**Annex Table 1.** Multivariate associations of relative density of CLO food outlets with diet quality and daily vegetables and fruit servings for each level of absolute exposure to all food outlets within 1600 meter buffers around schools

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Lower (≤33 outlets) |  | Medium (34-54 outlets) |  | Higher (55+ outlets) |  |
| %CLO | Coefficient (95% CI)a | p-value | Coefficient (95% CI)a | p-value | Coefficient (95% CI)a | p-value |
| Y-HEI |  |  |  |  |  |  |
| %CLO | 2.40 (-0.092, 4.90) | 0.059 | -0.24 (-1.52, 1.05) | 0.720 | **-4.12 (-5.94, -2.30)** | **<0.001** |
| Daily VF servings |  |  |  |  |  |  |
| %CLO | 0.16 (-0.54, 0.85) | 0.657 | -0.18 (-0.54, 0.18) | 0.321 | **-0.95 (-1.45, -0.44)** | **<0.001** |

Abbreviations: Y-HEI = Youth Healthy Eating Index; VF = Vegetables and Fruit; CLO = Choose Least Often; CI = confidence interval.

Notes: Lower refers to 1600 metre buffers with ≤33 total food outlets; Medium refers to 1600 metre buffers with 34-54 total food outlets; Higher refers to 1600 metre buffers with 55 or more total food outlets.

a Coefficients and 95% CIs from multilevel mixed-effect linear regression models (multiplied by 10). All models adjusted for gender, total energy intake, parental education, household income, and area-level material deprivation.

Supplementary Table 1. Sensitivity analysis of fully adjusted models with and without income included as a covariate

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | With income |  | Without income |  |
|  | Coefficient (95% CI) a | P-value | Coefficient (95% CI) a | P-value |
| **YHEI** |  |  |  |  |
| %CLO | -1.09 (-2.23, 0.045) | 0.060 | -1.14 (-2.29, 0.065) | 0.051 |
| #CLO | 0.15 (-0.27, 0.56) | 0.493 | 0.049 (-0.37, 0.47) | 0.819 |
| **Daily VF Consumption** |  |  |  |  |
| %CLO | **-0.34 (-0.64, -0.04)** | **0.025** | **-0.34 (-0.64, -0.042)** | **0.025** |
| #CLO | 0.0027 (-0.11, 0.11) | 0.961 | -0.0074 (-0.12, 0.10) | 0.893 |
| **BMI z-score** |  |  |  |  |
| %CLO | 0.15 (-0.0064, 0.30) | 0.060 | 0.16 (-0.0024, 0.32) | 0.054 |
| #CLO | **0.058 (0.0015, 0.12)** | **0.044** | **0.065 (0.0074, 0.12)** | **0.027** |
|  | OR (95% CI) b | P-value | OR (95% CI) b | P-value |
| **Overweight/obesity** |  |  |  |  |
| %CLO | 1.22 (0.96, 1.54) | 0.103 | 1.23 (0.97, 1.56) | 0.090 |
| #CLO | 1.08 (0.99, 1.17) | 0.076 | 1.09 (1.00, 1.18) | 0.051 |

Abbreviations: Y-HEI = Youth Healthy Eating Index; CLO = Choose Least Often; VF = Vegetables and Fruit; BMI = Body Mass Index; %CLO = proportion of CLO food outlets relative to all; CI = confidence interval; OR = odds ratio.

a Coefficients and 95% CIs from multilevel mixed-effect linear regression models (multiplied by 10).

b ORs and 95% CIs from multilevel mixed-effect logistic regression models (multiplied by 10).

Models are adjusted for absolute density of CLO outlets, gender, total energy intake (or physical activity for models examining BMI), parental education, household income, and area-level material deprivation.

Bolded terms are statistically significant (p<0.05).

Supplementary Table 2. Sensitivity analysis of fully adjusted models with and without parental education included as a covariate

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | With education |  | Without education |  |
| **YHEI** | Coefficient (95% CI) | P-value | Coefficient (95% CI) | P-value |
| %CLO | -1.09 (-2.23, 0.045) | 0.060 | **-1.17 (-2.31, -0.033)** | **0.044** |
| #CLO | 0.15 (-0.27, 0.56) | 0.493 | 0.14 (-0.28, 0.55) | 0.524 |
| **Daily VF Consumption** |  |  |  |  |
| %CLO | **-0.34 (-0.64, -0.04)** | **0.025** | **-0.34 (-0.64, -0.047)** | **0.023** |
| #CLO | 0.0027 (-0.11, 0.11) | 0.961 | 0.0089 (-0.099, 0.12) | 0.872 |
| **BMI z-score** |  |  |  |  |
| %CLO | 0.15 (-0.0064, 0.30) | 0.060 | 0.14 (-0.014, 0.30) | 0.075 |
| #CLO | **0.058 (0.0015, 0.12)** | **0.044** | **0.056 (0.00098, 0.11)** | **0.046** |
|  | OR (95% CI) | P-value | OR (95% CI) | P-value |
| **Overweight/obesity** |  |  |  |  |
| %CLO | 1.22 (0.96, 1.54) | 0.103 | 1.20 (0.95, 1.51) | 0.130 |
| #CLO | 1.08 (0.99, 1.17) | 0.076 | 1.08 (0.99, 1.17) | 0.074 |

Abbreviations: Y-HEI = Youth Healthy Eating Index; CLO = Choose Least Often; VF = Vegetables and Fruit; BMI = Body Mass Index; %CLO = proportion of CLO food outlets relative to all; CI = confidence interval; OR = odds ratio.

a Coefficients and 95% CIs from multilevel mixed-effect linear regression models (multiplied by 10).

b ORs and 95% CIs from multilevel mixed-effect logistic regression models (multiplied by 10).

Models are adjusted for absolute density of CLO outlets, gender, total energy intake (or physical activity for models examining BMI), parental education, household income, and area-level material deprivation.

Bolded terms are statistically significant (p<0.05).