NDNS uncertainty

In this guide

100. Doubly labelled water studies are used to measure total energy expenditure of individuals. These are carried out alongside the NDNS, and the results are compared with the reported energy intakes in the survey. This comparison shows that on average reported energy intakes are around 30% lower than the total energy expenditure. This could arise due to both individual misreporting and survey design.

101. The NDNS is designed to be as representative as possible, but issues including days of the week sampled in the survey compared to the doubly labelled water study may have had an impact, as energy intake has been shown to be higher on weekend days. Misreporting can arise from many factors, such as memory recall bias, social desirability bias (where people consciously or sub-consciously over- or under- report some foods - for example those perceived as healthy or unhealthy) and portion size estimates.

102. Therefore, exposure estimates are not corrected for underreporting of energy intake, as these figures are averages across population groups, and as there is no information on the degree of misreporting of specific foods. However, exposure assessments at the 97.5th percentile are undertaken to ensure that high consumers are accounted for in the assessment, including those who may have mis-reported their energy intake.