**Table S1.** Probabilities of a 1-year reduction in waist circumference under various levels of achievement of DI and PA guidelines

| No. | Scenariosa | Likelihood of WC reductionb (∆WCT1-T0 <0) %[95%CI] | Population risk ratiobRatio [95%CI] | Population risk differenceb% [95%CI] | Number needed to treatd |
| --- | --- | --- | --- | --- | --- |
| 0 | Natural course | 38.74 [34.7; 43.4] | 0.87 [0.81; 1.00] | -5.8 [-9.5; -0.1] | -17 [-741; -10] |
|  | **Adolescents socially advantaged** |  |  |  |  |
| 1c | No change in baseline DI and PA from T0 to T1 | 44.5 [36.3; 50.7] | 1.00 | 1.0 | - |
|  | **Adolescents socially less advantaged** |  |  |  |  |
| 2 | No change in baseline DI and PA from T0 to T1 | 42.3 [35.8; 47.6] | 0.95 [0.91; 0.99] | -2.2 [-3.8; -0.2] | - |
| 3 | With baseline DI and PA of advantaged adolescents at T1 | 44.0 [36.4; 49.2] | 0.99 [0.95; 1.01] | -0.5 [-2.3; 0.4] | - |
| 4 | With increase in proportion of achievement of baseline DI guidelines by 30% at T1 | 45.1 [34.8; 51.3] | 1.01 [0.91; 1.09] | 0.6 [-3.5; 3.9] | - |
| 5 | With increase in proportion of achievement of baseline PA guidelines by 30% at T1 | 41.2 [36.7; 47.3] | 0.93 [0.86; 1.05] | -3.0 [-6.4; 1.8] | - |
| 6 | With increase in the proportion of adolescents achieving baseline DI and PA guidelines by 30% at T1 | 47.4 [36.1; 52.9] | 1.07 [0.98; 1.11] | 2.9 [-0.6; 5.1] | - |

*Abbreviations: WC, waist circumference; DI, dietary intake (fruit and vegetable + sugar foods/drinks); PA, physical activity; T0, baseline; T1, 1-year follow-up; 95%CI, 95% confidence interval*

*Observed likelihood of a 1-year reduction in WC was 38.7%*

*Population risk differences: differences between less advantaged and advantaged adolescents (reference) in likelihood of a 1-year reduction in WC*

*Population risk ratio: ratio of likelihood of a 1-year reduction in WC between hypothetical interventions by using scenario 1 as the reference category for each comparison*

*a simulated scenarios under parametric G-formula modelling based on observed data*

*b All models included lagged values of time-varying covariates (fruits and vegetables, sugar foods and drinks, PA and sedentary behaviour guidelines achievement) and baseline fixed covariates (age, sex, school type and grade, school boarding status, number of parents responsible, social and professional class of the family, perceived income level of the family, intervention group, socioeconomic status and WC at baseline)*

*c Reference category*

*d Number needed to treat is given only when population risk difference reaches statistical significance.*

**Table S2.** Means of a 1-year difference in WC under various levels of achievement of DI and PA guidelines

| No. | Scenariosa | Means of WC difference ± SDb  | Percentile 2.5 of WC differenceb | Percentile 97.5 of WC differenceb | Ratio of means of WC differenceb[95%CI] | Difference in means of WC differenceb [95%CI] |
| --- | --- | --- | --- | --- | --- | --- |
| 0 | Natural course | -1.44±0.29  | -1.86 | -0.83 | 1.84 [0.94; 11.81] | -0.65 [-1.40; 0.04] |
|  | **Adolescents socially advantaged** |  |  |  |  |  |
| 1c | No change in baseline DI and PA from T0 to T1 | -0.78±0.48 | -1.62 | -0.01 | 1.00 | 1.0 |
|  | **Adolescents socially less advantaged** |  |  |  |  |  |
| 2 | No change in baseline DI and PA from T0 to T1 | -1.03±0.38 | -1.76 | -0.37 | 1.31 [0.99; 6.08] | -0.25 [-0.56; 0.01] |

*Abbreviations: WC, waist circumference; DI, dietary intake (fruit and vegetable + sugar foods/drinks); PA, physical activity; T0, baseline; T1, one-year follow-up; 95%CI, 95% confidence interval*

*BMIz difference = WC at T0 minus WC at T1*

*Observed mean of a 1-year difference in WC was -1.13 cm*

*Ratio of means: ratio of means of WC difference between hypothetical interventions by using scenario 1 as the reference category for each comparison*

*Population risk differences: differences between less advantaged and advantaged adolescents (reference) in means of WC differences*

*a simulated scenarios under parametric G-formula modelling based on observed data*

*b All models included lagged values of time-varying covariates (fruits and vegetables, sugar foods and drinks, PA and sedentary behaviour guidelines achievement) and baseline fixed covariates (age, sex, school type and grade, school boarding status, number of parents responsible, social and professional class of the family, perceived income level of the family, intervention group, socioeconomic status and WC at baseline)*

*c Reference category*