

**Table S1:** Overview of variables collected from Pienter participants in 1996, 2007 and 2017

Variable	Source	General definition	Categories <sup>a</sup>	Differences in definitions <sup>b</sup>		
				1996 (PIENTER 1)	2007 (PIENTER 2)	2017 (PIENTER 3)
<b>Sex</b>	population register	The sex by which the person is registered	Female or male	-	-	-
<b>Migration Background</b>	population register	The country with which a person has the closest ties, based on his/her parents' country of birth or his/her own country of birth.	Western (Dutch, Western Non-Dutch (incl. West European countries, Australia, North America, Indonesia and Japan)) or Non-western (Marocco and Turkey, SAN, other Non-western countries)			
<b>Urbanisation</b>	population register	Address density of current residence from population register	very low (<1,000 addresses per square kilometers) or moderate and high (≥ 1,000 addresses per square kilometers)	-	-	-
<b>Education</b>	self-reported	Highest completed education	theoretical (higher professional education, university level education) or practical (all other educations)	-	-	-
<b>Sexual practice</b>	self-reported	Having sexual intercourse with partners with the opposite or same sex	women (all sexual practices), heterosexual men, homosexual/bisexual men	sex partners in the <b>past year</b>	sex partners in the <b>past six months</b>	sex partners in the <b>lifetime</b>
<b>Ct diagnosed ever</b>		Ever diagnosed with Chlamydia	yes or no			
<b>STI diagnosed ever</b>	self-reported	Ever diagnosed with any STI	yes or no	Chlamydia, Hepatitis B, Gonorrhoea, herpes, Genital warts (HPV), Syphilis	Chlamydia, Hepatitis B, Gonorrhoea, herpes, Genital warts (HPV), Syphilis <b>and HIV</b>	Chlamydia, Hepatitis B, Gonorrhoea, herpes, Genital warts (HPV), Syphilis <b>and HIV</b>
<b>Age at first time sex</b>	self-reported	Age at first sexual intercourse	<18 or 18 and above			
<b>Recent sexual partners</b>	self-reported	Number of sex partners	0-1 or 2 and more	sex partners in the <b>past year</b>	sex partners in the <b>past six months</b>	sex partners in the <b>past six months</b>
<b>Regular partner</b>	self-reported	Currently having a regular partner	yes or no	<i>n.c.</i>	-	-
<b>Condom use last sexual contact</b>	self-reported	Condom use during last sexual intercourse	yes or no	<i>n.c.</i>	-	-

<b>Condom use regular partner</b>	self-reported	Condom use during sexual intercourse with regular partner	always, sometimes, never	<i>n.c.</i>	condom use in the <b>past year</b>	condom use in the <b>past six months</b>
<b>Condom use with casual partner</b>	self-reported	Condom use during sexual intercourse with most recent casual partner (including sex for money or drugs)	always, sometimes, never	<i>n.c.</i>	condom use in the <b>past year</b>	condom use in the <b>past six months</b>

<sup>a</sup> Missing data are shown as "unknown". Missing data is a mix of "I don't know", "I don't want to say" and not filled in.

<sup>b</sup> Inconsistent definitions across study rounds are indicated **bold**.

Abbreviations: *n.c.*: not collected, SAN: Suriname, Aruba and the former Dutch Antilles

**Table S2:** Weighted number of participants in 1996, 2007 and 2017

	<b>Overall N</b>	<b>1996 N</b>	<b>2007 N</b>	<b>2017 N</b>
<b>Women</b>				
Overall	2138	751	700	686
15-24 years	786	257	255	274
25-39 years	1352	495	445	412
<b>Men</b>				
Overall	2164	766	711	687
15-24 years	791	260	266	265
25-39 years	1373	507	445	421

Please note that these numbers are weighted and do not necessarily correspond to the numbers in Table 1.

**Table S3:** Chlamydia trachomatis IgG seroprevalence by study round and by age strata for women and men. Chlamydia trachomatis IgG seroprevalence by birth cohort for women and men for 1967-1971, 1972-1976 and 1977-1981. P-value is given for chi-square test between two strata or linear trend in proportions between three strata. P-values are indicated as: \*= $P < .05$  \*\*= $P < .01$ , \*\*\*= $P < .001$

		Women			Men		
		CAT+ (%)	95% CI lower	95% CI upper	CAT+ (%)	95% CI lower	95% CI upper
Age group	Study round						
15-19	1996	3.2%	1.5%	6.6%	5.0%	2.3%	10.5%
	2007	4.7%	2.2%	9.8%	5.8%	2.4%	13.5%
	2017	4.7%	1.7%	12.0%	1.3%	0.2%	8.8%
20-24	1996	7.8%	4.6%	13.0%	4.2%	1.6%	10.2%
	2007	10.3%	6.7%	15.6%	5.7%	2.8%	11.2%
	2017	12.9%	7.4%	21.4%	8.1%	4.1%	15.3%
25-29	1996	13.6%	8.6%	20.8%	3.6%	1.3%	9.2%
	2007	7.0%	4.1%	11.6%	7.0%	2.8%	16.4%
	2017	15.0%	8.9%	24.2%	8.1%	4.1%	15.4%
30-34	1996	16.0%	10.2%	24.2%	7.1%	3.6%	13.8%
	2007	9.8%	5.8%	16.0%	4.9%	2.2%	10.7%
	2017	8.0%	4.3%	14.4%	5.7%	2.7%	11.6%
35-39	1996	16.9%	11.5%	24.3%	3.1%	1.3%	7.0%
	2007	11.2%	7.2%	16.9%	7.9%	4.2%	14.1%
	2017	10.4%	6.0%	17.4%	6.4%	2.6%	14.8%
Birth cohort	Age group						
1956-1960	35-39	16.9%	11.5%	24.3%	3.1%	1.3%	7.0%
	55-59	11.7%	6.1%	21.3%	9.6%	4.9%	17.7%
1961-1965	30-34	16.0%	10.2%	24.2%	7.1%	3.6%	13.8%
	50-54	13.7%	8.5%	21.4%	9.8%	5.7%	16.3%
1967-1971	25-29	13.6%	8.6%	20.8%	<b>3.6%***</b>	1.3%	9.2%
	35-39	11.2%	7.2%	16.9%	<b>7.9%***</b>	4.2%	14.1%
1972-1976	45-49	7.8%	3.8%	15.3%	<b>16.0%***</b>	10.1%	24.4%
	20-24	7.8%	4.6%	13.0%	4.2%	1.6%	10.2%
	30-34	9.8%	5.8%	16.0%	4.9%	2.2%	10.7%

	40-44	2.6%	0.6%	9.9%	10.4%	5.2%	19.5%
	15-19	<b>3.2%**</b>	1.5%	6.6%	5.0%	2.3%	10.5%
1977-1981	25-29	<b>7.0%**</b>	4.1%	11.6%	7.0%	2.8%	16.4%
	35-39	<b>10.4%**</b>	6.0%	17.4%	6.4%	2.6%	14.8%
1982-1987	20-24	10.3%	6.7%	15.6%	5.7%	2.8%	11.2%
	30-34	8.0%	4.3%	14.4%	5.7%	2.7%	11.6%
1988-1992	15-19	<b>4.7%***</b>	2.2%	9.8%	5.8%	2.4%	13.5%
	25-29	<b>15.0%***</b>	8.9%	24.2%	8.1%	4.1%	15.4%