



Recent HIV testing behaviour among men having sex with men (MSM) in Montreal, results from the ARGUS 2005 survey

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Canadian association for HIV research, Quebec, May 2006

Context

Argus 2005

1st of biennial surveys of Montreal MSM

First site to participate in “M-Track”

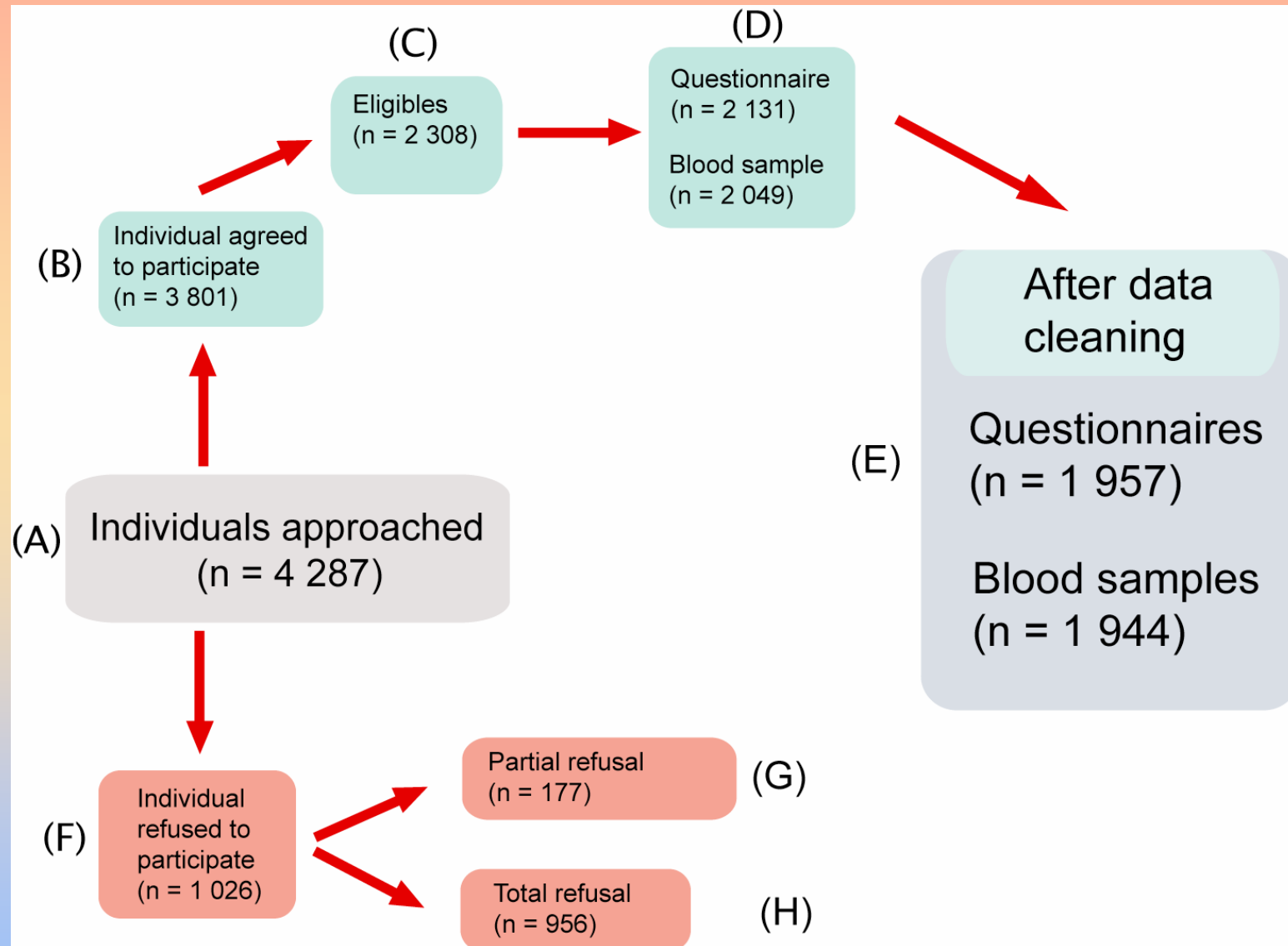
- **Second-generation surveillance system among MSM**
- **Monitor HIV, HCV & syphilis & risk behaviours**

Method

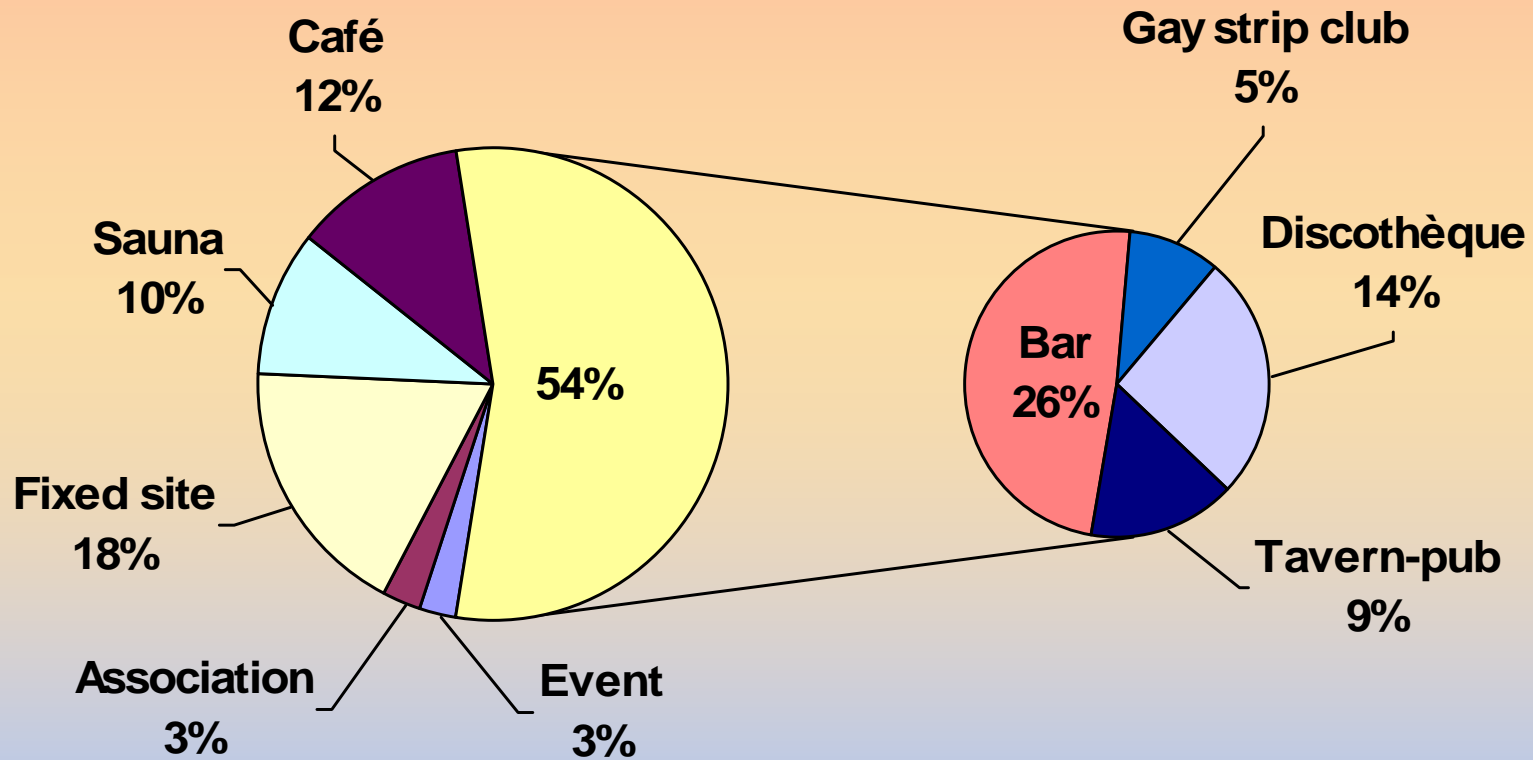
- **Cross-sectional**
- **Population**
 - Men who have sex with men
 - ≥ 18 years
 - resident of Montreal
- **Recruitment**
 - Convenience sample, diversity focus
 - Gay social spaces (bars, saunas, cafés etc)
- **Data collection**
 - Anonymous self-administered questionnaire
 - Dried blood spot ; HIV antibodies

Results

Participation January – July 2005



Participation by recruitment sites



n = 1 957

Context

Prevalence of HIV infection	12,5 % 95% CI: 11.1 - 14.1%
HIV Unawareness	
Tested HIV(+) while participating in the study and unaware of their infection.	23 %
Estimated number of unaware MSM in Montreal (2,8% X 40 000 – 60 000).	1120 - 1680
HIV Testing	
Never tested for HIV	16 %
Not tested for HIV in the past 12 months	53 %

Objectives

- **To describe characteristics of MSM unaware of their HIV infection**
- **To examine factors associated with recent HIV testing.**

Characteristics of respondents by HIV and awareness status

Sociodemographic profile

		HIV +		HIV -
		Unaware	Aware	
		%	%	%
		n = 54	n = 179	n = 1700
Age	18 to 29	13	6 *	31 **
	30 to 39	51	28 *	25 **
Ethnocultural group other than french or english canadian		32	15 *	
Born outside Canada **		26	9 **	13 *
Living in the Gay Village		38		21 *
College or University degree		60		
Gross annual income < 30K		54		

* p < 0.05 ; ** p < 0.001

Characteristics of respondents by HIV and awareness status

Socialisation

	HIV +		HIV -
	Unaware %	Aware %	%
	n = 54	n = 179	n = 1700
Currently in a common-law relationship	19		
Homosexual orientation	81		
Spend at least half of free time with gay men	74	90 *	
Half or more friends are gay	77	91 *	
Have at least one gay friend who is seropositive	46	75 **	
Quite or very satisfied with sex life	50		
Quite or very satisfied with social life	47		

* p < 0.05 ; ** p < 0.001

Characteristics of respondents by HIV and awareness status

Look for sex

<i>Past 6 months, ≥ 1 time</i>	HIV +		HIV -
	Unaware %	Aware %	%
	n = 54	n = 179	n = 1700
Saunas	67		44 **
Bars	56		
Internet	34		
Public venues (parcs, toilets)	23		
Afterhours	32		
Raves circuit partys	16		
Cafés	10		
Gay events	9		
Sex parties	5		

* p < 0.05 ; ** p < 0.001

Characteristics of respondents by HIV and awareness status

Sexual activities

Past 6 months	HIV +		HIV -
	Unaware %	Aware %	%
	n = 54	n = 179	n = 1700
At least 1 female partner	16		
At least 1 male partner	90		
Number of casual partners			
1-9	53		
≥ 10	28		
Anal sex with a man	69		
Unprotected anal sex with a casual partner	36		20 **
Deliberately had anal sex without using a condom with a casual partner* (“bareback”)	11		

* p < 0.05 ; ** p < 0.001

Characteristics of respondents by HIV and awareness status

Sexual activities

Past 6 months, at least once

	HIV +		HIV -
	Unaware %	Aware %	%
	n = 54	n = 179	n = 1700
Group sex \geq 1 time	37		24 *
Sex with an HIV infected regular partner	20		8 **
Sex with a partner from outside Quebec	30		
Gave money /drugs/services in exchange for sexual relations	17		
Received money /drugs/services in exchange for sexual relations	8		

* p < 0.05 ; ** p < 0.001

Characteristics of respondents by HIV and awareness status

Drug use during sex

Past 6 months, at least once	HIV +		HIV -
	Unaware %	Aware %	%
	n = 54	n = 179	n = 1700
Alcohol	76		
Marijuana	52		37 *
Poppers	51		27 **
Cocaine	34		19 *
Speed	22		
Ecstasy	16		
Special K	11		
GHB	9		
Crystal	5		

* p < 0.05 ; ** p < 0.001

Characteristics of respondents by HIV and awareness status

Drug use

	HIV +		HIV -
	Unaware %	Aware %	%
	n = 54	n = 179	n = 1700
➤5 alcoholic beverages during one sitting \geq 1 time / week (last 6 months)	30		
Sniffed cocaine \geq 1 time (ever)	69		42 **
Sniffed /smoked heroin \geq 1 time (ever)	4		
Injected drugs \geq 1 time (ever)	8		

* p < 0.05 ; ** p < 0.001

Characteristics of respondents by HIV and awareness status

Attitudes toward HIV

	HIV +		HIV -
	Unaware %	Aware %	%
	n = 54	n = 179	n = 1700
I'm tired of being told to wear condoms	11	30 *	
I'm tired of always having to be careful when I have sexual relations	28	45 *	
I'm less worried about getting HIV infection / better Rx available	6	29 *	
I think I'm at risk of getting HIV infection (or getting reinfected)	46		
HIV/AIDS has become a disease that can be controlled, like diabetes	26		

* p < 0.05 ; ** p < 0.001

Characteristics of respondents by HIV and awareness status

Health issues

	HIV +		HIV -
	Unaware %	Aware %	%
	n = 54	n = 179	n = 1700
History of STI	52	68 *	38 *
Visit with MD past year	72	94 *	
Tested for syphilis lifetime	69		51 *
Hepatitis B vaccination	72		

* p < 0.05 ; ** p < 0.001

Multivariate model of factors associated with being unaware of HIV infection

Reference population : HIV infected aware

	ORadj	IC	
Not having at least one gay friend who is seropositive	6.4	2.6	16.2
Born outside Canada	3.0	1.0	9.0
Age 18-39 years	2.2	1.0	4.9

Characteristics of respondents by HIV and awareness status

Date of last HIV test

		HIV +		HIV -
		Unaware	Aware	%
		%	%	%
		n = 54	n = 179	n = 1700
12 months	0 – 6	24		
	7 - 12	13		
1 – 3 years		24	10 **	
≥ 4 years		17	47 **	
Never		17	0 **	
Tested in 2004-2005 but month is missing		2		

Among tested (45), 7 «didn't receive the result» and 4 « didn't know the result »

* p < 0.05 ; ** p < 0.001

Justifications for not passing HIV test by age group among those who have never been tested (n = 286)

1. Risk evaluation	18-29 years (n = 145) %	30-44 years (n = 62) %	≥ 45 years (n = 79) %
I am at low risk for HIV infection	46.9	38.7	41.8
I always have safer-sex	28.3	29.0	29.1
I think I am HIV-negative	24.1	24.2	25.3
I have never had sex with an infected person *	19.3	6.5	8.9
I don't think I can get HIV *	5.5	14.5	3.8
At least 1 reason associated with low risk evaluation	71.0	71.0	65.8

* p < 0,05

Justifications for not passing HIV test by age group among those who have never been tested (n = 286)

2. Consequences	18-29 years (n = 145) %	30-44 years (n = 62) %	≥ 45 years (n = 79) %
I do not want to know	18.6	16.1	12.7
I could not deal with knowing I was infected *	17.2	11.3	3.8
I am afraid of having my name reported	6.2	9.7	2.5
It could affect my career of insurance	4.8	9.7	1.3
It could affect my relationships	9.7	9.7	5.1
I am worried about the impact on my sex life	9.0	6.5	3.8
I am worried about being discriminated against	7.6	6.5	3.8
If I tested (+), nothing can be done	5.5	6.5	1.3
At least 1 negative consequence *	36.6	30.6	17.7

* p < 0,05

Justifications for not passing HIV test by age group among those who have never been tested (n = 286)

3. Obstacles

	18-29 years (n = 145) %	30-44 years (n = 62) %	≥ 45 years (n = 79) %
I am afraid of needles *	13.1	4.8	3.8
I am healthy so I don't need to be tested	10.3	8.1	6.3
I do not know where to get the test	9.0	1.6	2.5
I don't think the test is always right	3.4	1.6	1.3
At least 1 obstacle *	27.6	12.9	12.7

* p < 0,05

Multivariate model of factors associated with 1) tested \geq 12 months and 2) never tested

Population of reference: Tested \leq 12 m	Tested \geq 12 m	Never Tested
	OR adj	OR adj
Age \geq 40	1,6	1,5
Casual partners less than 10	2,0	2,2
less than 1 to 9	1,7	1,6
No regular HIV infected partner	1,8	2,7
Common-law relationship	1,4	
Not looking for sex on Internet	1,7	
No use of recreational drugs during sex	1,6	
Bisexual orientation		2,2
Not looking for sex in bathhouses		1,5
No sex with partner from outside Quebec		1,6
No history of STI		2,6
Less concerned about HIV infection – better RX		1,8

Limitations

- **Cross sectional design**
 - temporal relationship
- **No use of a theoretical model on testing**
- **MSM who do not use venues/spaces**
 - generalizability
- **Social desirability and recall bias**

Summary

- **Almost one quarter of MSM with HIV in Montreal are not aware of their infection.**
- **HIV (+) unawares are more likely to be aged 18 to 39 and born outside Canada.**
- **HIV (+) unawares are sexually active and have unprotected sex.**
- **A large proportion of tested HIV (+) unawares did not get their results.**
- **Recent HIV screening among MSM in Montreal is lower than recommended.**
- **Men aged ≥ 40 years, having lower risk behaviour (number and type of partners, use of recreational drugs), self defined as bisexual and less concerned with HIV appear less likely to have been tested recently (within 12 months).**
- **Despite a positive association between risk taking and HIV testing, there is still a gap; at risk individual are not all tested, nor are they all tested at regular short intervals.**

Acknowledgements

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Study Funding/Support

*Institut national
de santé publique*

Québec 

*Agence de la santé
et des services sociaux
de Montréal*

Québec 



Public Health
Agency of Canada

Agence de santé
publique du Canada

Canada



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Thank you!