

Victorian Primary Care Network for Sentinel Surveillance on BBVs and STIs*

Syphilis Report 1: April – December 2006

Welcome to our new report.

We are pleased to present the first report in a new series. The report is intended to present new information on trends and patterns in syphilis in Victoria, with a particular focus on the findings from a sentinel surveillance network that has been established with the collaboration of a number of primary health services.

The report will be produced every six months. Each issue will include standard tabulations from the sentinel surveillance network. It will also feature updates from other surveillance systems of relevance to syphilis, as new information comes to hand. A briefer summary will be also produced every other quarter for participating clinics.

The establishment of the new surveillance network comes at a time when there is an urgent need to gain insight into the recent increases in the annual number of diagnoses of infectious syphilis and HIV, particularly in men who have sex with men (MSM). The network complements other data sources, in that it provides, for the first time information about syphilis testing and infectious syphilis prevalence.

Sentinel Surveillance for Syphilis

Method: In March 2006, a sentinel surveillance system based on primary care sites commenced operation involving collection and linking of two data sets i) demographic data and syphilis test results collected by the laboratory on all individuals routinely tested for syphilis at the site ii) extra demographic information and risk behaviour information (MSM only) collected through brief questionnaires completed voluntarily by patients while in the doctor's room.

For patients tested for syphilis in conjunction with a HIV test, a HIV questionnaire was completed and for HIV negative or positive patients tested for syphilis without a HIV test, a STI specific questionnaire was completed. HIV status in MSM tested for syphilis was determined using responses to the question 'result of last HIV test' on the HIV and STI questionnaire. Sentinel sites were chosen if (i) they diagnosed a high number of infectious syphilis infections per year, (ii) had a high case load of MSM and (iii) were willing to participate.

Five clinics were approached and agreed to participate. This report provides syphilis sentinel surveillance results for the period April 2006 to December 2006.

Results - All tests: Between April and December 2006, a total of 9668 syphilis tests were conducted in individuals attending the five sites; 7147 (74%) among males and 2441 (25%) in females. An average of 794 tests (range: 669-853) were conducted among males per month.

Table 1: Syphilis tests and questionnaires, by sex and result, April to December 2006

Site number	18	10	5	4	6	All
All tests						
Syphilis tests (n)	5972	1751	1321	565	570	9668
Tests in males						
Syphilis tests (n)	3688	1643	1285	510	21	7147
Syphilis tests (%)	61.8	93.8	97.1	90.3	36.8	73.9
MSM						
Questionnaires (n)	1585	799	419	51	4	2858
Positive tests* (n)	34	9	2	0	0	45
Positive tests* (%)***	2.2	1.1	0.5	-	-	1.6 (1.1– 2.1)

Positive=Infectious syphilis

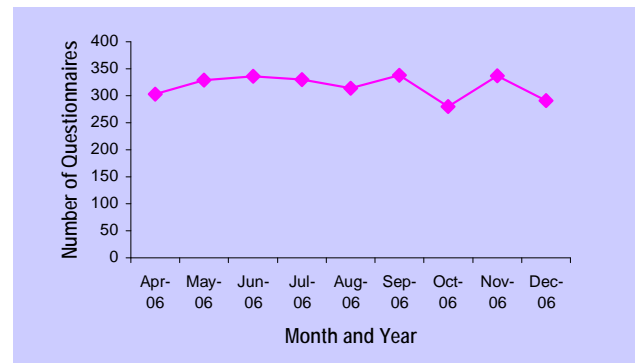
*Site 18 and site 6 completed surveys on all MSM as part of routine sexual history taking

**Response rate = total surveys completed / total number of persons tested for syphilis x 100

***Positive Tests (%) = total positive tests amongst MSM completing a sentinel surveillance form /total sentinel surveillance forms completed x 100

Results - MSM: A total of 2858 questionnaires were completed in MSM, with an average of 318 questionnaires (range: 280-338) completed each month (Figure 1). Thirty three percent of MSM surveyed were aged 30-39 years; 7% were HIV positive and 19% were tested for syphilis due to symptoms. Among HIV negative men, just under half (48%) reported they had last been tested for HIV within the past year. Of MSM with casual anal sex partners, 31% reported not always using condoms in the past six months.

Figure 1: Monthly number of questionnaires among MSM, all clinics, April to December 2006



The overall infectious syphilis prevalence among MSM surveyed and tested was **1.6% (95% CI 1.1 – 2.1)**. The highest syphilis prevalence was observed in those (i) aged over 40 years (ii) of Aboriginal or Torres Strait Islander descent (iii) reporting STI symptoms (iv) known to be HIV positive (v) who had six or more anal sex partners (vi) who reported the most recent HIV test of current regular partner/s was positive and (vii) who reported that they did not always use condoms with casual anal sex partner/s (Table 2).

In regards to sentinel surveillance, BBVs (blood borne viruses) refers to hepatitis C and STIs (sexually transmissible infections) refers to HIV, chlamydia and syphilis

For further information please contact: Jane Goller or Rebecca Guy, Centre for Epidemiology and Population Health Research, Burnet Institute, Phone: +61 3 8506 2310, Fax: +61 3 9282 2138, Email: jane@burnet.edu.au; rebecca.guy@burnet.edu.au

Table 2: Characteristics of MSM surveyed and tested for syphilis, all sites (sex workers, unknowns excluded), April-Dec 2006

		Tested		Positive	
		n	%	n	%
All individuals		2801	100	45	
Age group (years)	16-19	60	2.1	0	-
	20-29	954	34.1	11	1.2
	30-39	919	32.8	15	1.6
	40-49	570	20.4	13	2.3
	50+	298	10.6	6	2.0
Country of birth	Australia	1976	73.5	34	1.7
	Other	714	26.5	10	1.4
Aboriginal and/or Torres Strait Islander	No	2591	99.0	41	1.6
	Yes	25	1.0	2	8.0
STI symptoms	No	1886	81.3	14	0.7
	Yes	433	18.7	18	4.2
Known HIV positive	No	2599	92.8	38	1.5
	Yes	202	7.2	7	3.5
Timing of last HIV negative test [^]	Within the last 12 months	1195	48.1	22	1.8
	Greater than 12 months ago	1057	42.6	14	1.3
	Never tested	232	9.3	0	-

[^] Only includes men not known to be HIV positive

Table 3: Characteristics of MSM surveyed and tested for syphilis, excluding site 18* (sex workers, unknowns excluded), April-Dec 2006

		Tested		Positive	
		n	%	n	%
All individuals		1263	100	11	
Male oral sex partners, last six months	None	30	2.4	0	-
	1-5	660	52.4	5	0.8
	6+	570	45.2	6	1.1
Male anal sex partners in the last six months	None	155	12.4	0	-
	1-5	810	64.5	6	0.7
	6+	291	23.2	5	1.7
Regular anal sex partners, last six months	No	448	37.2	3	0.7
	Yes	758	62.9	7	0.9
HIV status of current regular partner	Positive	97	14.5	2	2.1
	Negative	454	67.7	3	0.7
	Don't know/he hasn't had a test	120	17.9	0	-
Condom use when having anal sex with regular partner/s in the last six months	Did not always use condoms	400	52.8	5	1.3
	Always used condoms	358	47.2	2	0.6
Casual anal sex partners, last six months	No	314	25.2	0	-
	Yes	932	74.8	11	1.2
Condom use when having anal sex with casual partner/s in the last six months	Did not always use condoms	306	32.8	7	2.3
	Always used condoms	626	67.2	4	0.6

* Site 18 uses electronic data collection which collects briefer behavioural information than the sentinel surveillance form

Conclusion: The prevalence of infectious syphilis was 1.6% among MSM tested and surveyed in 2006. Of the 45 infectious syphilis diagnoses in this group, 16% were among MSM coinfecting with HIV compared to recently published estimates of 40-50% in Victoria and NSW. This lower than expected estimate is likely to be related to a low questionnaire completion rate among HIV positive MSM (see limitations section)

Limitations: (i) The STI questionnaire designed for completion by MSM when tested for syphilis without a concurrent HIV test was infrequently completed, suggesting that the syphilis network has inadequately captured infectious syphilis prevalence and sexual risk behaviours in HIV positive men, (ii) the sentinel system only includes MSM seeking health services and the results cannot be assumed to apply to all MSM (iii) all HIV positive men from site 18 (n=149) were assumed to be MSM as no further behavioural information was available

Sites: Melbourne Sexual Health Centre, Prahran Market Clinic, The Centre Clinic, Carlton Clinic, Geelong Sexual health

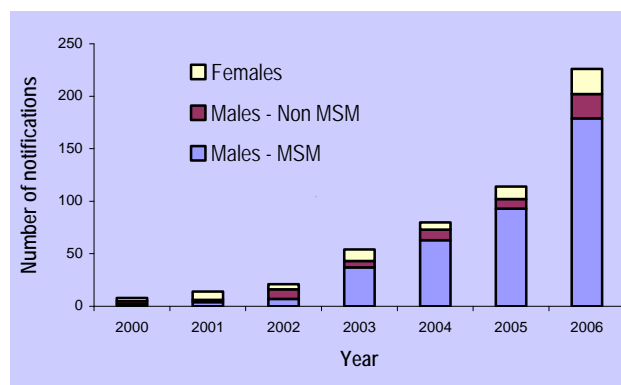
Collaborators: Burnet Institute, Victorian Infectious Diseases Reference Laboratory, Melbourne Sexual Health Centre, Department of Human Services (funders)

Updates from Other Surveillance Systems

Passive surveillance

Between 2000 and 2006, annual infectious syphilis notifications in Victoria increased from 9 to 234. The quarterly breakdown between 2000 and 2006 is shown in Figure 1. Annually, the majority of notifications were consistently among MSM (77% in 2006).

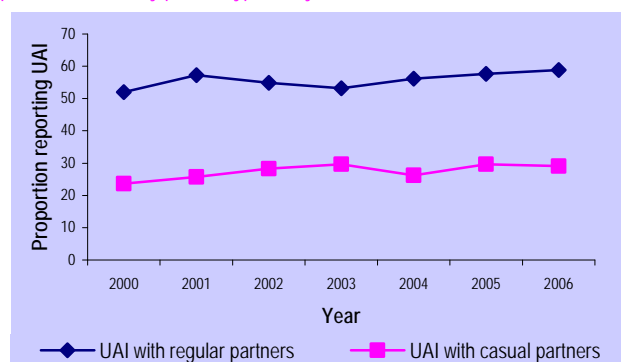
Figure 2: Infectious syphilis notifications by sexual orientation (unknowns excluded), Victoria, 2000 to 2006



Periodic Survey

Sexual risk behaviour among MSM is monitored through the annual Melbourne Periodic Gay Community Periodic Survey. The most recent round of the survey was conducted in February 2006 and found unprotected sex with casual partners had increased from 24% in 2000 to 29% in 2006 (Figure 3). Also in the same survey, 34.3% of respondents reported an anal swab in the past 12 months and 44.3% reported a urine test in the past 12 months, a significant increase from previous years.

Figure 3: Frequency of reported unprotected anal intercourse (UAI) in the past six months, by partner type and year, Victoria, 2000 to 2006



In regards to sentinel surveillance, BBVs (blood borne viruses) refers to hepatitis C and STIs (sexually transmissible infections) refers to HIV, chlamydia and syphilis

For further information please contact: Jane Goller or Rebecca Guy, Centre for Epidemiology and Population Health Research, Burnet Institute, Phone: +61 3 8506 2310, Fax: +61 3 9282 2138, Email: jane@burnet.edu.au; rebecca.guy@burnet.edu.au