to the antibiotics, the partners were not their patients, and they felt that the partners needed to be tested before they are treated (Bilardi et al., 2009). Despite these reasons, approximately half of the physicians reported that they would support laws regulating PDPT (Bilardi et al., 2009).

There are two alternatives to PDPT. One alternative is the patient provides a prescription, written by their physician, to their partner, who then takes it to a pharmacy to be filled. Before filling the prescription, the pharmacist interviews the partner in a private space about their medical history, and attempts to identify contraindications to the antibiotic and to possible drug interactions (Cameron et al. 2010). A recent study in the UK on alternative approaches found that expedited partner therapy at a pharmacy is less stigmatizing, improved access to timely treatment, and seemed to overcome the legislative and regulatory difficulties of PDPT (Cameron et al., 2009; Cameron, 2009). A

second alternative is to provide patients with a home sampling kit to give their partner(s). The home sampling kit includes a sterile container, information on how to collect the specimen, and information on where to deliver the specimen. There is evidence that home sampling kits increase the number of partners tested and identified (Trelle et al., 2007). However, a UK study found the addition of a urine testing kit to contact slips did not increase the partner notification rates for genital Chlamydia infection (Apoola and Beardsley, 2009).

Enhanced Partner Notification Options

Partner notification can be enhanced by counselling patients and engaging them in an interactive question and answer session, showing patients educational videos, and by providing them with written materials for themselves and/or their partner(s). Health providers can help patients improve communication and coping skills by role playing and educating patients about their infection. Clark and colleagues (2006) suggested interventions to improve partner notification and treatment by including educational programs that address the importance of notifying partners and improvement of communication skills within relationships. There is evidence that these approaches are effective in reducing persistent and recurrent infections and in treating more partners (Trelle et al., 2007). Randomized control trials in Zambia, Zimbabwe, and Kenya found that index patients in the counselling group were more likely to report notifying their partners compared to the control group (Faxelid et al., 1996; Moyo et al., 2002, Njeru et al., 1995). Trelle et al. (2007) suggested that using multiple approaches is the most effective strategy. For instance, they suggested that supplementing patient referrals with written information for partners was as effective as patient delivered partner therapy. The use of videos was found not only to improve and promote index patients' confidence in notifying their partners but also a cost effective model for health education and highly acceptable to patients and clinicians (Matthews et al., 2002).

Mimiaga et al. (2009a) asked participants what their ideal PN system would look like. They responded with the following suggestions:

- Similar to the existing system
- PN process should be widely advertised
- PN should be encouraged
- Both partners should be present during the notification
- Need for comfort and convenience
- Counselling throughout the entire PN process
- Need to employ knowledgeable and supportive individuals to provide PN services
- Involve physician
- Provide ample information throughout the process
- Have anonymous services
- Have a telephone hotline providing PN options and assistance
- Have an internet-based service on sexual partner meeting websites

Mimiaga (2009a) concluded that "PN systems should strive to provide contacted individuals with as much information as possible regarding the role of the service, testing, and counselling options, and be available and receptive to any questions. Cultural sensitivity training of health officials, and education of at risk MSM about PN may help mitigate the problems noted by the participants in this study" (p. 117).

Methodology

The project utilized a mixed-methods approach. This approach incorporated quantitative and qualitative methodologies. This was believed to enhance the results by testing the consistency of findings obtained through different tools, clarify and illustrate results from one method with the use of another method, assist in the development of better tools, and provide increased richness to the study. The specific methods that we utilized were as follows:

- a literature review
- a survey with community members who had been diagnosed with a STI or deemed themselves to be at risk for contracting a STI
- a series of individual in-depth interviews and focus groups with community members who had been diagnosed with a STI
- a series of consultations with health care providers in position to deliver STI results or work in STI teams including key informants from other jurisdictions across the country; and,
- an online survey with physicians

Literature Review

This project called for completing a report based on a review of literature to identify **approaches and resources that encourage cases to notify their own contacts with regards to a range of sexually transmitted infections**, in particular, Chlamydia (CT) and Gonorrhoea (GC). The documentation targeted included academic and community based studies, government reports, commissioned reports, position or policy papers, and evidence-based practice models, and web-based resources.

Target and Sample Population for Surveys and Focus Groups

The target population was everyone in the Winnipeg Health Region who has had, currently has, or who deemed themselves to be at risk of having a sexually transmitted infection. The eligibility criteria included the ability to understand and speak English, be at least fifteen years old, and either have had a STI, currently being tested/treated for a STI, and/or engaging in behaviors that puts them at risk for infection (e.g., sex work, having casual sex). The goal was to recruit a sample of participants with diverse characteristics, including sex, age, ethnicity, neighbourhood of residence, relationship status, sexual preference, and STI experience.

The sampled population was anyone who attended certain STI or teen clinics in Winnipeg or responded to the recruitment posters during the months of January to March 2011. The recruitment posters were displayed in community health centres that hold STI clinics (e.g., Klinik Community Health Centre, Nine Circles Community Health Centre, and Mount Carmel Clinic). The posters were also displayed in other community health centres, teen clinics, walk-in clinics, hospitals, as well in non-clinical venues such as youth drop-in centres or programs, community centres, universities and colleges, etc. We promoted the project through SERC's community radio program, Sex Files. Recruitment cards were given to clients who attended the STI and teen clinics at Klinik prior to their appointment.

Sample Design of Survey

The sample was self-selected. All individuals who expressed an interest in participating by responding to the recruitment posters or recruitment cards were screened for eligibility. This was a non-probability volunteer sample. Non-probability sampling is more likely to result in biased samples than those obtained through a probability approach. This sampling approach was chosen because it was easy to organize, inexpensive, and efficient given the short time frame and resources available for data collection. Additional participants were recruited through snowball sampling whereby participants distributed posters, recruitment cards or information sheets to their contacts.

The number of patients interviewed at each STI/teen clinic at Klinik depended on the patient load and the availability of the research assistants. The staff at Klinik provided the interviewers with private rooms to conduct the survey. The original goal was to have a sample size of 150 individuals. This seemed like a reasonable expectation given the number of days and the number of hours per day for data collection at the main interview location (i.e., Klinik), the number of research assistants available to administer the survey, and the length of time to complete the survey. However, the snowball sampling approach rendered larger numbers than anticipated and approximately half of the interviews were conducted outside the clinic. Many participants were recruited by those who responded to the survey. In total we were able to accommodate **213 individuals**.

Survey Administration

One to three research assistants (i.e., interviewers) were present during the STI/teen clinics at Klinik to administer the survey to the clients while they were waiting to be seen by a health care provider or immediately after their visit. Clients and other potential participants had the option of participating at a later date by arranging an appointment with one of the main researchers. Interviewers administered the survey either over the phone or in-person at a convenient time to both parties. The in-person interviews were conducted at Klinik, the Sexuality Education Resource Centre (SERC), and the Rainbow Resource Centre.

Sixty three percent (**63%**) of the participants were interviewed at **Klinik**. This was followed by **26%** of the participants who choose a **phone** interview. The rest were conducted at SERC or Rainbow Resource Centre. Not all those responding to the survey at Klinik were current clients of the STI or teen clinics.

Participants were provided with a \$20 honorarium. Participants who completed the survey in-person were given \$20 cash at the end of the interview. Participants who completed the survey over the phone were given a code and the address of the Sexuality Education Resource Centre or Klinik to pick up their honorarium at a time convenient for them.

Survey Design and Summary of Questionnaire Content

The Partner Notification Survey (PNS) that was designed for this study consists of 108 closed and open-ended items. The survey is divided into five sections. The first section consists of demographic items, including questions about sex, age, area of residence, ethnicity, education, and income. The second section of the survey is the six-item Brief Resilience Scale (BRS) developed by Smith, Dalen, Wiggins, Tooley, Christopher, and Bernard (2008) which measures the ability to bounce back or recover from stressful situations. The BRS items are answered using a 5-point Likert scale ranging from *strongly disagree* to *strongly agree*. The BRS has good internal consistency (Cronbach

alpha ranging between 0.80 and 0.91), test-retest reliability, convergent validity, and discriminant predictive validity (Smith et al., 2008). The third section of the survey consists of items regarding sexual orientation, relationship status, sexual experience, and history of sexually transmitted infections. Many of the demographic items in section one and the items in section three were adapted from Statistics Canada surveys, such as the Canadian Community Health Survey, General Social Survey, National Longitudinal Survey of Children and Youth, and the Youth Smoking Survey. The fourth section of the survey consists of the partner notification items, which pertain to past experiences with and future expectations of partner notification. Specifically, the items address who (i.e., main and/or other partners) and how partner notification was/will be carried out. The 'how' questions address the method of delivery (e.g., in person, via text message) and the content of the message/discussion. The fifth section include questions about attitudes towards future partner notification, barriers to notifying partners, reactions to being notified, and resources that could support individuals in notifying their partners. The partner notification items were developed from reviewing the literature. Some of the items were adapted from existing partner notification surveys (e.g., Apoola et al.'s (2006) patient preference for partner notification survey).

Qualitative Interviews

We conducted interviews with key people involved in the care of people at risk or those who have been diagnosed with a STI in Winnipeg, as well as the youth at risk and clients themselves (i.e., cases and contacts).

Interviews with Health Care Providers and Managers

Health care providers from all STI clinics, and teen clinics in Winnipeg and from the WRHA STI unit were invited to attend consultation meetings to discuss their experiences, knowledge and views on partner led notification. In addition, we also asked them a series of questions regarding the best methodological approaches to reach out and engage clients in their clinical settings. These participants were offered the opportunity to participate in an individual interview if they were not available or did not prefer a group consultation format. A copy of the questions is appended. We conducted one group consultation with three community-based professionals (i.e. nurses); one group with four personnel from the Harm Reduction and Health Unit with the Winnipeg Regional Health Authority; and two individual interviews with nurses from community health centres.

In addition, we consulted with a number of public health managers and personnel from a number of jurisdictions across the country including, Edmonton, Toronto, Peel Region, Calgary, Regina, Ottawa and Saskatoon. Invitation to participate was extended to a number of additional jurisdictions with no response.

Interviews with Community Members

Community members affected by an STI or at risk of an STI were invited to participate in an approximately one and half hour group interviews with a member of the research team. We used a similar poster to recruit participants for the focus group as to the one used for recruiting participants for the questionnaire. These participants were recruited at STI clinics and other non-clinical venues (e.g., Safe Nights Off Winnipeg Streets (S.N.O.W. night), Rainbow Resource Centre, etc.). Participants were asked about their experiences and views regarding STI partner led notification, such as factors that facilitate and prevent people from telling their partners about an STI, and preferred methods for partner led notification. There was less interest in participating in the focus groups compared to the survey.

We conducted **two gender-specific focus groups**, one with males and one with females. In addition we conducted two pair interviews with women. A total of **16 people** participated in these interviews. The men's group included seven participants. They represented a wide range of communities and experiences. Four individuals identified as being First Nations, two as Canadian/White, and one as black. Four identified as gay or MSM and three were heterosexual. Surprisingly, all participants were HIV positive. About half of the participants had already completed the survey. Some heard about the focus group through Nine Circles Community Health Centre, while others heard through their own networks outside Nine Circles.

As per the group of females, all learned about the focus group at a community event, S.N.O.W. Night. This event, which stands for *Safe Night Off Winnipeg Streets*, is organized by Sage House and the Salvation Army, and is meant to provide a retreat for women and transgendered individuals involved in sex work. There were 5 participants, three who identified as female and two as transgender (Male to Female). They were between 22 and 34 years of age. All participants were Aboriginal (four First Nations and one Métis). In addition to these participants, we interviewed four women between the ages of 20 and 31. Three women were currently in a same sex relationship. Two disclosed having engaged in the sex trade (indoor and outdoor sex trade respectively).

Online Survey with Physicians

An online survey was designed to gather the views of local physicians on patient-led notification. There were seven sections to the survey. The first section addressed participant's demographic characteristics. The second section asked about their medical practice. The third section asked about participant's use of and access to information technology. The fourth section addressed physicians' experiences and opinions on testing and treating patients who have (are suspected of having) a sexually transmitted infection. The fifth section requested participants' opinion on partner notification. The sixth section asked about resources that physicians' would use to assist their patients with partner notification. The final section asks their opinion about partner-delivered patient therapy. The survey was anonymous.

The survey was available only at the end of March and its broad promotion was only possible later on with assistance of the Winnipeg Regional Health Authority. The response rate was extremely low. Only 7 physicians responded the questionnaire. In spite of such low number of respondents, we still considered and included an analysis of their views in this report.

Most of the respondents were family physicians. Participants have been in the field between 12 and 40 years. They were almost evenly split between practices in community health centres, private practices and University. All respondents provide care to adolescents, pregnant women, Aboriginal people, ethnic minorities, people living in poverty and those suffering from mental health problems. About 75 percent provide care for people living with HIV and addictions. About half of the participants also provide care for new immigrants.

Ethical Considerations

We obtained **verbal consent** with all community participants participating in the survey and focus groups. This was meant to facilitate access to the study by participants who may have difficulty reading or at least understanding some of the complexities posed in writing in a consent form. Another reason was that some individuals might be suspicious of written documents to which they are asked to sign their name. We were justifiably concerned that written informed consent may present undue stress for them. It was important to include youth, an important sector of the population affected by STIs. However, due to the sensitive nature of the topic, parental consent (a common practice in research involving youth) would have prevented youth participation. Parental consent was not required for youth under the age of 18. We did everything possible to ensure that their rights as participants were protected and that resources, if needed, were available.

Participation in the project was completely voluntary. Health care providers were invited to participate through invitations sent by the research team to individuals or their organizations. As per community members to individual interviews, they were invited through direct engagement with members of the research team who emphasized the voluntary nature of their participation in the project.

In all cases, the research team indicated to the participants that they could withdraw from the project or not answer any particular question at any point without any negative repercussion.

This project was below minimal risk for all participants and would result in important benefits to public health, health care providers, and the community in general. We believed that participants were be able to contribute to enhanced public health in STI care; they had an opportunity to express their ideas and talk about issues that mattered to them. This way they assisted in the development of recommendations that represent their unique perspectives. In addition, community members received compensation for their participation.

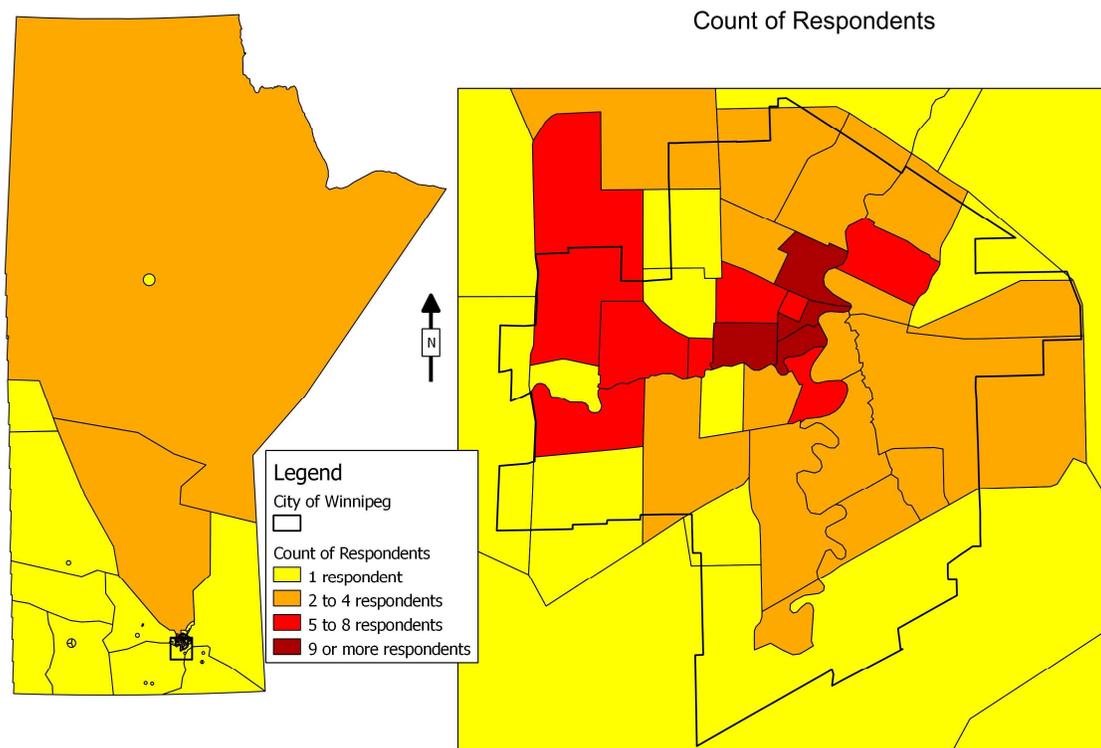
We did not collect any personal information from the community participants (i.e., names, contact information). All stored data was coded so that participation remained confidential, with files stored in a locked filing cabinet in SERC's offices. The information stored on SERC's computers was protected by a personal access code that only the principal researcher know. All data related to this project will be destroyed after three years of the completion of the project.

During all focus group sessions, in order to manage an acceptable level of confidentiality, participants were informed about the need and obligation to refrain from disclosing any personal information about the other participants exchanged in the sessions. Also, we explained to participants that although we are asking them to refrain from sharing personal information about other participants outside of the meetings, we could not be in control of information disclosed in a group situation. Therefore, we asked participants to bear this risk in mind when sharing personal information with the rest of the group. Between the research team we maintained strict confidentiality except when discussing the research findings amongst ourselves.

The project was approved by the Health Research Ethics Board of the University of Manitoba and the Winnipeg Regional Health Authority.

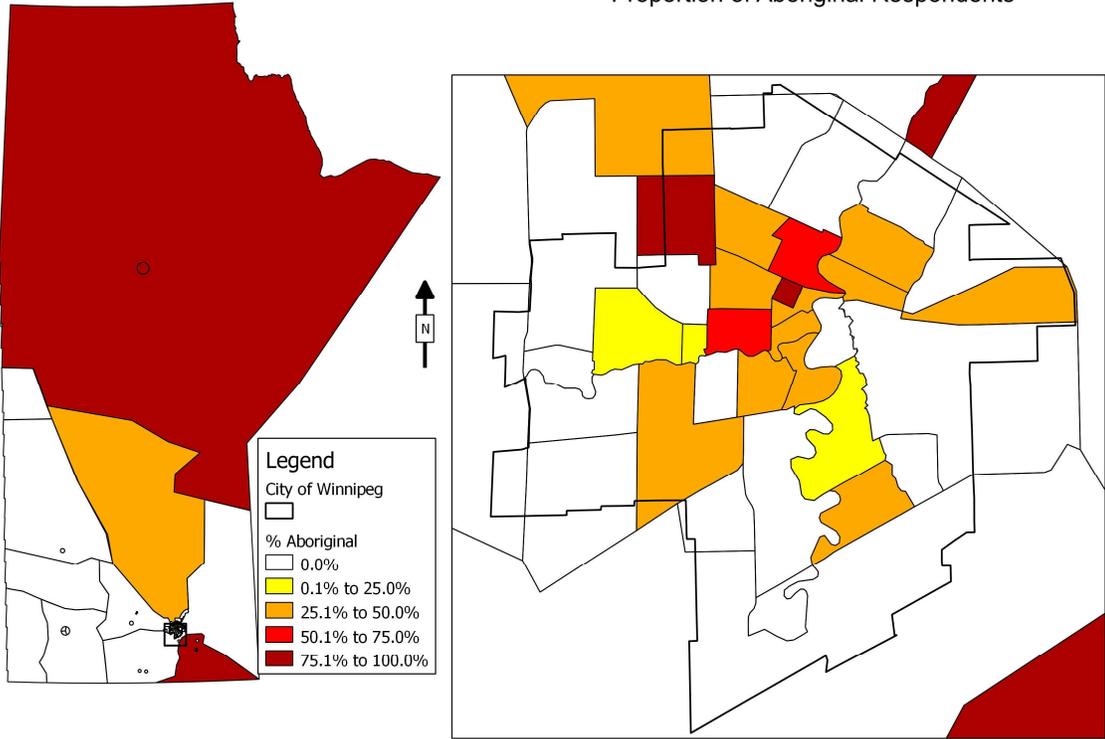
Survey Participants

There were participants from most regions of the city of Winnipeg (as illustrated in the map below). Over 15 percent of the participants did not indicate their postal code where they resided at the time of the interview. For those who provided a postal code, the largest numbers of participants were from Point Douglas and Downtown East with about 35 percent of them residing in these neighbourhoods. Six participants indicated that their residence was outside Winnipeg. The rest of the participants were distributed across the city.



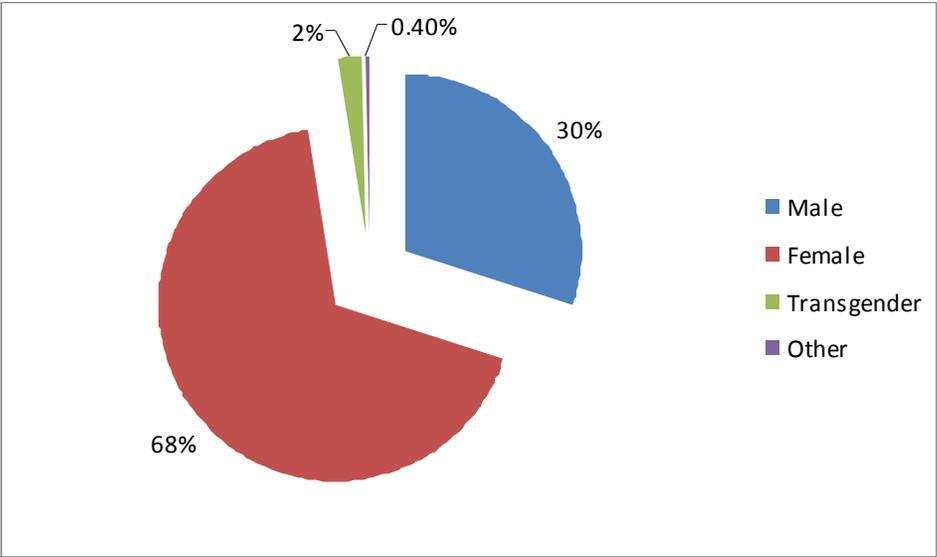
The following map represents the area of residence among Aboriginal participants. Most resided in Point Douglas (n=17 or 71 percent of all those from that area) and Downtown (n=26 or 54 percent of all those from that area).

Proportion of Aboriginal Respondents



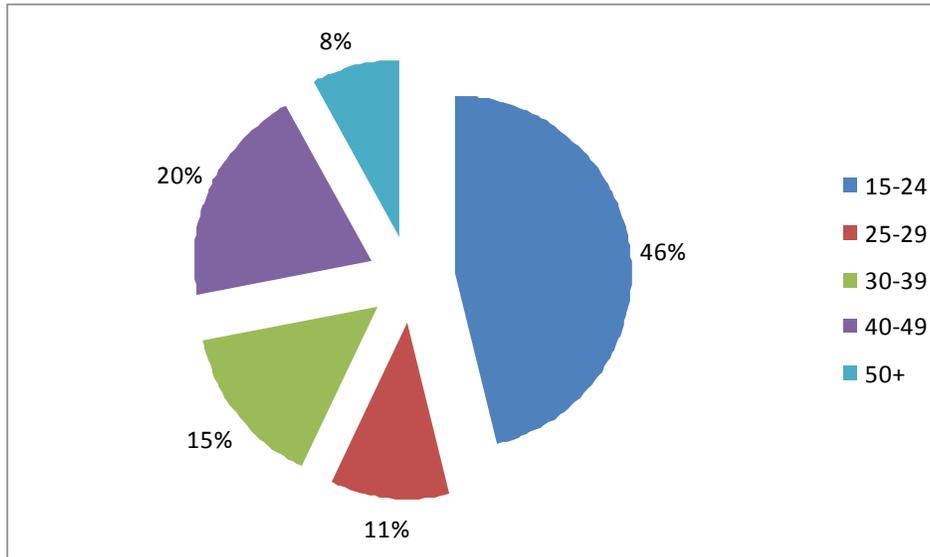
Gender

Most of the survey respondents were female (i.e., 68 percent). Thirty percent were male and a small number (n=5 or 2.3 percent) identified as transgender. Only one participant identified as gender neutral.

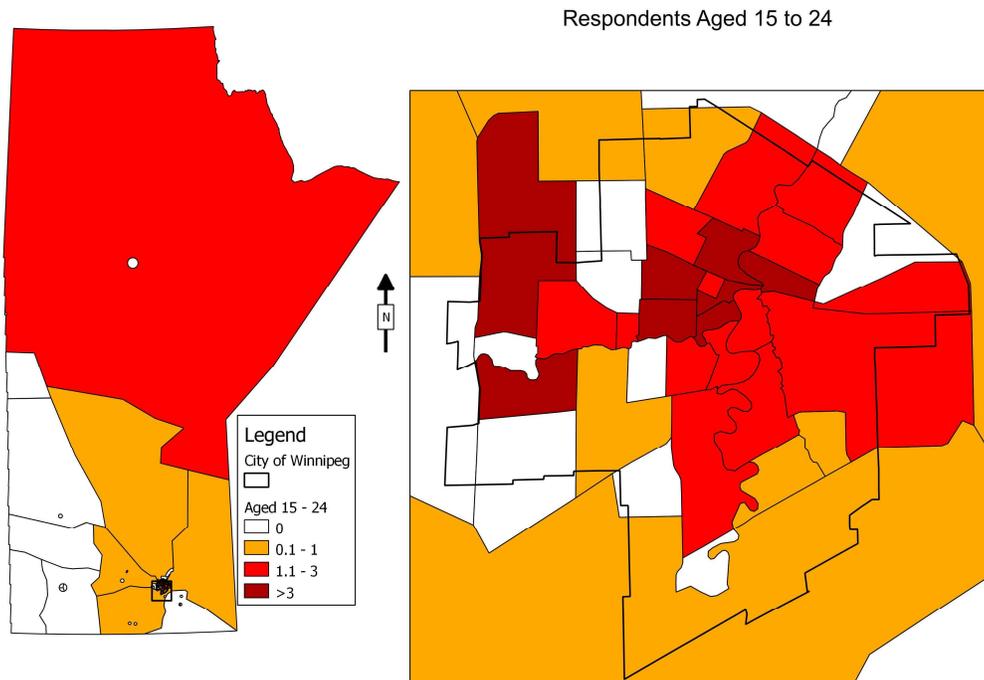


Age

All but two respondents declared their age. Participants' age ranged from 15 years of age to 69 years old. The average age of the participants was 30.2 years. The largest number of participants was in the 15 to 24 years (46 percent) age category. Forty six percent (46%) of those in the 15 to 24 age category identified as Aboriginal. Of all Aboriginal participants, 36 percent were youth (15-24).

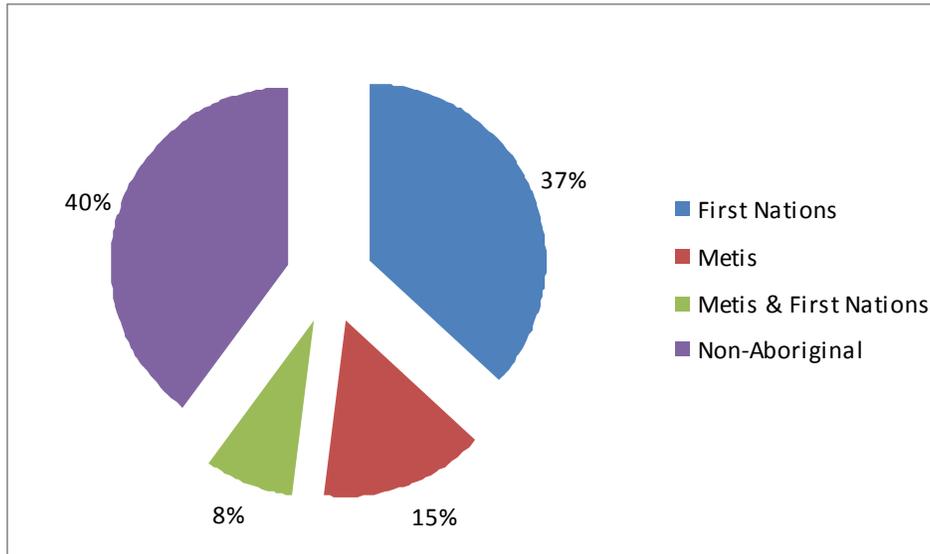


We were able to reach youth ages 15 to 24 from all across the city. The following map represents the geographical distribution of where youth resided at the time of the survey.



Ethnic or Cultural Background

A large proportion of participants identified as Aboriginal. There were over 44 percent who indicated they were First Nations, an additional 22.5 percent identified as Métis, and another 8 percent identified as both First Nations and Métis. Among the non-Aboriginal participants, there were many who identified Canadian as their main ethnic identity (42% of respondents) with many identifying with more than one ethnicity.



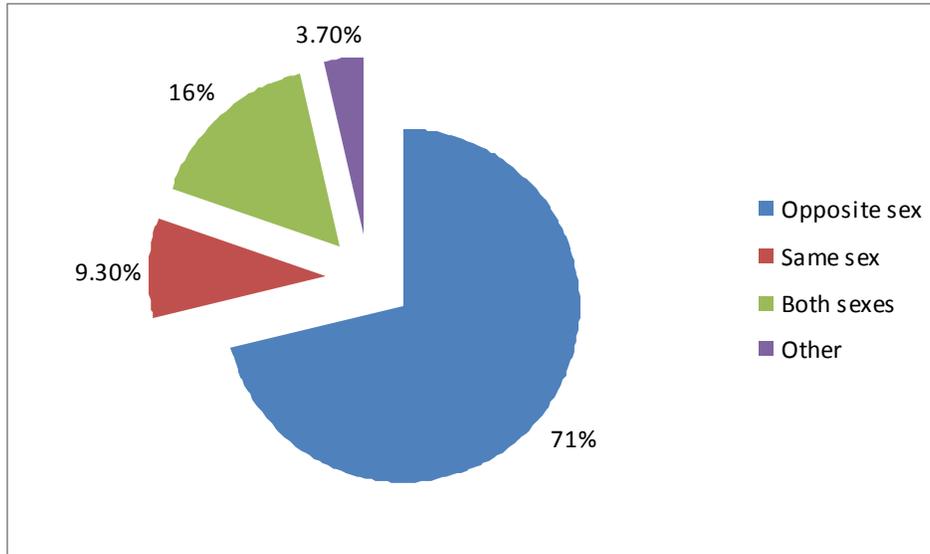
Education

About 30 percent of the participants were in school, and 70 percent were not in school. Among all participants not in school, 73 percent had grade 12 or lower. Of those in school most were youth (ages 15 to 24 years) (80 percent). Of all youth, 46 percent were not in school.

Among the out-of-school youth, over 30 percent had grade 11 and the same completed grade 12, a quarter had grade 10 or lower, and the remaining 9 percent (n=6) were split between those who had some trade/technical/vocational college, some community college, and a diploma from a trade or community college.

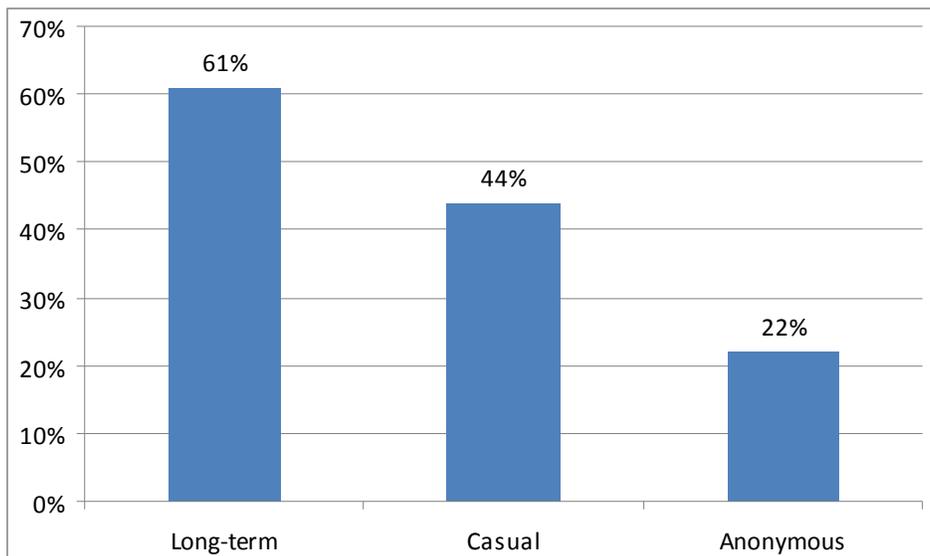
Sexual Activity

A large number of respondents had sexual relationships with those of the opposite sex (i.e., 71 percent). This was distantly followed by the group who identified as having sexual relations with people of both sexes (i.e., 16 percent). Approximately 9 percent of the participants identified with having sex only with people from their own sex. Those having sexual relationships with people of the opposite sex were slightly more represented among Aboriginal people (i.e., 76 percent of Aboriginal respondents).



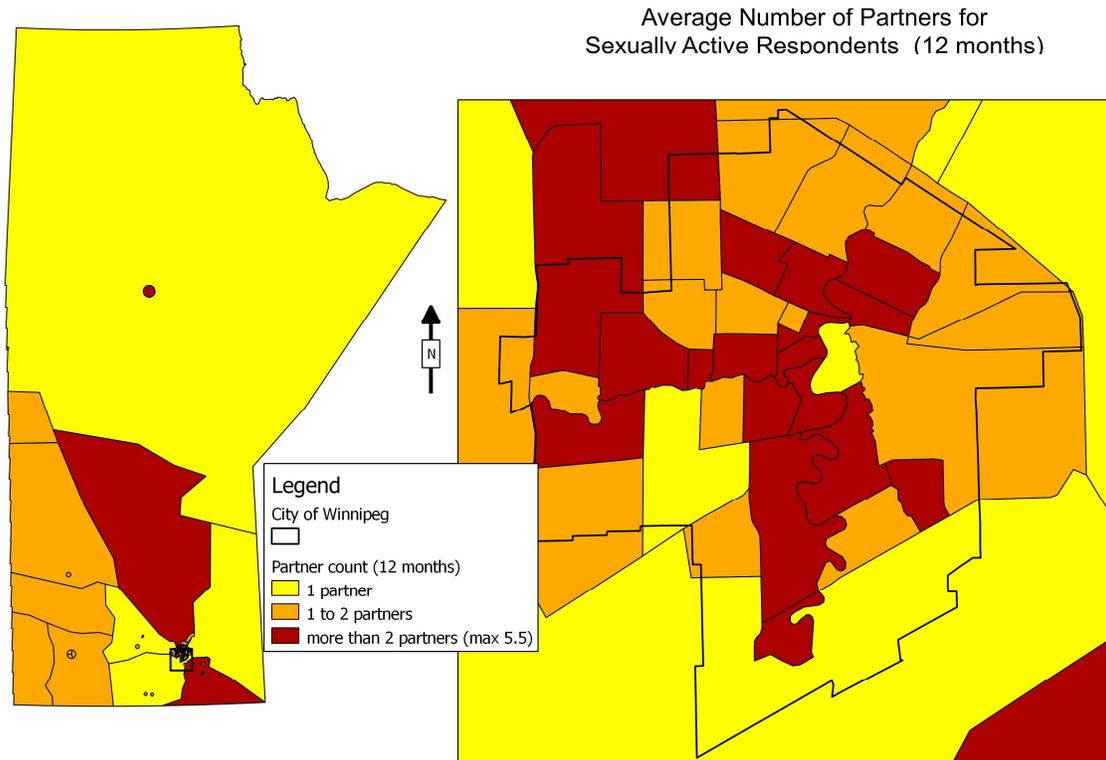
Sexual Relationships

We asked respondents to identify the type of sexual relationships they had been involved in for the past 12 months. A large number (i.e., 61 percent) indicated being in a long-term relationship. Forty four percent have had casual sex during the past 12 months and 22 percent had anonymous, one-time encounters over the same period of time. Many were involved in more than one of these types of relationships. For instance, about 18 percent were in a long-term and had casual sexual relationships. Another 12 percent were split between long-term and anonymous sexual encounters, anonymous sexual encounters and casual relationships, and all three types of relationships.



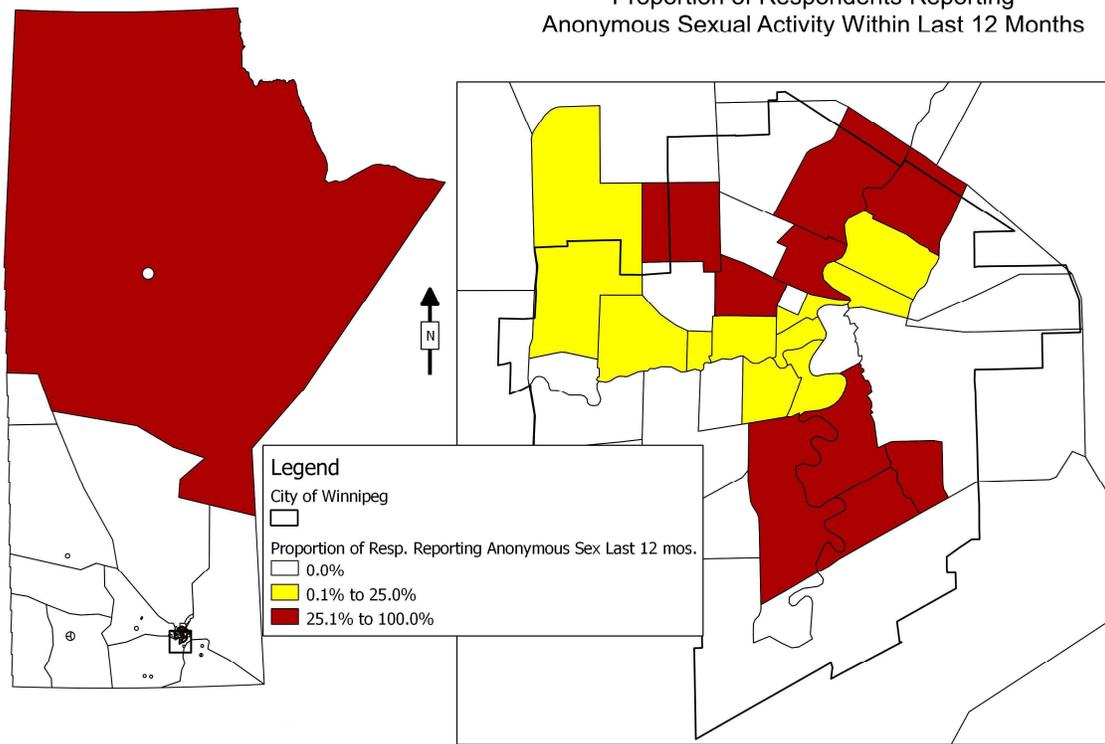
The number of sexual partners over the past 12 months ranged from 1 to 200. The average number of sexual partners was 4.8. However, few participants had a large number of partners. Over 40 percent of the respondents indicated having only one sexual partner in the past 12 months. An additional 21 percent had 2 sexual partners.

Over 10 percent had 3, and over 11 percent had 4 sexual partners. The rest of the respondents (n=29) had between 5 to 200 sexual partners. As shown in the map below, participants with more than two partners (maximum of 5.5 partners) resided in many locations across the city.



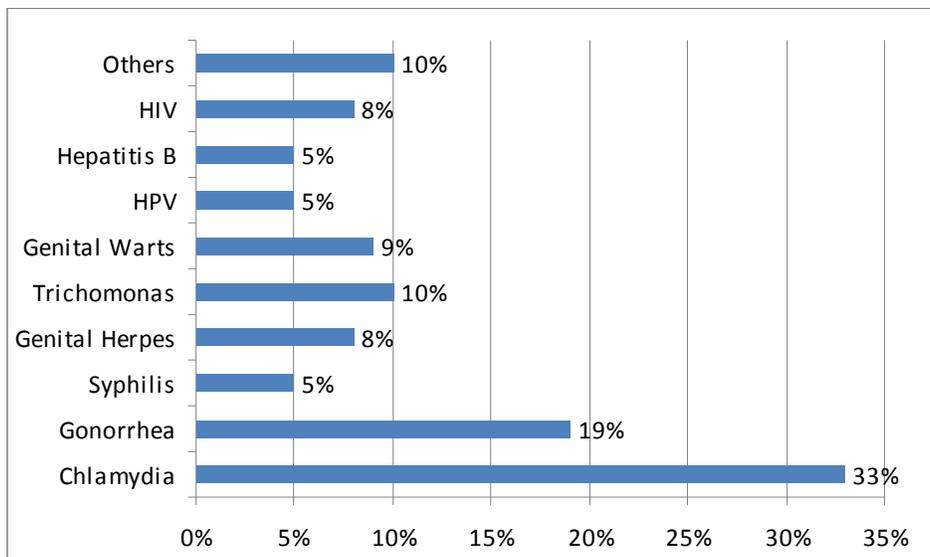
As illustrated in the map below, up to 25 percent of those residing in the River Heights, River East and St. James neighbourhoods indicated having had anonymous sexual encounters in the past 12 months. Between 25 and 100 percent of people residing in Downtown, Point Douglas, Inkster, Fort Garry and St. Vital had anonymous sexual encounters.

Proportion of Respondents Reporting Anonymous Sexual Activity Within Last 12 Months

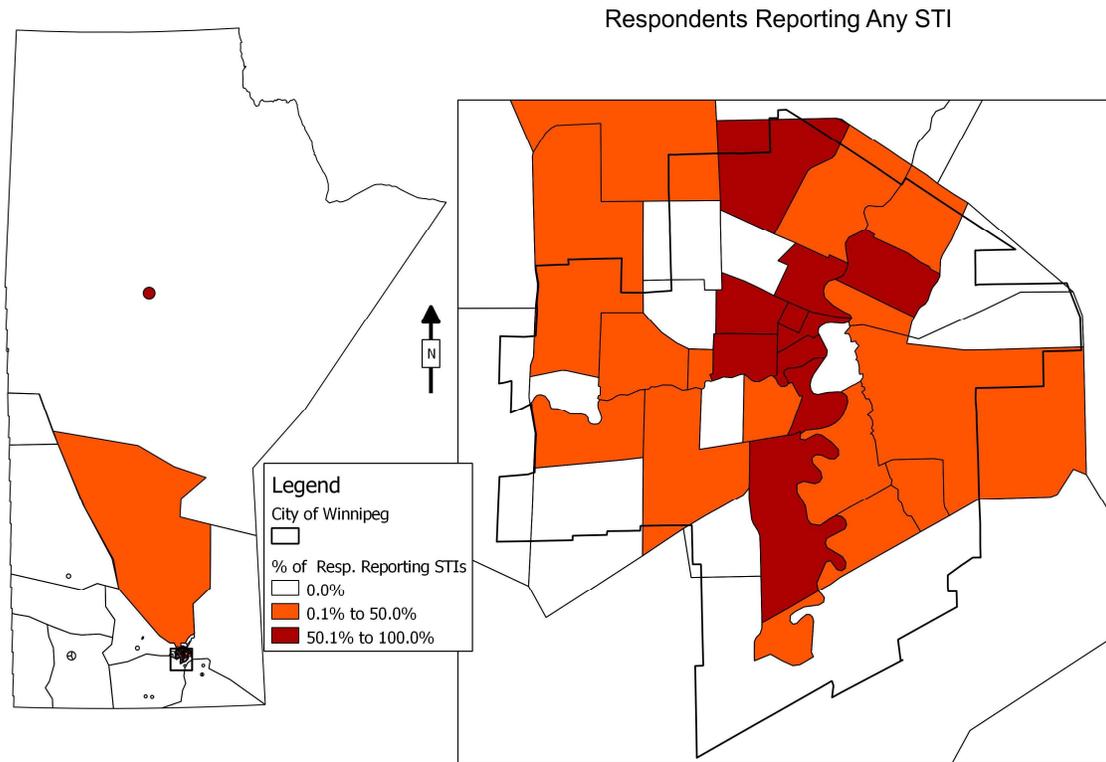


History of Sexually Transmitted Infections

Fifty six percent of the respondents had had a STI. The STIs most represented in our sample were Chlamydia and Gonorrhea. One third of the respondents had had Chlamydia, followed by 19 percent who had Gonorrhea.



Participants who had experienced an STI were also found to live in many neighbourhoods.

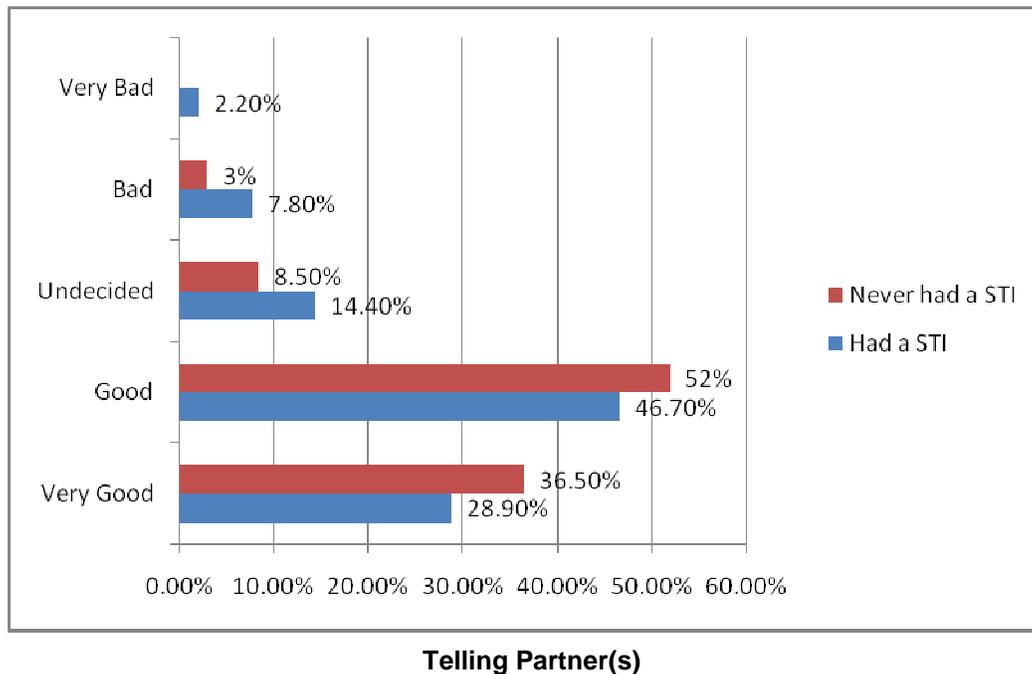


The View from Community Members

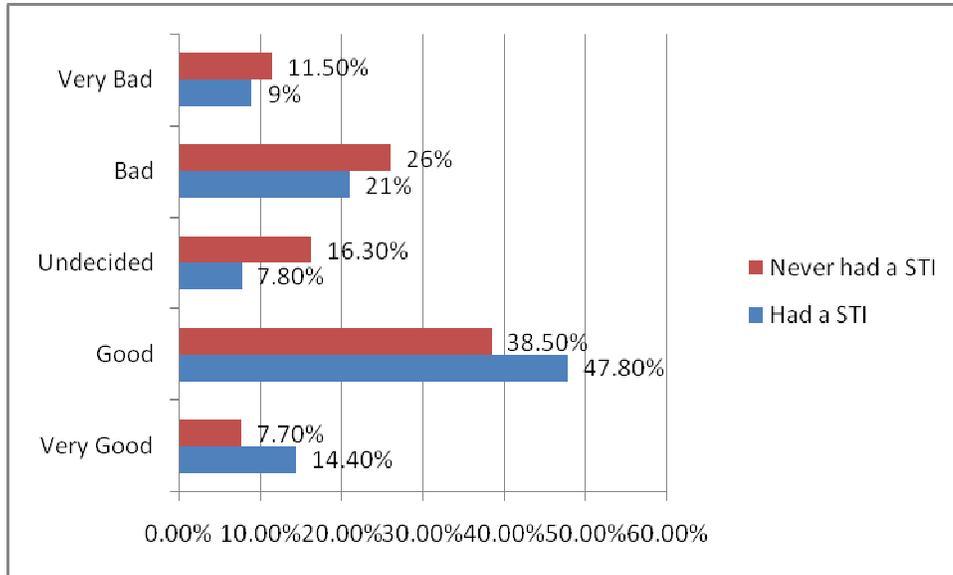
In this section we present findings on participants' reactions to telling a partner that they may have been exposed to a STI. We asked participants to imagine how they would react if they were to have a sexually transmitted infection now or in the future. We discuss this in relation to other options, including the regular partner notification approaches (e.g., through health care providers and public health specialists). Then, we focus on reasons for telling a partner they may have been exposed to a STI and barriers to do so. Finally, we discuss participants' views on a number of current and alternative methods intended to enhance patient-led partner notification.

Communicating about Sexually Transmitted Infections

Overall, most respondents (82.6% found this to be a good or very good method) supported the idea of telling their partners about a possible exposure to STI. However, when we compared participants who have had an STI to those who had not had an STI, we found that those who had an STI were less inclined to tell a partner than those who had not experienced an STI (as shown in the graph below).

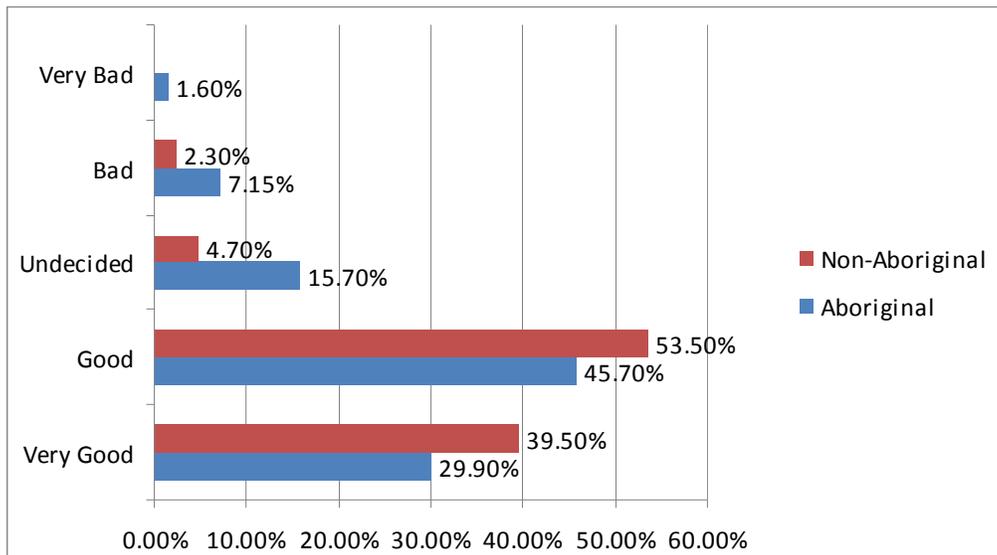


Conversely, those who had a STI preferred that health care providers inform their partners. The graph below reflects this preference by those who have had a STI as compared to those without the experience of a STI. This may reflect the fact that the participants who had not had a STI underestimated the barriers to telling a partner or they have more resources or ability to talk to their partners openly. In an analysis of those who had experienced an STI, we found that over 65 percent had informed any sexual partners. However, just over half told their partner(s) in person.



Clinic Informing Partner

As shown in the graph below, further analysis reveals that participants who declared to be of Aboriginal descent were less likely to rate telling a partner themselves as a very good or a good method. Aboriginal participants were more supportive of health care providers and clinics or public health specialists to tell their partners. For instance, over 63 percent of the Aboriginal participants would prefer that public health send a letter to their partners versus 37 percent of non-Aboriginal respondents. About 63 percent of Aboriginal respondents preferred that the clinic phone their partners compared to 48 percent of the rest of participants.

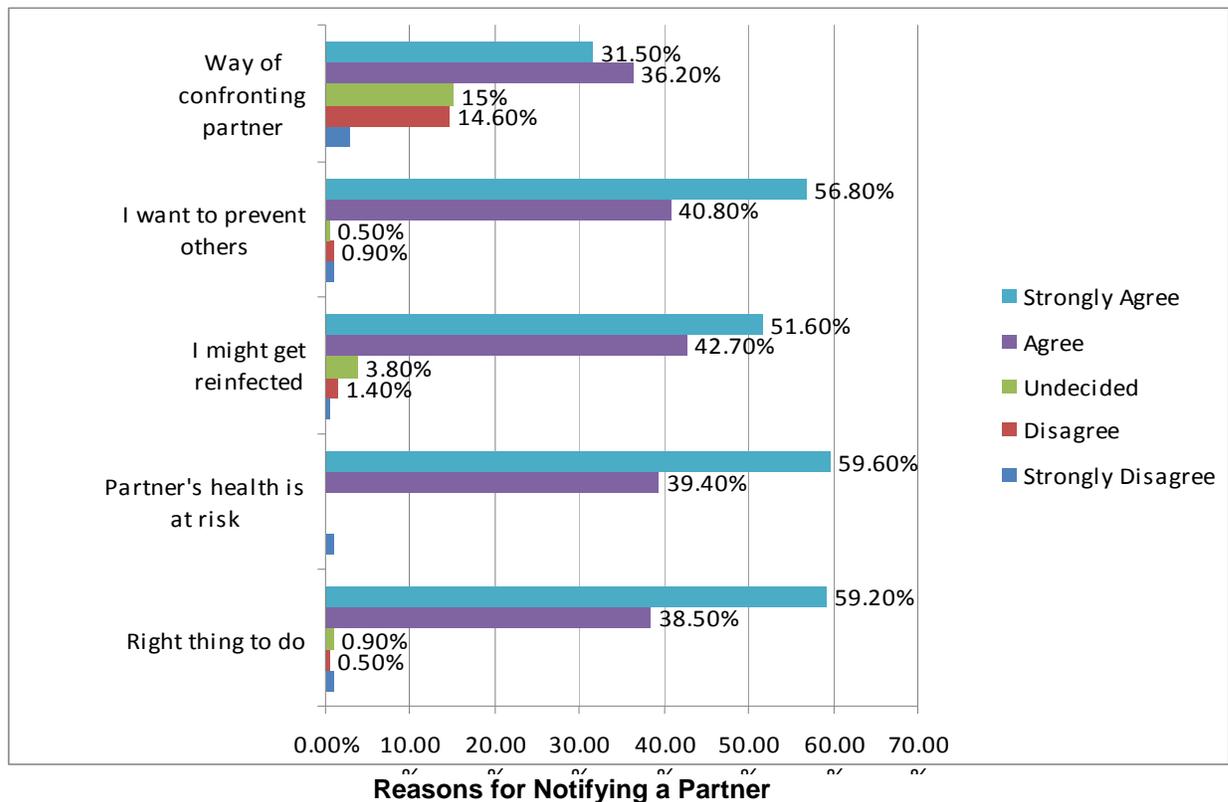


Telling Partner(s)

Reasons for Telling a Partner

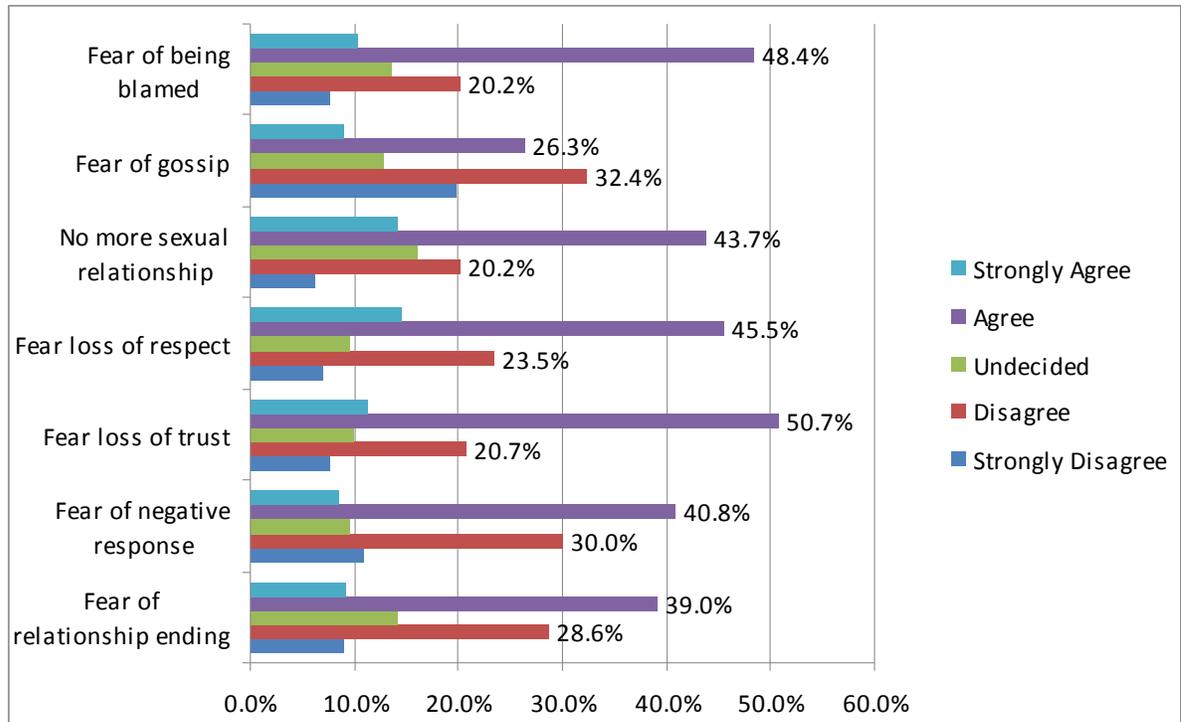
We asked respondents to identify their reasons for telling a partner that they may have been exposed to an STI. This was believed to provide us with information on key issues that are important for people in the Winnipeg context. This information not only informed the analysis of the data, but it may potentially be used to shape education materials by pointing out to key messages that would more likely resonate in the community.

About 60 percent of the participants felt that telling a partner was important as their partner's health could be at risk, and because it was the "right thing to do". Over 56 percent felt that they needed to tell their partners in order to prevent others from getting the infection. And, over 50 percent were concerned about getting re-infected. While many agreed that they would tell their partners in order to confront them of their infidelity, over one third was undecided or did not agree with this statement. This may reflect the fact that they realized that it was difficult to pinpoint if their partners were to be blamed for it.



Barriers to Telling a Partner

Participants were asked to identify any barriers that may get into the way of telling a partner about the potential of having been exposed to a STI. A small proportion of the participants strongly agreed or disagreed on any given item. Over 50 percent agreed that fear of losing trust from their partners or being blamed for the infection were important reasons for not telling a partner. Yet, as shown in the graph below, a high percentage of participants agreed with all the other reasons for not telling a partner, with people being less concerned about the fact that partners may tell others that they had a STI.



Partner Notification: Barriers (1)

Although only 40 percent of respondents to the survey feared a negative response from their partner if they were to tell them, many participants in the focus groups believed that that was a major concern for them. They were afraid of physical and verbal violence from their partners. Among people who had had an STI, the number of people who feared a negative response by their partner in the past was higher than for the overall group (i.e., 55%).

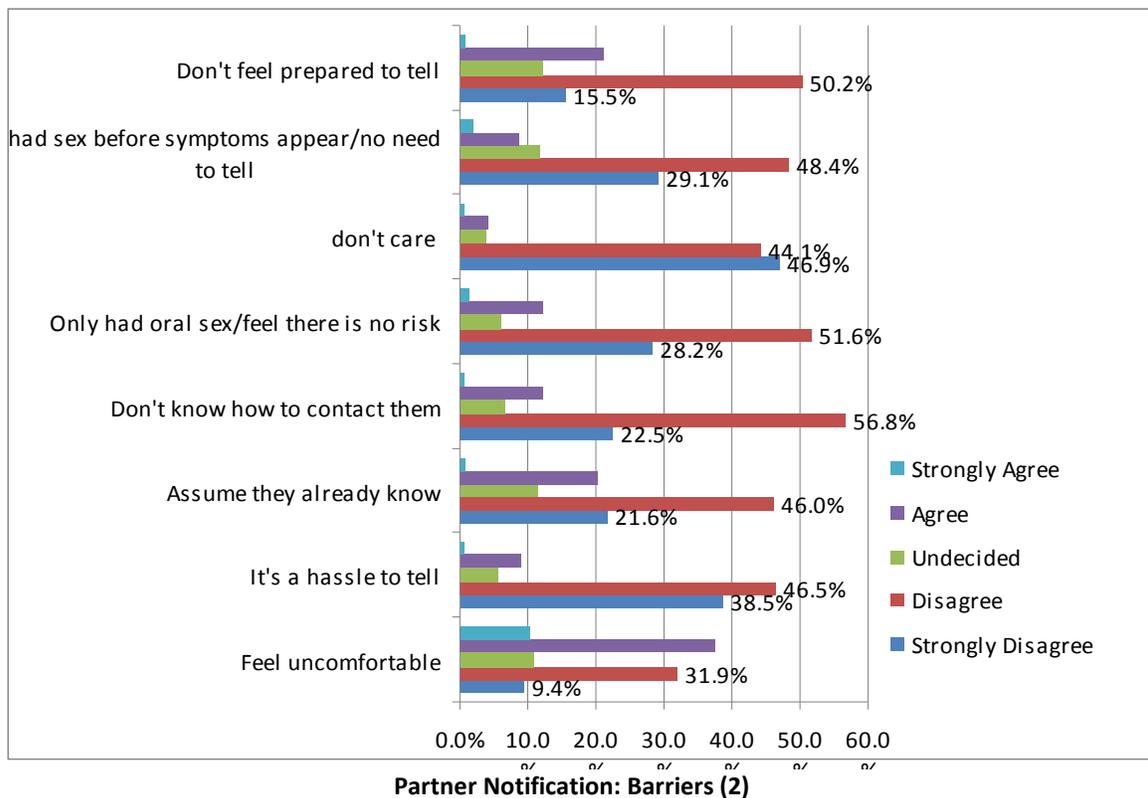
In addition, we asked respondents to rate other reasons for not telling a partner (see graph below). A large proportion felt prepared to tell a partner, as they disagreed with the item that stated that they would not feel prepared to tell a partner. Other common barriers identified in the literature were not strongly supported by the participants. For instance, the ability to contact a partner was not an issue for most. However, in spite of the fact that most of these barriers were non-issues, many would still feel uncomfortable talking to a partner about the possibility of having a STI.

It is worth noting that more attention should be paid to providing appropriate information to those who are diagnosed with HIV. It was apparent in the group discussion with males, all of whom disclosed being HIV positive, that disclosure looks very different for positive people. This was mostly due to the fact that the criminalization of non-disclosure has become a very real issue to consider, as well as the fact that this is a life long condition unlike most other STIs. Information on partner notification with HIV positive people should be provided in a careful manner by avoiding threats to public health or the health of the public. By virtue of the fact that all participants to this group were positive, it is clear that more engagement on the general topic of disclosure should be explored.

Focus group participants insisted that there was a need to look at the root of communicating with partners about STIs. They believed that prevention of STIs was

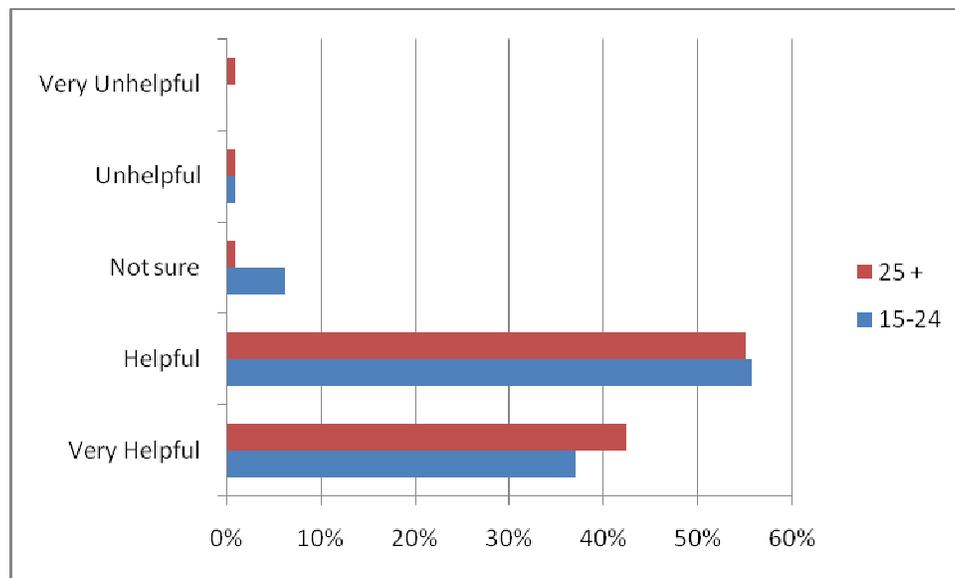
beyond the use of specific resources to help people tell their partners. They believed that educating the general population, and a change in attitude towards sexuality and sexual health would address the barriers to communicating about a STI exposure and above all, prevent STIs in the first place. Support for primary prevention was highly supported by these participants. This was also found among many survey participants.

Many others believed that prevention of STIs was more important. This was for some participants a way of preventing complications in relation to having to notify their partners of a potential exposure to an STI. One of the participants reflected on the need “to encourage honesty in any kind of relationship. To remove stigma [associated with] STIs. [People] Refrain from getting help because [STIs are] something very derogatory. Education, education, education. [It’s] all about STDs and precautions.” Another participant spoke about the importance of helping youth to prevent STIs, this participant talked about the “need to talk to kids more so they’re aware. So they’re prepared to talk to their partners.” Others felt that testing for STIs should be more readily available to all.



Partner Notification Methods

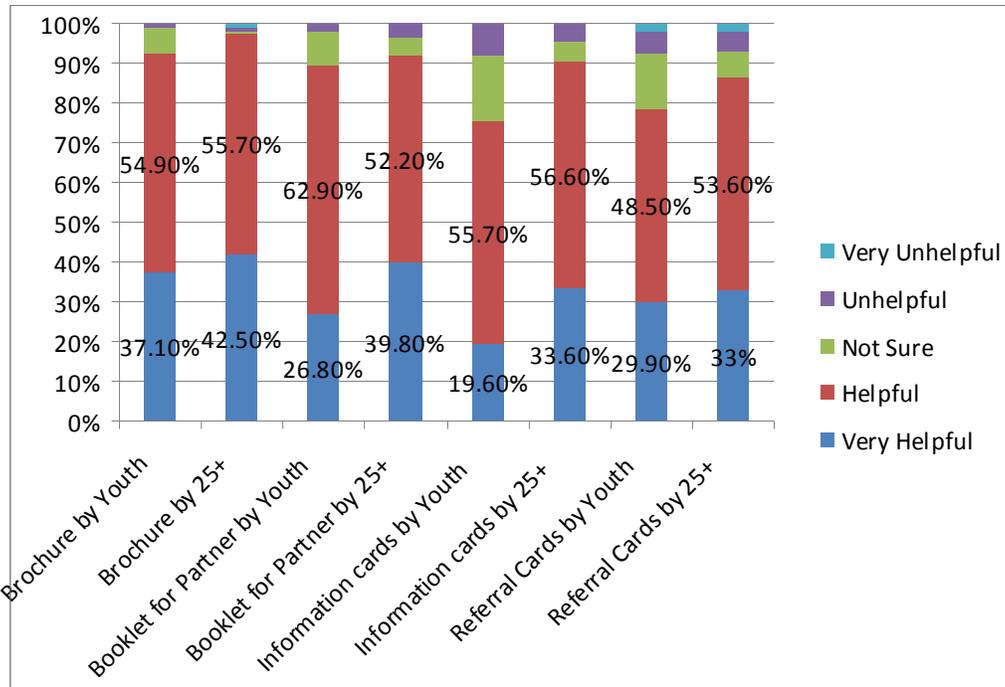
Finally, we asked participants to rate **the different methods to assist with partner-led notification** identified in the literature. Here we report on the data concerning youth versus those 25 years old and older. Although it appears that overall there is a slightly higher support for the use of web-based information to print materials, the access and use of **brochures** with information on partner notification was found to be “helpful” and “very helpful” for most survey participants. Those without access to email or Internet found that paper-based materials were one of the most helpful methods for patient-led notification. Those in the focus groups believed that they could bring those materials to their partners to give a “hint” about the need to address a potential exposure to a STI and use it as a way of opening up the conversation. Although we did not ask in the survey if participants had ever seen any currently available materials, many of those in the focus groups indicated that they had never been told by health care providers (mostly physicians) that they should be talking to their partners, let alone were they given written materials on partner notification. In terms of the content, participants advocated for messages that were easy to understand and as in “keep it simple”. A few participants who were mobile between Winnipeg and Northern communities felt that print materials were the best approach as the Internet was slow or completely inaccessible. We also found that Aboriginal participants were more confident about the use of brochures than web-based approaches. The use of interactive features in web-based approaches was even less appealing to this sector of the population.



Partner Notification Brochures

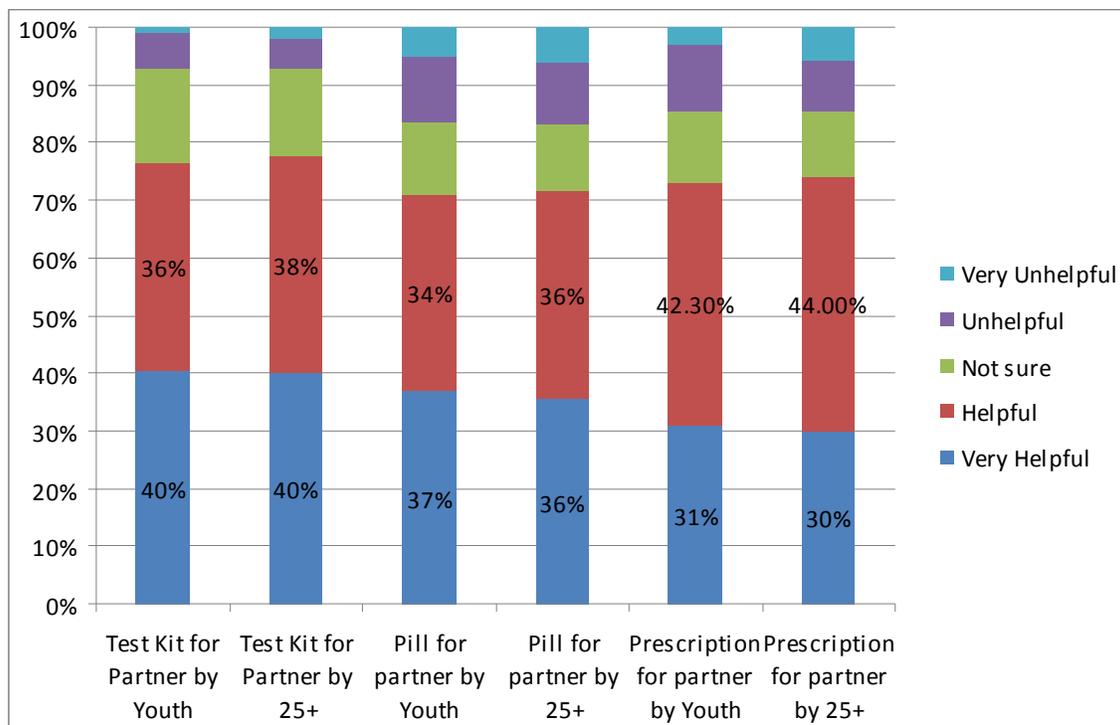
We sought to assess the use of **other paper-based approaches** to partner notification. Overall, there was not much difference in receptivity of different type of reading materials such as **brochures** or **information booklets for partners**. Although still supported by a large proportion, youth found **information cards** less helpful. As per **referral cards** or contact slips that patients would give their partner(s) anonymously that include a code for the diagnosis and instructions on how and where to seek care, those older than 25

were more receptive than youth. This method is meant to observe if notification occurs. Over 90 percent of 25 and older participants found this method as helpful or very helpful compared to just 75 percent of youth. Over 16 percent of youth were unsure about this method.



Reading Materials by Age Groups

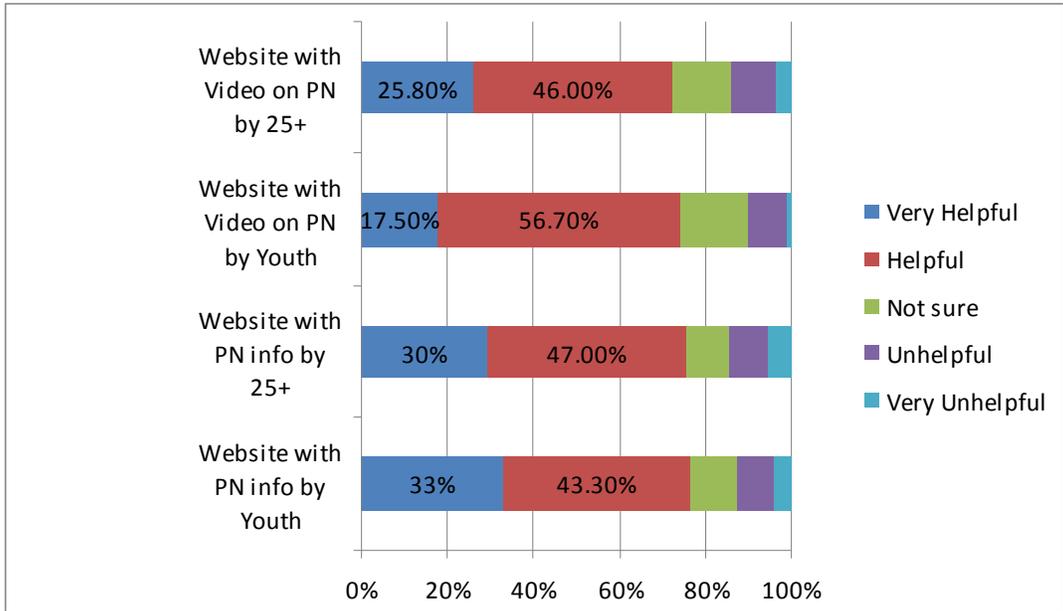
The use of **websites** with information on partner notification (i.e., examples on how to tell a partner they may have been infected by a STI and videos on a website presenting different case scenarios on how to tell a partner) was greatly supported by participants (as shown in the graph below). Surprisingly, it appears that while we may assume that youth would be more inclined to use web-based information, those in the older categories appeared to be slightly more receptive to this approach (in particular the use of videos). On the other hand, a closer look at access to more interactive website features, such as messaging boards or private chat rooms with health care providers, were found more helpful for youth than those older than 25 years of age.



Participants by Age Groups by Patient-Delivered Partner Therapy Methods

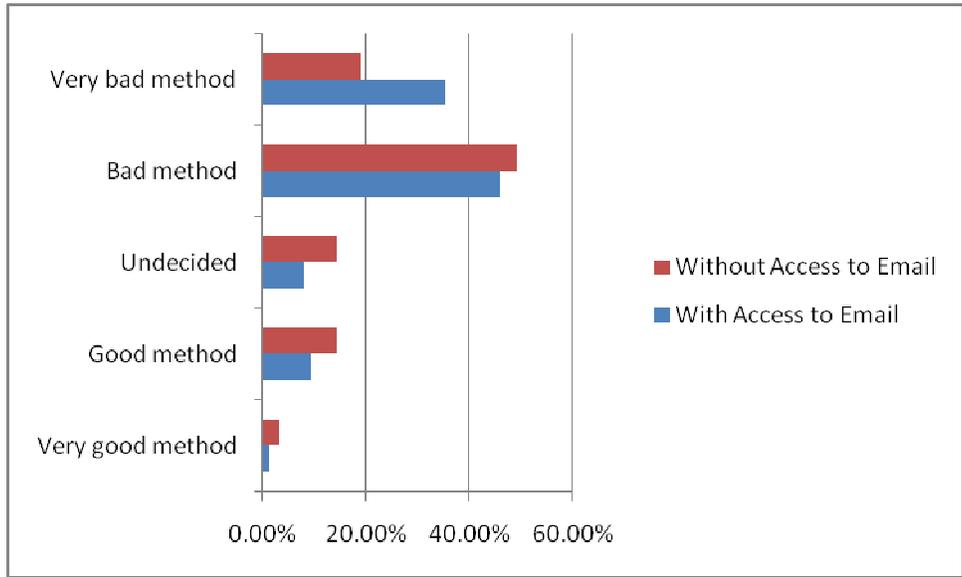
It appears that there was great support for **Patient-Delivered Partner Therapy** in its different forms (i.e., bringing pills to their partners, bringing a testing kit to their partners, bringing a prescription to be used at a pharmacy). The use of **PDPT** was discussed extensively in the groups. While their first reaction pointed to the convenience of the method, in contrast to what participants expressed in the survey, focus group participants were not as quick to find this method as easy to use in the context of their lives. Many believed that its use depended on the type of relationships they were involved in. These participants felt that if they were in a committed relationship they would still have to deal with accusations of infidelity. Some were also concerned that their partners may be sceptical of taking pills from them rather than from health care providers. Others were concerned about providing medication without testing, as medication may not be necessary if the partner is not infected.

One participant was very excited to find out that there is a testing kit that could be brought to her partner. She had ended many long-term relationships every time she found out she had an STI for fear of her partner's potential violent reactions. Now, she believed that this approach would have helped her by bringing her partner something of immediate use; that could solve the problem in a matter of minutes.



Participants by Age Groups by Key Web-based Patient-Led Specific Features

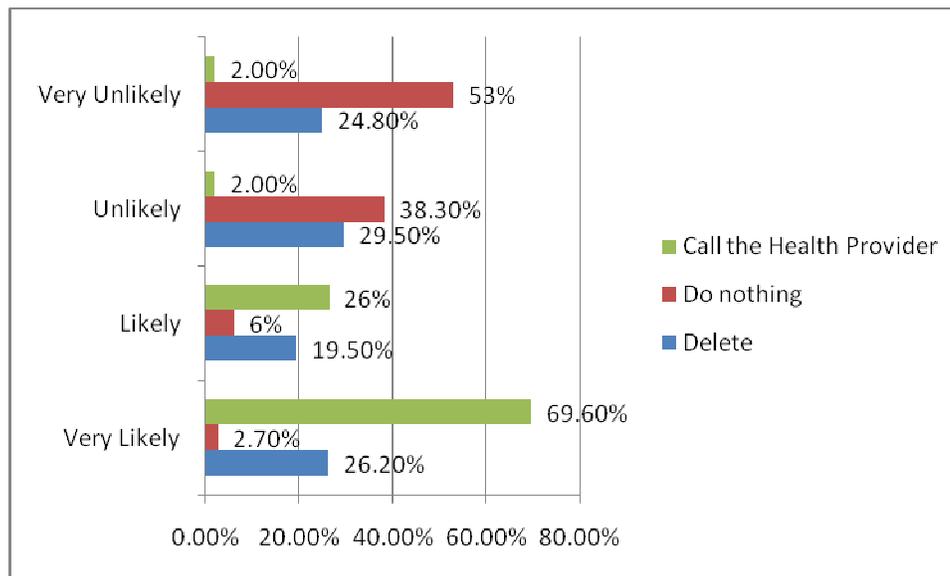
As one of the most promising features of the **web-based** approach for people to tell their partners is the use of ready-made, anonymous or not, emails, we sought to understand the uptake of the use of email in telling their partners by comparing those respondents with access to email to those without access to this communication method. Interestingly, we found that telling a partner by email was overall a bad method by both groups (as shown in the graph below). There was slightly less support by those with email compared to those without an email account to the idea of receiving an email from their partners that they may have been infected with a STI.



Use of web-based approaches by access to e-mail

In spite of the fact that email may not be a very good method to tell their partners, further analysis on what people would do if they were to receive an email indicating that they

may have been exposed to a STI shows that those with access to email would likely act upon the information received with over 95 percent indicating that they would “likely” or “very likely” follow-up with the health care specialist whose contact information was included in the email (as illustrated in the graph below). When presented with this scenario, those without access to email indicated that they were more likely to “do nothing”; but, a large proportion (over 90 percent) indicated that they would contact the health care specialist named in the email.



Actions by Receiving STI Notification Email

Learnings from Participating in the Study

At the end of the survey we asked participants if there was anything they had learned as a result of responding to the all of the questions on partner notification. A substantial number of participants shared their final thought on their experience. Many reflected about the complexities around telling a partner about the possibility of being infected by a STI. They learned how they would feel about telling and how they would approach the issue with their partner(s). One of them said “[I] learned how I would feel about being approach[ed], how would approach someone...”, another participant echoed this as he/she said “gave me ideas about [telling my partner]”.

Some participants felt that they learned about the importance of being open and talking with their partners about these issues, being “honest”. They felt encouraged to try to avoid “embarrassment” or “fear” associated with bringing up this topic with a partner. However, many also believed that having access to a health care provider to learn how to tell a partner, for them to tell their partners, or for them to talk to them and their partners jointly was important. These respondents believed that they would have access to accurate information in a timely manner.

Some participants were more specific about the resources for telling a partner they got to know about. Knowledge of resources put some people at ease, particularly knowing that there could be more than one option about notifying a partner. One of the respondents indicated learning about “more solutions available than I initially thought. [it] doesn’t always work to speak face-to-face.” Among the resources they learned about

were those based on new communication technologies (web-based). A few of those without access to computers or not computer savvy felt that they would use the Internet for this matter only if they had the basic knowledge to operate computers and access them. Others were outright uncomfortable with these methods.

The View from Health Service Providers and Managers

Current partner notification strategies, as an approach to STI prevention, are similar across the country. These include health provider referral by which the clinic nurse obtains contact information from the client, initiates contact tracing or forwards the notification to the appropriate contact tracing (Public Health) personnel who proceed to notify partners. Alternatively, health care providers may obtain contact information, but the client informs their partners within an agreed upon time frame. If the client was not able to complete this task, Public Health personnel would notify them. In one of the jurisdictions, priority for more intensive approaches is utilized with regards to certain infections (the ones that are reportable). They encourage clients to talk to their partners for other STIs (e.g., HPV, genital herpes and Trichomonas). One of the jurisdictions consulted rarely endorsed the use of patient-led notification, and when utilizing the approach they notify partners for clients who were unable do so within a certain time frame. Another participant mentioned that provider-led notification has been successful for them.

Supports to encourage people (i.e., cases) diagnosed with an STI seemed to be another piece of information provided to clients. Some clearly articulated not having done “much” in terms of supporting cases to tell their partners other than providing them with the option to do so. Basic counselling may be provided, but the level of consistency and the outcomes are not monitored. Some respondents were curious about what general practitioners (GPs) do, considering that they conduct a large proportion of testing and treatment for STIs. One of the participants mentioned that the only hint they got from GPs was notation that their patients will notify their partners in the STI notification form. This participant also noted that such information would not lead anywhere as no follow-up mechanism exists for these cases. In speaking about their elicitation techniques, another respondent indicated that they were able to prove a higher number of partners identified by STI Clinic Nurses than physicians in their region. This has led them to invest more resources in eliciting partners from physician-tested cases. They found that their efforts in educating groups of physicians to complete the STI notification forms have been fruitless. They found that a better approach involved one-on-one contact with individual physicians around specific issues raised in the notification forms.

According to health service providers and managers in Public Health locally and in other jurisdictions across the country, contact tracing is a major concern. Participants indicated that there is an increase in use of resources needed to conduct proper partner notification through Public Health nurses. While respondents were interested in our topic of research, many believed that they did not have much to share. However, it appeared that a number of other jurisdictions were in the process of exploring alternative approaches. They were conducting or contemplating the possibility of conducting research on the evidence of different approaches to recommend. Some were quite knowledgeable on the different possibilities and were seriously looking into Patient-Delivered Patient Therapy (PDPT), and web-based technologies (in particular www.inSpot.org or texting).

In one case, the jurisdiction distributed written materials to general practitioners to distribute to the patients; however, as in Winnipeg, the reception and use of these materials was not great.

One of the jurisdictions we spoke with has increased the number of Public Health Nurses to liaise, educate and assist general practitioners in the process of proper contact tracing. This is meant to deal with some gaps in services, such as inadequate testing or lack of treatment. This would assist with more systematic engagement between Public Health and doctors in private practices.

When it came to the use of web-based approaches, we spoke with two jurisdictions currently incorporating these methods. Both use the inSpot website. The use of this website has been in place since 2007 in Canada. It was originally used to address notification and access to STI information among those who use the Internet as a way of seeking sexual partners, mostly among men who have sex with men. It is usually promoted by physicians or health care providers in non critical situations and when they believe the case will inform their partners. For instance, public health must follow-up with HIV cases. It has not been promoted or used for the population at large. However, it was believed that this resource could also be helpful for others. The selection of this “off the shelf” resource or product was based on evidence. The application to the local context required, mostly, an examination of privacy issues. For instance, in these jurisdictions, someone using the site would be assigned a roaming IP address, and all information would be cleared with two weeks of use.

The longest running local website service is in the process of developing an evaluation design and implementation with the support of the Public Health Agency of Canada. The evaluation will seek to better understand its use and how to better promote it, in particular among the main target population.

Among the limitations of this resource, they felt that as it is an American-based product, the language is not reflective of the way STI information and partner notification is done in the Canadian context. One of the participants recommended that resources be invested in changing the language to better suit the local population in question. According to her, this appeared to be costly, but feasible. This person encouraged the use of this very site in other places across the country. She believed that this could cater to people traveling or moving across Canada.

Service providers in Winnipeg believed that this could be a good resource for many, in particular young people and people who use the Internet to meet partners. Almost all of the physicians in our survey found that a website with guidelines for STI treatment and advice on how to assist patients undertake partner notification was helpful or very helpful. About half were also supportive of a hot-line for physicians to find advice on how to assist their patients undertake partner notification.

Only one jurisdiction has implemented Patient-Delivered Partner Therapy. The case manager uses his/her judgement to assess if the partner will or will not seek care, in order to offer this method. They only use this method for cases of Chlamydia and Gonorrhoea. They believed that for those in an abusive relationship or where violence may ensue as result of the use of this approach, where partner is not easy to find but by the patient should be notified by public health. There was some suspicion that this approach may be more broadly used by general practitioners in private practice or at Community Health Centres; however, there is no records or reports on this practice. Among the physicians that responded to our survey, one would always provided medication to the patient to bring to their partners and one more would do it sometimes.

About half of the respondents supported legislation to permit the use of PDPT. Yet, they were concerned about allergic reactions to the medication.

In summary, there is a strong support for regular contact tracing strategies. Yet, some jurisdictions and some individual participants were open to the incorporation of additional approaches to supplement the already established system. Closer follow-up on the actual implementation of some other methods within the Canadian context is warranted. This may provide further important information on outcomes of implementation as well as the processes required at the administrative level.

Conclusions and Recommendations

The main goal of this study was to look at what resources, as in materials, would help health care providers tell a person/patient with an STI to tell their partners that they may have been exposed to the infection. However, the core issue regarding the communication of this message still remain a problem for most. While, it appears that there may be preferences over different methods, increasing personal ability and confidence to tell their partners is still a priority when it comes to this issue. There are a number of barriers at the societal and interpersonal level that prevents people from disclosing this information to their partners. The study of approaches that deal with these concerns remain outside the scope of this study. However, a close look at barriers and facilitating factors to talking about sexually transmitted infections among those experiencing an infection point out to areas to be addressed in different education formats. The need for primary prevention was highly supported by community members.

With regards to the overall topic of partner notification, it is clear that participants supported the role of health care providers and public health specialists. Patient-led notification cannot replace the existing more established and traditional approaches to contact tracing conducted by professionals. However, the presentation of additional or alternative options appeared to capture participants' interests.

In what follows we present conclusions and recommendations as they relate to the different methods for patient-led partner notification investigated in our study.

Reading Materials

Most participants found that reading materials would be one of the most helpful resources. The use of reading materials should be reconsidered in the Region. A review of the material that includes the messaging, literacy level, and appropriateness should be performed as most people also said that they would find helpful to have access to this type of material. The process of review, distribution, and utilization of such materials should be properly evaluated.

We speculate that information on how to tell a partner is not well articulated to people testing for a STI. Service providers would benefit from a well packaged set of resources that would make their way to their clients. They need to ensure that this is not just any other type of information imparted during the encounter with their clients in order for patient-led notification to be effective. Service providers should ensure that they engage clients in a meaningful conversation on the barriers and reasons for telling a partner and follow up with an appropriate notification plan.

Web-based Approaches

As per use of web-based approaches, most respondents were receptive to the idea of having access to information over the Internet. However, the use of email to tell a partner was considered not the best method. Participants supported the use of many other features of web-based approaches such as videos (in particular for those over 25 years of age) and interactive applications such as messaging boards and posting questions to authoritative personnel. A number of jurisdictions across the country is

using or looking into the use these types of approaches. They are considering these as part of the battery of approaches that is necessary to reach to specific sectors of the population. We suggest that this method be considered for this same reason.

Patient-Delivered Partner Therapy

As over 70 percent of the participants in the survey found these methods at least helpful if not very helpful, it appears that there was enough receptivity among community members to use of Patient-Delivered Partner Therapy methods (e.g., antibiotics given to cases for their partners), to consider them seriously. Yet, as with all approaches devised to-date, its use many not fit all situations and should be carefully promoted and explained to potential users for meaningful uptake. The introduction of PDPT would require a carefully designed demonstration project that involves engagement and consultation with specific implementation sites and a well thought out evaluation plan.

Study Limitations

We identified a number of limitations to the study. One of the main limitations refers to the sampling approach utilized. Due to our short time frame for data collection, we interviewed individuals who were accessible; that is clients attending Klinik's STI and teen clinics, youth who attended the Rainbow Resource Centre evening programming, and all individuals who responded to the posters or heard about the study from another participant. This led to underrepresentation of some sectors of the population, namely men in general and those living in the suburbs. We had large number of people who were single and most of the participants were heterosexual. In addition, about half of the participants learned about the survey through family or friends. This may indicate that people were motivated by the honorarium rather than the topic of the survey and thus may not be "at-risk" for a STI, evidenced in part by the large percentage of people who participated were referred to the study by family members or friends (e.g., about 40 percent of the participants).

In terms of the data collection itself, we found that conducting the survey over the phone may have presented some limitations in terms of the real engagement of participants to think over their responses. There were participants answering the survey in non-private spaces (e.g., the bus, at work, or using a collective phone at a public space). Some participants indicated that they did not have access to a private phone.

We also realized that we could have benefited from the inclusion of some additional questions. Learning about experience with STI within a specific time frame would have been more beneficial in that could have helped us to better understand how such experience affected other responses in relation to communicating about STIs with a partner (need to simplify sentence). We would have benefited from asking people where have they have gone or go for STI testing. This information would have helped us to identify specific locations for distribution of partner-led STI notification materials or enhanced engagement with health care providers. As many of the new approaches to partner notification include the use of web-based technologies, we would have benefited from learning how confident people are in using computers and the Internet. Another question that would have been helpful, considering that the participants were very much inclined to use reading materials, refers to their knowledge of the current brochure developed by the WRHA on tips for patient-led partner notification.

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