**YPAQ and CPAQ outcome derivation**


For the YPAQ and CPAQ, frequency and duration of listed physical activities were reported; these activities were assigned a MET value according to published values [1]. MET-minutes were calculated as follows: duration × frequency × MET-intensity.

Estimates of PAEE were derived from the YPAQ and CPAQ questionnaires, using a similar method to that described previously [2]. It was assumed that one MET is equivalent to an oxygen consumption rate of 4.00 mL·kg\(^{-1}\)·min\(^{-1}\) for 16-17 year-old adolescents and 4.58 mL·kg\(^{-1}\)·min\(^{-1}\) for 12-13 year-olds [3]. For the 4-5 year-old children, the published values for the older age groups [3] were extrapolated down for 5 year-old children, resulting in an estimate of 7.0 mL·kg\(^{-1}\)·min\(^{-1}\) as the MET equivalent. The oxygen energy equivalent was assumed to be 0.0209 kJ·mL\(^{-1}\) and the formula used to estimate daily PAEE from the questionnaire data (PAEE\(_Q\)) was: $\text{PAEE}_Q \text{[kJ·kg}^{-1} \text{·day}^{-1}] = 1440 \times ((0.0209 \times \text{MET equivalent}) \times (\text{Total MET-min/Total time frame})).$ Self-reported minutes of MVPA per week were also summed from the YPAQ, CPAQ and SWAPAQ (MVPA\(_Q\)), for direct comparison with MVPA\(_{ACC}\).

References

