**Supplemental Figures 1-7**

**Supplemental Figure 1** Densities of A. observed intakes, B. transformed intakes (after step 1.1), C. the shrunken transformed intakes (eliminated within individual variance, after step 1.2) and D. the habitual intakes (after step 1.3). The vertical bars indicate the mean of the corresponding density. Supplemental Figures 1A and 1D are original scale and 1B and 1C are the transformed scale.
Supplemental Figure 2  Screen shot of the SPADE diagnostic plots to check for normality by both a histogram and a QQ-plot for the original intakes (left hand side) and the Box-Cox transformed intakes (right hand side) of folate, women, 7-69 y (DNFCS 2007-2010). DNFCS, Dutch National Food Consumption Survey; Q-Q plot, scatterplot with sample quantiles plotted against theoretical quantiles; SPADE, Statistical Program to Assess Dietary Exposure.
Supplemental Figure 3 Histogram of the mean folic acid intakes from fortified foods by women 7-69 y (DNFCS 2007-2010). The first, most left bin represents all zeroes; 77% of the observations, divided in 68% of the women with two zero intakes and 18% of the women with one zero intake. DNFCS, Dutch National Food Consumption Survey.
Supplemental Figure 4  Screen shot of the SPADE diagnostic plots to check for normality on the transformed scale after fitting the intake probability model for consuming folic acid from food sources by women, 7-69 y (DNFCS 2007-2010). DNFCS, Dutch National Food Consumption Survey; Q-Q plot, scatterplot with sample quantiles plotted against theoretical quantiles; SPADE, Statistical Program to Assess Dietary Exposure.
Supplemental Figure 5 Combination of two screen shots of SPADE, (A) intake probability distributions per age y and (B) habitual amount distributions per age y based on subjects with at least one positive folic acid intake. The dots represent the observed mean intake frequency per age (A) and the mean observed amount per age (B), and the grey curves in (A) and (B) respectively the mean intake frequency and the mean intake amount. The black wiggled curves indicate the simulated percentiles of the intake frequency distribution per age (A) and the simulated percentiles of the intake amounts distribution (B). AM, Arithmetic Mean; BB model, Beta-Binomial model; DNFCS, Dutch National Food Consumption Survey; p.0.95, 95-percentile; SPADE, Statistical Program to Assess Dietary Exposure.
Supplemental Figure 6 Screen shot of the SPADE bootstrap plot for habitual intake distributions with 95%-confidence intervals for folic acid intake from food source by age for women 7-69 y (DNFCS 2007-2010), represented by mean habitual intake (grey curve with label AM) and some percentiles (black curves). The open dots represent the mean observed intake per age. The grey shaded areas indicate the 95%-confidence intervals for each percentile. The black dots represent the mean of the 1000 bootstraps per age for the estimated percentiles.

AM, Arithmetic mean; DNFCS, Dutch National Food Consumption Survey; p.0.95, 95-percentile of habitual intake distribution; SPADE, Statistical Program to Assess Dietary Exposure.
Supplemental Figure 7 Histogram of all positive folic acid intakes (i.e. intake greater than zero) from dietary supplements by women, 7-69 y (DNFCS 2007-2010) showing the spiky density of these intakes. DNFCS, Dutch National Food Consumption Survey.