**Supplementary Table SIII** Sensitivity analyses for semen parameters[a] among men at a fertility center who reported most frequently wearing boxers compared to men who did not.

| Type of underwear | Ejaculate volume (mL) | Sperm concentration (mil/mL) | Total sperm count (mil/ejaculate) | Total motility (%) | Total motile count (mil/ejaculate) | Normal morphology[b] (%) | Normal morphology count[b] (mil/ejaculate) |
|---|---|---|---|---|---|---|---|
| Adjusted[b] | | | | | | | |
| Primarily wearing boxers | 2.94 (2.79, 3.11) | 60.5 (54.7, 67.0) | 153 (138, 170) | 48.7 (46.3, 51.0) | 62.7 (53.7, 73.3) | 6.61 (6.21, 7.11) | 8.2 (7.0, 9.6) |
| Not primarily wearing boxers | 3.05 (2.79, 3.21) | 48.5 (43.2, 54.5) | 131 (116, 148) | 46.1 (43.6, 48.6) | 47.3 (38.9, 57.5) | 6.70 (6.21, 7.02) | 7.4 (6.2, 8.7) |
| P-value | 0.42 | 0.004 | 0.05 | 0.13 | 0.02 | 0.75 | 0.38 |
| Adjusted[b] + history of varicocele | | | | | | | |
| Primarily wearing boxers | 2.85 (2.69, 3.01) | 59.3 (53.4, 65.9) | 146 (131, 162) | 49.0 (46.5, 51.5) | 60.1 (51.0, 70.8) | 6.53 (6.12, 6.94) | 7.7 (6.5, 9.0) |
| Not primarily wearing boxers | 3.02 (2.85, 3.17) | 47.5 (41.9, 53.8) | 128 (112, 145) | 45.6 (43.0, 48.3) | 45.1 (36.5, 55.8) | 6.49 (6.08, 6.89) | 7.0 (5.9, 8.5) |
| P-value | 0.16 | 0.006 | 0.11 | 0.06 | 0.03 | 0.88 | 0.50 |
| Adjusted[b] + hot bath/jacuzzi | | | | | | | |
| Primarily wearing boxers | 2.95 (2.79, 3.11) | 60.4 (54.6, 66.9) | 152 (138, 169) | 48.6 (46.3, 51.1) | 62.3 (53.2, 72.9) | 6.61 (6.21, 7.02) | 8.2 (6.9, 9.6) |
| Not primarily wearing boxers | 3.06 (2.90, 3.22) | 48.7 (43.3, 54.6) | 131 (117, 148) | 46.2 (43.7, 48.6) | 47.8 (39.4, 58.0) | 6.70 (6.29, 7.11) | 7.4 (6.2, 8.8) |
| P-value | 0.33 | 0.005 | 0.06 | 0.14 | 0.02 | 0.76 | 0.39 |
| Adjusted[b], restricted first semen sample | | | | | | | |
| Primarily wearing boxers | 3.00 (2.85, 3.17) | 58.3 (52.0, 65.3) | 150 (134, 169) | 47.4 (45.0, 49.8) | 59.4 (49.7, 71.0) | 6.67 (6.24, 7.11) | 8.2 (6.9, 9.8) |
| Not primarily wearing boxers | 3.03 (2.86, 3.20) | 44.4 (39.4, 50.0) | 118 (104, 133) | 44.7 (42.1, 47.2) | 41.4 (34.3, 49.9) | 6.65 (6.18, 7.11) | 6.3 (5.3, 7.6) |
| P-value | 0.85 | 0.001 | 0.005 | 0.12 | 0.01 | 0.94 | 0.04 |

Mil, million.
[a]Data are presented as predicted marginal means (95% CI).
[b]Models are adjusted for age (continuous), BMI (continuous), smoking status (ever and never smoked), abstinence time (continuous) and year of semen sample collection (continuous).