nut-12.3. Report Any Adjustments for Measurement Error, I.e., from a Validity or Calibration Study

Example. “A second FFQ was taken from a sample of 1918 (5%) of the cohort, from which the amount of random measurement error was estimated by using a regression calibration approach to obtain individual predicted values of dietary exposure for all participants. Cox proportional hazards regression was then conducted by using the predicted values for each individual categorized into quintiles to give estimated HRs corrected for some of the effects of measurement error. 95% CIs were obtained from bootstrapped estimates”.

Explanation. Despite the improvement in dietary assessment methods, random and systematic measurement errors, both within and between individuals, may be present in dietary data. The statistical understanding of dietary measurement errors is increasing, and different methods have been developed to try to correct for measurement errors in analysis when examining associations between dietary exposures and disease risks. Because these methods are all based on specific assumptions, and depend on the type of calibration study and data available, there is a need to clearly describe them in order to improve the interpretation. It is helpful to provide the rationale for the adjustment as well as to describe the adjustment method, including risk estimates with 95% CIs.