Appendix 1 (as supplied by the authors): Theoretical description of a binomial multilevel logistic model using a random intercept on the three geographic levels (13).

$$Logit(\pi \quad)$$

Outcome

$git(\pi \quad)$: the logit of the propensity of achieving (or not) the recommended daily level for physical activity performed during leisure-time for individuals *i*, in neighborhoods *j*, in health region *k*, in province *l*.

The fixed part

$_{ijkl}$: the log odds of achieving the recommended daily level for physical activity for the reference

: the differential in the log odds   for individual variable x_1.

$_{jkl}$: the differential in the log odds   for contextual variable x_2.

The random part

$_{jkl}$: the between neighborhood variation in the log odds of achieving the recommended daily level for physical activity for the reference category conditional of health region and province.

$_{kl}$: the between health region variation in the log odds of achieving the recommended daily level for physical activity for the reference category conditional of neighborhood and province.

$_{0l}$: the between province variation in the log odds of achieving the recommended daily level for physical activity for the reference category conditional of neighborhood and health region.