

Supplementary material 1. Descriptive of those HIV (+) and the total sample.

Descriptive of the sample	HIV (+)		Total sample	
	N = 85	%	N = 3548	%
Age in three groups				
Under 30 years old	48	56.5	1401	39.5
Between 30 to 39 years	27	31.8	1218	34.3
40 years or more	10	11.8	929	26.2
Country of birth				
Spain	30	35.3	2203	62.1
Latin-America	48	56.5	969	27.3
Others	7	8.2	376	10.6
Study level				
None or primary	10	11.8	245	6.9
Secondary	42	49.4	1187	33.5
University or more	32	37.6	2103	59.3
Missing values	1	1.2	13	0.4
Economic welfare last year				
Comfortable	33	38.8	2101	59.2
Thigh, hard or very hard	51	60	1399	39.4
Missing values	1	1.2	48	1.4
Orientation disclosure with others				
Openly	44	51.8	2149	60.6
Not openly	39	45.9	1344	37.9
Missing values	2	2.4	55	1.6

Employment status				
Employed	43	50.6	1775	50.0
Unemployed	21	24.7	190	5.4
Others	10	11.8	431	12.1
Missing values	11	12.9	1152	32.5
Sex with women as well with men				
Exclusively with men	53	62.4	2218	62.5
Occasionally	27	31.8	1076	30.3
Frequently	5	5.9	254	7.2
Last HIV testing				
In the last 6 months	27	31.8	1733	48.8
More than 6 months ago	50	58.8	1584	44.6
Never tested before	8	9.4	231	6.5
Lifetime STI (multiple option)				
Syphilis	22	25.9	835	23.5
Gonorrhoea	19	22.4	1150	32.4
Chlamydia	4	4.7	626	17.6
Lymphogranuloma	0	0	20	0.6
Last diagnosed STI				
More than one year ago	18	21.2	962	27.1
During the last year	24	28.2	1045	29.5
Missing values	43	50.6	1541	43.4
Vaccinated against hepatitis A				
Yes	31	36.5	1917	54

No	17	20	503	14.2
Unknown	37	43.5	1128	31.8
Vaccinated against hepatitis B				
Yes	29	34.1	1883	53.1
No	18	21.2	406	11.4
Unknown	38	44.7	1256	35.4
Ever being tested for HCV				
Yes	18	21.2	1567	44.2
No	34	40	871	24.5
Unknown	33	38.8	1110	31.3
Ever being diagnosed HCV				
No	84	98.8	3500	98.6
Yes	0	0	34	1.0
Missing values	1	1.2	14	0.4
Had lived with an HCV(+) person				
No	80	94.1	3349	94.4
Yes	4	4.7	193	5.4
Missing values	1	1.2	6	0.2
Ever shared razors or shaving brushes with an HCV(+) person				
No	85	100	3528	99.4
Yes	0	0	16	0.5
Missing values	0	0	4	0.1
Previous tattoo sessions				
None	42	49.4	2352	66.3

Some	42	49.4	1188	33.5
Missing values	1	1.2	8	0.2
Previous piercings				
None	36	42.4	2012	56.7
Some	49	57.6	1530	43.1
Missing values	0	0	6	0.2
Lifetime steroid injection				
No	71	83.5	3296	92.9
Yes	13	15.3	214	6.0
Missing values	1	1.2	38	1.1
Knowing that viruses cause most hepatitis				
knows it	38	44.7	2046	57.7
US/UK/DU/DB*	45	52.9	1475	41.6
Missing values	2	2.4	27	0.8
Knowing that there are several types of viral hepatitis, named by the letters of the alphabet				
knows it	60	70.6	3125	88.1
US/UK/DU/DB*	20	23.5	382	10.8
Missing values	5	5.9	41	1.2
Knowing that there are only vaccines for hepatitis A and hepatitis B, but not for hepatitis C.				
knows it	29	34.1	1740	49.0
US/UK/DU/DB*	52	61.2	1769	49.9

Missing values	4	4.7	39	1.1
Knowing that health care providers recommend that men who have sex with men get vaccinated				
knows it	21	24.7	1873	52.8
US/UK/DU/DB*	60	70.6	1635	46.1
Missing values	4	4.7	40	1.1
Knowing that people who have HIV are more likely to be infected with hepatitis.				
knows it	20	23.5	1429	40.3
US/UK/DU/DB*	61	71.8	2078	58.6
Missing values	4	4.7	41	1.2
Lifetime received penetrations				
None	1	1.2	188	5.3
Less than 50 people	55	64.7	2448	69.0
More than 50 people	29	34.1	912	25.7
Lifetime condomless received penetration				
None	4	4.7	558	15.7
Less than 5 people	39	45.9	1832	51.6
More than 5 people	42	49.4	1144	32.2
Missing values	0	0	14	0.4
Lifetime HIV (+) condom less received penetrations				
None	66	77.6	2584	72.8
Some	16	18.8	589	16.6

Missing values	3	3.5	375	10.6
Last year received penetrations				
None	4	4.7	718	20.2
Less than 5 people	43	50.6	1651	46.5
More than 5 people	38	44.7	1175	33.1
Missing values	0	0	4	0.1
Last year condom less received penetrations				
None	11	12.9	831	23.4
Less than 5 people	54	63.5	1833	51.7
More than 5 people	17	20	347	9.8
Missing values	3	3.5	537	15.1
Lifetime unprotected anal fingering				
None	38	44.7	1383	39.0
Some	47	55.3	2155	60.7
Missing values	0	0	10	0.3
Lifetime fisting				
None	83	97.6	3337	94.1
Some	2	2.4	207	5.8
Missing values	0	0	4	0.1
Ever having visible bleeding after unprotected anal penetration				
None	47	55.3	2493	70.3
Some	38	44.7	1054	29.7
Missing values	0	0	1	0

Ever sharing unprotected sex toys				
None	76	89.4	3098	87.3
Some	9	10.6	444	12.5
Missing values	0	0	6	0.2
Ever sharing lubricant from the same pot				
None	37	43.5	1383	39.0
Some	48	56.5	2148	60.5
Missing values	0	0	17	0.5
Ever sharing douching material				
None	68	80	2829	79.7
Some	17	20	714	20.1
Missing values	0	0	5	0.1
Participating in group sex (being penetrated by two or more men in one session)				
None	41	48.2	2314	65.2
Some	42	49.4	1224	34.5
Missing values	2	2.4	10	0.3
Ever pay a men for sex				
None	76	89.4	2933	82.7
Some	9	10.6	615	17.3
Ever been paid for sex				
None	62	72.9	2777	78.3
Some	23	27.1	770	21.7
Missing values	0	0	1	0

Lifetime sexualized use of drugs (multiple option)				
Poppers	32	37.6	1498	42.2
Erectile medication	17	20	718	20.2
Sedatives or tranquilizers	2	2.4	61	1.7
Cannabis or synthetic cannabinoids	16	18.8	747	21.1
Powder or crack cocaine	12	14.1	552	15.6
Heroin or other opium derivatives	0	0	12	0.3
Amphetamine	4	4.7	230	6.5
Ecstasy or MDMA in its pill or crystal form	8	9.4	441	12.4
Methamphetamine	7	8.2	279	7.9
Mephedrone	13	15.3	283	8.0
GHB/GBL	15	17.6	479	13.5
Ketamine	15	17.6	262	7.4
LSD	2	2.4	60	1.7
Lifetime use of alcohol during sex				
None	24	28.2	1138	32.1
Less than 10 times	41	48.2	1412	39.8
More than 10 times	18	21.2	968	27.3
Missing values	2	2.4	30	0.8
Lifetime use of drugs during sex				
None	36	42.4	1558	43.9
Some	48	56.5	1958	55.2
Missing values	1	1.2	32	0.9
Injectable drug use, for any purpose				

Yes	81	95.3	3431	96.7
No	3	3.5	75	2.1
Missing values	1	1.2	42	1.2
Injectable drug use, for sex				
Yes	83	97.6	3450	97.2
No	1	1.2	55	1.6
Missing values	1	1.2	43	1.2
Sharing sniffing material, for any purpose				
None	62	72.9	2456	69.2
Some	22	25.9	1049	29.6
Missing values	1	1.2	43	1.2
Sharing sniffing material, for sex				
None	70	82.4	2894	81.6
Some	14	16.5	609	17.2
Missing values	1	1.2	45	1.3

Supplementary material 2a. Crude and adjusted PR of HCV AB (+) RNA (-)

Prevalence of HCV antibodies, RNA (-)	CPR	CI95%	APR	CI95%
Age (three groups)				
Under 30 years old	1		1	
Between 30 to 39 years	1,15	0,23-5,69	1,01	0,20-5,04
40 years or more	1,51	0,30-7,47	1,51	0,29-7,71
Country of birth				
Spain	1		1	

	Latin-America	1,82	0,48-6,77	2,31	0,60-8,86
	Others	0		0	
Study level					
	None or primary	0		0	*se excluye para IRR
	Mandatory secondary	1		1	
	University or more	4,52	0,56-36,10	4,99	0,61-40,91
Economic welfare last year					
	Comfortable	1		1	
	Thigh, hard/very hard	0,75	0,19-3,00	0,83	0,20-3,44
Orientation disclosure					
	Openly	1		1	
	Not openly	0,79	0,19-3,19	0,75	0,19-3,02
Employment status					
	Employed				
	Unemployed	0		0	*se excluye para IRR
Sex with women as well with men					
	Exclusively with men	1		1	
	Occasionally	1,03	0,26-4,12	1,01	0,25-4,07
	Frequently	0		0	
Lifetime received penetrations					
	None	0		0	*se excluye para IRR
	Less than 50 people	1		1	
	More than 50 people	21,47	2,69-171,68	24,86	3,03-203,53

Lifetime condomless received penetration				
None	0		0	*se excluye para IRR
Less than 5 people	1		1	
More than 5 people	12,81	1,60-102,43	15,18	1,,87-123,53
Lifetime HIV (+) condom less received penetrations				
None	1		1	
Some	2,19	0,55-8,77	2,44	0,59-10,12
Last year received penetrations				
None	0		0	*se excluye para IRR
Less than 5 people	1		1	
More than 5 people	2,81	0,70-11,23	2,97	0,73-12,01
Last year condom less received penetrations				
None	0		0	*se excluye para IRR
Less than 5 people	1		1	
More than 5 people	1,51	0,31-7,27	1,75	0,36-8,59
Last HIV testing				
In the last 6 months	1		1	
More than 6 months ago	0,31	0,06-1,50	0,21	0,06-1,52
Never tested before	0		0	
Lifetime STI (multiple option)				
Syphilis	2,59	0,69-9,67	2,69	0,69-10,34
Gonorrhoea	2,61	0,69-9,71	2,56	0,67-9,82
Chlamydia	5,83	1,57-21,72	6,13	1,60-23,49

Lymphogranuloma	0		0	*se excluye para IRR
Lifetime STI (any)				
None	1		1	
Some	2,6	0,54-12,53	2,71	0,54-13,45
Last diagnosed STI				
More than one year ago	1		1	
During the last year	5,52	0,66-45,88	6,72	0,79-57,21
Unprotected anal fingering				
None	1		1	
Some	0,8	0,22-2,99	0,79	0,21-2,98
Lifetime fisting				
None	1		1	
Some	2,01	0,25-16,11	2,13	0,26-17,16
Visible bleeding after unprotected anal penetration				
None	1		1	
Some	1,89	0,51-7,05	1,94	0,50-7,51
Sharing unprotected sex toys				
None				
Some	0		0	*se excluye para IRR
Sharing lubricant from the same pot				
None	1		1	
Some	1,29	0,32-5,15	1,35	0,33-5,52
Sharing douching material				
None	1		1	

	Some	1,13	0,24-5,45	1,24	0,25-6,13
Group sex (penetrated by two or more men in one session)					
	None	1		1	
	Some	2,36	0,63-8,80	2,35	0,62-8,91
Ever pay a men for sex					
	None	1		1	
	Some	0,59	0,07-4,76	0,49	0,06-4,15
Ever been paid for sex					
	None	1		1	
	Some	1,8	0,45-7,21	2,24	0,53-9,38
Vaccinates against hepatitis A					
	Yes	1		1	
	No	0		0	
	Unknown	0,49	0,10-2,36	0,54	0,11-2,66
Vaccinates against hepatitis B					
	Yes	1		1	
	No	0		0	
	Unknown	0,19	0,02-1,52	0,21	0,03-1,68
Ever being tested for HCV					
	Yes	1		1	
	No	0		0	
	Unknown	0,18	0,02-1,43	0,19	0,02-1,57
Ever being diagnosed HCV					
	No	1		1	
	Yes	823,52	103,0-6584,4	not concave	
Have lived with an HCV(+) person					

	No	1		1	
	Yes	8,68	2,17-34,69	8,05	1,99-32,45
Shared razors or shaving brushes with an HCV(+) person					
	No	1		1	
	Yes	27,56	3,44-220,37	24,81	3,05-201,99
Previous tattoo sessions					
	None	1		1	
	Some	0,99	0,25-3,96	1,08	0,26-4,48
Previous piercings					
	None	1		1	
	Some	0,66	0,16-2,63	0,78	0,18-3,29
Viruses cause most hepatitis					
	I knew it	1		1	
	Unsure, unknown, don't understand it /believe it	0,46	0,09-2,29	0,53	0,10-2,68
There are several types of viral hepatitis, named by the letters of the alphabet					
	I knew it	1		1	
	Unsure, unknown, don't understand it /believe it	0		0	
There are only vaccines for hepatitis A and hepatitis B, but not for hepatitis C.					
	I knew it	1		1	
	Unsure, unknown, don't understand it /believe it	0,28	0,06-1,35	0,32	0,06-1,58
Health care providers recommend that men who have sex with men get vaccinated					
	I knew it	1		1	
	Unsure, unknown, don't understand it /believe it	0,92	0,25-3,41	1,08	0,27-4,23
People who have HIV are more likely to be infected with hepatitis.					
	I knew it	1		1	

Unsure, unknown, don't understand it /believe it	0,34	0,09-1,37	0,37	0,09-1,51
Lifetime use of alcohol during sex				
None	1		1	
Less than 10 times	0,4	0,07-2,20	0,35	0,06-1,94
More than 10 times	0,88	0,19-3,93	0,72	0,15-3,42
Lifetime use of drugs during sex				
None	1		1	
Some	0,99	0,27-3,70	0,98	0,26-3,69
Lifetime percentage of alcohol and drug mixed during sex				
None	1		1	
Half or less	1,14	0,19-6,82	0,94	0,15-5,73
More than half or all	0		0	
Last year percentage of alcohol and drug use during sex				
Less than half	1		1	
Half or more	0,95	0,09-10,48	0,95	0,09-10,59
All or almost all	2,06	0,29-14,61	1,98	0,27-14,38
Last year use of drugs and alcohol for sex				
Last 12 months	0		0	
More than 12 months				
Lifetime sexualized use of drugs (multiple option)				
Poppers	1,09	0,29-4,08	1,07	0,28-4,05
Viagra®, Cialis®, Levitra® u otras que ayudan a la erección	1,13	0,23-5,42	0,97	0,19-4,91
Sedantes o tranquilizantes (Valium®, Rivotril®, Rohipnol®, trankimazin®, etc)	7,15	0,89-57,13	7,69	0,94-62,85
Cannabis o cannabinoides sintéticos (marihuana, hachís, chocolate, porros, hierba)	1,87	0,47-7,49	1,96	0,48-8,01
Cocaína en polvo o en crack (tema, farla/farlopa, base, basuco, etc)	1,55	0,32-7,46	1,72	0,35-8,49

Heroína (caballo) u otros derivados del opio (paja de adormidera, heroína líquid	0		0	
Anfetamina (speed)	1,8	0,23-14,42	2,13	0,26-17,48
Metanfetamina (tina, crystal meth, T)	1,46	0,18-11,71	1,67	0,20-13,63
Éxtasis o MDMA en su forma de pastillas(pastis, pirulas) o en su forma de crista	2,01	0,42-9,69	2,07	0,40-10,02
GHB/GBL (G, bote, éxtasis liquido)	0,8	0,10-6,40	0,82	0,10-6,74
Mefedrona (mefe) u otros estimulantes sintéticos distintos (sales de baño, metox	0		0	
Ketamina (K, keta, kei)	0		0	
LSD (ácido, tripis)	0		0	
Alcohol	0,92	0,19-4,41	0,86	0,18-4,21
Injectable drug use, for any purpose				
Yes	1		1	
No	0		0	
Injectable drug use, for sex				
Yes	1		1	
No	0		0	
Sharing sniffing material, for any purpose				
None	1		1	
Some	0,29	0,04-2,34	0,28	0,03-2,29
Sharing sniffing material, for sex				
None	1		1	
Some	0,59	0,07-4,75	0,58	0,07-4,75
Lifetime steroid injection				
No	1		1	
Yes	1,93	0,25-15,39	1,54	0,18-12,98

Supplementary Material 2b. Crude and adjusted models for Non significant variables, for HCV antibodies and acute infection.

Crude and adjusted prevalence ratios	HCV AB (+) HIV(-), (n=18)				HCV AB (+) RNA (+) HIV(-), (n=9)			
	CPR	CI95%	APR	CI95%	CPR	CI95%	APR	CI95%
Sex with women as well with men								
Exclusively with men	1		1		1		1	
Occasionally	0,94	0,32-2,69	0,95	0,33-2,75	0,82	0,16-4,24	0,86	0,16-4,49
Frequently	1,59	0,35-7,16	2,38	0,47-12,08	3,49	0,67-18,00	6,37	0,97-41,57
Lifetime STI (multiple option)								
Gonorrhoea	2,61	1,03-6,60	2,45	0,95-6,32	2,61	0,69-9,70	2,33	0,61-8,88
Lifetime STI (any)								
None	1		1		1		1	
Some	2,6	0,86-7,91	2,56	0,82-7,93	2,6	0,54-12,53	2,42	0,49-11,94
Last year received penetrations								
None	1		1		1		1	
Less than 5 people	3,04	0,37-24,74	3,07	0,37-25,25	1,74	0,19-15,56	1,64	0,18-14,98
More than 5 people	6,11	0,78-47,73	6,21	0,78-49,52	2,44	0,27-21,87	2,19	0,23-20,35
Unprotected anal fingering								
None	1		1		1		1	
Some	1,01	0,39-2,60	0,98	0,38-2,54	1,28	0,32-5,13	1,23	0,30-4,95
Lifetime fisting								
None	1		1		1		1	
Some	3,22	0,93-11,14	3,16	0,90-11,02	4,61	0,95-22,17	4,33	0,87-21,33
Visible bleeding after unprotected anal penetration								
None	1		1		1		1	
Some	1,89	0,74-4,79	1,92	0,74-4,95	1,89	0,51-7,05	1,92	0,51-7,29

Sharing unprotected sex toys									
None	1				1		1		
Some	0,41	0,05-3,08	0,41	0,05-3,11	0,87	0,11-6,97	0,81	0,09-6,50	
Sharing lubricant from the same pot									
None	1		1		1		1		
Some	1,29	0,48-3,43	1,32	0,49-3,58	1,29	0,32-5,15	1,29	0,32-5,26	
Ever pay a men for sex									
None	1		1		1		1		
Some	0,95	0,28-3,29	0,85	0,24-3,03	1,36	0,28-6,56	1,27	0,25-6,38	
Vaccinates against hepatitis A									
Yes	1				1		1		
No	0,76	0,17-3,48	0,84	0,18-3,87	2,54	0,42-15,20	3,01	0,49-18,32	
Unknown	1,03	0,37-2,84	1,04	0,35-3,09	2,29	0,51-10,23	2,7	0,58-12,36	
Vaccinates against hepatitis B									
Yes	1		1		1		1		
No	0,39	0,05-2,97	0,44	0,06-3,39	1,16	0,13-10,37	1,33	0,15-12,18	
Unknown	0,63	0,22-1,80	0,59	0,19-1,85	1,52	0,38-6,09	1,7	0,42-6,99	
Ever being tested for HCV									
Yes	1		1		1		1		
No	0,14	0,02-1,06	0,15	0,02-1,18	0,36	0,04-3,08	0,45	0,05-3,98	
Unknown	0,44	0,14-1,35	0,48	0,16-1,49	0,86	0,21-3,58	0,97	0,22-4,11	
Previous tattoo sessions									
None	1		1		1		1		
Some	1,98	0,79-4,99	2,03	0,78-5,26	3,95	0,99-15,83	3,76	0,91-15,62	
Previous piercings									
None	1		1		1		1		

Some	0,84	0,32-2,16	0,88	0,33-2,34	1,05	0,28-3,91	0,99	0,26-3,80
Lifetime use of alcohol during sex								
None	1		1		1		1	
Less than 10 times	0,54	0,15-1,90	0,47	0,13-1,69	0,81	0,11-5,72	0,72	0,09-5,21
More than 10 times	1,57	0,54-4,52	1,27	0,42-3,83	2,93	0,57-15,14	2,37	0,43-12,97
Lifetime use of drugs during sex								
None	1		1		0*		0*	
Some	0,78	0,91-8,46	2,67	0,87-8,22	100%	100%	100%	100%
Lifetime sexualized use of drugs (multiple option)								
Poppers	1,71	0,67-4,33	1,59	0,66-4,08	2,73	0,68-10,94	2,47	0,61-10,04
Erectile medication	1,97	0,74-5,25	1,83	0,65-4,96	3,15	0,84-11,74	3,05	0,79-11,78
Sedatives or tranquilizers	3,36	0,45-25,27	3,59	0,47-27,27				
Cannabis or synthetic cannabinoids	1,08	0,35-3,25	1,04	0,34-3,21	0,47	0,06-3,75	0,44	0,05-3,54
Ecstasy or MDMA in its pill or crystal form	1,41	0,41-4,87	1,31	0,37-4,60	0,88	0,11-7,04	0,77	0,09-6,34
Ketamine	1,57	0,36-6,82	1,54	0,35-6,79	3,58	0,74-17,25	3,29	0,66-16,28
LSD	0	0	0	0	0	0	0	0
Alcohol	1,6	0,60-4,27	1,44	0,53-3,87	2,56	0,69-9,54	2,27	0,59-8,62
Lifetime steroid injection								
No	1		1		1		1	
Yes	1,93	0,44-8,37	1,53	0,34-6,93	1,92	0,24-15,39	1,48	0,17-12,63