

# Are gay men routinely testing for HIV? Findings from community surveys in The Netherlands and Australia

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## Introduction

HIV testing is long recognized as a critical component of combination responses to the HIV epidemic,<sup>1</sup> the importance of which has only increased as the potential of antiretroviral treatment for HIV-prevention is being understood.<sup>2</sup> Sexual health guidelines for gay men underscore the importance of regular testing, commensurate to men's risk of infection.<sup>3</sup> In Australia, all sexually active gay men are recommended to test for HIV at least once a year. For men who report any unprotected anal intercourse, more than 10 sex partners in the past six months, participation in group sex or the use of drugs during sex, guidelines recommend testing every 3–6 months. Mathematical modelling shows that increasing HIV testing among highly sexually active gay men to once every three months can have a substantial impact on the HIV epidemic among gay men.<sup>4</sup>

## Objectives

The primary aim of this study is to assess the extent to which HIV testing is a sexual health routine for gay men and to explore characteristics of regular and non-regular testers.

A secondary aim is to compare data regarding routine HIV testing among gay men obtained in distinct settings, notably The Netherlands and Australia, countries characterised by substantially different policies and practices regarding HIV testing among gay men.

## Methods

Data were obtained in two online community surveys of gay men. In The Netherlands, the survey was conducted between June and December 2004, and participants were recruited through banner ads on websites providing information or dating opportunities for gay men. In Australia, a survey of HIV and STI testing was conducted between April and October 2011, with recruitment predominantly through targeted advertisements on Facebook; additional recruitment occurred through an Australian gay and lesbian social networking website.

In both surveys, participants provided information on demographic characteristics, sexual partnerships and risk behaviors. They also indicated whether they had ever tested for HIV, how often they had tested for HIV, when they had last tested for HIV and, if applicable, what the result of their last test was. The extent to which HIV testing was part of gay men's sexual health routine was assessed by participants' self-reports, for example 'Do you test regularly (e.g., every six months or every year) because you want to stay informed of your HIV status?'

## Results

In The Netherlands, data on HIV testing were obtained from 1,115 non-HIV-positive gay men, of whom 659 (59%) ever had an HIV test. One third (31%) of ever-tested men indicated that they had an HIV-testing routine. Participants reporting a testing routine had tested significantly more often (life time tests: 6.3 vs. 2.3,  $t = -11.8$ ,  $p < .001$ ) and more recently (tested in past two years: 93% vs. 48%,  $\chi^2 = 119.8$ ,  $p < .001$ ) than men not testing routinely. Men who had unprotected anal intercourse with casual partners in the past twelve months were more likely to routinely test for HIV than men who did not (46% vs. 29%,  $\chi^2 = 16.1$ ,  $p < .001$ ), as were men who had more partners ( $\chi^2 = 37.9$ ,  $p < .001$ ).

In Australia, 826 non-HIV-positive men were enrolled, of whom 642 (78%) had ever tested for HIV; routine testing was reported by 58% of these men. Compared to men who had never tested and non-routine testers, routine testers were significantly more likely to have tested for HIV in the last six (75% vs. 19%,  $\chi^2 = 257.5$ ,  $p < .001$ ) and 12 months (70% vs. 34%,  $\chi^2 = 267.8$ ,  $p < .001$ ). As shown in the table, in univariate logistic analyses, routine testing was significantly associated with gay men's types and numbers of sexual partners, as well as with having unprotected anal intercourse. In a multivariate logistic regression analysis, associations with unprotected anal intercourse were no longer significant.

## Logistic regression of routine sexual health testing versus never or non-routine testing among gay men in Australia by demographic and behavioural characteristics

	Univariate analyses		Multivariate analysis	
	OR [95% CI]	$p$	AOR [95% CI]	$p$
Being older than 26 years	2.25 [1.70–2.98]	<.001	1.61 [1.15–2.27]	<.01
Living in a capital city	1.35 [1.02–1.80]	<.05	1.07 [0.76–1.49]	ns
Having a university degree	1.25 [0.94–1.67]	ns	0.93 [0.66–1.30]	ns
Having a European-Australian background	0.87 [0.64–1.19]	ns	0.70 [0.49–1.00]	<.05
Having a gay sexual identity	1.38 [0.76–2.49]	ns	1.07 [0.54–2.10]	ns
Having more than 10 partners ,lifetime	3.63 [2.66–4.95]	<.001	2.35 [1.60–3.45]	<.001
Having more than 10 partners, past 6 months	3.02 [2.00–4.58]	<.001	1.92 [1.25–2.95]	<.05
Having a regular male partner, past 6 months	1.83 [1.35–2.48]	<.001	1.92 [1.25–2.95]	<.01
Having unprotected sex with a regular partner, past 6 months	1.76 [1.33–2.33]	<.001	1.08 [0.71–1.65]	ns
Having casual male partner(s), past 6 months	1.90 [1.40–2.58]	<.001	1.62 [1.11–2.37]	<.01
Having unprotected sex with casual partner(s), past 6 months	1.60 [1.16–2.21]	<.01	0.86 [0.57–1.30]	ns

Notes: OR = odds ratio; AOR= Adjusted Odds Ratio; CI = confidence interval, ns = non significant.

## Conclusions

HIV testing plays an increasingly important role in HIV prevention, and current guidelines recommend regular testing for gay men, in particular for men at higher risk of infection. Our recent Australian findings however suggest that only around half of gay men at risk for HIV infection have developed a sexual health routine including regular HIV testing. Comparison with earlier data from The Netherlands suggests that routine HIV testing may be lower in other countries and/or may have increased in recent years. Furthermore, while men who engage in unprotected anal intercourse and men who had higher numbers of sexual partners were more likely to report routine HIV/STI testing, not all men at higher risk for HIV infection routinely tested for HIV. To curb and ultimately stop the HIV epidemic, innovative research and prevention are required to effectively promote routine HIV testing in gay men.

## References

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