Original Article

Men Who Pay For Sex: Prevalence and Sexual Health

Results From the German Health and Sexuality Survey (GeSiD)

Nicola Döring, Roberto Walter, Catherine H. Mercer, Christian Wiessner, Silja Matthiesen, Peer Briken

Summary

Background: Men who pay for sex (MPS) are a vulnerable bridging population for spreading sexually transmitted infections (STI). However, their prevalence and sexual health are unknown in Germany.

Methods: We analyzed data from 2336 men aged 18–75 years resident in Germany who completed the German Health and Sexuality Survey (GeSiD), a population-based probability sample survey undertaken 2018–2019, using face-to-face interviews (participation rate: 30.2%).

Results: 26.9% (95% confidence interval [24.7; 29.2]) of all men reported ever paying for sex. On average, MPS had M = 19.9 [16.8; 22.9] lifetime sexual partners, among them M = 7.3 [5.3; 9.4] paid partners. MPS described their paid sex predominantly as vaginal intercourse in domestic brothels. Regarding socio-demographic characteristics, MPS differed from men not paying for sex (MNPS) in terms of age, immigration status, and sex education. Compared to MNPS, MPS reported significantly more HIV/STI risk-taking, including multiple sex partners in the past year (OR adjusted for age, immigration status, sex education; AOR 3.55) and STI diagnosis in the past 5 years (AOR 1.96) as well as more prevention behaviors (e.g., condom use in the past year: AOR 3.13).

Conclusion: The prevalence of MPS suggests physicians should address the topic with their patients to protect and improve the sexual health of MPS and their paid and unpaid partners.

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Paying for sex is defined as paying money for sexual services (e.g., vaginal intercourse) in a specific market setting such as street prostitution, a brothel, or an escort service (1). Direct purchase of sex in a professional sex-work setting or prostitution can be differentiated from indirect purchase (e.g., with gifts or other resources) in informal contexts (2). Paying for sex is a highly gendered activity, as the majority of persons who pay for sex are men and the majority who sell sex are women (3, 4). It is also a socially complex (5), morally and politically contested (6), and legally regulated (7) activity that is closely linked to general health and especially sexual health (4, 8, 9).

Sexual health of men who pay for sex (MPS)

Men who pay for sex (MPS) are both vulnerable and a "bridging population" in respect of sexually transmitted infections (STI) (8): Their paid sex partners are often regarded as individuals at high risk of HIV/STI whose risk is passed on first to the MPS themselves, if they have sex without a condom, and then to their unpaid casual and steady partners, with whom condom use is less likely (4, 8). Over the past 30 years around 150 papers on MPS have been published, roughly half of them addressing HIV/STI risk and prevention behavior (e.g., [10, 11]). Heterosexual commercial sex has even been termed "one of the major drivers of the HIV epidemic around the world" (12). HIV/STI in MPS has been described as a public health issue. More and improved interventions are called for that target MPS and promote consistent condom use and regular HIV/STI testing, so that MPS better protect themselves and their paid and unpaid partners (13–15). Accessing MPS with intervention programs is difficult, however, as stigmatization and criminalization render them a "hard-to-reach" or "hidden" population group (8).

Legal status of MPS

MPS are stigmatized and criminalized in a growing number of countries (16, 17). In 1999, Sweden became the first country to criminalize paying for sex. Since then male clients have been prosecuted, whereas selling sex remains legal to protect female providers from prosecution and make it easier for them to leave the profession (18). Following this "Swedish model" of prostitution regulation that aims to "end demand",

TABLE 1

Prevalence of paying for sex (lifetime, past year) and number and proportion of lifetime paid sexual partners among men in Germany

	Total	Age group at interview (years)					
		18–25	26–35	36–45	46–55	56–65	66–75
Prevalence of paying for sex							
Lifetime (%)	26.9	14.7	27.2	29.9	33.5	26.2	24.1
95% confidence interval (%)	[24.7; 29.2]	[10.7; 19.9]	[22.8; 32.1]	[24.7; 35.7]	[28.2; 39.3]	[21.2; 31.8]	[18.7; 30.4]
Unweighted, weighted participants	2 265, 2 405	378, 301	523, 437	367, 386	355, 528	364, 448	278, 305
Past year (%)	4.0	5.1	4.9	1.6	6.5	2.4	2.8
95% confidence interval (%)	[3.1; 5.2]	[2.6; 9.7]	[2.9; 8.1]	[0.7; 3.6]	[3.9; 10.7]	[1.3; 4.7]	[1.1; 6.6]
Unweighted, weighted participants	2 265, 2 405	378, 301	523, 434	367, 386	355, 528	364, 448	278, 305
Number of paid sexual partners (lifetime)							
Mean (standard deviation [SD])	1.9 (9.7)	0.9 (4.7)	0.9 (2.5)	3.1 (19.5)	3.0 (9.8)	1.5 (5.2)	1.2 (4.1)
95% confidence interval (%)	[1.3; 2.4]	[0.3; 1.6]	[0.7; 1.2]	[0.2; 6.1]	[1.7; 4.3]	[0.9; 2.1]	[0.7; 1.7]
Unweighted, weighted participants	2 234, 2 365	377, 301	516, 429	358, 375	352, 521	360, 443	271, 296
Number of sexual partners (lifetime)							
Mean (SD)	11.2 (19.7)	5.1 (7.4)	9.6 (10.3)	16.6 (32.6)	14.5 (24.9)	9.5 (10.6)	9.3 (12.5)
95% confidence interval (%)	[10.0; 12.4]	[4.3; 6.0]	[8.6; 10.5]	[12.1; 21.0]	[11.6; 17.4]	[8.2; 10.8]	[7.5; 11.0]
Unweighted, weighted participants	2 267, 2 406	372, 292	523, 436	372, 393	357, 531	367, 452	276, 302
Proportion of all sexual partners made up by paid sexual partners (lifetime)							
Proportion (%)	16.7	19.1	9.8	18.4	20.4	15.9	12.9
95% confidence interval (%)	[12.4; 21.1]	[8.2; 30.1]	[7.6; 12.1]	[3.8; 33.0]	[13.5; 27.3]	[10.6; 21.1]	[7.6; 18.2]
Unweighted, weighted participants	2 220, 2 347	370, 291	513, 425	357, 374	352, 521	359, 443	269, 293

The number of lifetime sexual partners was manually trimmed by 1% at the upper and lower ends of the individual distributions for the age groups.
The presented distributions are skewed to the right. Nevertheless, we present them with means and standard deviations to enable comparability with other studies on MPS (men who pay for sex).

several other countries have adopted similar legislation (e.g., Norway in 2009, Iceland in 2009, Canada in 2014). In 2014, the European Parliament passed a non-binding resolution in favor of the "Swedish/Nordic model" (19) urging member states to criminalize MPS (20). To date, however, both buying and selling sex remain legal, in principle, in 21 of 27 European Union member states. Four countries have wholly or partly criminalized paying for sex (Sweden, Finland, France, Ireland). From a public health perspective, criminalization is questionable because it does not quell demand but makes paid sex even more stigmatized, concealed, and unsafe, endangering the health of both buyers and sellers (16, 17, 21).

Prevalence of MPS

The lifetime prevalence of MPS, estimated from population-based sex surveys undertaken in Europe, reflects cultural and legal norms and was 9.5% for men aged 16–84 years in Sweden in 2017 (9), 11.0% for men aged 16–74 years in Britain in 2010 (8), 12.9% for men aged 18–49 years in Norway in 2002 (14), 16.7% for men aged 17–45 years in Switzerland in 2000 (22), and 25.4% for men aged 18–49 years in Spain in 2003 (10). In other world regions, the prevalence is estimated to be much higher (12). To date, the reported prevalence of women who pay for sex (WPS) is so low (<0.5%; [8, 14]) that all of the above-mentioned European studies focus on MPS (8–10, 14, 22).

Characteristics of MPS

Previous research has typically compared MPS with men who report they have not paid for sex (MNPS). Few differences in sociodemographic characteristics are evident, although men who have recently paid for sex are often younger and either single or divorced (8, 10, 14). Some have proposed that MPS have particularly misogynistic attitudes and/or violent inclinations towards women such that they desire to "buy women" in order to abuse them (23), but this negative image of MPS has no empirical basis (24, 25). There is, however, widespread consensus in the pertinent literature that MPS display a greater degree of HIV/STI risk-taking than MNPS (8, 10, 14), stressing the need to address MPS as a target group for sexual health care and prevention.

Research goal

Germany is considered as a fairly liberal European country where paying for sex and the provision of sexual services are permitted, and brothels are even legal and regulated (which is seldom the case in Europe). The moral condemnation of MPS is also significantly less pronounced than in neighboring countries (7, 26). However, it is unclear how many men in Germany pay for sex or what sociodemographic and behavioral factors play a part. Studies to date have either been qualitative (27–31) or have used samples that are not representative of the general population (32–34). In contrast, the German Health and Sexuality Survey (GeSiD), based on a national random sample, provides a unique opportunity to investigate the prevalence and sexual health of MPS. This article aims to answer, for the first time, the following research questions:

1. What is the prevalence of men who pay for sex (MPS) in Germany?
2. How do MPS in Germany describe the paid sex?
3. What are the sociodemographic characteristics of MPS in Germany?
4. How do MPS in Germany differ in their HIV/STI risk and prevention behaviors from men who do not pay for sex (MNPS)?

Methods

Data collection and statistical analysis

The German Health and Sexuality Survey (GeSiD) is a two-step stratified residence registration sample (random sample) of 2619 women and 2336 men resident in Germany (*eTables 1–2*; [35]). Based on registration office data, at 200 randomly selected sample points (step 1) address data of 18– to 75-year-old residents were randomly sampled (step 2). From October 2018 to September 2019, interviewers from the social science research institute Kantar Emnid conducted the survey in the form of computer-assisted personal interviews (CAPI) and computer-assisted self-administered interviews (CASI). All respondents gave written informed consent. A response rate of 30.2% (AAPOR RR4; American Association for Public Opinion Research) was achieved. The GeSiD study protocol was reviewed and approved by the ethics committee of the Hamburg Psychotherapy Association. Further details of study design, sample representativeness and case weighting, data cleaning, and statistical analysis can be found in the *eMethods*. The findings in the results section are based on a cleaned and weighted dataset of 2431 men.

Measures

All variables were assessed using single-item measures from the GeSiD questionnaire. To answer research questions 1–4, the following items were used (for details, see *eMethods*):

- Research question 1:
  - reporting paying for sex ever
  - reporting paying for sex in the past year
  - number of paid sex partners ever
  - total number of sex partners ever
- Research question 2:
  - gender of last paid sexual contact
  - activity practiced with last paid sexual contact
  - paid sex ever in different market settings (ever)
  - geographic location of paid sex (ever)
- Research question 3; reporting paying for sex ever was used as the dependent variable and seven key sociodemographic and developmental variables were selected as independent variables:
  - age at interview
  - immigration background
  - sex education in the family during adolescence
  - age at first ejaculation
  - age at first steady relationship
  - education
  - religious affiliation
- Research question 4; reporting paying for sex ever was used as the dependent variable with four indicators of HIV/STI risk behavior:
  - total number of sex partners
  - multiple sex partners in past year
  - drug/alcohol use during last sex
  - STI diagnosis/es in past 5 years

  and five indicators of HIV/STI prevention behavior:
  - condom use for HIV/STI prevention in past year
  - condom use at last sex in relationship
  - condom use at last sex as single person
  - HIV testing in past 5 years
  - ever talking with a physician about HIV/STI

Results

Prevalence of MPS

A total of 2405 men answered the question on paying for sex (98.9% of all male participants in the cleaned and weighted GeSiD dataset). Of these, 26.9% reported ever paying for sex, while 4.0% reported doing so in the past year *(Table 1)*. The lifetime prevalence was lowest in men aged 18–25 years and highest in men aged 46–55 years. On average, men in GeSiD reported M (mean)=1.9 (standard deviation [SD] = 9.7) paid sex partners and M = 11.2 (SD = 19.7) total sex partners, meaning that paid partners accounted for 16.7% of all reported partners *(Table 1)*.

Description of paid sex

Men who reported paying for sex in the past year described their last paid sex as mainly with a woman (98.5%) and as vaginal (72.7%) and/or oral sex (64.0%). The majority of all MPS reported that their paid sex took place in brothels (78.6%) in Germany (72.8%), but 27.1% also reported paying for sex abroad. The full results are presented in *eTable3*.

Sociodemographics of MPS

The lifetime prevalence of paying for sex was significantly associated with age (AOR 3.02 for men aged 46–55 years compared with men aged 18–25 years), with immigration background (AOR 1.49 for first and AOR 1.46 for second generation compared with no

immigration background), and with lack of sex education from the family during adolescence (AOR 1.39). No differences between MPS and MNPS were observed for age at first ejaculation, age at first steady relationship, education, or religious affiliation *(Table 2)*.

HIV/STI risk and prevention among MPS

MNPS reported M = 8.1 (SD = 14.6) lifetime sexual partners; in comparison, MPS reported M = 19.9 (SD = 27.8) partners, i.e., more than twice as many. Paid partners accounted for 35.6% of all reported partners of MPS (for the full results see *eTable 4*). MPS differed statistically significantly from MNPS in HIV/STI risk taking, e.g., number of sexual partners (AOR 26.20 for ≥ 11 partners in comparison with reporting ≤ 2 partners) and multiple partners in the past year (AOR 3.55), but also in relation to sexual prevention behavior, e.g., condom use for HIV/STI prevention in the past year (AOR 3.13) and HIV testing in the past 5 years (AOR 2.18) *(Table 3)*. However, condom use with steady partners was rare (16.8%). MPS more often reported being willing to talk to a physician about HIV/STI than MNPS (AOR 1.54) *(Table 3)*.

Discussion

Summary and interpretation

One in four men in Germany reported ever having paid for sex. One in 25 men had paid for sex in the past year. These prevalence estimates are higher than in other European countries (8–10, 14, 22), possibly reflecting Germany's liberal legislation and cultural norms in terms of higher actual prevalence and/or more accurate self-reporting. MPS described their typical paid sex as vaginal intercourse in a domestic brothel, a legalized and regulated sex market under the German Prostitution Act. Men from other European countries, such as MPS in the UK (8), reported paying for sex abroad more frequently (62.6%) than MPS in Germany (27.1%). In line with previous research (8, 10, 14), MPS in Germany did not differ essentially from MNPS regarding sociodemographic variables, but revealed both a significantly greater HIV/STI risk and more prevention behavior. With the passing of the new Prostitute Protection Act, which took effect in Germany in 2017, condom use became mandatory (36). The GeSiD study was conducted in 2018/2019, so we do not know whether this new legislation has influenced condom use among MPS.

Limitations

The GeSiD study provides survey data that, like all self-reported data, are subject to a number of biases, including participation bias and response bias. As a population-based survey of a wide range of sexual behaviors, GeSiD asked a limited number of single-item questions about paying for sex. With regard to German history it is important to note that prostitution was illegal in the former GDR (1949–1990). This means that the sexual socialization of middle-aged and elderly men in eastern and western Germany differed regarding paying for sex, without our being able to disentangle these effects on the basis of the GeSiD data. Even though GeSiD surveyed a fairly large sample of 4955 men and women, this sample size is still too small to run analyses for relevant groups such as men who have sex with men (MSM) and pay for sex (n = 12 cases in GeSiD) and women who pay for sex (n = 3 cases).

Conclusion

What can physicians do to protect and improve the sexual health of MPS and their paid and unpaid partners? We second other research that urges physicians to have regular professional conversations with their patients about sexual health (37), as this would also provide an opportunity to reach MPS as a "hidden risk population". Physicians who specialize in sexual health and men's health in particular could provide their patients with information on effective prevention measures when paying for sex. If physicians signal openness to the topic, this empowers MPS to ask for the medical care they need. Knowledge about STI in the general population in Germany is still limited (38). Hence, from a public and sexual health perspective, more education is needed. As MPS are hitherto a scarcely visible risk population who wish to speak to their doctors about HIV/STI more often *(Table 3)*, physicians should consider this when taking medical histories, during examinations, and in consultations (39).

In addition, physicians can help to develop and disseminate MPS-focused online and social media interventions that foster HIV/STI prevention in different formal and informal paid sex contexts (13). Furthermore, physicians, public health services, and society at large need to be aware of the close connection between the regulation of prostitution and the general and sexual health of both buyers and sellers of sexual services. Recent evidence shows that decriminalization and destigmatization are prerequisites of willingness to disclose involvement in paying for sex and, hence, of gaining access to the appropriate medical care and prevention measures (40).

Conflict of interest statement

Prof. Briken received financial support for the GeSiD study from the German Federal Centre for Health Education.

The remaining authors declare that no conflict of interest exists.

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TABLE 2

Variations in the prevalence of paying for sex among men in Germany: sociodemographic and developmental factors

	Paid for sex in % [95% CI]	Univariable logistic regression			Multivariable logistic regression		
		OR [95% CI]	p	Weighted participants	AOR [95% CI]	p	Weighted participants
Age group (years)							
18–25	14.7 [10.7; 19.9]	1.00	0.001	301	1.00	< 0.001	297
26–35	27.2 [22.8; 32.1]	2.17 [1.44; 3.28]		437	2.27 [1.49; 3.47]		421
36–45	29.9 [24.7; 35.7]	2.47 [1.52; 4.02]		386	2.53 [1.52; 4.21]		374
46–55	33.5 [28.2; 39.3]	2.92 [1.86; 4.59]		528	3.02 [1.93; 4.73]		521
56–65	26.2 [21.2; 31.8]	2.06 [1.29; 3.28]		448	2.06 [1.26; 3.40]		443
66–75	24.1 [18.7; 30.4]	1.84 [1.14; 2.98]		305	1.87 [1.13; 3.07]		298
Immigration background							
No	25.1 [22.6; 27.7]	1.00	0.014	1790	1.00	0.017	1771
First generation	33.5 [28.0; 39.5]	1.51 [1.13; 2.01]		360	1.49 [1.09; 2.03]		357
Second generation	30.2 [23.5; 37.8]	1.29 [0.89; 1.87]		238	1.46 [0.98; 2.17]		225
Sex education in the family during adolescence							
Yes	21.9 [19.2; 24.8]	1.00	< 0.001	884	1.00	0.002	881
No	30.0 [27.3; 32.9]	1.53 [1.27; 1.84]		1485	1.39 [1.14; 1.70]		1473
Age at first ejaculation							
6–14 (up to and including median)	29.0 [26.3; 31.9]	1.00	0.157	1482	1.00	0.062	1453
≥ 15 (above median)	25.4 [21.4; 29.8]	0.83 [0.64; 1.08]		762	0.77 [0.58; 1.01]		747
Age at first steady relationship							
11–18 (up to and including median)	28.5 [25.7; 31.4]	1.00	0.211	1 426	1.00	0.065	1405
≥ 19 (above median)	25.5 [22.0; 29.5]	0.86 [0.68; 1.09]		868	0.79 [0.62; 1.01]		841
Education							
Low	27.1 [22.9; 31.8]	1.00	0.256	822	1.00	0.307	800
Medium	29.3 [25.1; 34.0]	1.12 [0.82; 1.52]		697	1.10 [0.80; 1.52]		684
High	24.6 [21.5; 27.9]	0.88 [0.66; 1.16]		881	0.87 [0.65; 1.17]		864
Religious affiliation							
Yes	26.0 [23.2; 29.0]	1.00	0.369	1498	1.00	0.481	1467
No	28.1 [24.7; 31.7]	1.11 [0.88; 1.40]		884	1.09 [0.86; 1.39]		869

Adjusted odds ratios (AOR) were corrected for age, immigration background, and sex education in the family during adolescence. These variables were not corrected for themselves.
95% CI, 95% confidence interval

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TABLE 3

HIV/STI risk and prevention behaviors among men in Germany who do not pay for sex (MNPS) versus men who do pay for sex (MPS)

	MNPS in % [95% CI]	MPS in % [95% CI]	Univariable logistic regression			Multivariable logistic regression		
			OR [95% CI]	p	Weighted participants	AOR [95% CI]	p	Weighted participants
HIV/STI risk behaviors:								
Total sexual partners								
0–2	30.5 [27.7; 33.4]	3.4 [2.2; 5.1]	1.00		552	1.00		543
3–4	20.2 [17.9; 22.6]	8.7 [6.1; 12.3]	3.92 [2.36; 6.51]		407	3.81 [2.26; 6.41]		396
5–6	13.9 [12.0; 15.9]	13.8 [10.8; 17.4]	9.02 [5.38; 15.11]	< 0.001	329	9.73 [5.70; 16.61]	< 0.001	320
7–10	16.9 [14.7; 19.4]	21.4 [17.5; 25.9]	11.47 [6.84; 19.23]		431	11.08 [6.49; 18.92]		419
≥ 11	18.6 [16.2; 21.3]	52.7 [47.3; 58.0]	25.65 [15.73; 41.82]		660	26.20 [15.69; 43.73]		651
Multiple sexual partners (in past year) *past year*								
No	95.5 [94.3; 96.4]	88.3 [84.8; 91.1]	1.00	< 0.001	2197	1.00	< 0.001	2149
Yes	4.5 [3.6; 5.7]	11.7 [8.9; 15.2]	2.79 [1.93; 4.04]		152	3.55 [2.39; 5.28]		150
Drug/alcohol use during last sex								
No	82.5 [79.6; 85.0]	69.7 [63.9; 75.0]	1.00	< 0.001	1504	1.00	< 0.001	1471
Yes	17.5 [15.0; 20.4]	30.3 [25.0; 36.1]	2.04 [1.49; 2.79]		405	2.11 [1.54; 2.88]		399
STI diagnosis/es (in past 5 years)								
No	96,9 [95,8; 97,6]	94.0 [91.0; 96.1]	1.00	0.013	2311	1,00	0.022	2260
Yes	3.1 [2.4; 4.2]	6.0 [3.9; 9.0]	1.97 [1.16; 3.34]		94	1.96 [1.11; 3.46]		93
HIV/STI prevention behaviors:								
Condom use for STI/HIV prevention (in past year)								
No	82.8 [80.5; 84.8]	67.6 [61.9; 72.7]	1.00	< 0.001	1328	1.00	< 0.001	1305
Yes	17.2 [15.2; 19.5]	32.4 [27.3; 38.1]	2.31 [1.71; 3.11]		368	3.13 [2.25; 4.36]		357
Condom use at last sex—in relationship								
No	83.2 [80.8; 85.4]	87.6 [83.5; 90.8]	1.00	0.060	1335	1.00	0.101	1310
Yes	16.8 [14.6; 19.2]	12.4 [9.2; 16.5]	0.70 [0.48; 1.02]		248	0.73 [0.50; 1.06]		241
Condom use at last sex—as a single person								
No	41.8 [33.8; 50.3]	33.4 [23.7; 44.6]	1.00	0.191	105	1.00	0.039	104
Yes	58.2 [49.7; 66.2]	66.6 [55.4; 76.3]	1.44 [0.83; 2.47]		169	1.93 [1.03; 3.61]		164
HIV testing (in past 5 years)								
No	90.5 [89.0; 91.8]	81.2 [76.7; 84.9]	1.00	< 0.001	2089	1.00	< 0.001	2045
Yes	9.5 [8.2; 11.0]	18.8 [15.1; 23.3]	2.22 [1.61; 3.05]		285	2.18 [1.55; 3.07]		283
Ever talked to a physician about HIV/STI								
No (and not interested)	65.0 [62.1; 67.8]	55.1 [49.7; 60.5]	1.00		1452	1.00		1413
No, but would like to	16.3 [14.4; 18.3]	19.6 [16.2; 23.4]	1.42 [1.07; 1.89]	0.003	400	1.54 [1.14; 2.08]	< 0.001	393
Yes, have done so	18.7 [16.7; 20.9]	25.3 [20.9; 30.1]	1.59 [1.19; 2.13]		477	1.71 [1.28; 2.28]		477

Adjusted odds ratios (AOR) were corrected for age, immigration background, and sex education in the family during adolescence.
STI, Sexually transmitted infections; 95% CI, 95% confidence interval

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► **Supplementary material**

eReferences, eMethods, eTables:
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Supplementary material to:

Men Who Pay For Sex: Prevalence and Sexual Health

Results From the German Health and Sexuality Survey (GeSiD)

by Nicola Döring, Roberto Walter, Catherine H. Mercer, Christian Wiessner, Silja Matthiesen, and Peer Briken

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eMETHODS

Representative, population-based studies on sexual health in the adult population have for many years been conducted in a large number of European countries, in the USA, and in Australia. They reveal a major change in sexual behavior in the second half of the 20th century. These studies are mostly government-funded and help to steer health policy and improve sex education and family planning services. For a long time, no comprehensive population-based data on sexual behavior have been available in Germany. The German Health and Sexuality Survey (GeSiD), the first nationwide study in this field, is designed to represent the 18- to 75-year-old German-speaking residential population of Germany. The method used is described below. The GeSiD study was reviewed and approved by the ethics committee of the Hamburg Psychotherapy Association (reference number: 07/2018-PTK-HH).

Sampling

The approaches to generate sex survey samples which are as representative as possible of the population concerned differ from country to country (e1). The survey strategy depends not only on the available resources and the survey method used, e.g., when deciding whether to use online, telephone, or address samples, but also on national peculiarities in the provision of administrative data. For instance, the Danish online study Sexus (e2) benefits from a public register of e-mail addresses. In the GeSiD interview study presented here, a special framework was created by the specific features of the German residence registration system: While a residential address sample was used in the British Natsal survey (e3), the generally accepted gold standard of sexual science survey research, the decentralized organization of the residence registration offices in Germany enabled the random selection not just of addresses but of actual persons.

As is common practice with high-quality surveys in Germany, the GeSiD used a doubly stratified residence registration office sample. First, a total of 200 sample points, most of which were identical with one residence registration office, were randomly selected (stage 1). Next, at each of these sample points an average of 86 persons aged between 18 and 75 years were drawn from the residential registers (stage 2). In the gross sample, the proportion of 18- to 35-year-old men and women was intentionally increased (oversampling) to enable detailed analyses of this target group, which is of special importance for sexual health risk assessment.

Conduct of the interviews

Once drawn, the address data were allocated to a total of 256 interviewers, who then collected the data between October 2018 and September 2019. A consortium of the social science survey institutes Kantar Emnid, Kantar Public, and Kantar Health was responsible for sampling and data collection (e4).

The target persons were first contacted by means of a letter informing them about the study and inviting them to participate. Compensation of €5 for reading the extensive information material was sent with the letter. The target persons could keep the money even if they decided not to participate. In 966 cases, however, the money was returned: either the target persons explicitly declined to accept it, or the letter could not be delivered to the addressee. Over the following weeks, the interviewers personally visited the target persons and requested their participation. Male interviewers visited male respondents and female interviewers called on female respondents. If a target person decided to participate, the interviews were conducted at their home at a time of their choice. Prior to the start of the interview, the respondents received additional information about the study, anonymization, and data protection and

gave, with their signature, their written informed consent to participation in the study.

The interviews started with a computer-assisted personal interview (CAPI). The greater part of the data were subsequently collected in a computer-assisted self-interview (CASI) during which the respondents entered their answers on a laptop. During this process, the interviewers remained in the room, ready to answer any potential questions, but without looking at the answers. Once the self-completion segment was finished, the interviewers no longer had access to the data entered. Name and data of the respondents were separated immediately after the end of the interview to prevent reidentification of the respondent solely on the basis of the dataset. The mean adjusted interview duration was 50.9 minutes (median 48 minutes; 25th percentile 40 minutes; 75th percentile 59 minutes). On completion of the interview, each participant received additional compensation of €25. A total of 4955 interviews were conducted in this manner. The participation rate was 30.2% (AAPOR [American Association for Public Opinion Research] response rate 4; [e3]) and the cooperation rate was 37.9%. The latter represents the proportion of interviews actually carried out at the homes of the addressees with whom there was at least one contact (AAPOR cooperation rate 4; [e5]).

Survey instrument and items used

The GeSiD questionnaire is the revised version of a survey instrument which was developed in an extensive pilot study and tested on 1155 respondents (e6). Different versions of the instrument are available for men and women. It comprises more than 260 questions and question complexes; however, depending on the respondents' previous sexual and relationship experiences, only some of these questions were asked. The topics covered included the following items:

- Life situation
- Knowledge of sexuality
- First sexual experience
- Sexuality in the current stable relationship or as a single person
- Gender
- Sexual orientation
- Attitudes to sexuality
- Sexuality via digital media
- Various sexual experiences, including experience with specific sexual practices, masturbation, and prostitution
- General and sexual health

The survey instrument is available from the first author. Except for the variable "gender" which was obtained from the residence registration offices, all variables offered the respondents the option to provide no information.

Items used

To answer the four research questions:

1. What is the prevalence of men who pay for sex (MPS) in Germany?
2. How do MPS in Germany describe the paid sex?
3. What are the sociodemographic characteristics of MPS in Germany?
4. How do MPS in Germany differ in their HIV/STI risk and prevention behaviors from men who do not pay for sex (MNPS)?

we used the following items from the GeSiD questionnaire.

Items used for research question 1

- Lifetime prevalence of paying for sex was measured with the item "Have you ever paid for sex?" (all answer options with yes versus no; GeSiD item i13).

- The 12-month prevalence of paying for sex was measured with the item "Have you ever paid for sex?" (yes, in the past 4 weeks or yes, in the past 12 months versus all other options; GeSiD item i13).
- Number of paid sex partners was measured with the item "How many different people have you paid for sex in your life so far?". Reported numbers of female and male paid sex partners were added together (GeSiD items i14_1, i14_2).
- Total number of sex partners was measured with the gender-specific item "How many different women [men] have you had sex with so far (i.e., during your entire life) in total?" (GeSiD items i1, i7). Reported numbers of female and male sex partners were added together.

Open items required data cleaning (see section "Data cleaning" below).

Items used for research question 2

- Gender of partner of last paid sexual encounter was measured with the item "Now please remember your last sexual partner that you paid for sex. Was this person a woman/a man?" (GeSiD item i17).
- Type of sexual activity during last paid sexual encounter was measured with the item "What did you do the last time you paid for sex?" with four non-exclusive options regarding heterosexual or homosexual encounters: vaginal intercourse (GeSiD item i18_1/–), oral sex (GeSiD item i18_2/i19_1), anal intercourse (GeSiD item i18_3/i19_2), and other genital contacts (GeSiD item i18_4/i19_3).
- Prevalence of paid sex in different market settings was measured with the item "What have you paid for at least once in your life?" with five non-exclusive answer options: street prostitution (GeSiD item i15_1), sex in a brothel (GeSiD item 15_2), sex in a private apartment (GeSiD item i15_3), escort service/call girl/call boy (GeSiD item i15_4), for something else and that is…. (GeSiD item i15_5).
- The geographical locations of paid sex were measured with the item "Did this paid sex take place in Germany or abroad?" with three answer options: in Germany (GeSiD item i16_1), abroad (GeSiD item i16_2), both Germany and abroad (GeSiD item i16_3).

Items used for research question 3

Dependent variable

Lifetime prevalence of paying for sex was used as the dependent variable. Lifetime prevalence of paying for sex was measured with the item "Have you ever paid for sex?" (all answer options with yes versus no; GeSiD item i13)

Independent variables

- Age at interview was measured with the open item "How old are you?" (GeSiD item A1) and afterwards summarized to age groups into a new variable.
- Immigration background was measured with GeSiD items N08_1–N08_9 (multiple questions asking about own and parents' immigration background) and combined into three groups in a new variable: "no immigration background," "first generation," and "second generation." "No immigration background" was present if no immigration background variables were affirmed. "First generation" immigration background was coded if the target person stated an immigration background for him/herself. "Second generation" immigration background was coded if mother, father, or both parents had an immigration background but the target person him/herself did not.
- Sex education in the family during adolescence was measured with the item "Was sexuality and partnership talked about in your family?" (GeSiD item B05).
- Age at first ejaculation was measured with an open item "Approximately how old were you when you had your first ejaculation – inten-

tionally or unintentionally?" (GeSiD item B03) and recoded into a new binary variable. The first group covers all answers up to and including the median age at first ejaculation, while the second group covers all answers above the median age at first ejaculation.

- Age at first steady relationship was measured with an open item "How old were you when you had your first steady relationship?" (GeSiD item A10) and recoded into a new binary variable. Before recoding, very low and hence implausible values for the age of the first steady relationship below 11 years (n = 19) were excluded from the analysis. The first group of the new binary variable covers all answers up to and including the median age of the first steady relationship, while the second group covers all answers above the median age of the first steady relationship.
- Education was measured with the item "What is your highest school certificate?" and combined into a three-level variable with values "low" (GeSiD item N14 options 1, 2, 7), "medium" (GeSiD item N14 options 3 and 4) and "high" (GeSiD item N14 options 5 and 6).
- Religious affiliation was measured with the item "Do you belong to one of the following religious communities?" and coded into a binary variable with values "no" (GeSiD item N3 option 7) and "yes" (GeSiD item N3 options 1–6 and 8 [orthodox]).

Items used for research question 4

Dependent variable

Lifetime prevalence of paying for sex was used as the dependent variable. Lifetime prevalence of paying for sex was measured with the item "Have you ever paid for sex?" (all answer options with yes versus no; GeSiD item i13)

Independent variables

Two groups of independent variables were considered: variables for HIV/STI risk behavior (a) and for HIV/STI prevention behavior (b).

a) HIV/STI risk behaviors

- Total number of sex partners was measured with the gender-specific items "How many different women [men] have you had sex with so far (i.e., during your entire life) in total?" (GeSiD items i1, i7). Implausible cases for MPS stating zero total sex partners (n = 4) were excluded from the analysis. Reported numbers of female and male sex partners were added together, and a new variable was created with the five categories: "0–2", "3–4", "5–6", "7–10", "11+".
- The presence of multiple sex partners in the past year was measured with relationship status-specific items "With how many persons apart from (current partner) have you had sex in the past 12 months?" (GeSiD item D30) and "With how many persons have you had sex in the past 12 months?" (GeSiD item E7). Reported numbers of sex partners were added together and combined into a binary variable with values "no" and "yes." Respondents in a steady relationship were considered as having multiple sex partners if they reported having sex with at least one person outside the relationship in the past year. For single respondents the minimum required number was two sex partners.
- Drug/alcohol use during last sex was measured with items D26_1 ("The last time you had sex (with your current partner), did you take alcohol or drugs?" → answer option: "no, neither alcohol nor drugs" [men in relationships]), D42_1 ("The last time you had sex outside of your steady relationship, did you consume alcohol or drugs?" → answer option: "no, neither alcohol nor drugs" [men in relationships with an affair]), and E20_1 ("The last time you had sex, did you consume alcohol or drugs?" → answer option: "no, neither alcohol nor

drugs" (single persons/men not in a relationship). The three items were recoded into a binary variable with "yes" in the event that any of the aforementioned variables were negated. If all three variables were affirmed, no drug/alcohol consumption during last sex was present, so "no" was coded.

- STI diagnosis/es in the past 5 years was measured with the item "Please think of the last time a doctor or another person from the health system told you that you had (name of STI). How long ago was it?" (GeSiD items K6_1–K6_11) and combined into a binary variable with values "no" and "yes." An STI diagnosis was coded as present if at least one of the 11 items was reported within the past 5 years. All diagnoses received more than 5 years ago or not reported were coded as "no."

b) HIV/STI prevention behaviors

- Condom use for HIV/STI prevention in the past year was measured with item "What have you used condoms for in the past 12 months?" with the non-exclusive answer options "for protection against HIV/AIDS" (GeSiD item K17_2) and "for protection against sexually transmitted infections" (GeSiD item K17_3). A binary variable was created with values "no" and "yes." "Yes" was coded if at least one of the answer options was reported, "no" if both options were negated. Not using any condoms in both variables was also coded "no."
- Condom use at last sex—in a relationship—was measured with the items "Which contraception method did you or [your partner] use during last sex?" (answer option "condom" was used, GeSiD item D22_2) and "Did you or (name of partner) protect yourself from sexually transmitted infections during your last sex?" (answer option "yes, with a condom" was used, GeSiD item D24_2). A binary variable was created with values "no" and "yes." "Yes" was coded if at least one of the answer options was reported, "no" if both options were negated.
- Condom use at last sex—as a single person—as measured with the items "Which contraception method did you or your partner use during last sex?" (answer option "Condom" was used, GeSiD item E15_2) and "Did you or this partner protect yourself from sexually transmitted infections during your last sex?" (answer option "yes, with a condom" was used, GeSiD item E17_2). A binary variable was created with values "no" and "yes." "Yes" was coded if at least one of the answer options was reported, "no" if both options were negated.
- HIV testing in the past 5 years was measured with the item "How long has it been since you had an HIV test?" (GeSiD item K21) and combined into a binary variable with values "no" (GeSiD items K21_3 and K21_4) and "yes" (GeSiD items K21_1 and K21_2).
- Ever having talked to a physician about HIV/STI was measured with the item "Have you ever spoken to or expressed the wish to speak to a doctor about any of the following subjects: HIV/AIDS or other sexually transmitted infections?" with answer options "no, and I don't want to", "no, but I would like to" and "yes" (GeSiD item K14_c)

Data cleaning

As open questions were used to ask about the number of paid and unpaid sex partners (see section "Items used for research question 1" above) and some respondents reported very high values (250 paid sex partners and 3000 total sex partners maximum), we manually trimmed the upper and lower ends of the individual distributions for the age groups by 1% to avoid biased means, in line with the procedure used in the British sex survey Natsal (8). Some respondents (n = 34) reported more paid sex partners than total sex partners, suggesting that they did not count paid contacts as "sex partners," even though the questionnaire indicated they should do so. In these cases, a new total partner number was created by adding the paid partners.

Data weighting and statistical analysis

The German Health and Sexuality Survey GeSiD is based on a two-step stratified probability sample survey of 2619 women and 2336 men resident in Germany (*eTables 1, 2* [35]). Fifty-one cases were eliminated from the unweighted sample of 2336 men (see section "Data cleaning"), resulting in a cleaned dataset of 2285 men. After the data cleaning the dataset was weighted, leading to a cleaned and weighted dataset of 2431 men that was used for all subsequent data analyses.

The GeSiD data were first weighted to correct the oversampling-related differences in selection probability between respondents in different age groups (design weight). Using a second weighting, these grossly representative data were adjusted to the data of the 2018 microcensus with regard to gender, age, educational attainment, nationality, and region (adjustment weight).

All steps of the data analysis in the section "Results" were performed using the Complex Samples module of the data analysis software package IBM SPSS Statistics (version 27.0, released in 2020; Armonk, NY: IBM Corp) to ensure that the stratification and clustering of the complex sample were taken into account.

To answer research question 1, the prevalence of paying for sex and the frequency (ever, past year) were estimated overall and by age group. Mean lifetime partner numbers, mean paid partner numbers, and the proportion of paid partners (paid partners divided by total partners) were calculated with 95% confidence intervals (CI). To answer research question 2, percentages and 95% CI of the selected items were computed. To answer research questions 3 and 4, unadjusted logistic regression models as well as multivariable logistic regression models (adjusting for the potentially confounding effect of age, immigration status, and sex education in the family during adolescence) were used to explore associations between paying for sex and a) sociodemographic variables, b) HIV/STI risk and prevention variables.

Representativeness and non-responder analysis

In common with other surveys, the GeSiD study attempts to get as close as possible to the ideal of representativeness for the target group – here, the German-speaking residential population aged between 18 and 75 years. Systematic losses due to refusal to participate raise the question of how representative the sample is and consequently to what extent it is possible to extrapolate the results of the GeSiD sample to the general population. In order to evaluate whether significant differences between responders and non-responders exist, which would be indicative of systematic bias, a brief non-responder survey was conducted. The data were collected in various ways:

- Personal contact by the interviewer (n = 2323)
- Telephone contact via the study hotline (n = 46)
- Contact by e-mail (n = 15)
- Contact by mail (n = 326)

After final adjustment, a total of 2681 (15.6% of the gross sample) short questionnaires completed by non-responders were included

eTABLE 1

Demographic characteristics of the GeSiD participants by sex and age group (figures in %) (e7)

Variable	Non-responders	Responders	Responders (weighted)
Sex (in %)			
Female	42.3	52.9	49.8
Male	57.7	47.1	50.2
Age group (in %)			
18–25	8.1	15.5	12.0
26–35	14.4	22.3	17.6
36–45	15.9	16.5	16.4
46–55	20.9	17.6	21.8
56–65	23.3	17.6	18.9
66–75	17.5	10.6	13.3
Nationality (in %)			
German	83.3	90.6	85.9
Other	12.4	9.4	14.1
Unknown	4.3		
BIK region (in %)			
Population over 100 000	60.1	65.5	64.2
Population under 100 000	39.9	34.5	35.8

BIK region: city or town, with surrounding smaller communities (a derived entity that is used in Germany for sociological, economic, and geographic projects); GeSiD: German Health and Sexuality Survey

eTABLE 2

Demographic characteristics of the GeSiD participants by sex and age group (figures in %) (e7)

Sex	Men							Women						
Age (years)	18–25	26–35	36–45	46–55	56–65	66–75	Total	18–25	26–35	36–45	46–55	56–65	66–75	Total
Marital status (%)														
Unmarried	96.6	61.0	31.9	20.3	10.8	7.7	35.8	93.2	52.2	23.9	14.6	8.8	6.3	29.3
Married/registered partner	3.4	37.0	60.2	62.4	68.5	74.0	52.6	5.4	43.4	65.6	63.6	61.6	51.9	51.7
Widowed	0.0	0.0	0.0	0.3	3.5	5.3	1.3	0.0	0.7	0.3	3.2	10.3	25.3	6.4
Divorced	0.0	2.0	7.9	17.0	16.9	13.0	10.1	1.5	3.7	10.2	18.6	19.3	16.5	12.5
Stable relationship (%)														
No	52.9	26.1	20.0	17.2	17.3	16.9	23.7	35.9	17.9	13.5	19.3	28.1	40.1	24.7
Yes, opposite-sex partner	45.7	71.7	78.5	81.8	82.6	82.1	75.1	63.0	81.0	85.1	79.3	71.0	59.9	74.3
Yes, same-sex partner	1.4	2.0	1.3	0.8	0.1	0.9	1.1	0.9	0.9	1.4	1.4	0.9	0.0	1.0
Other/no response	0.0	0.2	0.2	0.2	0.0	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Educational level (%)														
Low	38.2	27.8	28.7	30.0	40.6	49.1	34.8	22.6	17.4	23.0	27.9	34.1	49.2	28.9
Middle	23.0	23.5	28.3	36.5	30.9	25.2	28.6	21.5	30.1	33.9	42.3	41.5	32.7	34.9
High	38.8	48.7	43.0	33.5	28.5	25.7	36.6	55.9	52.5	43.0	29.8	24.4	18.2	36.1
BIK region (%)														
> 500 000*[1]	23.9	27.2	30.7	25.9	18.5	22.6	24.9	29.5	31.7	31.3	24.8	20.5	26.0	26.9
> 500 000*[2]	9.6	8.8	8.3	10.9	10.4	12.6	10.0	8.5	7.6	8.0	11.4	9.5	7.4	8.9
100 000–499 999*[1]	14.9	17.6	12.0	11.9	11.0	12.1	13.2	18.2	15.0	11.8	16.1	11.5	15.0	14.4
10 000–499 999*[2]	14.7	13.2	13.8	15.7	16.0	15.5	14.8	14.1	13.0	13.9	14.1	19.5	16.1	15.2
50 000–99 999*[1]	2.1	3.1	3.4	2.4	2.0	2.4	2.6	2.2	2.6	2.7	2.7	2.3	3.1	2.6
50 000–99 999*[2]	9.0	9.3	5.9	9.1	10.3	9.2	8.9	4.9	8.3	10.3	8.4	7.2	5.0	7.6
20 000–49 999	13.8	8.5	10.5	9.8	12.3	10.3	10.7	11.4	9.8	10.9	10.1	13.7	11.8	11.3
5000–19 999	7.7	8.0	10.3	9.6	13.4	7.7	9.7	8.5	7.0	7.1	7.3	9.7	10.6	8.3
2000–4999	3.0	2.9	4.3	2.5	4.7	4.8	3.6	2.5	1.5	3.4	3.9	3.9	3.7	3.2
< 2000	1.3	1.3	0.8	2.3	1.5	2.8	1.7	0.2	3.4	0.7	1.3	2.1	1.3	1.6
Sexual identity (%)														
Heterosexual*[3]	92.8	88.3	92.3	95.1	92.7	88.3	92.9	86.8	91.9	93.7	90.7	89.9	93.8	91.2
Homosexual*[3]	1.6	1.9	2.9	2.0	0.3	1.2	1.7	0.9	0.9	1.4	1.2	0.4	0.0	0.8
Bisexual	1.1	0.5	1.2	0.8	1.2	0.3	0.9	5.3	3.5	0.7	1.4	0.5	0.0	1.7
Other/no response	4.5	3.0	3.6	2.1	5.9	10.1	4.6	6.0	3.6	4.0	6.1	9.3	6.2	6.2
Denominator (absolute numbers)														
Unweighted	389	538	382	366	376	285	2 336	377	565	434	504	498	241	2619
Weighted	312	450	409	546	460	311	2 487	283	423	402	536	474	349	2468

BIK region: city or town, with surrounding smaller communities (a derived entity that is used in Germany for sociological, economic, and geographic projects);
GeSiD: German Health and Sexuality Survey
*[1] Core area
*[2] Suburban to peripheral area
*[3] Mainly or exclusively

eTABLE 3

Additional results table for research question 2: Description of paid sex by men in Germany who pay for sex: gender of providers, sexual activity, market setting, and location

	Prevalence (%)	95% confidence interval	Unweighted, weighted participants
Gender of paid sex provider—last paid sex contact of men who had paid for sex in the past year			
Female	98.5	[89.8; 99.8]	78, 96
Male	1.5	[0.2; 10.2]	
Form of sexual activity during last heterosexual paid sex among men who had paid for sex in the past year*1			
Vaginal intercourse/sexual intercourse	72.7	[57.5; 83.9]	77, 95
Oral sex	64.0	[51.6; 74.8]	
Anal intercourse	5.6	[1.8; 16.5]	
Other genital contacts	13.0	[7.0; 22.9]	
Form of sexual activity during last paid homosexual contact among men who had paid for sex in the past year*1			
Oral sex	0.0	–	1, 1
Anal intercourse	0.0	–	
Other genital contacts	100.0	–	
Lifetime prevalence of paying for sex in different market settings*1			
Street prostitution	17.0	[13.6; 20.9]	559, 646
Sex in a brothel	78.6	[74.3; 82.3]	
Sex in a private apartment	23.6	[19.3; 28.5]	
Escort service/call girl/call boy	7.2	[5.0; 10.4]	
Another form of sexual service	0.6	[0.3; 1.5]	
Lifetime prevalence of paying for sex by geographical location*2			
Germany	72.8	[68.0; 77.2]	553, 637
Abroad	14.4	[11.0; 18.6]	
Both in Germany and abroad	12.7	[10.0; 16.0]	

*1 Multiple answers were allowed.
*2 Percentages in single-answer variables may not add up to exactly 100% due to rounding.

eTABLE 4

Additional results table for research question 4:
Number of lifetime sexual partners of MNPS and MPS in Germany as well as number of and proportion of lifetime paid sexual partners

		Age group at interview (years)					
	All	18–25	26–35	36–45	46–55	56–65	66–75
Number of sexual partners (lifetime)—MNPS							
Mean (SD)	8.1 (14.6)	3.9 (5.2)	7.9 (9.5)	12.5 (24.5)	8.9 (18.4)	7.5 (8.8)	6.9 (9.2)
95% confidence interval	[7.0; 9.1]	[3.3; 4.4]	[6.8; 9.0]	[8.8; 16.2]	[6.4; 11.5]	[6.3; 8.8]	[5.4; 8.4]
Unweighted, weighted participants	1692, 1740	329, 247	390, 314	263, 270	237, 351	259, 330	214, 228
Number of sexual partners (lifetime)—MPS							
Mean (SD)	19.9 (27.8)	11.8 (12.6)	13.9 (10.9)	27.0 (45.5)	25.7 (31.7)	15.1 (13.0)	16.7 (17.7)
95 % confidence interval	[16.8; 22.9]	[7.6; 15.9]	[8.6; 10.5]	[15.2; 38.7]	[19.4; 32.0]	[12.2; 18.0]	[11.6; 21.8]
Unweighted, weighted participants	559, 646	42, 44	130, 119	103, 115	118, 177	104, 117	62, 73
Number of paid sexual partners (lifetime)—MPS							
Mean (SD)	7.3 (18.0)	6.4 (10.8)	3.6 (3.9)	11.3 (35.9)	9.1 (15.5)	6.0 (8.9)	5.5 (7.4)
95 % confidence interval	[5.3; 9.4]	[2.4; 10.4]	[3.0; 4.2]	[1.5; 21.1]	[5.8; 12.5]	[4.1; 7.8]	[3.4; 7.6]
Unweighted, weighted participants	528, 607	41, 44	123, 111	94, 104	115, 170	100, 113	55, 65
Proportion of lifetime sexual partners made up by paid sexual partners—MPS							
Proportion (%)	35.6	55.5	25.5	39.2	34.7	38.4	30.1
95 % confidence interval	[28.7; 42.4]	[37.0; 74.0]	[21.4; 29.7]	[16.0; 62.4]	[26.3; 43.2]	[29.2; 47.6]	[19.0; 41.3]
Unweighted, weighted participants	528, 607	41, 44	123, 111	94, 104	115, 170	100, 113	55, 65

The number of lifetime sexual partners was manually trimmed by 1% at the upper and lower ends of the individual distributions for the age groups. The presented distributions are skewed to the right. Nevertheless, we present them with means and standard deviations to enable comparability with other studies on MPS.
MNPS, Men who do not pay for sex; MPS, men who pay for sex; SD, standard deviation