

Table S1: Univariable and multivariable analyses of risk factors for oral 25-HPV infection in HIV-negative MSM (n=453) and HIV-infected MSM (n=314) (H2M study, Amsterdam 2010 - 2011).^a

	HIV-negative participants					HIV-infected participants				
	Prevalence of 25-HPV (%)	Univariable OR (95% CI)	P-value	Multivariable (n=443) aOR (95% CI)	P-value	Prevalence of 25-HPV (%)	Univariable OR (95% CI)	P-value	Multivariable (n=301) aOR (95% CI)	P-value
Age (years) by category			0.003		0.021			0.152		0.395
≤34	11 / 154 (7.1%)	1.0		1.0		11 / 43 (25.6%)	1.0		1.0	
35 - 44	42 / 233 (18.0%)	2.9 (1.4 - 5.7)		2.5 (1.2 - 5.3)		44 / 106 (41.5%)	2.1 (0.9 - 4.5)		1.7 (0.7 - 3.9)	
≥45	13 / 66 (19.7%)	3.2 (1.3 - 7.6)		2.9 (1.1 - 7.4)		66 / 165 (40.0%)	1.9 (0.9 - 4.1)		1.7 (0.8 - 3.9)	
Tobacco smoking^b			0.034		0.037^c			0.490		0.347 ^c
Never	24 / 177 (13.6%)	1.0		1.0		29 / 80 (36.3%)	1.0		1.0	
Ever / in the past	9 / 104 (8.7%)	0.6 (0.3 - 1.4)		0.5 (0.2 - 1.3)		28 / 77 (36.4%)	1.0 (0.5 - 1.9)		1.0 (0.5 - 2.1)	
Current smoker	29 / 144 (20.1%)	1.6 (0.9 - 2.9)		1.6 (0.8 - 3.0)		50 / 115 (43.5%)	1.4 (0.8 - 2.4)		1.5 (0.8 - 2.8)	
Missing values	4 / 28 (14.3%)			0.9 (0.2 - 3.4)		14 / 42 (33.3%)			1.0 (0.4 - 2.3)	
Tobacco smoking pack years^{b d}			0.032					0.037		
0 - 14	39 / 308 (12.7%)	1.0				60 / 159 (37.7%)	1.0			
≥ 15	14 / 58 (24.1%)	2.2 (1.1 - 4.4)				33 / 62 (53.2%)	1.9 (1.0 - 3.4)			
Poppers use last 6 months			<0.001		0.002^c			0.842		
No	20 / 244 (8.2%)	1.0		1.0		49 / 124 (39.5%)	1.0			
Yes	27 / 118 (22.9%)	3.3 (1.8 - 6.2)		3.1 (1.5 - 6.1)		66 / 172 (38.4%)	1.0 (0.6 - 1.5)			
Missing values	19 / 91 (20.9%)			2.6 (1.2 - 5.6)		6 / 18 (33.3%)				
Lifetime male sex partners by category			<0.001		0.480 ^c			0.072		0.141 ^c
≤ 100	18 / 211 (8.5%)	1.0		1.0		24 / 80 (30.0%)	1.0		1.0	
101 - 500	25 / 134 (18.7%)	2.5 (1.3 - 4.7)		1.6 (0.7 - 3.3)		39 / 111 (35.1%)	1.3 (0.7 - 2.3)		1.3 (0.7 - 2.7)	
≥ 501	19 / 78 (24.4%)	3.5 (1.7 - 7.0)		1.5 (0.6 - 3.5)		46 / 100 (46.0%)	2.0 (1.1 - 3.7)		2.0 (1.0 - 4.0)	
Missing values	4 / 30 (13.3%)			0.9 (0.2 - 3.6)		12 / 23 (52.2%)			2.4 (0.7 - 7.9)	
Anal intercourse last 6 months			0.033					0.294		
No	5 / 71 (7.0%)	1.0				23 / 51 (45.1%)	1.0			
Yes	61 / 380 (16.1%)	2.5 (1.0 - 6.5)				96 / 258 (37.2%)	0.7 (0.4 - 1.3)			
Number of anal sex partners last 6 months			0.030					0.405		
≤ 1	23 / 208 (11.1%)	1.0				47 / 109 (43.1%)	1.0			
2 - 5	23 / 158 (14.6%)	1.4 (0.7 - 2.5)				25 / 74 (33.8%)	0.7 (0.4 - 1.2)			
≥ 6	20 / 85 (23.5%)	2.5 (1.3 - 4.8)				45 / 122 (36.9%)	0.8 (0.5 - 1.3)			
Number of oral sex partners last 6 months			0.018		0.719			0.934		0.934
≤ 2	18 / 169 (10.7%)	1.0		1.0		38 / 104 (36.5%)	1.0		1.0	
3 - 8	21 / 163 (12.9%)	1.2 (0.6 - 2.4)		1.0 (0.5 - 2.0)		27 / 70 (38.6%)	1.1 (0.6 - 2.0)		1.0 (0.5 - 2.0)	
≥ 9	27 / 120 (22.5%)	2.4 (1.3 - 4.7)		1.3 (0.6 - 2.9)		50 / 129 (38.8%)	1.1 (0.6 - 1.9)		0.9 (0.4 - 1.8)	

Oral-anal contact last 6 months (rimming)		0.028	0.351			0.670	0.637
No	15 / 156 (9.6%)	1.0	1.0	41 / 111 (36.9%)	1.0	1.0	
Yes	49 / 287 (17.1%)	1.9 (1.0 - 3.6)	1.4 (0.7 - 2.7)	78 / 198 (39.4%)	1.1 (0.7 - 1.8)	1.1 (0.6 - 2.0)	
CD4 cell count at enrolment (cells/mm³)						0.394	0.503 ^c
≤ 350				17 / 38 (44.7%)	1.0	1.0	
> 350				80 / 214 (37.4%)	0.7 (0.4 - 1.5)	0.8 (0.4 - 1.6)	
Missing values				24 / 62 (38.7%)		2.1 (0.5 - 9.2)	
HIV viral load at enrolment (copies/mL)						0.564	0.894 ^c
< 50				82 / 203 (40.4%)	1.0	1.0	
≥ 50				21 / 58 (36.2%)	0.8 (0.5 - 1.5)	1.0 (0.5 - 1.9)	
Missing values				18 / 53 (34.0%)		0.3 (0.1 - 1.2)	

25-HPV: types 6, 11, 16, 18, 31, 33, 34, 35, 39, 40, 42, 43, 44, 45, 51, 52, 53, 54, 56, 58, 59, 66, 68/73, 70, 74 (types detected by LiPA₂₅).

Abbreviations: MSM=men who have sex with men; OR=odds ratio; aOR=adjusted odds ratio; 95% CI=95% confidence interval.

Significant results ($P < 0.05$) are represented in bold type.

^a Numbers don't always add up to the total because of missing values.

^b Participants who were not current smokers but provided no information on past smoking behaviour were counted as missing values.

^c Based on Wald test (excluding missing values category).

^d Never smokers were included in category 0 - 14 pack years.