The Gay Men’s Testing Blitz

An evaluation of the 2011-2012 HIV and syphilis testing campaign in Toronto and Ottawa

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The Gay Men's Testing Blitz was a social marketing campaign combined with an increase in testing capacity testing clinics – more clinic hours and sites. It was designed to reach high-risk gay, bisexual and other men who have sex with men in Toronto and Ottawa. Its objectives were to:

1. encourage high-risk men to test for HIV
2. improve knowledge about HIV transmission, seroconversion symptoms, and the HIV window period
3. heighten awareness of syphilis transmission and its relationship to facilitating HIV transmission.

The Blitz

The social marketing campaign centred on a cartoon figure, named “Casey”, who experiences flu-like symptoms after having unprotected sex. The campaign included: posters and wall projections on Church Street in Toronto and Elgin Street in Ottawa, banners for the testing clinics, a dedicated campaign website, advertisements on websites oriented to gay men, newspaper and magazine ads, ads on Proud FM (the gay radio station), walking billboards at Church Street events, give away cards from walking billboards and wild postings (attaching posters on spaces not booked by structured media outlets such as construction site barricades, building façades and in alleyways). In Toronto, it also included social media outreach via Facebook and notices posted to Craigslist and gay.com.

As part of the blitz, Hassle Free Clinic in Toronto and the Sexual Health Clinic in Ottawa extended hours and expanded their rapid point-of-care clinic sites. New sites were selected based on: geography and availability of safe space to conduct testing and relationships with community partners. Nine expanded testing sites in Toronto and three in Ottawa were included in the blitz. At first, expanded testing was scheduled in two six-week increments but, in phase two, four more weeks were added in Toronto to respond to demand.

The Impact

More men were tested

The testing blitz did appear to lead to an increase in the number of men being tested. According to data from the Ontario Public Health Laboratory, Toronto experienced a 20% increase in the number of men testing during the blitz compared to the same time period in the previous year. Eighty-seven percent (87%) of that increase was attributable to clients who were tested at the blitz clinics. Ottawa saw a 24% increase in the number of men who have sex with men being test compared to the same time period the previous year, although the increase did not
necessarily occur during the extra clinic hours or sites added for the blitz. The public health laboratory also reported a 20 to 24% increase in testing for syphilis.

**More high-risk men were tested**
The blitz campaign did attract higher risk men who have sex with men. Looking specifically at the men who came in for an HIV test, 72% indicated that they had recently engaged in unprotected sex, while 50% of the men drawn from two sexual contact websites (Manhunt.net and Squirt.org) indicated that they had had unprotected sex.

**Men who reported high-risk activity and men who were older had higher positivity rates**
Of the total 1,170 rapid point-of-care tests done during the blitz, 22 or 1.88% were reactive – of those, five were men who had never been tested before. There was a slightly higher positivity rate (1.98%) among the 1,113 of the 1,170 tests for men who reported having sex with men. That rate is similar to the average 2.00% positivity rate at Hassle Free Clinic and higher than the overall positivity rate across all testing sites in Ontario, which was .19% in 2012. Men who reported high-risk activity – that is, at least one instance of recent unprotected anal intercourse – had a significantly higher positivity rate: 2.57%. First-time testers also had a high positivity rate (2.57%). The highest positivity rate (3.65%) was in men between the ages of 45 and 54.

**Men who were aware of the blitz were more knowledgeable**
The blitz campaign succeeded in improving knowledge about seroconversion symptoms, STIs and HIV transmission, and the HIV window period. Knowledge levels were significantly better among the post-blitz survey respondents who were aware of the blitz campaign compared to post-blitz respondents who were not aware of the blitz and compared to the pre-blitz survey respondents. Knowledge levels were also better among men who had had an HIV test within the last year, had ever had a syphilis test, identified as gay (rather than bisexual or heterosexual), were younger or had higher education.

Over one-third of the online survey respondents reported seeking more information after becoming aware of the campaign. Bisexual, younger or less educated men, men born outside of Canada, and men who got an HIV test because of the campaign were significantly more likely to seek further information.

**Lessons Learned**

**Convenience is important for testing**
Men said that having access to rapid point-of-care testing and being able to be tested without an appointment are important factors in their willingness to be tested. Other factors that influence their decision to be tested is the location of the testing and the anonymity of testing. The more convenient and safe it is to be tested, the more likely men are to test. Given this, testing
programs may need to look at how they are structured and identify ways to make it easier to access testing without an appointment.

**Reasons for testing are linked to perceptions of risk**
In the online survey, the top self-reported reasons for being tested were because of a routine health check and having had sex without a condom. These top reasons did not vary by serostatus. In addition, the HIV-positive men who completed the survey reported coming for a test because they had had an HIV-positive partner or had unprotected sex and experienced flu-like symptoms. For men who were unsure of their status and had never tested for HIV, their main reasons for not testing were: just haven’t done it yet (38%), don’t feel comfortable asking doctor for it (32%), at low risk for HIV infection (27%), and afraid of having name reported (23%).

**Testing capacity is as important as social marketing**
Social marketing alone is not enough to increase testing rates. The system must also have the capacity to provide timely, accessible testing. Prior to the blitz, people could wait 10 to 21 days for a testing appointment at Hassle Free Clinic in Toronto. With the increased capacity provided by the blitz, the clinic was able to meet the demand by directing people to the additional walk-in clinics. Write-in comments on the clinic survey stressed the importance of not having to wait to be tested.

**Men prefer to be tested in gay-friendly sites**
Just setting up new testing sites is not enough to increase testing rates. In Toronto, men would travel some distance to access testing at Hassle Free Clinic itself, rather than going to a site set up geographically closer to them. They appear to be more comfortable testing in gay-friendly spaces. Enhancing testing capacity in a clinic that already has an established reputation as a gay-friendly site helped increase testing numbers. The policy implications of this may be two-fold. It may be possible to permanently increase capacity at the preferred testing site (or its satellites). It may also be possible to improve the “gay friendly” credentials of (an)other testing site(s).

**The most effective way to reach men who have sex with men is through the web sites they already use**
Although the dedicated blitz campaign websites, www.come-on-in.ca and viens-nous-voir.ca, attracted some 15,000 unique visitors, the majority of men who went to the clinics for testing reported seeing the blitz messages on Craigslist and the Hassle Free Clinic facebook page. The stand-alone blitz website was not as effective a way to communicate with gay men. To reach men who have sex with men, it is better promote services like rapid point-of-care testing clinics through existing websites rather than trying to “drive” people to a stand-alone site. Organizations with limited resources can advertise successfully using free sites.
Community leadership is key to an effective blitz

Having a project lead at each clinic made the blitz more effective because they could undertake additional activities to promote the campaign such as using social media and nurturing community partnerships.

Different strategies may increase testing

The testing blitz demonstrated that simply periodically advertising walk-in rapid point-of-care testing locations and hours could enhance testing numbers on an ongoing basis. Testing numbers may also be increased by taking rapid point-of-care testing to where gay men gather (e.g., sites like The 519 Community Centre) rather than asking them to go to clinics.
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INTRODUCTION

Gay men and other men who have sex with men account for more than 50% of all new HIV diagnoses in Ontario. (Remis and Liu 2011:3) Over the past few years, Ontario has also seen a significant increase in diagnoses of syphilis in men who have sex with men. Perhaps as many as half of new HIV infections among men who have sex with men are being transmitted from those who are unaware of their own infection (Brenner et al. 2008; Birrell et al. 2013). Testing is a key intervention in linking people with HIV or other sexually transmitted infections (STIs) to care and in reducing onward transmission, as people who test positive may reduce their risk activities when they are aware of their infection.

In 2010, the AIDS Bureau of the Ontario Ministry of Health and Long-term Care (MOHLTC) organized a working group of researchers, clinicians, community members and ministry staff to identify how to improve HIV testing uptake among gay, bisexual, and other men who have sex with men in order to reduce the number of men who are positive but unaware of their HIV infection. The working group determined that, although gay men generally have good awareness of HIV and the need for testing, more targeted messaging was needed to reach those at greatest risk of HIV infection and give them information that would help them make informed decisions about when to test. HIV risk is unevenly distributed among men who have sex with men. Many are not at risk of HIV or other STIs because they are either in monogamous relationships with someone who is not infected or they consistently practice safer sex; however, some are at high risk because they have occasional or repeated unprotected anal intercourse (UAI) with partners who have HIV or other STIs or whose HIV status is unknown.

In 2011-2012, the AIDS Bureau, in association with the Ontario HIV Treatment Network (OHTN) and public health partners, launched a gay men’s testing blitz to encourage high-risk gay, bisexual and other men who have sex with men in Toronto and Ottawa to get tested for HIV and syphilis. The blitz – which included a social marketing campaign combined with an expansion of testing services -- was evaluated to determine its effectiveness.

This report describes the campaign, the evaluation and its findings.
ABOUT THE TESTING BLITZ

Goals
The primary goals of the Blitz – which included a social marketing campaign and the expansion of testing services – were to:

1. Encourage high-risk men who have sex with men – that is, men who have UAI with HIV-positive men or men who do not know their HIV status -- to test for HIV.
2. Improve knowledge about HIV transmission, seroconversion symptoms, and the HIV window period.
3. Heighten awareness of syphilis transmission and its role in facilitating HIV transmission.

Locations
The blitz was based in Toronto and Ottawa, the two cities in Ontario that account for 83% of HIV diagnoses among gay, bisexual and other men who have sex with men (Remis and Liu 2011:3). The social marketing campaign actively promoted 12 blitz-specific testing sites across the two cities.

The Partners and their Roles
The project involved several partners each with a specific role:

- **AIDS Bureau, Ontario Ministry of Health and Long-Term Care (MOHLTC)**
  Role: Project organization, facilitation and funding.

- **Public Health Policy and Programs Branch, Public Health Division, MOHLTC**
  Role: Partial project funding

- **Hassle Free Clinic**
  Role: Program delivery and logistics in Toronto clinics, distribution and collection of in-clinic surveys, and delivery of data to OHTN.

- **Ottawa Public Health**
  Role: Program delivery and logistics in Ottawa clinics, distribution and collection of in-clinic surveys, and delivery of data to OHTN.

- **Toronto Public Health**
  Role: Secondary campaign funder and promotion committee secretariat.

- **Public Health Laboratory of Public Health Ontario**
  Role: Providing testing data for rapid point-of-care tests done as part of the blitz (tagged) as well as summary data on all HIV testing among men who have sex with men during the blitz period and the previous year.

- **Top Drawer Creative Inc.**
  Role: Development of social marketing campaign
• **Ontario HIV Treatment Network (OHTN):**
  Role: Design and conduct of campaign evaluation.

**Timeline**
Planning began in the fall of 2010. The blitz was launched in two phases between October 2011 and March 2012. Evaluation data were collected pre, during and post campaign, and analyzed after June 2012. In the following timeline, the highlighted months indicate when the blitz testing clinics were operating, the black bubbles show the nature and timing of the social marketing campaign, and the red bubbles the type and timing of data collection.

**Social Marketing Campaign**
**Key Messages**
The first component of the blitz was the development of a social marketing campaign to communicate key messages about HIV, syphilis and the importance of testing, including:

1. Unprotected anal intercourse with an HIV-positive partner or a partner whose HIV status is unknown is a high-risk activity.
2. Seroconversion symptoms such as fever, night sweats, or body rash may be a sign of a recent HIV infection.
3. It can take up to three months to develop the antibodies to HIV, detected during routine HIV testing (i.e., the window period); however early testing technologies are available.
4. Having another STI facilitates HIV transmission.
5. Syphilis infection has been on the rise among MSM. HIV testing should include syphilis testing.

**Media Strategy/Materials**

The social marketing campaign centred on a cartoon figure, named “Casey”, who experiences flu-like symptoms after having unprotected anal sex. Materials, produced in French and English, included:

- Posters and wall projections on Church Street in Toronto and Elgin Street in Ottawa
- Banners for the testing clinics
- A dedicated campaign website
- Advertisements on websites oriented to gay men
- Newspaper and magazine ads
- Ads on Proud FM, the gay radio station
- Walking billboards at Church Street events
- Give away cards from walking billboards (see Figure 2)
- Wild postings (attaching posters on spaces not booked by structured media outlets such as construction site barricades, building façades and in alleyways).
- Follow up cards

The original design for the campaign was modified based on feedback received in the early phases to highlight testing clinic availability for HIV and syphilis (see Figure 2, Figure 3 and Figure 4)

![Figure 2, Cards in English and French](image-url)
Figure 3, Initial design

Figure 4, Revised design
Campaign Website

Media messages directed people to the campaign websites: www.come-on-in.ca and viens-nous-voir. In addition to providing information on testing clinic hours and locations, the site provided detailed information on the campaign’s key messages and additional resource information. Specific pages within the site addressed:

- HIV and STIs
- Syphilis
- Prevention
- Unprotected anal intercourse
- Symptoms of infection
- When to test
- Testing options
- Resources

Supplemental Social Media

In addition to the media strategy and campaign website, Hassle Free Clinic used social media outreach via Facebook (see Figure 7) and notices posted to Craigslist and gay.com (see Figure 8) to reach high-risk men (in accordance with its usual health messaging practices). Because of the positive response to the social media outreach in phase one, clinic staff at temporary sites like The 519 Community Centre were given a tablet they could use for social media to invite people to come for testing during phase two.
Figure 7, Blitz clinic promotion on Hassle Free Facebook page

Figure 8, Hassle Free Clinic promotion on a gay.com discussion board
Expansion of Testing Clinics

As part of the blitz, Hassle Free Clinic in Toronto and the Sexual Health Clinic in Ottawa extended hours and expanded their rapid point-of-care clinic sites. New sites were selected based on: geography, and availability of safe space to conduct testing and relationships with community partners. Nine expanded testing sites in Toronto and three in Ottawa were included in the blitz. At first, expanded testing was scheduled in two six-week increments but, in phase two, four more weeks were added in Toronto to respond to demand.

Additional clinic staff -- administrative and testing -- were hired during the blitz period. All staff received one-on-one training and attended a conference call to review information on key messages, the window period, and epidemiological findings for the province. When temporary testing clinics were set up at existing health care facilities, the blitz could take advantage of available infrastructure, such as a reception area, supplies and a sterile environment. When temporary clinics were set up in non-health care sites, such as bathhouses and community centres, significant logistical coordination was required.

Toronto Testing Clinics

Hassle Free Clinic offers six regularly scheduled men's/trans STI clinics per week of 3-5 hours each. Two of these clinics are offered until 8 pm; the others are offered throughout the day and close at 3 pm. Clients wishing to have an anonymous rapid point-of-care HIV test in the regular clinic must normally book a separate appointment and may have to wait two to three weeks for an appointment at the HIV-specific clinic.

During the blitz, Toronto offered additional HIV testing at nine distinct sites: three in existing sexual health clinics (Hassle Free Clinic, Scarborough Sexual Health Clinic, Crossways Clinic); four in bathhouses (Cellar, Central Spa, Spa Excess, and Steamworks); one in The Talk Shop, an STI clinic in north Toronto; and one at The 519 Community Centre. In total, the sites provided 225 additional hours of rapid point-of-care testing and counselling during the blitz. One coordinator oversaw the logistics including community partnerships, staffing, promotion, data collection and liaising with various committees.

The additional blitz clinics were offered in 3-4 hour time slots and were almost exclusively in the evenings except for Sundays. All clinics were drop-in; clients did not need to make an appointment. In phase one, most clinics were scheduled until 8 pm. After a mid-campaign review, many of the clinics were extended until 11 pm and increased from six to ten weeks. The volume of testers varied between sites and some sites were discontinued because of poor turnout.
Ottawa Testing Clinics
Rapid point-of-care HIV testing is available by appointment only on Monday, Wednesday, and Thursday mornings at the Sexual Health Clinic in downtown Ottawa. In addition, the Sexual Health Clinic has established a partnership with Gay Zone, a program housed within the Centretown Community Health Centre (CCHC) that provides programs and services for gay, bisexual, trans and other men who have sex with men that provides drop-in anonymous testing every Thursday from 5 to 8 pm. For the blitz, the Sexual Health Clinic offered drop-in clinics at a site that typically does HIV testing only by appointment and held clinics in the afternoons, early evenings and Saturdays. Gay Zone added one hour of service to its regular program. In total, the Ottawa sites provided an additional 103 hours of rapid point-of-care testing during the blitz. Ottawa used a collaborative approach to project roll-out: multiple clinicians and supervisors were involved early on and specific tasks were delegated to different staff throughout the blitz.

The Evaluation
The evaluation was designed to answer three key questions about the blitz:

1. Did the social marketing campaign attract high-risk men who have sex with men to get tested for HIV?
2. Did offering more clinics increase testing?
3. Did awareness of HIV and syphilis symptoms, and the advisability of testing, increase among men who have sex with men as a result of the campaign?

Data Sources
Evaluation data came from five sources:

- Web traffic data (Google Analytics)
- A large-scale, online pre- and post-campaign survey of sexually active men who have sex with men to assess the impact of the social marketing campaign on the larger community
- Clinical intake chart data from the testing sites
- A short survey with men who were tested during the blitz administered by the testing sites
- A delimited set of information drawn from clinic charts
- Public health laboratory testing data

The qualitative data came from answers to the open-ended questions from online and in-clinic. These data were analyzed for common themes. Quotations used in this report are drawn from these sources.
Quantitative data were collected using online survey tools or entered into Microsoft Excel. All data were imported into SAS version 9.3 for analysis. Data sources were extensively cleaned and queried prior to analysis.

Methodology
Descriptive summaries of data include proportions for categorical data and means for continuous data and 95% confidence intervals, where appropriate. Exact binomial 95% confidence intervals were reported for rate calculations. For univariate group comparisons, chi-squared and Fisher’s exact tests are used for categorical data and t-tests for continuous data. A p-value <.05 was considered significant. Logistic regression, linear regression and Poisson regression with robust variance were used for multivariate modeling with manual selection of covariates. Some non-significant variables remained in the models if these variables were considered to be confounders.

Since data sources were not able to be linked, analysis methods assumed the data points were independent. However, there may be cases where respondents responded to surveys across phases or multiple times within a phase or clients had more than one test at a blitz clinic during the blitz campaign, so there may be a lack of independence in the data. We are not able to determine the level of dependence in the data. Due to lack of data linkage, we are unable to show individual changes in knowledge from pre to post blitz for example. Only population level changes in knowledge can be reported.

Data Source 1: Google Analytics
To measure the reach of the social marketing campaign, Google Analytics, an electronic web tracking service, was used to review detailed statistics on visits to both the English and French websites. The template of the website included a tracking code that Google's indexing program could use to track every page of the site and report traffic trends, page views and visitors’ locations.

The web traffic numbers show spikes in online traffic at the launch of each phase of the blitz and declines toward the end. The website had over 17,000 visits throughout the campaign of which 15,249 were unique visitors: 89% of all traffic was Canadian, 45% of users were Toronto-based and 9% were from Ottawa. The addition of a short video to the website featuring the cartoon figure, Casey, did not affect online traffic.

Who visited the website?
Traffic patterns on the website reflected the campaign media pushes. Figure 9 shows the traffic from October 2011 to April 2012. On both the French and English sites, 41% stayed on the site longer than three minutes. The highest percentage of traffic came from Toronto-registered IP addresses. The Symptoms and Testing Options pages had the most page views and unique
page views. Visitors spent the most time on the clinic calendar (1:31 minutes) and the clinic locator (1:14 minute) pages.

<table>
<thead>
<tr>
<th></th>
<th>Total visitors</th>
<th>Total unique Visitors</th>
<th>% New visits</th>
<th>Page views/visit</th>
<th>Average visit duration</th>
<th>Bounce rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Site</td>
<td>17,905</td>
<td>15,249</td>
<td>85.2%</td>
<td>3.01</td>
<td>1:57 min.</td>
<td>51.1%</td>
</tr>
<tr>
<td>French Site</td>
<td>782</td>
<td>578</td>
<td>73.9%</td>
<td>3.43</td>
<td>2:33 min.</td>
<td>45.9%</td>
</tr>
</tbody>
</table>

*The bounce rate shows the percentage of people who exited the site from the home page. This could indicate people leaving the site or moving on to the video from the home page.

Note: Google Analytics counts an IP address as a unique individual. In other words, individuals who visit the site from different IP addresses will be counted more than once. On the other hand, ad filtering and cookie blocking programs result in individuals not being counted.

Data Source 2: Pre- & Post-blitz campaign online surveys
Pre- and post-campaign surveys (see appendix) were conducted using Survey Monkey, an online web survey tool, to measure changes in campaign awareness and knowledge at a population level. The pre-campaign survey, which was disseminated a few weeks prior to campaign launch, asked 40 demographic, awareness and behavioural questions related to STIs and HIV testing: 12 demographic, 17 behavioural, six knowledge questions, and five specific to health history including HIV status. The post-campaign survey was conducted several weeks after the close of the campaign. It repeated the 40 questions from the pre-campaign survey and added 10 questions to test respondents’ awareness of the blitz campaign.

Survey respondents were recruited through two major gay contact sites: Squirt (www.squirt.org) and Manhunt (www.manhunt.net). An email message with a survey link was sent to the inbox of account holders at both websites who were located in the greater Toronto and Ottawa areas (Figure 10). Because of ethical concerns in preserving the anonymity of survey participants, IP addresses were not collected, therefore responses to the post-blitz survey could not be matched to responses from the pre-blitz survey at the individual level.

The median completion time for the pre-blitz survey was 7.0 minutes with an interquartile range of 5-9 minutes. As expected, the median time for the longer post-blitz survey was 7.4 minutes with an interquartile range of 5-10 minutes.

Online data collection: Manhunt and Squirt
Manhunt.net is an online gay contact site owned by a US company, Online Buddies Inc. Previous research done at Toronto Pride showed that manhunt.net is one of the larger contact sites with 10.2% of Toronto men indicating they have a profile on that site (Adam et al. 2007).
Squirt.net is a Toronto-based online gay contact site; 11.4% of Toronto men indicate they have a profile on that site (Adam et al. 2007). The use of Manhunt cost three times as much as the use of Squirt.

Top Drawer Media created a pre-blitz e-blast for squirt.org (Figure 11) and the OHTN KTE Department created the post-blitz survey e-blast artwork (Figure 12). Online Buddies has a policy that their creative department design e-blasts to their membership, so the development of the message design for that site had to be coordinated between Online Buddies and Top Drawer (which was responsible for design for squirt.org). For the pre-blitz survey, Manhunt created the visual for its own e-blast (Figure 11). Manhunt recreated a similar version of the post-blitz design to meet the needs of the contract (Figure 13).

Overall, the experience of working with the two websites was quite different. Online Buddies has a research approval process intended to protect its membership and advise researchers who may not be sufficiently familiar with gay male communities. Its research approval committee is familiar with the site’s membership but not necessarily familiar with Canada. In addition to controlling the survey graphics and critiquing the survey questions, Online Buddies also required the project to use Survey Monkey rather than a Canadian-based survey tool. The Online Buddies approval process had to be negotiated alongside the blitz campaign’s own process which had already engaged community, public health and research expertise familiar with the local context in Toronto and Ottawa.

Figure 10, Pre-blitz online survey e-blast

Figure 11, Pre-blitz online survey e-blast (Manhunt)
Figure 12, Post-blitz online survey e-blast (OHTN design)

Figure 13, Post-blitz online survey (Manhunt)
Survey Response

Figure 14 summarizes the number of e-blasts distributed by each website for each blitz phase and the number of responses. Manhunt had a higher response rate for the pre-blitz period (3.24% vs. 2.33% for Squirt, p<.01) but a lower response rate for the post-blitz period (4.62% vs. 7.06%, p<.01). Squirt circulated a larger number of e-blast messages in the post-blitz period because the site sent messages to all Ontario members in error, not just to those in the greater Toronto and Ottawa areas.

There were a total of 1,183 responses to the pre-blitz survey. Of those, 20 were excluded because it was not clear if the respondent was a man who has sex with men so 1,163 were analyzed. There were 3,704 responses to the post-blitz survey, of which 129 were excluded from analysis, so 3,564 were analyzed.

<table>
<thead>
<tr>
<th></th>
<th>Manhunt</th>
<th>Squirt</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-blitz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sept. 16-28, 2011</td>
<td>D – 20,000</td>
<td>D – 23,000</td>
<td>D – 43,000</td>
</tr>
<tr>
<td></td>
<td>R – 647</td>
<td>R – 536</td>
<td>R – 1,183</td>
</tr>
<tr>
<td></td>
<td>RR – 3.2%</td>
<td>RR – 2.3%</td>
<td>RR – 2.8%</td>
</tr>
<tr>
<td>Post-Blitz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 13-May 4, 2012</td>
<td>D – 22,000</td>
<td>D – 38,000</td>
<td>D – 60,000</td>
</tr>
<tr>
<td></td>
<td>R – 1,018</td>
<td>R – 2,686</td>
<td>R – 3,704</td>
</tr>
<tr>
<td></td>
<td>RR – 4.6%</td>
<td>RR – 7.1%</td>
<td>RR – 6.2%</td>
</tr>
</tbody>
</table>

D – Distribution, R – Response, RR – Response Rate

Figure 14, Online survey response rate

Survey Completion

Not all respondents completed all questions on the survey. A survey was defined as complete and included in the analysis if at least one of the knowledge questions was answered plus the ethnicity question; 11.6% of responses did not meet that standard. Note: the analysis is based on the actual number of respondents who answered each question.

To understand who completed the survey, we examined their responses to the first few questions. Respondents were significantly more likely to have completed the survey if they had following characteristics (see results of logistic regression modeling for the probability of completing the survey in Figure 15):

- Being older (91% for 55+ vs. 84% for 15-29 year olds)
- Being gay-identified (90%) rather than bisexual or heterosexual orientation (84%)
- Having had at least one instance of unprotected sex with a regular or casual partner (92%) rather than having consistent condom use in last six months (86%)
- Having sex with consistent condom use (86%) rather than not having sex in last six months (68%)
<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds ratio</th>
<th>95% Confidence Interval</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (per 5 year increase)</td>
<td>1.10</td>
<td>(1.06, 1.14)</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Bisexual/Straight/Other vs. Gay</td>
<td>0.51</td>
<td>(0.42, 0.61)</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Unprotected sex (vs. consistent condom use)</td>
<td>2.06</td>
<td>(1.69, 2.52)</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>No sex (vs. consistent condom use)</td>
<td>0.36</td>
<td>(0.27, 0.48)</td>
<td>&lt;0.1</td>
</tr>
</tbody>
</table>

Figure 15, Probability of completing the post-blitz survey (N=4683)

Survey Demographics
Post-blitz survey respondents showed a somewhat different demographic profile when compared to pre-blitz respondents. Several of these differences can be attributed to the larger geographic reach of the survey because of Squirt mistakenly sending post-blitz survey invitations to all of Ontario, rather than just Toronto and Ottawa. Approximately 81% of all participants reported Canada as their country of birth (77% pre-blitz and 82% post blitz, p<.01). Figure 16 shows the breakdown by ethnicity.

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Pre-Blitz N</th>
<th>Pre-Blitz %</th>
<th>Post-Blitz N</th>
<th>Post-Blitz %</th>
<th>Total N</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboriginal</td>
<td>25</td>
<td>2.5</td>
<td>87</td>
<td>2.9</td>
<td>112</td>
<td>2.8</td>
</tr>
<tr>
<td>Black/African/Caribbean</td>
<td>28</td>
<td>2.8</td>
<td>66</td>
<td>2.2</td>
<td>94</td>
<td>2.4</td>
</tr>
<tr>
<td>East and/or Southeast Asian</td>
<td>55</td>
<td>5.5</td>
<td>82</td>
<td>2.7</td>
<td>137</td>
<td>3.4</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>38</td>
<td>3.8</td>
<td>70</td>
<td>2.3</td>
<td>108</td>
<td>2.7</td>
</tr>
<tr>
<td>Middle Eastern/Arabic</td>
<td>19</td>
<td>1.9</td>
<td>41</td>
<td>1.4</td>
<td>60</td>
<td>1.5</td>
</tr>
<tr>
<td>Mixed Race</td>
<td>39</td>
<td>3.9</td>
<td>69</td>
<td>2.3</td>
<td>108</td>
<td>2.7</td>
</tr>
<tr>
<td>South Asian</td>
<td>19</td>
<td>1.9</td>
<td>44</td>
<td>1.5</td>
<td>63</td>
<td>1.6</td>
</tr>
<tr>
<td>White European</td>
<td>425</td>
<td>42.6</td>
<td>1264</td>
<td>42.1</td>
<td>1689</td>
<td>42.2</td>
</tr>
<tr>
<td>Canadian</td>
<td>350</td>
<td>35.1</td>
<td>1277</td>
<td>42.6</td>
<td>1627</td>
<td>40.7</td>
</tr>
<tr>
<td>Total</td>
<td>998</td>
<td>100</td>
<td>3000</td>
<td>100</td>
<td>3998</td>
<td>100</td>
</tr>
</tbody>
</table>

Figure 16, Ethnic identity, pre- & post-blitz survey

Eighty-six percent reported having some college or university education or more (no significant difference, pre and post-blitz). Of the 3,774 respondents who answered the question about income (947 pre-blitz and 2,827 post-blitz), approximately 30% reported an annual income between $20,000 and $49,999 a year and 38% reported earning between $50,000 and $99,999 annually. The proportion of respondents in each income group were consistent in both surveys (i.e. not significantly different, p=.09 and p=.12, respectively) (Figure 17).
Figure 18 shows respondents’ age distribution. Post-blitz respondents were significantly older than pre-blitz respondents (p<.01).

Approximately three quarters (74%) of respondents in the pre-blitz reported their sexual orientation as gay or homosexual, which dropped to 60% in the post-blitz survey. Those who reported being bisexual increased from 23% pre-blitz to 37% post-blitz (p<.01). Those who reported being heterosexual or other remained the same (2%).

Of the 4,146 respondents who answered the question about their HIV status, around 87% reported they were HIV negative whereas 7% reported being positive and the remaining 6% reported being unsure of their HIV status. Significantly fewer reported being positive in the post-blitz survey (8% vs. 6%, p=.02, Figure 19).
Including those who did not report the first three digits of their postal code, approximately 27% reported living in Toronto and 8% in Ottawa. More than one-third of all participants lived in other areas of Ontario and 25% did not fill out this field or there was a data error (Figure 20). Of those who reported their postal codes, 35% were from Toronto and 11% were from Ottawa.

Although a similar proportion of respondents did not provide the first three digits of their postal code in both the pre- and post-blitz surveys (approximately 24%), Figure 20 shows that respondents were more likely to reside outside of the greater Toronto and Ottawa regions for the
post-blitz survey (p<.01). (Toronto is defined as a postal code beginning with M and Ottawa is defined using selected forward sortation areas within postal codes beginning with K.)

Survey Risk Behaviour
Of the 4,240 respondents who answered the question about having had a casual partner in the last six months, 83% said "yes." Only 72% of the total sample or 3,065 respondents answered the question about protected and unprotected anal sex with casual partners. Of those, half (50%) reported having had unprotected anal sex with a casual partner in the last six months with 48% of HIV-negative men and 78% of HIV-positive men reporting unprotected anal sex with a casual partner (p<.01). There was no significant variation by age or sexual orientation in the rate of unprotected sex (p=.59).

Data Limitations
The survey data have some limitations. Some respondents may have profiles on both Manhunt and Squirt and have received survey invitations through both sites. Though the e-blast message asked respondents not to fill the survey out again if they had already completed it, it is possible that there is some duplication or that some of the non-completion rate is due to individuals discovering after a few questions that they had already filled out the survey through the other site. As no personal identifiers were collected from respondents, it is not possible to control for duplicate or multiple responses. Because the survey was sent to all Squirt users registered to an Ontario postal code rather than to the greater Toronto or Ottawa area, the post-blitz survey results reflect a larger geographical area.

Data Source 3: Clinic intake chart data
Blitz clinics in Toronto and Ottawa used a client intake chart (see appendix) created by Hassle Free Clinic to record: risk behaviour, HIV exposure, testing history, and results of HIV and syphilis testing. During the blitz period, these data were collected from men who attended the blitz clinics but not from those who attended regular clinics. However, in some cases it was harder for clinic staff to distinguish between blitz and non-blitz clients because of the way blitz clinics were scheduled. The distinction between regular clinics and blitz clinics was strongest in Toronto. At other sites and with GayZone in particular, the blitz clinic time was an extra 30 minutes added to the beginning and end of a regular scheduled clinic, so staff found it harder to determine whether a client was there for a regular or a blitz clinic and there is a greater likelihood of tagging error.

Designated data input officers were assigned in Ottawa and Toronto. They reviewed all intake forms and input the information into a secure electronic spreadsheet. Consistent chart documenting protocols were not always observed in phase one of the blitz, which resulted in Toronto providing refresher training to all its blitz staff on how to fill out an intake form. Because intake forms were not filled out consistently, it was unclear if the items left blank were not applicable or not asked. The electronic spreadsheet was password-protected and sent to the
OHTN for data cleaning, verification and analysis. Figure 21 lists the number of records received by site.

<table>
<thead>
<tr>
<th></th>
<th>Number of in-clinic surveys by site</th>
<th>Number of HIV tests by site</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phase 1</td>
<td>Phase 2</td>
</tr>
<tr>
<td>TORONTO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HFC - Hassle Free Clinic</td>
<td>264</td>
<td>299</td>
</tr>
<tr>
<td>FCC - Site 519</td>
<td>69</td>
<td>299</td>
</tr>
<tr>
<td>TTS - The Talk Shop</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>SSH - Scarborough Sexual Health Clinic</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>CC - Crossways Clinic</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>XS - Spa Excess</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>SWTO - Steamworks (Toronto)</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>CS - Central Spa</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>OTTAWA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCHC - Centertown Community Health Center</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SHC - Sexual Health Center</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>350</td>
<td>627</td>
</tr>
</tbody>
</table>

Figure 21, In-clinic survey and number of HIV tests by site

In Toronto, the vast majority of HIV tests were done at Hassle Free Clinic and the neighbouring 519 Community Centre blitz clinic.

**Who attended the clinics?**

A total of 1,172 charts were received from the Toronto and Ottawa sites over both phases. Two charts marked as female were excluded so a total of 1,170 charts analyzed (434 in phase 1 and 736 in phase 2). In some of the following analyses, 57 charts were removed because there is no indication that the respondent had sex with men. Due to the small number of charts received from Ottawa (N=11), Toronto and Ottawa results are presented together.

Of the 1,113 charts analyzed for age (1,170 men who tested less the 57 that did not report having sex with men) 85% of men were under the age of 45 (Figure 22). Compared to the men who completed the online survey (56% under age 45), clinic attendees were younger.
Approximately 80% (N=1167) report having only male sex partners; 13.6% report male and female partners (Figure 23).

Around 13% of clinic respondents had not previously had an HIV test (Figure 24) compared to 23% of online respondents.
Percent first HIV test

<table>
<thead>
<tr>
<th>First HIV test</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>No</td>
<td>354</td>
<td>85.7</td>
<td>599</td>
</tr>
<tr>
<td>Yes</td>
<td>59</td>
<td>14.3</td>
<td>89</td>
</tr>
<tr>
<td>Total</td>
<td>413</td>
<td>100</td>
<td>688</td>
</tr>
</tbody>
</table>

**Figure 24, Number MSM taking their first HIV test, blitz clinics**

About 62% of all respondents were white, European. Another third represented several ethnic communities (Figure 25).

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Total</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboriginal</td>
<td></td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>Black/African/Caribbean</td>
<td></td>
<td>70</td>
<td>6.4</td>
</tr>
<tr>
<td>East/Southeast Asian</td>
<td></td>
<td>132</td>
<td>12.1</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td></td>
<td>62</td>
<td>5.7</td>
</tr>
<tr>
<td>Middle Eastern/Arabic</td>
<td></td>
<td>43</td>
<td>3.9</td>
</tr>
<tr>
<td>Mixed Race</td>
<td></td>
<td>50</td>
<td>4.6</td>
</tr>
<tr>
<td>South Asian</td>
<td></td>
<td>44</td>
<td>4.0</td>
</tr>
<tr>
<td>White/European</td>
<td></td>
<td>685</td>
<td>62.8</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1090</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Figure 25, Ethnicity of blitz clinic clients**

Not surprisingly, a much larger proportion (72%) of clients who attended blitz clinics to test for HIV (Figure 26) indicated they had had sex without a condom (recorded as reason for test or related to specific sexual behaviour) compared to self-report in the online survey (50%).

**Data Source 4: In-clinic surveys**

Men tested at blitz clinics who tested negative (i.e., who did not receive a reactive test result) were asked to complete a survey after their appointment, which focused on client satisfaction with the clinic experience and campaign awareness (see appendix). The clinic counsellor left the room allowing the client to decide if he wanted to complete the questionnaire, and providing time and privacy for him to do so.

The survey consisted of 19 questions: four about factors important to getting tested (e.g. location, anonymity, immediacy of results), two about the time and convenience of the clinic, and 13 about the blitz campaign. Based on input from clinic staff, three small changes were
made to the survey between phase one and two: an arrow was placed on the front page directing participants to turn the page over to complete the questions on the back; a line was added by the website check box in the “please let us know where you heard about the campaign” question so participants could write in the name of the site; and another option for how people heard about the clinic was added (“I heard about it at this clinic”).

Because of the large variation in the number of tests and surveys at different sites, results are not displayed by clinic site.

Who responded?
There was an overall response rate of 85% (N=977, phase 1 = 350 and phase 2= 627, N=1148 non-reactive tests) across all clinics. Demographics of the men who completed the survey were not collected as they had already completed an intake form that provided that type of information. Although survey data cannot be linked to chart data, the demographics of survey respondents was assumed to be similar to that of all testers due to the high response rate. The most important factors that influenced the decision to test were: the rapidity of the point-of-care test, the availability of testing without an appointment, the location and the anonymity of testing (Figure 27).

Data Source 5: PHL data
Clinics send logs to the public health laboratory of all rapid point-of-care tests done. They also send blood samples for confirmatory HIV testing when someone tests reactive on the point-of-care test and all syphilis blood samples. Data and samples from blitz clients were tagged so that the public health laboratory could easily identify them. Anonymized data recorded by laboratory were forwarded to the evaluation team to analyze. In total, 1,619 unique HIV and syphilis
records were analyzed. The public health laboratory also provided the evaluation team with historical HIV testing data across the province to provide insight into testing changes that may have occurred as a result of the blitz.

Evaluators received laboratory data in two formats:
- blitz test records
- summary counts combining blitz and non-blitz records (adjusted using methods described in Remis and Liu 2011:3).

Since these sources are not linkable, the total number of blitz-related tests by region and month were derived from the tagged (anonymized) test records. The number of non-blitz records was derived from the summary data by subtracting the number of blitz test records from the total. The blitz test records are not marked as “men who have sex with men” but can be assumed to be mostly in that category because more than 95% of the clinic charts are classified as “men who have sex with men.” Data from October 2010 to June 2012 were used to analyze trends over time. Direct comparisons were made between data from October 2010 to March 2011 to the blitz period of October 2011 to March 2012.
FINDINGS

Did the Campaign Attract High-Risk Men?

In general, gay, bisexual and other men who have sex with men did respond to the blitz campaign. Toronto experienced a 20% increase and Ottawa a 24% increase in testing during the blitz period. In Toronto, 87% of the increase was attributed to tests done in blitz clinics. In Ottawa, few tests were tagged as “blitz” tests but the reason for this discrepancy appears to be due to the way the blitz clinics were structured in the two cities. In Toronto, Hassle Free Clinic’s regular testing clinics were already operating at capacity so the blitz clinics – which were held at different times or in different sites than the regular clinics – appear to have accommodated a backlog of demand for testing. In Ottawa, blitz clinics were typically add-ons to regular clinic hours and regular clinics were able to accommodate the increased demand.

More men who have sex with men were tested in Toronto and Ottawa

Based on the data provided by the public health laboratory, Toronto and Ottawa experienced an overall increase in testing over the blitz period compared to the same time period the previous year.

Impact of the Blitz on Testing in Toronto

Toronto experienced a 20% increase in testing of men who have sex with men over the blitz period compared to the same six months of the previous year (7,951 vs. 6,616): 87% of that increase was attributable to blitz clients at blitz clinics.

Figure 28, Number of HIV tests in Toronto for each month of the testing blitz compared to the previous year
Figure 28 compares the total number of PHL HIV tests during the blitz period in Toronto (blue bar) to the same months during the previous year (green bar). The testing rate during the blitz period was significantly higher ($p<.01$) compared to the previous year. Separating the total number of public health laboratory HIV tests between records tagged to the blitz campaign (dark blue) and records derived from regular, non-blitz clinic hours (light blue) indicates that there was a substantially greater number of tests done during the blitz clinics and there was no decline in the number of tests done during regular, non-blitz clinic hours.

**Impact of the Blitz on Testing in Ottawa**

Ottawa saw a 24% increase in men who have sex with men testing during the blitz period (2,835 vs. 2,300); however, less than 1% was attributable to clients who went for testing during the added blitz hours.

![Figure 29](#)

**Figure 29, HIV tests in Ottawa, blitz period compared to previous year**

Figure 29 compares the total number of HIV tests for Ottawa during the blitz period (blue bar) to the same months in the previous year (green bar). A significantly greater number of tests
occurred during the blitz period (p<.01), largely attributable to phase one of the blitz campaign; however very little of the increase in testing was attributed to the blitz campaign (dark blue) and most additional tests were counted as non-blitz tests (light blue). Given the significant increase in the number of tests during the blitz period (p<.01), it seems reasonable to assume that the social marketing campaign encouraged testing – even though people may have chosen to be tested during regular clinic hours rather than the blitz hours.

Non-blitz regions did not see an increase in testing
While the number of tests in men who have sex with men increased in Toronto and Ottawa during the blitz, they remained stable in other parts of the province that were not part of the blitz.

Figure 30 depicts how many tests were done by region in Ontario from October 2010-June 2012. The blitz period is indicated by the two black lines in the middle of the graph. Toronto (blue line) and Ottawa (green line) did see an increase in testing over the previous year during the blitz whereas other regions in Ontario remained fairly constant.
**More Diagnoses: 22 People Tested Reactive**

Overall, clinic charts reported 22 of the 1,170 rapid point-of-care tests done were reactive (1.88% reactive 95%CI 1.18%, 2.83%). Of the 1,113 tests for men who reported having had sex with men, 1.98% were reactive (95%CI 1.24%, 2.98%).

**More than Half of Men who Tested Positive were White**

In terms of ethnicity, of the 22 men who tested reactive, 12 (59%) were white, three (14%) were African, Caribbean or Black, three were east or southeast Asian (14%), two (9%) were Latino/Hispanic and one (4%) was mixed race.

**23% of the Men who Tested Reactive Were First Time Testers**

Seventeen of the 22 men who had reactive tests were men who had previously been tested for HIV. However, almost 15% (N=169 of 1,158 men) of the men tested during the blitz were tested for the first time. Of those, five tested reactive: a 2.37% positivity rate. This indicates that the campaign did reach high-risk men who had not been tested before.

**Seropositivity Rate Remained Stable**

In ongoing HIV testing programs in Ontario in 2012, the seropositivity rate (i.e., proportion of people who test positive) is 0.19%. In rapid point-of-care testing programs across the province, the positivity rate is higher -- 0.55% -- which would indicate that people at higher risk tend to seek out rapid point-of-care testing. Compared to all other testing sites in the province, Hassle Free has the highest positivity rate (2.00%). The positivity rate from all samples from the sites involved in the blitz was 1.88% (1.98% in tests of men who have sex with men) -- or similar to the average rate at Hassle Free Clinic.

The increase in testing during the blitz did result in more diagnoses in Toronto; however the seropositivity rate (proportion of people tested who test positive) remained relatively constant in Toronto and dropped in Ottawa. (See Figure 31.) Immediately after the blitz, Toronto and Ottawa show a non-significant (p=.32 and p=.84) decline in positivity whereas the rest of the province saw a non-significant increase (p=.62). Note: the spike in the positivity rate recorded between June and August is likely related to Toronto PRIDE Week, which is held in June.
Blitz Attracted High-Risk Men

The positivity rate among men who had never been tested before (2.37%) was not significantly higher than that of previous testers (N=989, 1.72%, p=.56) (see Figure 32). It would appear that high-risk men who have sex with men were attracted to the blitz clinics: 72% of clinic client charts recorded at least one instance of recent unprotected sex. High-risk men had a
significantly higher positivity rate (2.57%) compare to those who reported no unprotected sex (0.32%, p=.01). First time testers also had a higher positivity rate than repeat testers (2.37%).

**Highest Positivity Rates Were in Men Aged 45 to 54**

Figure 33 shows the positivity rates by age. Although the number of men between the ages of 45 and 54 who came for testing was low compared to the younger age groups, they had the highest positivity rate (3.65%); however, the rate was not significantly greater than other age groups (p=.26).

![Figure 33](image)  
Figure 33, HIV positive tests by age from client intake records

**Did Knowledge and Awareness Improve?**

The pre- and post-blitz surveys were analyzed to assess whether the campaign had an impact on knowledge or awareness. Six knowledge questions regarding HIV and STIs (Figure 34) were included in both the pre-blitz and post-blitz surveys. The survey was designed to reinforce accurate information: after the respondent answered a knowledge question (e.g., ‘true,’ ‘false,’ or ‘don’t know’), the survey would display the correct answer. Because of the structure of the survey, study participants could not go back to correct their answer.

Approximately 88% (N=4156 of 4738) of online participants answered at least one of the HIV/STI knowledge questions; 86% (N=4092) answered four or more questions. For most questions, the level of knowledge was high: more than 80% answered the questions correctly. The survey showed that men who have sex with men are almost universally aware (97%) that unprotected anal intercourse is high-risk behaviour for HIV transmission. It also shows that men
are less aware of seroconversion symptoms (49%) or of the role of syphilis in increasing the risk of HIV transmission (72%).

**Being Aware of Campaign Associated with Better Knowledge**

<table>
<thead>
<tr>
<th>Question</th>
<th>Pre-Blitz online survey % correct</th>
<th>Post-blitz online survey % correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>26. Unprotected anal sex (barebacking) with casual partners is considered one of the riskiest activities for HIV and sexually transmitted infections (STIs).</td>
<td>98%</td>
<td>97%</td>
</tr>
<tr>
<td>27. Common symptoms associated with HIV infection include fever, sore throat and rash within four weeks of having unprotected sex.</td>
<td>48%</td>
<td>49%</td>
</tr>
<tr>
<td>28. Even without ejaculation, oral sex (sucking and being sucked) carries a risk of syphilis, chlamydia or gonorrhea infection.</td>
<td>92%</td>
<td>90%</td>
</tr>
<tr>
<td>29. The chances of HIV being passed on are greater if either partner has another sexually transmitted infection.</td>
<td>74%</td>
<td>73%</td>
</tr>
<tr>
<td>30. It can take up to three months for HIV infection to be picked up in a blood test, but for many people it can be earlier.</td>
<td>80%</td>
<td>79%</td>
</tr>
<tr>
<td>31. HIV infection can be managed with medication so that its impact on health is much less.</td>
<td>82%</td>
<td>82%</td>
</tr>
</tbody>
</table>

Figure 34, HIV knowledge, pre- & post-blitz survey

When four or more questions were answered correctly, we ranked respondents as having “good knowledge.” (73%, N=3,479). They were compared to those who answered three or more incorrectly or “did not know” (27%, N=1,259). Univariate analysis showed that those who reported being bisexual, straight or other had less knowledge (63%) than men who identified as gay (79%, p<.01). Correct knowledge scores were slightly higher in both phases for those living in Toronto or Ottawa compared to other locations (Figure 35). Participants who did not report a postal code had the lowest knowledge scores. These findings continue to hold using multivariate analysis when modeling the outcome of “good knowledge” for those that answered four or more questions (N=4092).
Being aware of the blitz campaign is also significantly associated with better knowledge scores. Overall there were no significant changes in knowledge between and pre and post survey responses among people who were not aware of the campaign (Figure 35).

<table>
<thead>
<tr>
<th>City</th>
<th>Pre-blitz: Percentage with good knowledge</th>
<th>Post-blitz: Percentage unaware of campaign with good knowledge</th>
<th>Post-blitz: Percentage aware of campaign with good knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toronto</td>
<td>89%</td>
<td>87%</td>
<td>96%</td>
</tr>
<tr>
<td>Ottawa</td>
<td>90%</td>
<td>85%</td>
<td>96%</td>
</tr>
<tr>
<td>Outside Toronto or Ottawa</td>
<td>86%</td>
<td>80%</td>
<td>91%</td>
</tr>
<tr>
<td>Missing Postal Code</td>
<td>77%</td>
<td>79%</td>
<td>89%</td>
</tr>
<tr>
<td>Total</td>
<td>87%</td>
<td>82%</td>
<td>93%</td>
</tr>
</tbody>
</table>

*Figure 35, HIV knowledge by campaign awareness and location*

**What contributed to better knowledge scores?**

Multivariate modelling (see Appendices for detailed tables) showed no significant differences in knowledge based on: the website used to access the survey, region, sexual risk behaviour or immigration status. The variables that did predict a statistically significant better knowledge scores were:

- Being aware of the campaign (post blitz 93%) compared to pre-blitz (87%) or not being aware of the campaign post blitz (82%)
- Having had an HIV test within the last year or HIV+ (91%) compared to being HIV- and tested more than a year ago (83%) or never tested (73%)
- Ever having had a syphilis test (90%) compared to never having had a syphilis test (79%)
- Identifying as gay (89%) compared to bisexual (77%)
- Younger age 15-24 (82%) and 25-44 age groups (90%) compared to 55+ age groups (79%)
- Higher education: post graduates (91%) compared to high school or less (74%)

**Were People Aware of the Campaign?**

The post-blitz and in-clinic surveys give an indication about how many people saw or were aware of the social marketing campaign, how attention grabbing it was, and if the messages resonated with them. Overall, 31% of post-blitz online survey respondents indicated they were aware of the blitz campaign, while 59% of people who attended a blitz clinic reported seeing the campaign image (Figure 36).

Campaign awareness was significantly higher in phase two (62%) than in phase one (53%, p<.01). A greater proportion saw the campaign in phase two and, for these individuals, awareness of the campaign came primarily from websites, newspapers and billboards/posters.
Who was aware of the campaign?

According to the multivariate analysis of the online post-blitz web survey (see Appendices for detailed tables), variables associated with greater awareness of the campaign were similar to variables that predicted better knowledge of STIs and HIV:

- Having tested for HIV within the year or already HIV-positive (49%) vs. having tested more than a year ago (36%) and never having been tested (25%)
- Ever having tested for syphilis (39%) vs. not having tested (21%)
- Younger age (33% among men 30-44 compared to 25% among those over 55)
- Higher education (38% with a postgraduate or professional degree compared to 21% with high school or less)
- A Toronto (43%) or Ottawa (41%) postal code vs. elsewhere (24%)

Media that reached participants

Both in-clinic and online surveys identified show websites, newspapers/magazines and billboards/posters as the top three vehicles leading to campaign awareness. Conversely, radio and the online video of Casey had the least recognition in both surveys (Figure 37, multiple response).
The in-clinic survey during phase one did not ask respondents the name of the website where they saw the campaign. When space was provided for that information on the phase two survey, the most commonly mentioned websites were Craigslist and the Hassle Free clinic site. (Figure 38, multiple response). For those who completed the online post-blitz survey, the top sites mentioned were squirt.org and manhunt.net which is consistent with how they received the survey (Figure 39, multiple response).
**Was the campaign attention grabbing?**

Those who attended a clinic were more likely to report that the campaign was attention grabbing (phase 1: 63%, phase 2: 71%, Figure 40) than online survey participants (41%, p<.01). This pattern also held true when respondents were asked if the campaign will encourage more men to get tested (Figure 41); however, just over 50% of men who reported living in Toronto or Ottawa who completed the online survey thought it would encourage men to test and 40% were unsure (Figure 42).
Figure 41, Whether the campaign encourages testing by data source

Figure 42, Whether the campaign encourages testing by data source and location
Who looked for additional information?

More than one-third (33%) of online survey respondents reported seeking more information after becoming aware of the campaign (Figure 43).

![Figure 43, Further information seeking, online survey](image)

People who were aware of the campaign (N=703) were more likely to seek out more information about HIV and/or syphilis if they:

- Identified as bisexual (39%) vs identifying as gay (32%)
- Were a younger age: 51% for 15-24 age group vs 34% for the 55+ age group
- Had less education: high school or less (50%) vs to post-graduates (31%)
- Were born outside of Canada (44%) vs Canadian-born (31%)
- Got an HIV test because of the campaign (67%) vs those who did not get a test (26%).

(See Appendices for detailed tables)

Why did men come in for testing?

Online survey respondents were given a choice of 13 possible reasons to explain why they had had an HIV test. They could select more than one reason and had the option of writing in a reason not on the list. Among HIV-negative men, there were three main reasons for being tested (i.e., reasons selected by more than 10% of respondents):

- Routine health check (66%)
- Had sex without a condom (22%)
- At the request of a partner (10%)

The in-clinic survey also asked clients about their motivation to come in for testing. Like the online respondents, most men (42%) who came to the blitz clinic at Hassle Free Clinic reported it was part of their health routine to get tested regularly. When counsellors explored these issues
in more detail as part of the intake process, these clients also reported high-risk behaviours including unprotected anal intercourse or having sex with an HIV-positive person.

In terms of testing history, participants living in Toronto were more likely to report a previous HIV test. Testing history varied significantly by region (p<.01).

![Online Respondents' HIV Testing History](image)

**Figure 44, Having had an HIV test, online survey**

Among online respondents who indicated they were HIV-positive (N=270), the reasons for having had an HIV test were:

- Routine health check (37%)
- Had sex without a condom (23%)
- Had sex with an HIV+ partner (15%)
- Had sex with someone without a condom and experienced flu-like symptoms (11%)
- Had sex without a condom with someone who is HIV+ (9%)
- Tested positive for an STI and got an HIV test as well (7%).

For those who were unsure of their HIV status (N=147), the reasons for having an HIV test were:

- Routine health check (46%)
- Had sex without a condom (46%)
- At the request of a partner (14%)
- Tested positive for an STI and got an HIV test as well (12%)
- Had sex without a condom with someone who is HIV+ (12%)
- Partner had sex with someone else (11%)
- Immigration purposes (9%).
The survey also gave respondents a choice of reasons for not being tested. For HIV-negative men who had never tested for HIV (N=743), the reasons were:

- At low risk for HIV infection (56%)
- I always have safer sex (37%)
- I did not have sex with an infected person (24%)
- I think I am HIV-negative (16%)
- Just haven’t done it yet (13%)
- I never thought about it (12%)
- Don’t feel comfortable asking doctor for it (11%)
- Don’t know where to get a test (9%).

Only 6% mentioned fear of discrimination and 5% fear of a test affecting their career or insurance coverage as reasons not to be tested.

For those who were unsure of their status and had never tested for HIV (N=127), leading reasons for not testing were:

- Just haven’t done it yet (38%)
- Don’t feel comfortable asking doctor for it (32%)
- At low risk for HIV infection (27%)
- Afraid of having name reported (23%)
- I always have safer sex (22%)
- No anonymous testing site near where I work or live (22%)
- I think I am HIV-negative (21%)
- Could not deal with knowing I was infected (20%)
- Don’t know where to get a test (20%)
- Do not want to know (19%)
- Worried about being discriminated against (18%)
- Could affect my relationships (17%)
- I never thought about it (16%)
- Could affect career or insurance (14%)
- Worried about the impact on sex life (12%)
- Have not had sex with HIV+ person (10%)
- I don’t have a doctor (10%)
Figure 45 shows that a higher proportion of post-blitz survey respondents who were aware of the blitz campaign had an HIV test in the last year or were HIV+.

Eighteen percent (18%) of online participants reported getting an HIV or syphilis test after becoming aware of the campaign (Figure 46). This is comparable to the 20-24% increase in syphilis testing in public health laboratory data.
For those aware of the campaign, the following characteristics are significantly associated with getting a test because of the campaign (after adjusting for website, knowledge questions, HIV status, sexual orientation, age, education and sexual risk behaviour):

- Correctly answering the HIV symptoms question (OR = 1.74 95%CI 1.08, 2.80, p=0.02)
- Toronto resident versus Ottawa resident (OR = 0.49, 95%CI 0.45,1.03, marginally significant, p=.06)
- Seeking out more information (OR = 5.33, 95%CI 3.48,8.17  p<0.01).

**Syphilis Testing**

All syphilis results were sent to the public health laboratory and then interpreted and analyzed by staff at the OHTN after consulting with clinicians at Hassle Free Clinic. The public health laboratory reported titer scores and summaries but not diagnosis. The analysis team learned that a syphilis diagnosis is made in the clinic and can be determined only with two blood tests and knowledge of patient history. The public health laboratory reported 451 syphilis test records. About 7.5% were reactive (95% CI 5.2%, 10.3%). After clinical investigation at the sites, it was determined that 7 of the 451 (1.6%) were new syphilis infections (95% CI 0.6%, 3.2%).

Fewer people reported ever being tested for syphilis in the online post-blitz survey compared to the pre-blitz survey (pre-blitz 60.5%, post-blitz 55.5%, p<.01). This may be related to respondents being older in the post-blitz survey (Figure 47, p<.01). The age of those tested for syphilis at the blitz clinics was younger than the age of online respondents (N=2,226) who reported ever having a syphilis test – of those, about 11% reported being told they had syphilis (pre-blitz 10.5%, post-blitz 11.4%, p=.54).

![Pre/post blitz survey participants report of previous syphilis testing](image)

Figure 47, Age distribution of having tested for syphilis, pre- and post-blitz surveys

Men in Toronto and Ottawa were more likely to report having had a syphilis test compared to those living elsewhere in the province (Figure 48). Toronto syphilis rates are significantly higher than those reported in Ottawa (p<.01 and p=.04, respectively, Figure 48): 72% of Toronto respondents (N=1,275) reported having had a syphilis test and 16% of those tested (N=813)
reported having a positive syphilis test result; 63% of Ottawa respondents (N=398) reported having had a syphilis test and 11% of those tested (N=226) reported being told they had syphilis. There were no significant differences within each region from the pre-blitz survey to the post-blitz survey.

The top reasons why respondents tested for syphilis (multiple responses, N=2,418) are:
- It is part of my regular testing pattern (57%),
- I was being tested for HIV (24%),
- My health care provider suggested it (22%)
- I had symptoms that made me worry (12%).

The main reasons cited for not having a syphilis test are:
- I have not had any symptoms (74%)
- I never thought about it (40%)
- I am not at risk for getting syphilis (21%)
- I know that I have never had sex with an infected person (16%)
- I do not know where to get the test (16%).

Men who scored higher on knowledge about STIs were more likely to have had a syphilis test.

Of the 1,103 MSM who had an HIV test at the blitz clinics, 40% also had a new syphilis test. In some instances, the lower rate of syphilis testing may be related to individuals being referred for HIV testing after receiving a reactive syphilis test result elsewhere. Of those who had a new test (N=407), 8.6% had a report of a previous syphilis diagnosis according to data from the public health laboratory.
LESSONS LEARNED

Testing Capacity and Gay-Friendly Clinics are as Important as Social Marketing

Social marketing alone is not enough to increase the number of people being tested; the system must also have the capacity to provide enough testing. The number of men tested at blitz clinics – particularly in Toronto – reinforces the importance of providing “gay-friendly” clinics, rapid point-of-care tests and anonymous testing with enough capacity to meet the testing needs of gay, bisexual and other men who have sex with men. In Toronto, although blitz testing sites were set up across the two cities in an effort to make testing more geographically accessible, many men traveled some distance to access testing at Hassle Free Clinic or its spill-over clinic at The 519 Community Centre – both of which are perceived as gay-friendly spaces. Prior to the campaign, an individual seeking a rapid point-of-care test at Hassle Free Clinic could wait 10 to 21 days to get an appointment. With the extra testing capacity provided by the blitz, Hassle Free Clinic was able to meet demand by directing people to the additional walk-in clinics. Write-in comments on the clinic survey often included notes of gratitude for not having to wait several weeks to get a test – something that may discourage men from being tested. In Ottawa, the fact that the number of men tested increased and that most of those tests were done in regular rather than blitz clinic hours indicates that Ottawa has enough testing capacity to meet needs.

Use Websites and Media Frequentied by Men who Have Sex with Men

From the onset of promotion planning, Top Drawer focused on one primary message on the print materials: the goal was to get people to go to the blitz website to get more detailed information and learn about clinic times and locations. However, the stand-alone blitz website was not an effective way to communicate with the target audience. After a review of phase one, print materials were modified to give people enough information to go directly to the clinics.

When respondents were asked about the websites where they saw information about the campaign, the vast majority mentioned existing websites that they use, such as Craigslist, Squirt, Manhunt and the Hassle Free Clinic site. To reach men who have sex with men, it is better to promote services like the testing clinics through existing websites than to try to drive people to a stand-alone site. Craigslist proved extremely effective, demonstrating that organizations with limited resources can advertise successfully using free sites.

Flexibility and the Ability to Adapt are Key to Success

By splitting the testing blitz into two phases, the planning team could make adjustments along the way that could make the blitz more effective including:
• revising surveys to make wording more explicit
• closing sites that were not attracting men
• expanding capacity at sites with more demand and promoting sites with higher attendance
• reducing blitz clinics from four to three hours but increasing the days the clinics were offered in phase two.

An Effective Blitz Requires Local Leadership and Community Partnerships
Having a project lead at a clinic improved flexibility and capacity to respond to changing conditions. For example, the project lead was able to run off posters when delivery of items was late, promote the campaign through social media, nurture community partnerships, and optimize opportunities to reach out to men who have sex with men.

Expanding sites for clinics also requires effective community partnerships. In Toronto, many partners helped to promote the clinics and offered onsite storage which lessened the burden on the clinicians delivering the testing services. The partnership developed between Hassle Free Clinic and The 519 Community Centre resulted in the highest volume blitz clinic. Hassle Free Clinic staff received significant positive feedback about the location and time slots.

The blitz is also more effective when the organizations involved are stable. In one instance, staff turnover in one location between phase one and two put some stress on the coordinating efforts.

Record Keeping is Challenging
Record keeping throughout the campaign proved to be challenging. Client charts completed by hand had to be entered into an electronic system for evaluation. Staff also faced some challenges ensuring security and confidentiality when they were providing testing at off-site clinics.
CONCLUSION

The Gay Men’s Testing Blitz was successful in encouraging higher-risk gay and other men who have sex with men to be tested for HIV. During the blitz period, the number of men being tested increased by 20% in Toronto and 24% in Ottawa.

Although men who have sex with men are generally aware of the risk of HIV transmission during unprotected anal intercourse, their understanding of both seroconversion symptoms and the relationship between syphilis and HIV transmission improved as a result of the social marketing campaign.

Enhancing testing capacity in a clinic that already has an established reputation as a gay-friendly site helped increase testing numbers. Those numbers suggest that there is considerable demand for HIV testing among gay men and that they are more interested in being tested in a gay-friendly site than a site close to work or home. The policy implications of this may be two-fold. It may be possible to permanently increase capacity at the preferred testing site (or its satellites). It may also be possible to improve the “gay friendly” credentials of (an)other testing site(s).

Men said that having access to rapid point-of-care testing and being able to be tested without an appointment are important factors in their willingness to be tested. Given this, testing programs may need to look at how they are structured and identify ways to make it easier to access testing without an appointment.

Simply periodically advertising walk-in rapid point-of-care testing locations and hours could enhance testing numbers on an ongoing basis. Testing numbers may also be increased by taking rapid point-of-care testing to where gay men gather (e.g., sites like The 519 Community Centre) rather than asking them to go to clinics. In a number of major US cities, testing is made available outside popular venues or offered at major events like gay/lesbian Pride.

The evaluation identified other questions and challenges. For example:

- If testing numbers go up but the positivity rate remains stable, does this mean there are still undiscovered groups of men who have sex with men who are positive but not testing or does this suggest that current estimates of undiagnosed HIV-positive men are too high?
- The evaluation highlighted the continuing lower levels of knowledge and awareness of HIV risk among men with less education.
- Contrary to widespread conventional wisdom, men over the age of 45 may need more encouragement to be tested than younger men. The challenge is whether it is
possible to improve testing in older men by tailoring messages, enhancing testing capacity and/or improving outreach.
REFERENCES


Technical references for analytical methods:


The data analysis for this report was generated using SAS software for Windows version 9.3. Copyright, SAS Institute Inc., Cary, NC, USA.
## APPENDICES:

### Clinic Schedule

#### Toronto

<table>
<thead>
<tr>
<th></th>
<th>P1 Regular Clinics</th>
<th>P1 Regular Hours</th>
<th>P1 # of Blitz clinics</th>
<th>P1 # of Blitz hours</th>
<th>P1 # of Blitz HIV tests</th>
<th>P2 Regular Clinics</th>
<th>P2 Regular Hours</th>
<th>P2 # of Blitz clinics</th>
<th>P2 # of Blitz hours</th>
<th>P2 # of Blitz HIV tests</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hassle Free (Men only)</td>
<td>30</td>
<td>120</td>
<td>6</td>
<td>24</td>
<td>306</td>
<td>50</td>
<td>200</td>
<td>10</td>
<td>40</td>
<td>374</td>
<td>680</td>
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<tr>
<td>S19 Comm. Cen.</td>
<td>0</td>
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<td>5</td>
<td>22</td>
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<td>1</td>
<td>4</td>
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<td>156</td>
<td>1</td>
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<tr>
<td>Scar. Sex H.C.</td>
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<td>171.5</td>
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<td>60</td>
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<td>1</td>
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<td>0</td>
<td>1</td>
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<td>TOTAL</td>
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#### Ottawa

<table>
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<th>P1 Regular Clinics</th>
<th>P1 Regular Hours</th>
<th>P1 # of Blitz clinics</th>
<th>P1 # of Blitz hours</th>
<th>P1 # of Blitz HIV tests</th>
<th>P2 Regular Clinics</th>
<th>P2 Regular Hours</th>
<th>P2 # of Blitz clinics</th>
<th>P2 # of Blitz hours</th>
<th>P2 # of Blitz HIV tests</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>Centretown CHC</td>
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<td>6</td>
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<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Sexual Health Centre</td>
<td>17</td>
<td>126</td>
<td>6</td>
<td>22</td>
<td>3</td>
<td>17</td>
<td>126</td>
<td>6</td>
<td>23</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Gay Zone</td>
<td>6</td>
<td>18</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>18</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>23</td>
<td>144</td>
<td>18</td>
<td>52</td>
<td>5</td>
<td>23</td>
<td>144</td>
<td>18</td>
<td>53</td>
<td>6</td>
<td>11</td>
</tr>
</tbody>
</table>
# In-clinic Survey

**GET ON IT - SURVEY**

<table>
<thead>
<tr>
<th>Question</th>
<th>Extremely important</th>
<th>Very important</th>
<th>Somewhat important</th>
<th>Not that important</th>
<th>Not at all important</th>
</tr>
</thead>
<tbody>
<tr>
<td>How important is it to you to get an anonymous HIV test versus providing a name?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>How important is it for you to get immediate HIV test results versus having to wait a couple weeks?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>How important is the location of the testing clinic to you?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>How important is it that a clinic has walk-in services (you don’t need an appointment)?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

**How convenient is this testing location for you?**
- □ Extremely convenient
- □ Very convenient
- □ Somewhat convenient
- □ Not that convenient
- □ Not at all convenient

**How long did you wait today before you saw a health care professional?**
- □ Less than 15 minutes
- □ 15-30 minutes
- □ 31-60 minutes
- □ More than 60 minutes

**Have you seen this campaign?** (see picture below)
- □ Yes  □ No
Are you aware of an HIV and syphilis testing campaign going on right now?
☐ Yes (Please continue to back page)
☐ No (You’re done, thank you for your time)

If you are aware of the campaign, please let us know how you know about it? (Please check all that apply):
☐ Website (please specify): ______________________________________
☐ Newspaper/Magazine
☐ Billboards or posters
☐ Radio
☐ An online video about Casey
☐ Word-of-mouth
☐ I heard about it at this clinic
☐ Other (please specify): ______________________________

How strongly did the campaign grab your attention?
☐ Extremely attention grabbing
☐ Very attention grabbing
☐ Somewhat attention grabbing
☐ Not very attention grabbing
☐ Not at all attention grabbing

Has the campaign come up in conversations with friends, partners or guys online?
☐ Yes  ☐ No  ☐ Don’t remember
Do you think the campaign will help encourage more men to get tested?
☐ Yes ☐ No ☐ Don’t know

What messages did you get from the campaign? (Please rate how strong each message was in the campaign)

<table>
<thead>
<tr>
<th>Strongly received campaign message</th>
<th>Moderately received campaign message</th>
<th>Weakly received campaign message</th>
<th>Did not receive this as a campaign message</th>
</tr>
</thead>
<tbody>
<tr>
<td>After having unprotected anal sex with someone who may be HIV+ it’s a good idea to get an HIV test.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Flu-like symptoms and possibly developing a body rash within 3 weeks after having sex with someone who may be HIV+ is good reason to get an HIV test.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The chances of HIV being passed on are greater if either partner has another sexually transmitted infection.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>It can take up to 3 months for HIV infection to be picked up in a blood test, but for many it may be earlier.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Syphilis can be spread through intimate skin-to-skin contact as well as sex.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>If you get a painless sore after having sex, you should get a syphilis test.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Was this campaign useful to you?
☐ Yes ☐ No ☐ Don’t know
Additional comments:
### Results of Multivariate Modelling of Online Survey Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds Ratio</th>
<th>Confidence Interval</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-blitz, aware: yes vs. pre-blitz</td>
<td>1.99</td>
<td>1.41, 2.81</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Post-blitz, unaware: yes vs. pre-blitz</td>
<td>0.94</td>
<td>0.73, 1.20</td>
<td>0.60</td>
</tr>
<tr>
<td>Never tested vs. recent test/HIV+</td>
<td>0.42</td>
<td>0.32, 0.56</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Tested in past vs. recent test/HIV+</td>
<td>0.58</td>
<td>0.45, 0.75</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Ever tested for syphilis: yes vs. no</td>
<td>1.34</td>
<td>1.06, 1.70</td>
<td>0.01</td>
</tr>
<tr>
<td>Bisexual/Straight/Other vs. Gay</td>
<td>0.58</td>
<td>0.47, 0.72</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Age (per 5 year increase)</td>
<td>0.94</td>
<td>0.91, 0.98</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Education (per level)</td>
<td>1.41</td>
<td>1.28, 1.54</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

*Figure 49, Probability of having good HIV knowledge (N=3756)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds Ratio*</th>
<th>Confidence Interval</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never tested vs. recent test/HIV+</td>
<td>0.60</td>
<td>0.45, 0.79</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Tested in past vs. recent test/HIV+</td>
<td>0.68</td>
<td>0.55, 0.84</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Ever tested for syphilis: yes vs. no</td>
<td>1.65</td>
<td>1.34, 2.03</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Age (per 5 year increase)</td>
<td>0.95</td>
<td>0.92, 0.98</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Education (per level)</td>
<td>1.21</td>
<td>1.11, 1.32</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Region (vs. Toronto) Missing</td>
<td>0.46</td>
<td>0.32, 0.67</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Region (vs. Toronto) Other</td>
<td>0.53</td>
<td>0.44, 0.65</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

*Figure 50, Probability of post-blitz campaign awareness (N=2784)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds Ratio*</th>
<th>Confidence Interval</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisexual/Straight/Other vs. Gay</td>
<td>1.77</td>
<td>1.18, 2.66</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Age (per 5 year increase)</td>
<td>0.91</td>
<td>0.85, 0.98</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Education (per level)</td>
<td>0.75</td>
<td>0.62, 0.91</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Canadian born: yes vs. no</td>
<td>0.50</td>
<td>0.32, 0.77</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Get HIV/Syphilis test: yes vs. no</td>
<td>5.34</td>
<td>3.48, 8.19</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

*After adjusting for website, knowledge questions, HIV status, region, sexual risk behaviour.

*Figure 51, Probability of seeking more information among those who were aware of the campaign (N=703)*