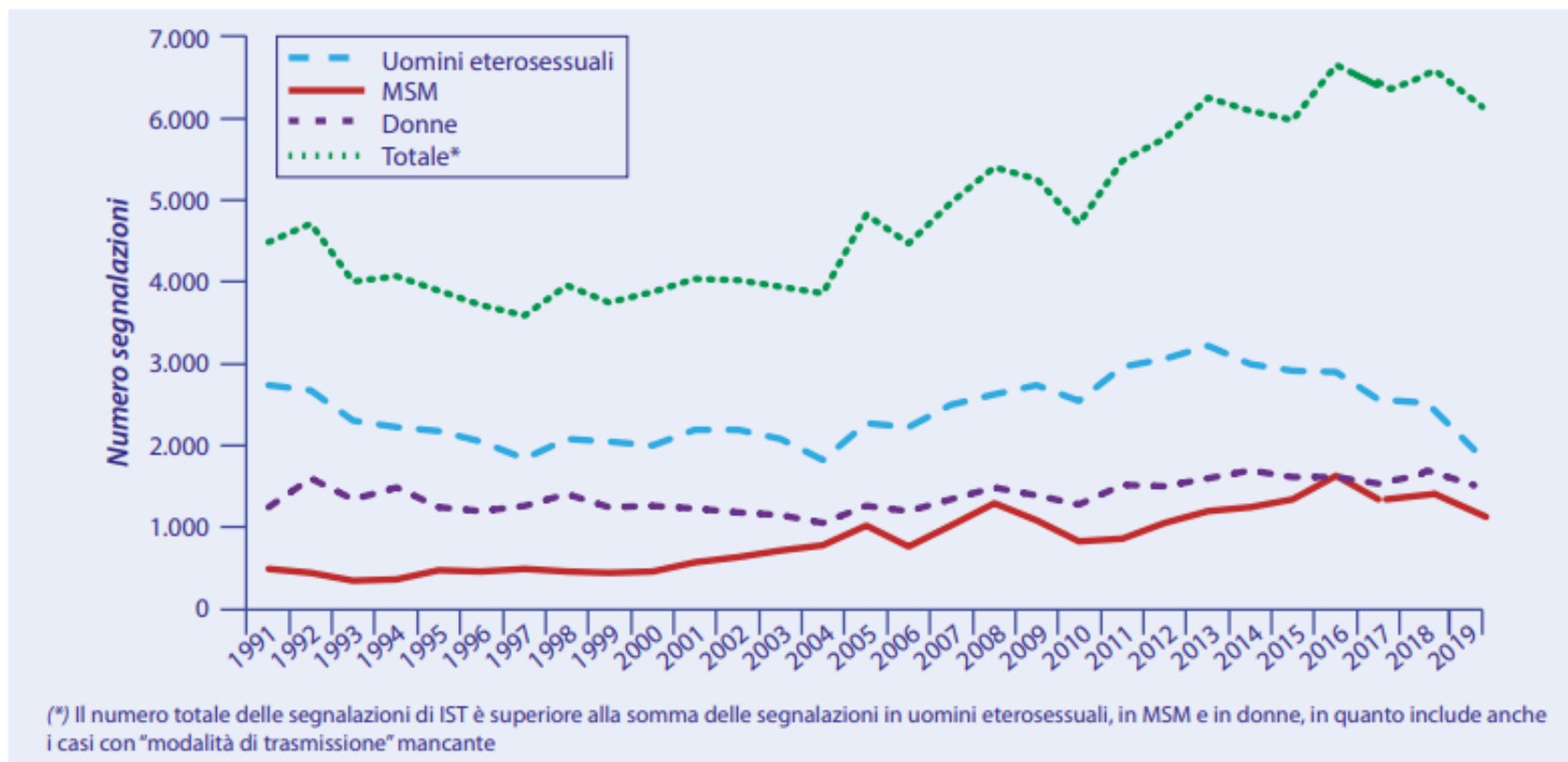


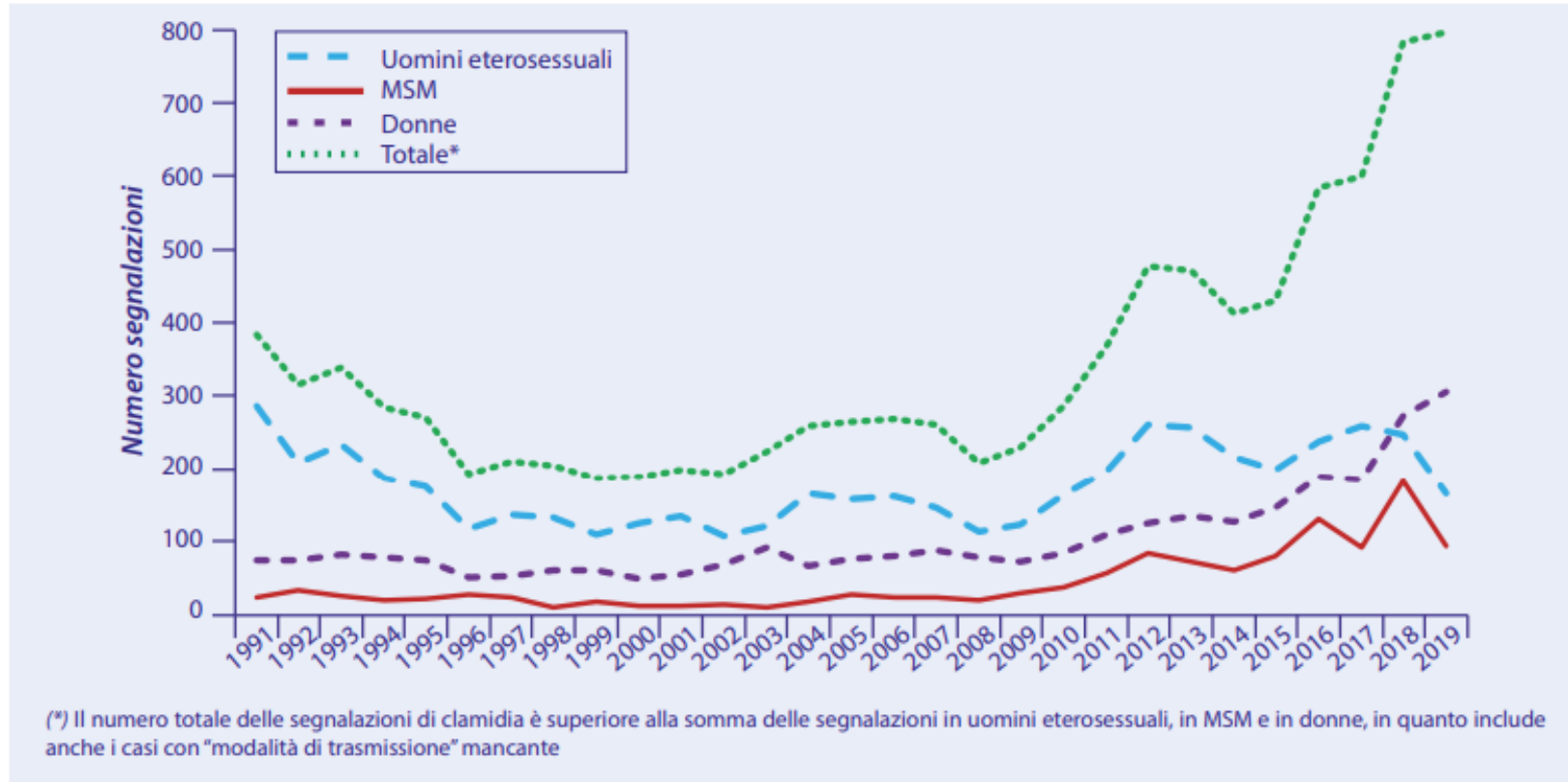
Sexually Transmitted Infections in a Northern Italy STI Clinic: Results of the SECS Study

Speaker: Lorenzo Biasioli

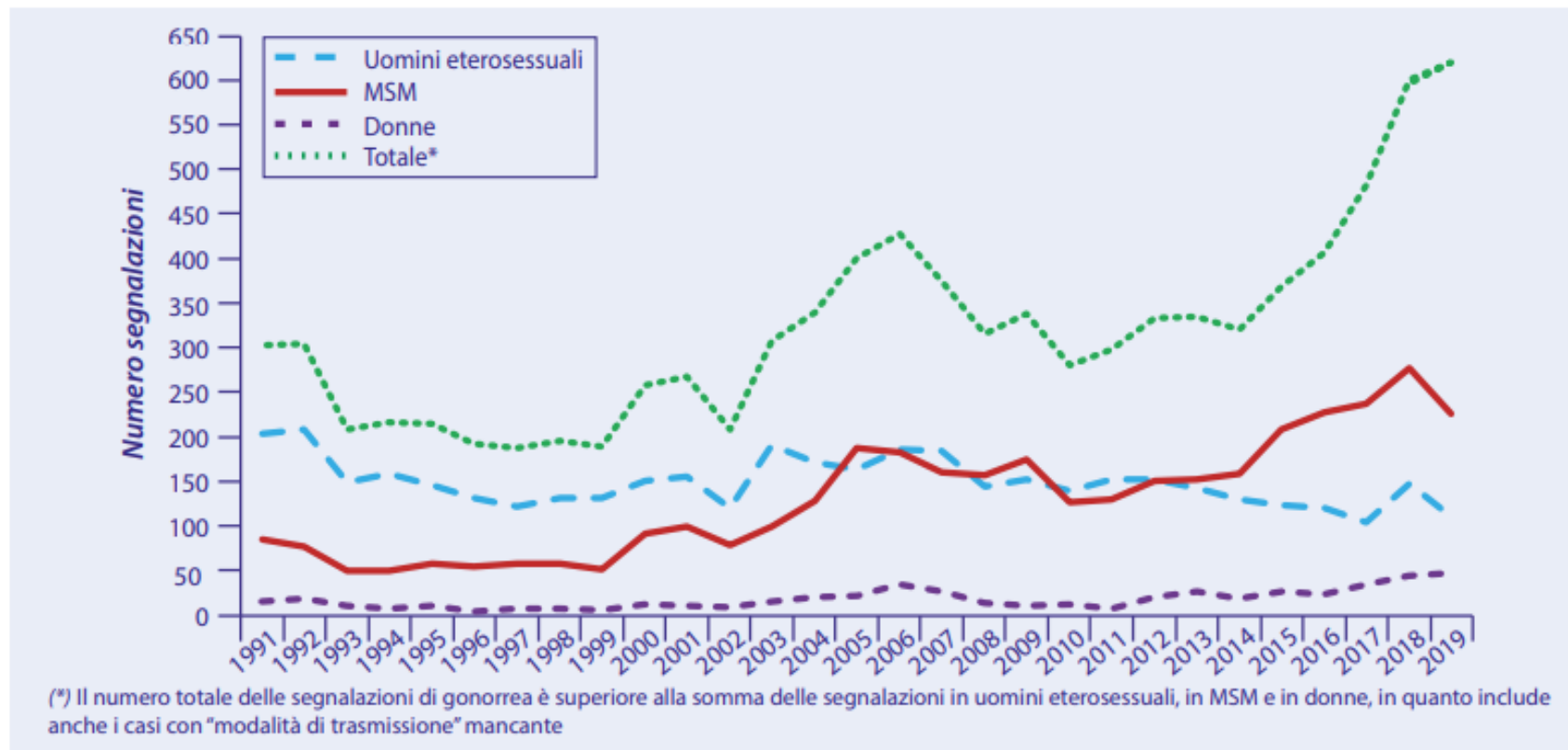
Background: STIs in Italy



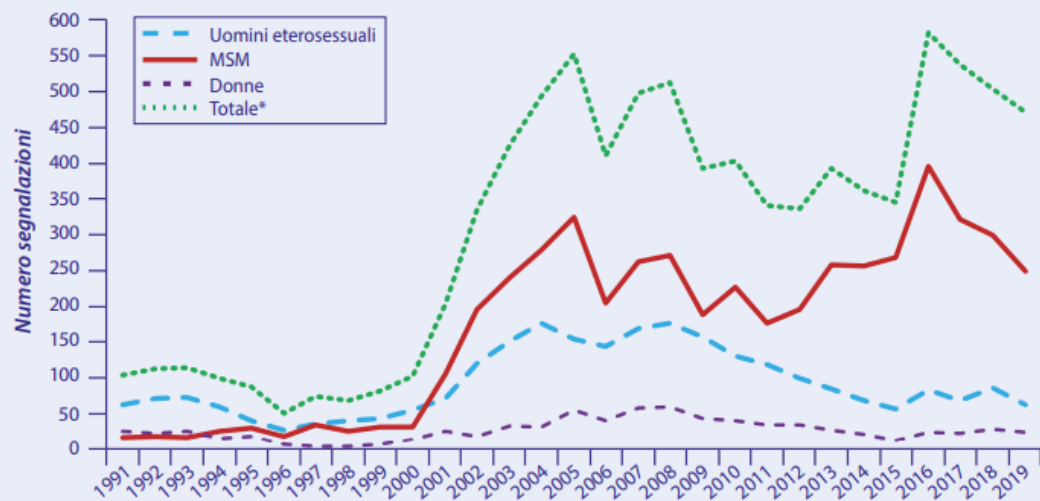
Background: *C. trachomatis* in Italy



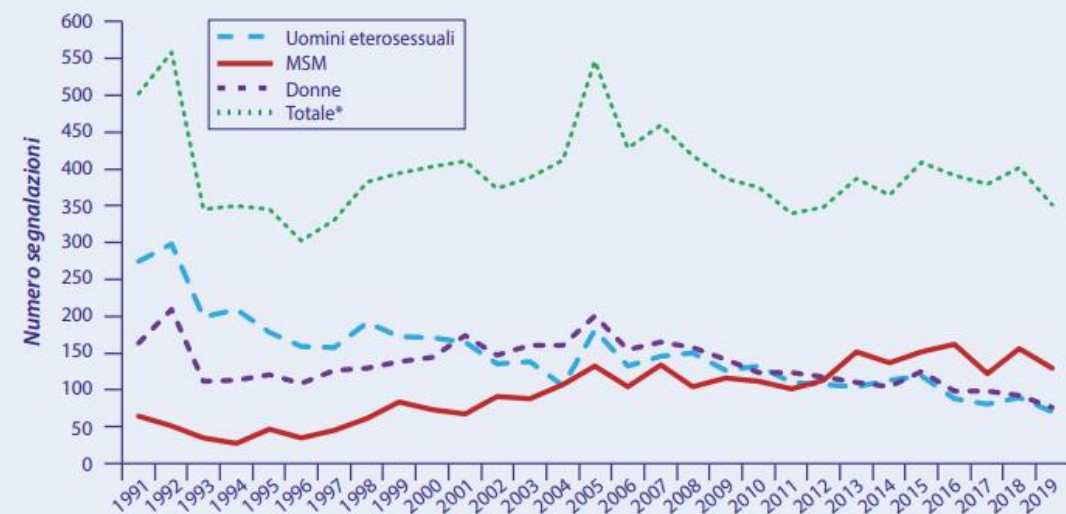
Background: N. gonorrhoeae in Italy



Background: Syphilis in Italy



(*) Il numero totale delle segnalazioni di sifilide I-II è superiore alla somma delle segnalazioni in uomini eterosessuali, in MSM e in donne, in quanto include anche i casi con "modalità di trasmissione" mancante



(*) Il numero totale delle segnalazioni di sifilide latente è superiore alla somma delle segnalazioni in uomini eterosessuali, in MSM e in donne, in quanto include anche i casi con "modalità di trasmissione" mancante

Aim

- Analyse the epidemiology, characteristics and sexual behaviour of our STI clinic clients to better define risk groups and to tailor treatment and prevention strategies

Methods

- **Design:** cross-sectional (and longitudinal) study
- **Study population:** STI clinic clients (San Paolo Hospital, Milan)
- **Exclusion criteria:** age <18 yo, PrEP users, PLWH, people who never had sex
- **Period:** November 2021-March 2023 (still in progress)
- **Execution:**
 - Questionnaire (Italian, English, Spanish, French, Arabic): demographic, clinical and behavioral data
 - Subjects can be re-enrolled if new access (longitudinal)
 - Tailored testing: HIV, HAV, HBV, HCV, syphilis, CT/NG multisite (NAAT and culture)
- **Statistical analysis:** Kruskal Wallis and chi-square tests (comparison between subgroups); univariate/multivariate logistic regression (Odds calculation)

Endpoints

- **Primary endpoint**

- Prevalence of any STI

- **Secondary endpoints**

- Prevalence of each STI
 - Prevalence of coinfections
 - Prevalence of symptomatic STIs
 - Risk factors associated with STIs and factors associated with screening execution (asymptomatic)
 - Incidence of any and each STI (per 100 patients/year)
 - Time delay between (i) symptoms onset, (ii) last HIV test, (iii) last STI test, and the access to our clinic

Results: demographic data

	Total (N=252)	Women (N=43, 17%)	Heterosexual men (N=81, 32%)	MSM (N=128, 51%)	p
Age, median (IQR), years	28 (25-34)	26 (23-32)	29 (25-35)	28 (25-34)	0.100
Graduated, n (%)	160 (63)	28 (65)	49 (60)	83 (65)	0.793
Unemployed, n (%)	9 (4)	3 (7)	4 (5)	2 (2)	0.184
Caucasian, n (%)	227 (90)	38 (88)	69 (85)	120 (94)	0.120
Relationship status					0.003
<i>Single, n (%)</i>	146 (56)	15 (36)	42 (52)	85 (66)	
<i>Monogamic, n (%)</i>	81 (32)	21 (55)	28 (35)	30 (23)	
<i>Non-exclusive, n (%)</i>	28 (11)	4 (10)	11 (14)	13 (10)	
Referral					0.217
<i>Internet, n (%)</i>	115 (46)	22 (51)	39 (48)	54 (42)	
<i>GP/other doctors, n (%)</i>	30 (12)	3 (7)	13 (16)	14 (11)	
<i>Friends, n (%)</i>	75 (30)	12 (28)	16 (20)	47 (38)	
<i>Partner, n (%)</i>	21 (8)	4 (9)	10 (12)	7 (5)	
<i>Other, n (%)</i>	11(4)	2 (5)	3 (4)	6 (5)	
Partner notification, n (%)	47 (19)	3 (7)	17 (21)	27 (21)	0.095

Results: clinical data and STIs history

	Total (N=252)
Symptoms n (%)	79 (31)
Previous HIV test, n (%)	174 (69)
Time to test from last intercourse, median (IQR), days	17 (7-62)
Last HIV test -to-access, median (IQR), months	10 (4-29)
Previous STI, n (%)	56 (22)
Previous PEP use, n (%)	8 (3)

Women (N=43, 17%)	Heterosexual men (N=81, 32%)	MSM (N=128, 51%)	P
6 (2)	40 (16)	33 (13)	0.011
21 (49)	57 (70)	96 (75)	0.005
12 (3-121)	20 (6-70)	17 (7-55)	0.6995
27 (10-46)	10(4-30)	8 (4-25)	0.0273
6 (13)	19 (23)	31 (24)	0.356
1 (2)	2 (2)	5 (4)	0.797

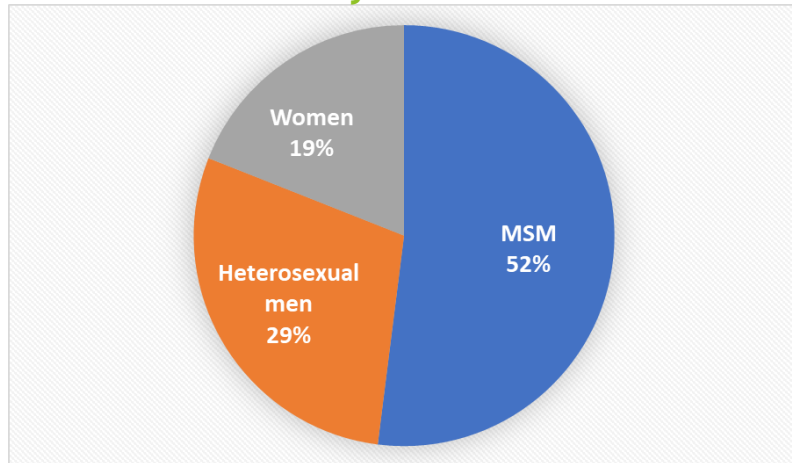
Results: behavioral data

	Total (N=252)	Women (N=43, 17%)	Heterosexual men (N=81, 32%)	MSM (N=128, 51%)	p
N. of unprotected sex last 3 months, median (IQR)	1 (0-4)	2 (0-10)	1 (0-4)	1 (0-3)	0.1577
N. of partners last 3 months, median (IQR)	2 (1-5)	1 (1-2)	2 (1-4)	3 (1-6)	0.0001
Anal sex, n (%)	152 (60)	18 (43)	39 (48)	95 (90)	<0.001
Fisting, n (%)	17 (7)	2 (5)	8 (10)	7 (5)	0.388
Sex toys exchange, n (%)	18 (7)	4 (9)	6 (7)	8 (6)	0.793
Sex worker, n (%)	3 (1)	0	2 (2)	1 (1)	0.401
Sex worker client, n (%)	14 (6)	0	8 (10)	6 (5)	0.061
Group sex, n (%)	83 (33)	9 (21)	22 (27)	52 (41)	0.024
Chemsex, n (%)	6 (3)	0	0	6 (5)	0.159
Condom use					0.183
<i>Always, n (%)</i>	76 (30)	8 (19)	27 (34)	41 (32)	
<i>Almost always, n (%)</i>	74 (29)	13 (31)	21 (27)	40 (32)	
<i>Often, n (%)</i>	30 (12)	3 (7)	11 (14)	16 (13)	
<i>Sometimes, n (%)</i>	38 (15)	10 (24)	8 (10)	20 (16)	
<i>Never, n (%)</i>	30 (12)	8 (19)	12 (15)	10 (8)	
Knowing U=U, n (%)	75 (30)	7 (16)	24 (30)	44 (34)	0.080

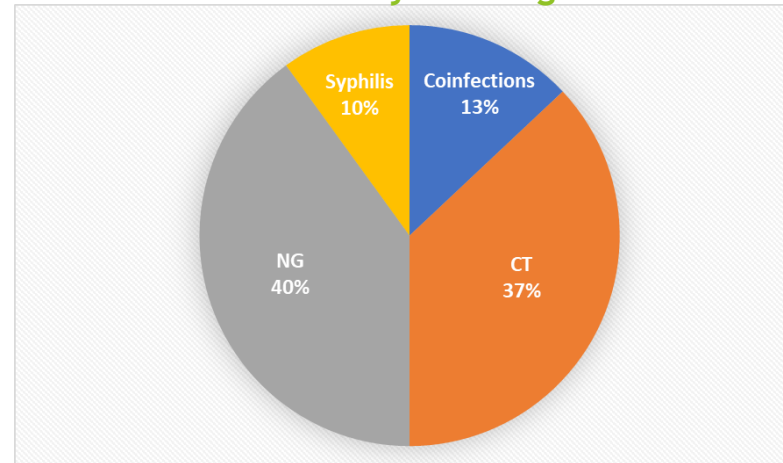
Results: STIs screening

- 52 (21%) subjects positive for at least one STI, 58% with symptoms

New cases by sexual orientation



New cases by STI diagnosed



- Prevalence: 12% NG, 11% CT, 3% syphilis
- Syphilis and NG mainly in MSM
- 80% of women asymptomatic
- 7 coinfections (mainly CT/NG)

Results: factors associated with STIs screening

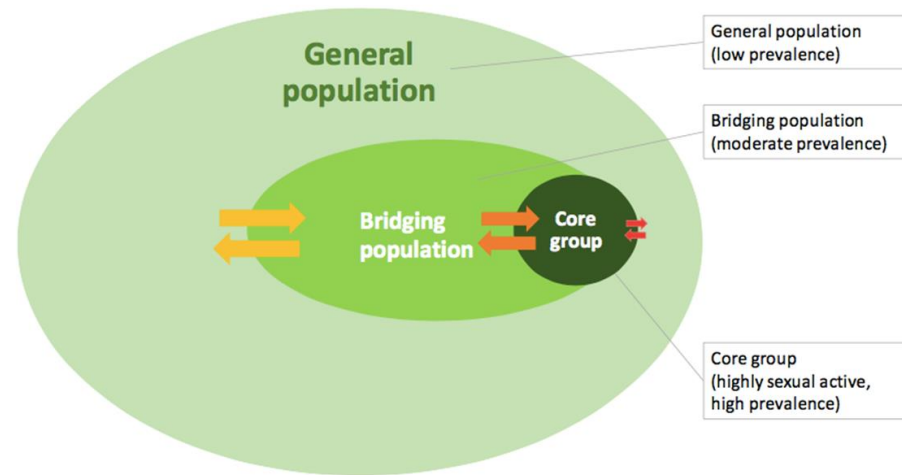
	OR	95%CI	p	aOR	95% CI	p
Graduated	1.194	0.689-2.071	0.526	0.869	0.455-1.660	0.671
Caucasian	0.510	0.184-1.412	0.195	0.559	0.189-1.646	0.291
Female gender	2.862	1.322-6.193	0.008	4.535	1.724-11.928	0.002
Doctors' referral	0.351	0.161-0.761	0.008	0.420	0.177-0.993	0.048
Partner notification	1.84	0.8611-3.927	0.115	2083	0.932-6.655	0.074
Scarse condom use	0.662	0.385-1.313	0.136	0.659	0.345-1.256	0.206
N of unprotected sexual intercourses in last three months	0.989	0.948-1.032	0.626	0.980	0.933-1.029	0.424
Previous STI	0.507	0.273-0.949	0.031	0.496	0.253-0.972	0.041
Group sex	0.713	0.408-1.238	0.237	-	-	-
Chemsex	0.175	0.332-0.923	0.040	0.386	0.067-2.218	0.286
HPV Vaccinated	1.385	0.674-2.846	0.375	0.870	0.382-1.981	0.742
U=U knowledge	1.034	0.576-1.858	0.909	1233	0.643-2.362	0.527

Results: risk factors for STIs

	OR	95% CI	p	aOR	95% CI	p
Symptoms	4.142	2.170-7.907	<0.001	5.300	2.244- 12.518	<0.001
Female gender	0.924	0.439-1.944	0.835	3.564	1.141- 11.134	0.029
Doctors' referral	3.033	1-353-6.795	0.007	3.586	1.297- 9.916	0.014
Partner notification	1.670	0.805-3.465	0.168	3.066	1.210- 7.765	0.018
Scarse condom use	2.166	1.168-4.018	0.014	1.479	0.665- 3.288	0.336
N of unprotected sexual intercourses in last three months	1.059	1.010-1.110	0.016	1.041	0.984- 1.101	0.153
N of partner in last three months	1.024	0.989-1.059	0.170	1.018	0.977- 1.060	0.388
Previous STI	1.572	0.787-3.138	0.199	1.369	0.574- 3.266	0.478
Group sex	1.859	0.990-3.458	0.054	1.304	0.556- 3.059	0.541
Chemsex	25.956	3.050-220.869	0.003	1.411	1.328-149.989	0.028
Anal Sex	1.715	0.835-3.522	0.141	2.108	0.863- 5148	0.101
Fisting	0.493	0.109-2.228	0.358	-	-	-
Sex toys exchange	1.107	0.348-3.512	0.863	-	-	-
Sex working	1.941	0.172-21.822	0.591	-	-	-

Conclusions

- CT and NG most common STIs
- Key populations mostly not reached (except for MSM)



Adapted from: WHO Global strategy for the prevention and control of sexually transmitted infections 2006–2015 [25]

Conclusions

- CT and NG most commons STIs
- Key populations mostly not reached (except for MSM)
- MSM have more risky behaviors but greater awareness (more frequent testing)
- Doctors' referral high level of suspect for STIs (symptoms)
- Key role of partner notification in tracing STI
- Need to improve education of the populations and to reduce barriers to STIs testing to guarantee a better widespread of screening campaigns

Thank you for your attention!