Supplement 1: Adjusted and unadjusted vitamin D levels and deficiency

| Vitamin D levels | Group A | Group B | Group C |
|------------------|---------|---------|---------|
| Serum 25(OH)D (ng/mL) |         |         |         |
| Baseline Unadjusted | 8.4 ± 5.5 | 9.8 ± 10.2 | 7.9 ± 6.1 |
| Adjusted¥ | 8.51 ± 9.2 | 7.93 ± 9.06 | 7.81 ± 9.22 |
| Final Unadjusted | 14.0 ± 9.6* | 11.9 ± 7.7 | 9.8 ± 7.2 |
| Adjusted§ | 14.09 ± 10.2* | 11.72 ± 9.87 | 10.28 ± 9.85 |

Vitamin D deficiency

| Serum 25(OH)D deficiency (<20 ng/mL) |         |         |         |
| Baseline Unadjusted | 97.5% | 94.8% | 96.4% |
| Adjusted¥ | 97.4% | 94.8% | 96.0% |
| Final Unadjusted | 75.9%** | 84.9% | 90.2% |
| Adjusted§ | 76.4%** | 89.4% | 90.4% |

| Serum 25(OH)D severe deficiency (<8 ng/mL) |         |         |         |
| Baseline Unadjusted | 60.5% | 55.6% | 67.6% |
| Adjusted¥ | 59.2% | 55.8%** | 69.1% |
| Final Unadjusted | 37.2%* | 37.8%* | 53.8% |
| Adjusted§ | 36.9%* | 39.2% | 51.2% |

¥ Adjusted for dietary intake
§ Adjusted for dietary intake and serum 25(OH)D at baseline
** p<0.005, *p<0.05 (Group A/ B compared with Group C)

Supplement 1: Comparison of delivered and withdrawal participants

| Treatment group | Delivered (n=256) | Exited (n=94) | P-value |
|-----------------|-------------------|--------------|---------|
| Group A (4000 IU) | 79 (30.86%) | 41 (43.62%) | 0.063 |
| Group B (2000 IU) | 86 (33.59%) | 29 (30.85%) | 0.620 |
| Group C (400 IU) | 91 (35.55%) | 24 (25.53%) | 0.649 |
| Maternal age (years) | 25.89 ± 4.27 | 26.41 ± 4.35 | 0.312 |
| Gestation at enrolment (weeks) | 13.46 ± 4.33 | 12.85 ± 4.65 | 0.25 |
| Maternal gravidity | 2 (1-3) | 2 (1-3) | 0.549 |
| Maternal parity | 1 (0-2) | 1 (0-2) | 0.546 |
| Maternal years of education, (years) | 10.27 ± 3.56 | 9.38 ± 4.38 | 0.055 |
| Occupation |         |         |         |
| Housewife | 248 (96.88%) | 92 (97.87%) | 0.620 |
| Salary based employee | 8 (3.13%) | 2 (2.13%) | 0.649 |
| Body Mass Index kg/m² | 26.04 ± 6.41 | 26.60 ± 16.56 | 0.089 |
| Maternal Biomarkers |         |         |         |
| Vitamin D (ng/ml) | 8.62 ± 8.14 | 8.05 ± 5.85 | 0.348 |
| Vitamin D < 20(ng/ml) | 244 (96.8%) | 88 (94.6%) | 0.737 |
| Calcium (mg/dl) | 9.32 ± 2.39 | 9.23 ± 2.30 | 0.330 |
| Calcium < 8.6 (mg/dl) | 81 (32.1%) | 30 (32.3%) | 0.119 |
| Phosphorus (mg/dl) | 13.19 ± 6.53 | 11.96 ± 6.27 | 0.379 |
| Alkaline Phosphate (mg/dl) | 75.82 ± 28.19 | 79.28 ± 41.58 |

Data presented as mean ± sd, median (IQR) and n (%)
