

## Statistical Analysis

The associations were analysed using linear mixed effects models that accounted for the intra-child correlation of the repeated zscores by allowing all individuals to have different (random) intercepts.(26) Given the documented gender differences in the literature on socioeconomic disparities in overweight and obesity, (10, 15, 23) we decided, a priori, to stratify the analyses on sex. The model for the z-score ( $Z_{ij}$ ) for child  $i$  at age  $j = 1, 2, 3, 4$  (corresponding to birth, and 5, 12 months and 7 years, respectively) was:

$$Z_{ij} = A_i + b_{j,k(i)} + E_{ij}.$$

Here,  $A_i$  is the mean zero random intercept for child  $i$  and  $E_{ij}$  is a mean zero random deviation from the mean value  $b_{j,k(i)}$  where  $k = k(i)$  denotes the socioeconomic category for child  $i$ . This is either  $k = 1, 2, 3$  corresponding to the three groups of maternal or paternal education, or  $k = 1, 2, 3, 4, 5$  corresponding to income quintiles. Allowing for an interaction between socioeconomic position and age allowed us, on the one hand, to study differences in social inequality at different ages and, on the other hand, to study BMI changes over time (tracking) from birth to age 7 in different groups of socioeconomic position. Thus, Table 4 presents estimates (with 95% confidence intervals, CI) of social differences at different ages:  $b_{jk} - b_{j3}, j = 1, 2, 3, 4; k = 1, 2$  (or  $b_{jk} - b_{j5}, j = 1, 2, 3, 4; k = 1, 2, 3, 4$ ) and Table 3 estimates of age differences (with 95% CI) for different socioeconomic groups:  $b_{jk} - b_{1k}, j = 2, 3, 4; k = 1, 2, 3, (4, 5)$ . We tested whether there was an interaction between age and socioeconomic position (Table 3) and we tested for trend among socioeconomic categories for each age (Table 4). To explore whether missing data may have caused any bias in our results, we used logistic regression to estimate whether maternal educational level and weight status at birth, at age 5 months and at age 12 months predicted participation in subsequent interviews. A p-value below 0.05 was considered statistically significant. We used the PROC GENMOD and the PROC MIXED procedure in SAS version 9.4 (SAS Institute, Cary, NC).