Supplemental Material 1. Odds ratios (ORs) and 95% confidence intervals (CIs) for a male birth according to socio-demographic factors among second births, Phases I-VII (1997-2017), Korea

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Phase I | Phase II | Phase III | Phase IV | Phase V | Phase VI | Phase VII |
| (1997-1999) | (2000-2002) | (2003-2005) | (2006-2008) | (2009-2011) | (2012-2014) | (2015-2017) |
| Maternal age (years) |  |  |  |  |  |  |  |
| -19 | 0.95 (0.86-1.05) | 0.96 (0.85-1.09) | 1.02 (0.86-1.22) | 0.91 (0.73-1.13) | 0.96 (0.77-1.21) | 1.05 (0.86-1.30) | 1.17 (0.91-1.50) |
| 20-24 | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) |
| 25-29 | 1.01 (0.99-1.02) | 1.00 (0.98-1.02) | 0.99 (0.96-1.02) | 1.00 (0.97-1.03) | 1.00 (0.96-1.03) | 1.02 (0.98-1.06) | 0.96 (0.92-1.00) |
| 30-34 | 1.00 (0.98-1.02) | 0.99 (0.97-1.01) | 1.00 (0.97-1.03) | 1.00 (0.97-1.04) | 0.99 (0.96-1.03) | 1.03 (0.99-1.07) | 0.98 (0.94-1.02) |
| 35-39 | 0.98 (0.96-1.01) | 0.98 (0.95-1.01) | 1.00 (0.97-1.03) | 1.00 (0.97-1.04) | 0.99 (0.96-1.03) | 1.03 (0.99-1.07) | 0.98 (0.94-1.02) |
| 40- | 0.96 (0.90-1.03) | 0.98 (0.92-1.05) | 0.96 (0.90-1.03) | 1.00 (0.94-1.07) | **0.94 (0.89-0.99)\*** | 1.00 (0.95-1.05) | 1.01 (0.95-1.06) |
| Paternal age (years) |  |  |  |  |  |  |  |
| -19 | 1.24 (0.93-1.66) | 0.85 (0.60-1.19) | 1.01 (0.66-1.54) | 0.92 (0.59-1.43) | 0.96 (0.61-1.52) | 1.10 (0.77-1.57) | 1.01 (0.66-1.55) |
| 20-24 | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) |
| 25-29 | 1.02 (0.98-1.06) | 1.00 (0.95-1.05) | 0.98 (0.92-1.04) | 0.99 (0.93-1.06) | 1.02 (0.94-1.10) | 1.04 (0.97-1.13) | 1.06 (0.99-1.15) |
| 30-34 | 1.02 (0.98-1.06) | 1.01 (0.96-1.06) | 0.97 (0.92-1.03) | 0.99 (0.92-1.06) | 1.02 (0.94-1.10) | 1.03 (0.96-1.11) | 1.07 (0.99-1.15) |
| 35-39 | 1.02 (0.98-1.07) | 1.01 (0.96-1.07) | 0.97 (0.91-1.03) | 0.99 (0.92-1.06) | 1.01 (0.94-1.10) | 1.04 (0.96-1.12) | 1.07 (0.99-1.15) |
| 40- | 1.01 (0.96-1.06) | 1.00 (0.94-1.06) | 0.98 (0.92-1.05) | 0.98 (0.91-1.06) | 1.03 (0.95-1.11) | 1.04 (0.97-1.13) | 1.06 (0.98-1.14) |
| Maternal education |  |  |  |  |  |  |  |
| Tertiary | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) |
| Secondary | 0.99 (0.98-1.00) | 1.00 (0.99-1.01) | 0.99 (0.98-1.00) | 0.99 (0.98-1.01) | 1.00 (0.98-1.01) | 1.00 (0.99-1.02) | 0.99 (0.98-1.01) |
| Primary | 1.05 (1.00-1.11) | 0.94 (0.87-1.00) | 1.04 (0.94-1.14) | 1.07 (0.96-1.19) | 1.04 (0.95-1.14) | 1.03 (0.93-1.14) | 1.05 (0.93-1.18) |
| Paternal education |  |  |  |  |  |  |  |
| Tertiary | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) |
| Secondary | 0.99 (0.98-1.00) | **0.98 (0.97-1.00)\*** | 1.01 (1.00-1.02) | 1.01 (0.99-1.02) | 0.99 (0.98-1.00) | 1.01 (0.99-1.02) | 1.00 (0.99-1.02) |
| Primary | 1.02 (0.97-1.06) | 1.04 (0.98-1.10) | 1.01 (0.93-1.08) | 1.06 (0.97-1.16) | 0.99 (0.90-1.10) | 1.02 (0.91-1.15) | 0.95 (0.83-1.10) |
| Maternal occupation |  |  |  |  |  |  |  |
| Non-Manual | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) |
| Manual | 1.01 (0.98-1.04) | 1.00 (0.97-1.04) | **1.03 (1.00-1.07)\*** | 1.01 (0.98-1.04) | 0.99 (0.96-1.02) | 0.98 (0.95-1.00) | 1.00 (0.98-1.03) |
| Others | 1.01 (0.99-1.02) | 1.01 (0.99-1.02) | 1.02 (1.00-1.03) | 1.01 (1.00-1.03) | 1.00 (0.98-1.01) | 0.99 (0.98-1.00) | 1.01 (0.99-1.02) |
| Paternal occupation |  |  |  |  |  |  |  |
| Non-Manual | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) |
| Manual | 1.00 (0.99-1.01) | 1.01 (1.00-1.02) | 1.00 (0.98-1.01) | 0.99 (0.98-1.01) | 1.00 (0.99-1.01) | 0.99 (0.98-1.00) | 1.00 (0.98-1.01) |
| Others | 1.01 (0.99-1.03) | 1.01 (0.98-1.03) | 1.00 (0.97-1.02) | 1.01 (0.99-1.03) | 1.00 (0.98-1.03) | 0.98 (0.96-1.01) | 1.00 (0.97-1.03) |

Note: Logistic regression models were used to estimate ORs and 95% CIs for a male birth, after adjusting for parental ages, education, and occupation.

\*Bolded values indicate *p* < 0.05.