

# STIs and HIV prevalence in MSM attending for the first time a metropolitan sexual health service in New Zealand

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**Introduction:** The Regional Auckland Sexual Health Service (ASHS) covers the greater Auckland metropolitan area (approximately 1.5M people) and is the only publicly-funded, free-for-users comprehensive sexual health provider in the region, encompassing three local health authorities (Auckland City, Waitemata, and Counties Manukau). In recent years, case reports and case series have suggested an increasing incidence of sexually transmissible infections (STIs) and HIV among men who have sex with men (MSM) in New Zealand (NZ), but no data were available regarding the prevalence among an unselected NZ population of first-time MSM presenters.

**Methods:** A query was run through the database of ASHS to extract the records of the MSM who attended for the first time one of the ASHS clinics between 07/06/2013 and 06/06/2014. The spreadsheet that was generated included for each patient: National Health Index (NHI) number; ASHS file number; date of birth; date first seen; date last seen; and ethnicity. The results of the STI screening were retrieved from the Laboratory database. For statistical analysis, the anonymised data sheet was imported into SPSS version 22/2013. Descriptive statistics (counts, frequencies, percentages) and analytical statistics (Chi-square tests for categorical variables and independent samples t-tests for continuous variables) were used as appropriate.

Age:			
Mean	32.3 ± 10.7 years (range: 18 - 85)		
Median	29 years (IQR 11.3)		
Ethnicity:	N	%	
NZ European (Pakeha)	110	43.5	
Other European	51	20.2	
Chinese	21	8.3	
Maori	16	6.3	
Other Asian	16	6.3	
MELAA (Middle East, Latin America, Africa)*	16	6.3	
Indian	11	4.3	
Pacific Islander	6	2.4	
Not available	6	2.4	
<b>Total</b>	<b>253</b>	<b>100</b>	
*Latin American 14 (5.5%), Middle Eastern 2 (0.8%)			
	NZ European/Other European N = 161	Other N = 92	P
Age in years ± SD	33.4 ± 11.8	30.5 ± 8.2	<b>0.036*</b>
*Independent samples t-test			

HAV:	N	%
<b>Tested</b>	149	58.9
<b>Immune</b>	49	32.9*
<b>Not immune</b>	100	67.1*
*of the 149 tested		
HBV:	N	%
<b>Tested</b>	149	58.9
<b>Chronically infected (HBsAg positive)</b>	1	0.7*
<b>Immune</b>	80	53.7*
<b>Not immune</b>	68	45.6*
*of the 149 tested		
HCV:	N	%
<b>Tested</b>	86	34
<b>HCV Ab positive</b>	0	0*
<b>HCV Ab negative</b>	86	100*
*of the 86 tested		

STIs:	N	%
<b>0</b>	176	69.7
<b>1</b>	66	26.1
<b>2*</b>	10	3.7
<b>3*</b>	1	0.5
<b>Total</b>	<b>253</b>	<b>100</b>
<b>HIV</b>	19	7.5
<b>Infectious syphilis</b>	15	5.9
<b>Non-infectious syphilis</b>	9	3.6
<b>NSU</b>	2	0.8
<b>Gonorrhoea (total)</b>	12	4.7
	N	%
<b>pharyngeal</b>	6	50
<b>rectal</b>	8	66.7
<b>urethral</b>	2	16.7
<b>multisite</b>	4	33
<b>Chlamydia (total)</b>	31	12.2
	N	%
<b>pharyngeal</b>	5	16.1
<b>rectal</b>	23	74.2
<b>urethral</b>	8	25.8
<b>multisite</b>	4	12.9
*2 STIs: 3 HIV/syphilis, 2 HIV/Chlamydia, 3 syphilis/Chlamydia, 2 Chlamydia/gonorrhoea. #3 STIs: 1 HIV/Chlamydia/gonorrhoea.		

**Conclusions:** Despite the limitations of the methodology, this retrospective study provides some interesting findings and new data regarding the epidemiology of STIs and blood-borne viruses in NZ. Our 7.5% HIV-positivity rate is slightly higher than in the most recent community-based survey performed on oral fluid samples, where a prevalence of 6.5% was found, suggesting that the prevalence of HIV among NZ MSM might be increasing. The proportion of people diagnosed with at least one bacterial STI was 30.4%. This is much higher than the most recent self-reported figures from the 2014 NZ community-based surveys (11.7% to 12.9%), but more in line with the results from other clinic-based samples from comparable settings. The high proportion of MSM still not immune for vaccine-preventable STIs (HAV and HBV) reinforces the need for continuous promotion of those vaccinations as younger MSM become sexually active.

**Results:** During the 12 months considered, 253 MSM attended for the first time one of the ASHS clinics and had a STI screening. Their mean age was 32.3 ± 10.7 years. The ethnicity was very diverse: 43.5% MSM were registered as NZ European/Pakeha, 20.2% as Other European, 8.3% as Chinese, 6.3% as Maori, 6.3% as Other Asian, 6.3% as MELAA (Middle East, Latin America and Africa). The mean age of NZ European/Other European men in our sample was 2.9 years older (95% C.I. 0.2, 5.7) than the mean age of the men of other ethnicity (t = 2.110 with DF = 251, p = 0.036). The prevalence of bacterial STIs (syphilis, chlamydia and gonorrhoea) in our sample was high: 30.4% had at least one STI; 3.7% had two, and 0.5% had three. 7.5% of the MSM in our sample tested positive for HIV at their first STI screening: there was a significant association between testing positive and being of non-European ethnicity (Chi-square = 9.123 with DF = 1, p = 0.003). No men tested positive for HCV; 67.1% were not immune for HAV; 0.7% were chronic carriers of HBV (HBsAg positive), and 45.6% were not immune for HBV (HBsAb negative).

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