

# Survey Summary

## ARGUS 2005



**ARGUS is a survey of HIV, viral hepatitis and sexually transmitted infections (STI), and associated risk behaviours among Montréal men who have sex with men (MSM).**

The ARGUS survey combines infection surveillance (through biological tests) and behavioural monitoring. It will be repeated at regular intervals (for example, every 2 to 3 years) to follow changes in the situation. ARGUS is one of a group of similar surveys of MSM in several Canadian cities.

The survey was carried out under the direction of the Montreal Public Health Department, the *Institut national de santé publique du Québec* and the Public Health Agency of Canada and by a team of representatives from the community, university and public health.

Men were approached in a wide variety of locations where gay men socialize in Montreal (ex.: bars, saunas, coffee houses, sports and recreational groups...). During recruitment sessions, the interviewers solicited people according to a sampling interval method adapted to the locations visited (for example: one person in two or one table in two). In this manner, each person had an equal chance to participate in the study. The convenience sample created

can be considered representative of MSMs in Montréal who spend time in locations where gay men socialize. All MSM 18 years of age and over and residing on the Island of Montréal were eligible to participate in the study, no matter what their HIV serology status.

Between February and August 2005, 1957 men, recruited in 40 locations, completed a self-administered questionnaire.

The questionnaire focused on the respondents' socio-demographic characteristics, the composition of their social network, the public places they visited to seek sexual encounters, their sexual activities with regular and casual partners, their consumption of alcohol and drugs, health history and screening for STIs, and their attitudes and knowledge concerning HIV, hepatitis C and STIs.

Most of the respondents (1944/1957: 99.3%) also provided a few drops of blood to allow laboratory analyses to screen for HIV (anti-HIV antibody using the ELISA technique), the hepatitis C virus (anti-hepatitis C virus antibody using the ELISA technique) and syphilis (treponemal test TP-PA)

This summary offers an overview of the descriptive results from the study.

### Socio-demographic data

The respondents were between 18 and 81 years old. A little more than one-quarter (28%) were between the ages of 18 and 29, 25.6% were 30 to 39 years, 25.2% were 40 to 49 years and 21.2% were 50 years and over. The average age was 39 years.

More than three-quarters of the respondents (76.9%) reported they were born in Quebec and 80% indicated French as the first language they had learned and still used today.

In regard to their marital status, 16.3% lived in a common-law relationship or were married to a man.

The majority of the respondents (80%) identified themselves as being homosexual or gay, while 18% said they were bisexual.

More than one-third of the respondents (40%) had an undergraduate or graduate university degree. Approximately one-half (49.8%) of the respondents had an annual before-tax income of \$30,000 or more during the preceding year.

One respondent in five (22.2%) lived within the geographical boundaries of the "Gay Village".

### Socialization and locations frequented to seek sexual partners

More than three respondents in four (76.3%) indicated that 50% or more of their social network was made up of gay men; only 2.1% of the respondents indicated that they had no gay friends. Among the respondents who reported having at least one gay friend, 53.6% had at least one gay friend infected by HIV. More than 40% of the respondents spent "most" or "all" of their free time with gay men.

The majority of the respondents (59.4%) declared they were "quite" or "very" satisfied with their social life, while a little less than half the respondents (45.3%) considered that they were "quite" or "very" satisfied with their sex life.

The proportions of respondents who had sought sexual encounters with men in various public locations during the past six months are presented in the following table.

#### Public places frequented to seek sexual encounters with men during the past six months

	At least once in the past six months
Gay bars	59.5%
Saunas	45.5%
Internet (chat rooms, personal ads)	35.4%
After-hours clubs/parties	33.8%
Public places (parks, public washrooms...)	24.7%
Coffee shops	21.1%
Rave/Circuit parties	12.1%

Among those who used the Internet, 36.2% did so once a week or more. This proportion was 21.3% and 19.4% among respondents who had visited after-hours and saunas, respectively.



## Sexual practices

Up to 93% of the respondents reported having had oral or anal sexual activities with at least one male sexual partner during the six months preceding their participation in the survey. One-quarter of the respondents (24.6%) had a single male sexual partner during the past six months, 33.2% had two to five, and 35.2% had six or more.

A little more than one-quarter of the respondents (27.2%) had group sex (sexual relations with several men at the same time) during the past six months.

**Types of sexual partners** sexually active respondents had during the past six months (n = 1801):

- **Regular partner** (defined as a partner with whom the respondent had sex at least twice, ex.: life partner, boyfriend, fuckfriend, lover):

78.8% had at least one regular male sexual partner: 44% had a single partner, 27.6% had two to five and 7.2% had six or more.

- **Casual partner** (defined as a partner with whom the respondent had sex only once, ex.: “one night stand”):

81% had at least one casual male sexual partner: 15.5% had only one, 30.5% had from two to five and 34% had six or more.

- **Partner with whom money or other goods were exchanged for sex:** One respondent in 10 (11.5%) had received money, drugs or other goods in exchange for sex. An equal number of respondents (11.9%) had given money, drugs or other goods in exchange for sexual relations. In all, 19.5% of the respondents had received or given money, drugs or other goods in exchange for sex.

During the past six months, 16.4% of the sexually active respondents had oral or anal sex with a new male partner met during a trip outside Québec and 19.9% had sexual intercourse with men who were on a trip to Québec. In all, 30.2% of the respondents had oral or anal intercourse with a new partner who was not a resident of Québec.

**Anal sex and condom use** during the past six months among sexually active respondents (n = 1801):

- 69.5% had anal sex with at least one man; 17% had anal sex with six male sexual partners or more.
- 33.6% had anal sex unprotected by a condom at least once.
- 11.5% “intentionally” had unprotected anal sex (barebacking) with a casual male sexual partner at least once.

- Among the respondents who had anal intercourse during the past six months, 15.4% had receptive anal intercourse exclusively, 22.9% had insertive anal intercourse exclusively and 61.7% had receptive and insertive anal intercourse.

The following table illustrates, among the respondents who had anal intercourse, the proportion of those who did not always use a condom during the past six months, according to the type of partner. For example, 53.5% of the respondents who had insertive anal intercourse (“top”) with a casual partner did not always use a condom with their casual partners (during the past six months).

**Proportion of respondents who did not always use a condom, according to the type of sexual activity and the type of partner they had, during the past six months**

	Casual partner	Regular partner HIV (-)	Regular partner HIV (+)	Regular partner HIV Unknown
Anal insertive “top”	53.5 %	63.6 %	54.4 %	54.9 %
Anal receptive “bottom”	50.8 %	64.1 %	49.5 %	53.8 %

During their last sexual encounter with a man (during the past six months), close to one respondent in ten (9.2%) practiced fisting (inserting all the fingers, a fist or a forearm in the anus).

During the past six months, close to one-third of all the respondents (29.8%) had insertive or receptive anal sex unprotected by a condom, at least once, with a partner “at risk” (casual partner, regular partner infected by HIV, regular partner without knowing whether he was infected or not).

- This behaviour was more frequent among the respondents who knew they were infected by HIV (41.1%) than among other respondents (28.7%).

A much higher proportion of respondents (67.9%) had insertive or receptive oral sex unprotected by a condom with a partner “at risk”, at least once.

- This behaviour was as frequent among the respondents who knew they were infected by HIV (70.9%) as it was among other respondents (68%).

## Alcohol and drug use associated with sexual relations

Among the respondents who had oral or anal sexual intercourse during the past six months, approximately two-thirds (73.3%) had used alcohol at least once in the two hours preceding or during their sexual relations.

Marijuana, “poppers” and cocaine are the drugs which were most often used at least once in the two hours preceding or during sexual relations.

At least once during sexual relations in the past six months, close to one-quarter of the respondents (23%) used one of the following six recreational drugs: ecstasy, ketamine, crystal, GHB, LSD or amphetamines.

### Use of alcohol and drugs in the two hours preceding or during sexual relations during the past six months

	1 to 49% of the time	50% of the time or more	At least once
<b>Alcohol</b>	45.7%	27.6%	73.3%
<b>Marijuana</b>	23.8%	14.6%	38.4%
<b>Poppers</b>	20.1%	9.5%	29.6%
<b>Cocaine</b>	14.2%	6.6%	20.8%
<b>Viagra</b>	10.9%	4.8%	15.7%
<b>Ecstasy</b>	13.5%	2.5%	16.0%
<b>Speed /amphetamines</b>	11.8%	3.4%	15.2%
<b>GHB /G</b>	8.9%	1.9%	10.8%
<b>Ketamine</b>	7.8%	1.3%	9.1%
<b>Crystal</b>	3.0%	0.6%	3.6%
<b>LSD</b>	1.3%	0.5%	1.8%

## General use of alcohol and drugs

**Alcohol:** More than one respondent in five (23%) used alcohol four to six times a week or more during the six months preceding the survey.

**Use of “hard” drugs:** At least once in their lives, 44.4% of the respondents had snorted cocaine and 16.3% had smoked crack or cocaine. During the past six months, 22.1% had snorted cocaine while 6.6% had smoked it.

At least once in their lives, 4.7% of the respondents had injected cocaine, 2.4% heroine and 3.1% steroids. At least once during the past six months, 2.2% of the respondents had injected cocaine, 1.2% heroine and 1.3% steroids.

In all, 5.5% of the respondents had injected heroine, cocaine or another drug at least once during their lives and 2.9% had done so at least once during the past six months.

Among those who reported having injected cocaine, heroine or another drug during their lives, more than half (51.1%) had, at least once, injected using a syringe that had been used by another person; among those who had injected during the past six months, this proportion was 69.8%.

## Opinions concerning HIV infection and preventive practices

The following table presents the proportion of respondents who said they “moderately agreed” or “very much agreed” with statements concerning attitudes regarding HIV infection and sexual practices.

Three-quarters of the respondents were confident that they would use a condom during anal sex with casual partners.

Four respondents out of ten considered they were at risk of being infected by HIV.

Close to one respondent in five considered that HIV infection had become a controllable disease. A similar proportion of respondents mentioned they were tired of being told to wear condoms.

Lastly, a little more than one respondent in ten felt less concerned by the idea of being infected by HIV since better medication had become available. Less than one respondent in ten considered that an infected man taking anti-HIV medications is less likely to transmit HIV.

Compared to the respondents who knew they were not infected by HIV or who did not know their infection status, respondents who knew they were infected by HIV were less confident regarding the use of condoms and more tired of being told to use them. They also considered themselves at greater risk of being re-infected and were less concerned by the idea of being re-infected since better anti-HIV medications had become available. Lastly, they were more numerous in considering that HIV infection had become a controllable disease and that an infected man who takes anti-HIV medications is less likely to transmit HIV.

### Opinions concerning HIV infection and preventive practices

	Moderately agree or very much agree		
	All	HIV (+)	HIV (-) or don't know
I am confident that I will succeed in using a condom every time I have anal sex with casual partners	77.8%	65.3%	79.1%
I believe I am at risk for HIV infection (or re-infection if I am already HIV-positive)	40.9%	68.6%	38.0%
HIV/AIDS has become a controllable disease (like diabetes)	17.1%	27.9%	16.0%
I'm fed up with being told to use condoms	15.7%	29.3%	14.4%
I am less concerned about getting HIV now that better anti-HIV medications are available	11.4%	29.2%	9.6%
An HIV-positive man who is taking anti-HIV medications is less likely to transmit HIV	8.2%	14.5%	7.6%

## Health services and history of sexually transmitted and blood-borne infections (STBIs)

The majority of the respondents (64%) had consulted a physician for a general check-up or for STBI screening during the 12 months preceding the survey. Close to 90% of the respondents reported that the physician consulted was aware of the fact that they had sexual relations with men.

Regarding vaccination against hepatitis B, 8.6% of the respondents did not know whether they had been vaccinated, 24.4% had never been vaccinated, 8.2% had received a single dose of vaccine, 17.7% had received two doses, 32.3% had received three doses and 8.8% did not know how many doses they had received.

At least once in their lives, 45.7% of the respondents had been informed by a physician that they have or already had an STBI.

**Various STIs:** 21.9% of the respondents reported that a physician had announced that they have or already had a gonococcal infection, 19.6% condyloma, 10.5% chlamydia, and 6.6% genital herpes.

**Syphilis:** 4.2% of all the respondents reported that a physician had told them they have or already had syphilis; this represents 7.9% of the respondents who had taken a test for syphilis during their lives.

**Hepatitis C:** 3.9% of all the respondents reported that they had a positive result in their last screening test for hepatitis C; this represents 6.3% of the respondents who had a screening test for hepatitis C during their lives.

### Biological analyses

The following table presents the rates of prevalence of a current or past syphilis, hepatitis C or HIV infections, as established by laboratory analysis of blood drops provided by persons who participated in the ARGUS survey.

**Syphilis:** One respondent in 20 (5.1%) had already contracted syphilis in the past or was currently infected.

**Hepatitis C:** One respondent in 20 (5.4%) had been infected by the hepatitis C virus. Among the respondents infected by HCV, 31% were not aware that they were infected, 61% had already used injection drugs, and 32.3% were also infected by HIV.

**HIV infection:** One respondent in eight (12.5%) was infected by HIV. Among the respondents infected by HIV, close to one respondent in four (23.2%) was unaware that he was infected.

**HIV infection:** 9.0% of all the respondents reported that their last screening test for HIV was positive; this represents 11% of the respondents who had taken a screening test for HIV during their lives.

The following table presents the proportion of respondents who had a screening test for various STBIs during their lives and the proportion of the respondents who had these tests during the 12 months preceding their participation in the study.

### Experience concerning screening for STBIs during their lives and in the past 12 months for all the respondents

	Tested during their lives	Tested during the past 12 months
HIV	83.7%	42.6% *
Hepatitis C	62.6%	30.2% *
Gonorrhoea	57.5%	30.7%
Syphilis	53.2%	30.7%

\* These percentages exclude respondents who had been HIV or HCV seropositive for more than 12 months.

### Prevalence of a current or past syphilis, hepatitis C and HIV infections based on the ARGUS analyses according to the respondents' age

	Syphilis	Hepatitis C	HIV
18-29 years	0.8%	4.7%	3.5%
30-39 years	4.3%	8.2%	16.2%
40-49 years	4.7%	4.4%	19.0%
50-59 years	10.9%	4.5%	14.7%
60 years or more	16.4%	4.3%	6.9%
Total	5.1%	5.4%	12.5%
Confidence interval 95%	(3.7 – 6.5)	(4.1 – 7.0)	(10.5 – 14.7)

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**G Lambert, J Cox, F Tremblay, M-A Gadoury, LR Frigault, C Tremblay, M Alary, J Otis, R Lavoie, R Remis, J Vincelette, C Archibald, P Sandstrom** the M-Track team. *ARGUS 2005: Summary of the survey on HIV, viral hepatitis and sexually transmitted and blood-borne infections (STBI) as well as on the associated risk behaviours among Montréal men who have sex with men (MSM)*. Montreal Public Health Department, Institut national de santé publique du Québec and the Public Health Agency of Canada. August 2006.

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