

## Appendix

In situations (a) and (b) described in the methods section (calculation of predicted birth weight) the prediction was made using the coefficients from table 1 of the paper by Skjærven and colleagues (4). In situation (c) we also used the intercept and slope from the same table, but modified the equation according to the sex of the first baby:

First baby was a girl:  $\text{Prediction} = \text{intercept} + \text{slope} * (\text{birth weight first child} + \mathbf{K}/2 - 3500\text{g})$

First baby was a boy:  $\text{Prediction} = \text{intercept} + \text{slope} * (\text{birth weight first child} - \mathbf{K}/2 - 3500\text{g})$ ,

where **K** is the average differences in birth weight for firstborn boys and girls.

Based on 27,637 first live, singleton babies in the cohort we estimated **K** according to five categories of gestational age:

|           | Gestational age of first baby (weeks) |       |       |       |     |         |
|-----------|---------------------------------------|-------|-------|-------|-----|---------|
|           | 28-33                                 | 34-36 | 37-39 | 40-41 | >41 | missing |
| K (grams) | 80                                    | 106   | 124   | 134   | 186 | 124     |

Gestational age was the estimate reported in the birth record (the only one available). When it was missing (n=4), we used the average difference for gestational age 37-39 weeks (124 grams).