**Supplemental table 1.** Adjusted median plasma folate concentrations (nmol/L) according to maternal characteristics, by physiologic period**\***

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Characteristics | Mid-pregnancy | | |  | Late pregnancy | | |  | Lactation | | |
| Median | IQR | *P* value† |  | Median | IQR | *P* value† |  | Median | IQR | *P* value† |
| Age, year |  |  | 0.040 |  |  |  | <0.001 |  |  |  | <0.001 |
| ≤25 | 29.3 | 19.9 – 37.6 |  |  | 16.0a | 12.6 – 20.1 |  |  | 13.9a | 10.9 – 20.4 |  |
| >25–30 | 26.6 | 19.5 – 39.2 |  |  | 20.0b | 14.8 – 27.5 |  |  | 17.0b | 12.5 – 23.1 |  |
| >30 | 28.7 | 18.9 –38.5 |  |  | 20.1b | 13.1 –29.9 |  |  | 17.1b | 13.1 –23.9 |  |
| Pre-pregnancy BMI |  |  | <0.001 |  |  |  | 0.074 |  |  |  | <0.001 |
| Underweight | 25.9b | 19.0 – 39.6 |  |  | 18.9 | 13.4 – 24.9 |  |  | 18.2c | 13.7 – 26.0 |  |
| Normal weight | 26.6b | 19.5 – 39.2 |  |  | 19.4 | 13.6 – 27.6 |  |  | 16.9b | 12.2 – 23.0 |  |
| Overweight/obese | 22.2a | 17.5 – 29.7 |  |  | 12.5 | 7.3 – 21.8 |  |  | 13.1a | 11.4 – 17.5 |  |
| Parity |  |  | 0.018 |  |  |  | <0.001 |  |  |  | 0.017 |
| Primiparous | 26.6b | 19.0 – 39.1 |  |  | 20.0b | 14.6 – 27.5 |  |  | 16.9b | 12.5 – 23.2 |  |
| Multiparous | 28.8a | 21.2 – 38.3 |  |  | 12.5a | 6.1 – 20.8 |  |  | 15.2a | 11.6 – 18.9 |  |
| Ethnicity |  |  | 0.692 |  |  |  | 0.212 |  |  |  | 0.019 |
| Han | 26.6 | 19.5 – 38.9 |  |  | 18.8 | 13.6 – 26.0 |  |  | 16.8b | 12.3 – 23.1 |  |
| Other | 25.8 | 10.4 – 35.8 |  |  | 13.4 | 8.7 – 22.8 |  |  | 11.9a | 8.6 – 16.3 |  |
| Education |  |  | 0.552 |  |  |  | <0.001 |  |  |  | <0.001 |
| College or higher | 26.6b | 19.0 – 39.2 |  |  | 21.0c | 15.1 – 28.7 |  |  | 17.0c | 12.8 – 25.3 |  |
| High school | 29.0b | 19.9 – 39.8 |  |  | 17.9b | 13.1 – 22.9 |  |  | 16.0b | 11.6 – 20.4 |  |
| Middle school or less | 27.6a | 20.7 – 36.4 |  |  | 14.2a | 12.3 – 18.3 |  |  | 13.1a | 11.2 – 19.4 |  |
| Delivery mode |  |  |  |  |  |  |  |  |  |  | <0.001 |
| Vaginal delivery | – |  |  |  | – |  |  |  | 17.0b | 12.8 – 24.4 |  |
| Caesarean delivery | – |  |  |  | – |  |  |  | 13.2a | 9.5 – 20.1 |  |
| Feeding practice |  |  |  |  |  |  |  |  |  |  | <0.001 |
| Exclusive breastfeeding | – |  |  |  | – |  |  |  | 16.0a | 11.9 – 22.4 |  |
| Partial breastfeeding | – |  |  |  | – |  |  |  | 17.3b | 12.5 – 23.1 |  |

IQR, interquartile range; BMI, body mass index.

**\***Adjusted medians (IQRs) were estimated from multivariable quantile regression models adjusting for geographic region, maternal age, pre-pregnancy BMI, parity, educational level, and ethnicity; delivery mode and feeding practice were additionally included in the models for lactating women.

†The adjusted median folate concentrations were significantly different according to maternal characteristics (*P*<0.001); values with varied superscript letters (a, b, c) denote significantly different concentrations: a < b < c; Bonferroni corrected Mann-Whitney U-tests were used for multiple comparisons.

**Supplemental table 2.** Adjusted relative risk (RR) and 95% confidence interval (95% CI) of suboptimal folate status according to maternal characteristics, by physiologic period**\***

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Characteristics | Mid-pregnancy | | |  | Late pregnancy | | |  | Lactation | | |
| RR | 95% CI | P value |  | RR | 95% CI | P value |  | RR | 95% CI | P value |
| Geographic region |  |  |  |  |  |  |  |  |  |  |  |
| Southern | Ref |  |  |  | Ref | Ref |  |  | Ref | Ref |  |
| Central | 0.89 | 0.30 – 2.68 | 0.839 |  | 0.89 | 0.57 – 1.40 | 0.614 |  | 1.03 | 0.71 – 1.49 | 0.882 |
| Northern | **5.64** | **2.50 – 12.75** | **<0.001** |  | **3.00** | **2.09 – 4.29** | **<0.001** |  | **2.60** | **1.95 – 3.45** | **<0.001** |
| Age, year |  |  |  |  |  |  |  |  |  |  |  |
| ≤25 | 1.02 | 0.48 – 2.18 | 0.959 |  | 1.13 | 0.84 – 1.54 | 0.420 |  | 1.21 | 0.91 – 1.59 | 0.187 |
| >25–30 | Ref | Ref |  |  | Ref | Ref |  |  | Ref | Ref |  |
| >30 | 1.17 | 0.65 – 2.08 | 0.606 |  | **0.71** | **0.52 – 0.96** | **0.025** |  | **0.67** | **0.50 – 0.90** | **0.009** |
| Pre-pregnancy BMI |  |  |  |  |  |  |  |  |  |  |  |
| Underweight | 1.30 | 0.68 – 2.46 | 0.427 |  | 1.02 | 0.78 – 1.34 | 0.866 |  | 0.76 | 0.56 – 1.01 | 0.063 |
| Normal weight | Ref | Ref |  |  | Ref | Ref |  |  | Ref | Ref |  |
| Overweight/obese | **2.13** | **1.22 – 3.74** | **0.008** |  | 0.75 | 0.49 – 1.13 | 0.170 |  | 1.25 | 0.94 – 1.67 | 0.127 |
| Parity |  |  |  |  |  |  |  |  |  |  |  |
| Primiparous | Ref | Ref |  |  | Ref | Ref |  |  | Ref | Ref |  |
| Multiparous | 0.93 | 0.46 – 1.88 | 0.832 |  | **1.40** | **1.02 – 1.94** | **0.040** |  | 1.25 | 0.95 – 1.65 | 0.110 |
| Ethnicity |  |  |  |  |  |  |  |  |  |  |  |
| Han | Ref | Ref |  |  | Ref | Ref |  |  | Ref | Ref |  |
| Other | 1.06 | 0.54 – 2.11 | 0.861 |  | 0.91 | 0.49 – 1.71 | 0.780 |  | 1.25 | 0.79 – 1.97 | 0.336 |
| Education |  |  |  |  |  |  |  |  |  |  |  |
| College or higher | Ref | Ref |  |  | Ref | Ref |  |  | Ref | Ref |  |
| High school | 1.21 | 0.62 – 2.35 | 0.573 |  | 1.10 | 0.84 – 1.45 | 0.492 |  | 1.14 | 0.89 – 1.46 | 0.291 |
| Middle school or less | 1.49 | 0.70 – 3.19 | 0.302 |  | **1.20** | **0.86 – 1.69** | 0.280 |  | **1.44** | **1.05 – 1.97** | **0.023** |
| Delivery mode |  |  |  |  |  |  |  |  |  |  |  |
| Vaginal delivery | **–** |  |  |  | **–** |  |  |  | Ref | Ref |  |
| Caesarean delivery | **–** |  |  |  | **–** |  |  |  | 0.95 | 0.77 – 1.18 | 0.645 |
| Feeding practice |  |  |  |  |  |  |  |  |  |  |  |
| Exclusive breastfeeding | **–** |  |  |  | **–** |  |  |  | Ref | Ref |  |
| Partial breastfeeding | **–** |  |  |  | **–** |  |  |  | 1.03 | 0.84 – 1.27 | 0.784 |

RR, relative risk; 95% CI, 95% confidence interval; Ref, reference; BMI, body mass index.

**\***Adjusted RRs and 95% CIs were estimated using multivariable Poisson regression models adjusted for geographic region, maternal age, pre-pregnancy BMI, parity, educational level, and ethnicity; delivery mode and feeding practice were additionally included in the models for lactating women; significant adjusted RRs and 95% CIs are in bold type.