Supplemental table: Variations in HPV DNA positivity of high-risk types by selected sociodemographic characteristics, sexual behaviours, and healthrelated factors and gender.

|  | Women |  |  | Men |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% (95\% CI) | Crude OR (95\% CI) | Denominator ${ }^{1}$ | \% (95\% CI) | Crude OR (95\% CI) | Denominator ${ }^{1}$ |
| All | 15.9\% (14.1\%-17.8\%) | - | 1525, 1851 | 9.6\% (8.0\%-11.6\%) | - | 1545, 1272 |
| Sociodemographic characteristics |  |  |  |  |  |  |
| Age, years |  | $p<0.0001$ |  |  | $p=0.1074$ |  |
| 40-44 | 9.8\% (6.8\%-13.9\%) | 1.00 | 281, 344 | 7.6\% (4.5\%-12.5\%) | 1.00 | 261, 231 |
| 35-39 | 11.0\% (8.0\% (15.1\%) | 1.15 (0.66-2.00) | 311, 375 | 7.7\% (4.8\%-12.2\%) | 1.02 (0.47-2.19) | 327, 269 |
| 30-34 | 12.8\% (9.7\%-16.6\%) | 1.35 (0.80-2.28) | 324, 427 | 7.8\% (5.1\%-11.8\%) | 1.03 (0.50-2.11) | 326, 281 |
| 25-29 | 17.3\% (13.4\%-22.0\%) | 1.93 (1.19-3.14) | 286, 359 | 10.1\% (6.5\%-15.4\%) | 1.37 (0.66-2.86) | 286, 219 |
| 18-24 | 27.5\% (22.5\%-33.3\%) | 3.51 (2.17-5.70) | 324,344 | 14.2\% (10.0\%-19.9\%) | 2.02 (1.02-4.00) | 348, 269 |
| Marital status |  | $p<0.0001$ |  |  | $p=0.0340$ |  |
| Married | 7.2\% (5.5\%-9.4\%) | 1.00 | 741, 769 | 6.5\% (4.5\%-9.3\%) | 1.00 | 670, 463 |
| Cohabiting | 20.7\% (15.9\%-26.3\%) | 3.37 (2.20-5.18) | 280, 295 | 12.6\% (8.4\%-18.4\%) | 2.07 (1.14-3.75) | 289, 203 |
| Previous married | 21.8\% (16.5\%-28.2\%) | 3.61 (2.30-5.67) | 138, 245 | 13.6\% (7.0\%-24.8\%) | 2.27 (0.99-5.24) | 61, 79 |
| Single, never married | 27.5\% (23.2\%-32.2\%) | 4.91(3.40-7.08) | 366, 542 | 11.6\% (8.6\%-15.3\%) | 1.88 (1.13-3.13) | 526, 525 |
| Social class |  | $p=0.1699$ |  |  | $p=0.2260$ |  |
| I/II | 12.9\% (10.2\%-16.2\%) | 1.00 | 432, 556 | 8.2\% (5.9\%-11.4\%) | 1.00 | 566, 500 |
| III non-manual | 18.3\% (15.0\%-22.1\%) | 1.51 (1.06-2.16) | 492, 577 | 7.4\% (3.8\%-13.8\% | 0.89 (0.41-1.95) | 183, 145 |
| III manual | 14.2\% (9.0\%-21.6\%) | 1.12 (0.63-1.99) | 111, 128 | 12.7\% (9.3\%-17.3\%) | 1.63 (0.98-2.71) | 444, 328 |
| IV/V | 17.5\% (13.7\%-22.1\%) | 1.43 (0.96-2.12) | 331, 398 | 9.6\% (6.1\%-14.9\%) | 1.19 (0.64-2.19) | 266, 225 |

Supplemental table (CONTINUED): Variations in HPV DNA positivity of high-risk types by selected sociodemographic characteristics, sexual behaviours, and health-related factors and gender.

|  | Women |  |  | Men |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% (95\% CI) | Crude OR (95\% CI) | Denominator ${ }^{1}$ | \% (95\% CI) | Crude OR (95\% CI) | Denominator ${ }^{1}$ |
| All | 15.9\% (14.1\%-17.8\%) | - | 1525, 1851 | 9.6\% (8.0\%-11.6\%) | - | 1545, 1272 |
| Education |  | $p=0.7374$ |  |  | $p=0.1364$ |  |
| Degree | 14.6\% (11.1\%-18.9\%) | 1.00 | 278, 381 | 6.5\% (4.1\%-10.1\%) | 1.00 | 353, 326 |
| A-level/Highers | 16.6\% (13.4\%-20.5\%) | 1.17 (0.78-1.75) | 468, 530 | 9.8\% (7.0\%-13.5\%) | 1.56 (0.85-2.88) | 515, 407 |
| GCSE/O-level | 15.0\% (12.4\%-18.1\%) | 1.03 (0.71-1.52) | 599, 707 | 12.3\% (9.1\%-16.4\%) | 2.02 (1.11-3.65) | 501, 394 |
| Foreign qualification | 20.8\% (5.7\%-53.4\%) | 1.54 (0.34-6.91) | 11, 15 | 0.0\% | N/A | 13, 14 |
| No qualifications | 18.6\% (13.3\%-25.3\%) | 1.34 (0.81-2.20) | 168, 217 | 8.7\% (4.5\%-16.1\%) | 1.37 (0.58-3.21) | 165, 129 |

## Sexual behaviours

Age at first
heterosexual sex,
years

| $20+$ | $12.8 \%(8.8 \%-18.4 \%)$ |
| ---: | ---: |
| $18 / 19$ | $11.8 \%(8.8 \%-15.6 \%)$ |
| 17 | $18.0 \%(14.1 \%-22.7 \%)$ |
| 16 | $15.5 \%(11.8 \%-20.1 \%)$ |
| 15 | $21.2 \%(16.3 \%-27.1 \%)$ |
| $<15$ | $18.9 \%(12.9 \%-26.9 \%)$ |


| 1.00 | 175,224 |
| :---: | :---: |
| $0.91(0.53-1.56)$ | 334,422 |
| $1.49(0.92-2.42)$ | 317,380 |
| $1.25(0.73-2.14)$ | 336,388 |
| $1.83(1.07-3.11)$ | 209,258 |
| $1.59(0.87-2.91)$ | 127,155 |

$5.2 \%(2.4 \%-10.9 \%)$
$5.8 \%(3.4 \%-9.7 \%)$
$9.3 \%(5.8 \%-14.7 \%)$
$9.6 \%(6.4 \%-14.3 \%)$
$12.9 \%(8.3 \%-19.5 \%)$
$18.1 \%(12.8 \%-25.0 \%)$

$$
p=0.0013
$$

$$
\begin{aligned}
& 334,422 \\
& 317,380 \\
& 336,388 \\
& 209,258 \\
& 127,155
\end{aligned}
$$

Ever had same-sex
partner(s)

|  |  | $p=0.041$ |  |
| :---: | :---: | :---: | :---: |
| No | $15.5 \%(13.7 \%-17.4 \%)$ | 1.00 | 1451,1738 |
| Yes | $23.6 \%(16.0 \%-33.4 \%)$ | $1.69(1.02-2.81)$ | 75,113 |


| $p=0.340$ |  |  |
| :---: | :---: | :---: |
| $9.8 \%(8.1 \%-11.9 \%)$ | 1.00 | 1454,1159 |
| $6.9 \%(3.2 \%-14.3 \%)$ | $0.68(0.30-1.51)$ | 94,113 |

Supplemental table (CONTINUED): Variations in HPV DNA positivity of high-risk types by selected sociodemographic characteristics, sexual behaviours, and health-related factors and gender.

|  | Women |  |  | Men |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% (95\% CI) | Crude OR (95\% CI) | Denominator ${ }^{1}$ | \% (95\% CI) | Crude OR (95\% CI) | Denominator ${ }^{1}$ |
| All | 15.9\% (14.1\%-17.8\%) | - | 1525, 1851 | 9.6\% (8.0\%-11.6\%) | - | 1545, 1272 |
| Number of sexual partners ${ }^{2}$, lifetime |  | $p<0.0001$ |  |  | $p=0.0029$ |  |
|  | 6.9\% (4.3\%-10.9\%) | 1.00 | 269, 279 | 1.4\% (0.3\%-5.8\%) | 1.00 | 197, 145 |
|  | 13.8\% (9.2\%-20.2\%) | 2.17 (1.10-4.29) | 175, 197 | 4.4\% (1.6\%-11.5\%) | 3.30 (0.54-20.3) | 124, 92 |
|  | 14.9\% (11.1\%-19.7\%) | 2.37 (1.29-4.33) | 286, 340 | 8.8\% (5.0\%-14.9\%) | 7.00 (1.40-34.8) | 211,165 |
|  | 17.2\% (14.0\%-21.0\%) | 2.81 (1.61-4.91) | 434, 535 | 9.9\% (6.8\%-14.3\%) | 7.99 (1.71-37.4) | 393, 317 |
|  | 23.8\% (19.6\%-28.5\%) | 4.22 (2.41-7.38) | 330, 464 | 13.9\% (10.8\%-17.6\%) | 11.7 (2.57-53.4) | 593, 529 |
| Number of sexual partners ${ }^{2}$, past year$\begin{array}{r} 0-1 \\ 2 \\ 3-4 \\ 5+ \end{array}$ |  | $p<0.0001$ |  |  | $p<0.0001$ |  |
|  | 13.0\% (11.3\%-15.0\%) | 1.00 | 1271, 1505, | 7.5\% (5.9\%-9.6\%) | 1.00 | 1152, 890 |
|  | 25.9\% (19.3\%-33.9\%) | 1.25 (0.59-2.67) | 114, 164 | 9.3\% (4.8\%-17.2\%) | 1.25 (0.59-2.67) | 134, 128 |
|  | 33.6\% (22.9\%-46.3\%) | 3.53 (1.93-6.44) | 56, 78 | 22.3\% (14.4\%-32.9\%) | 3.53 (1.93-6.44) | 114, 119 |
|  | 55.0\% (39.1\%-70.0\%) | 4.78 (2.53-9.02) | 34, 48 | 28.0\% (17.9\%-41.0\%) | 4.78 (2.53-9.02) | 83, 85 |
| Number of new sexual partners ${ }^{2}$, past year |  | $p<0.0001$ |  |  | $p<0.0001$ |  |
|  | 11.3\% (9.6\%-13.2\%) | 1.00 | 1174, 1363 | 6.7\% (5.0\%-8.9\%) | 1.00 | 1029, 786 |
|  | 29.1\% (23.3\%-35.5\%) | 3.22 (2.28-4.55) | 200, 293 | 12.7\% (8.4\%-18.8\%) | 2.03 (1.14-3.61) | 240, 219 |
|  | 42.3\% (32.6\%-52.7\%) | 5.77 (3.72-8.94) | 98, 138 | 22.6\% (16.7\%-29.8\%) | 4.07 (2.51-6.59) | 216, 220 |
| Number of sexual partners ${ }^{2}$ without a condom, past year |  | $p<0.0001$ |  |  | $p<0.0001$ |  |
|  | 14.5\% (10.4\%-19.8\%) | 1.00 | 246, 325 | 3.6\% (1.8\%-7.0\%) | 1.00 | 319, 301 |
|  | 14.4\% (12.5\%-16.6\%) | 0.99 (0.67-1.48) | 1113, 1295 | 9.1\% (7.1\%-11.5\%) | 2.68 (1.25-5.77) | 1001, 752 |
|  | $33.3 \%$ (25.8\%-41.8\%) | 2.94 (1.76-4.90) | 119, 176 | 24.1\% (17.0\%-33.1\%) | 8.59 (3.71-19.9) | 187, 186 |

Supplemental table (CONTINUED): Variations in HPV DNA positivity of high-risk types by selected sociodemographic characteristics, sexual behaviours, and health-related factors and gender.

|  | Women |  |  | Men |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% (95\% CI) | Crude OR (95\% CI) | Denominator ${ }^{1}$ | \% (95\% CI) | Crude OR (95\% CI) | Denominator ${ }^{1}$ |
| All | 15.9\% (14.1\%-17.8\%) | - | 1525, 1851 | 9.6\% (8.0\%-11.6\%) | - | 1545, 1272 |
| Concurrency between the most recent sexual partners ${ }^{3}$, past year |  | $p<0.0001$ |  |  | $p=0.010$ |  |
| No | 13.9\% (12.2\%-15.9\%) | 1.00 | 1333, 1599 | 8.5\% (6.7\%-10.6\%) | 1.00 | 1255, 1001 |
| Yes | 31.1\% (23.6\%-39.7\%) | 2.78 (1.86-4.16) | 101, 144 | 15.9\% (10.4\%-23.5\%) | 2.05 (1.19-3.54) | 174, 177 |
| Receptive oral sex from sexual partner(s) ${ }^{2}$, past year |  | $p=0.744$ |  |  | $p=0.034$ |  |
| No | 15.2\% (11.6\%-19.7\%) | 1.00 | 329, 425 | 5.8\% (3.3\%-9.8\%) | 1.00 | 319, 272 |
| Yes | 16.0\% (13.9\%-18.3\%) | 1.06 (0.74-1.51) | 1162, 1385 | 10.7\% (8.7\%-13.2\%) | 1.97 (1.05-3.69) | 1198, 977 |
| Anal sex with opposite sex partner(s), past year |  | $p=0.002$ |  |  | $p=0.139$ |  |
| No | 14.8\% (12.9\%-16.8\%) | 1.00 | 1318, 1577 | 9.2\% (7.5\%-11.2\%) | 1.00 | 1321,1083 |
| Yes | 23.7\% (18.0\%-30.4\%) | 1.79 (1.23-2.60) | 175, 232 | 13.2\% (8.3\%-20.5\%) | 1.50 (0.87-2.59) | 193, 162 |
| Receptive/insertive ana sex with same sex partner(s), past year | Not applicable |  |  |  | $p=0.387$ |  |
|  |  |  |  | 9.7\% (8.0\%-11.7\%) | 1.00 | 1509, 1224 |
|  |  |  |  | 4.4\% (0.7\%-23.5\%) | 2.33 (0.34-15.8) | 32,39 |
| Health-related factors |  |  |  |  |  |  |
| Smoking status |  | $p=0.0089$ |  |  | $p=0.0002$ |  |
| Never smoked | 13.1\% (10.7\%-15.9\%) | 1.00 | 701, 819 | 6.0\% (4.3\%-8.5\%) | 1.00 | 692, 569 |
| Ex-smoker | 15.3\% (11.3\%-20.3\%) | 1.20 (0.79-1.81) | 257, 306 | 10.2\% (6.3\%-16.2\%) | 1.77 (0.90-3.49) | 251, 205 |
| Light smoker | 21.0\% (17.1\%-25.6\%) | 1.77 (1.25-2.50) | 318, 413 | 17.4\% (12.7\%-23.4\%) | 3.25 (1.94-5.47) | 305, 266 |
| Heavy smoker | 17.6\% (13.2\%-22.9\%) | 1.41 (0.94-2.12) | 249, 313 | 9.3\% (6.0\%-14.2\%) | 1.60 (0.87-2.93) | 297, 231 |

Supplemental table (CONTINUED): Variations in HPV DNA positivity of high-risk types by selected sociodemographic characteristics, sexual behaviours, and health-related factors and gender.

|  | Women |  |  | Men |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% (95\% CI) | Crude OR (95\% CI) | Denominator ${ }^{1}$ | \% (95\% CI) | Crude OR (95\% <br> CI) | Denominator ${ }^{1}$ |
| All | 15.9\% (14.1\%-17.8\%) | - | 1525, 1851 | 9.6\% (8.0\%-11.6\%) | - | 1545, 1272 |
| Alcohol consumption ${ }^{4}$ |  | $p<0.0001$ |  |  | $p=0.0204$ |  |
| None | 8.6\% (6.0\%-12.2\%) | 1.00 | 266, 330 | 5.2\% (2.4\%-11.0\%) | 1.00 | 158, 130 |
| Within recommended limits | 15.7\% (13.6\%-18.2\%) | 1.98 (1.30-3.03) | 1090, 1315 | 9.4\% (7.6\%-11.6\%) | 1.90 (0.82-4.42) | 1243, 1013 |
| Exceeds recommended limits | 28.1\% (21.5\%-35.8\%) | 4.15 (2.43-7.08) | 169, 206 | 16.2\% (10.4\%-24.5\%) | 3.53 (1.35-9.24) | 145, 126 |
| Circumcision status | Not applicable |  |  |  | $p=0.064$ |  |
| Not circumcised |  |  |  | 10.5\% (8.5\%-12.8\%) | 1.00 | 1277, 1040 |
| Circumcised |  |  |  | 5.7\% (3.0\%-10.4\%) | 0.51 (0.25-1.04) | 251, 221 |
| Used oral contraception, past year |  | $p<0.0001$ |  | Not applicable |  |  |
|  |  | $1.00$ | 956, 1181 |  |  |  |
| Yes | $20.1 \% ~(16.9 \%-23.7 \%)$ | 1.61 (1.24-2.09) | 535, 640 |  |  |  |
| STI diagnosis/es, past 5 years ${ }^{5}$ |  | $p=0.143$ |  |  | $p=0.027$ |  |
| No | 15.6\% (13.8\%-17.6\%) | 1.00 | 1406, 1692 | 9.3\% (7.6\%-11.3\%) | 1.00 | 1429, 1167 |
| Yes | 23.2\% (13.6\%-36.8\%) | 1.64 (0.85-3.18) | 53, 75 | 21.0\% (10.5\%-37.5\%) | 2.60 (1.12-6.05) | 48, 49 |

## Notes for Supplemental table:

1. Weighted, unweighted denominator defined as respondents in Natsal-2 providing a urine sample.
2. Opposite and/or same sex sexual partner(s).
3. Respondents were asked to report the months and years of first and last sex with their most recent partners (at most three partners). Where these dates overlapped between their most recent partner and their second most recent partner and/or their second most partner and their third most recent partner, it is assumed that the partnerships were concurrent.
4. Recommended limits are no more than 14 units per week among women and no more than 21 units per week among men according to the Royal College of Physicians, Royal College of Psychiatrists, Royal College of General Practitioners. Alcohol and the heart: sensible limits reaffirmed. London: Royal College of Physicians; 1995.
5. Defined as having been diagnosed with at least one of the following eight major sexually transmitted infections in the five years prior to interview for Natsal-2: genital herpes, trichomonas, gonorrhoea, syphilis, chlamydia, NSU/NSGI, genital warts, or pelvic inflammatory disease.,
