**Table S1.** Distribution of infants according to maternal sociodemographic and health behaviour characteristics andunadjusted associations between the infant feeding index score and the maternal sociodemographic and health behaviour characteristics (all cohort, N=5799).

| **Antenatal maternal characteristics** | **N (%)**a | **Unad. β** \* | **(95%CI)** | **P value** |
| --- | --- | --- | --- | --- |
| ***Pregnancy planning***YesNo | 3574 (62.0)2189 (38.0) | 1.00**-1.28**  | --**(-1.39; -1.17)** | **<0.001** |
| ***Highest level of education***Higher than bachelor’s degreeBachelor’s degreeDiploma/Trade cert/NCEA 5-6Secondary school/NCEA 1-4No secondary school qualification |  942 (16.3)1359 (23.5)1764 (30.5)1341 (23.2) 369 (6.4) | 1.00**-0.26** **-1.42** **-1.49** **-2.83**  | --**(-0.39; -0.06)****(-1.58; -1.27)****(-1.66; -1.33)****(-3.07; -2.59)** | **0.007****<0.001****<0.001****<0.001** |
| ***Self-prioritised ethnicity*** EuropeanMāoriPacificAsianMELAA and others | 3197 (55.3) 770 (13.3) 797 (13.8) 820 (14.2) 196 (3.4) | 1.00**-2.00** **-1.65** **-1.06** **-0.57**  | --**(-2.16; -1.84)****(-1.80; -1.50)****(-1.21; -0.90)****(-0.85; -0.28)** | **<0.001****<0.001****<0.001****<0.001** |
| ***Neighbourhood deprivation (NZDep2006 quintiles)*** ∞1-2 Least deprived3-45-67-89-10 Most deprived |  953 (16.5)1099 (19.0) 999 (17.3)1218 (21.0)1519 (26.2) | 1.00**-0.24** **-0.53** **-1.04** **-1.76**  | --**(-0.42; -0.07)****(-0.71; -0.36)****(-1.21; -0.87)****(-1.93; -1.60)** | **0.006****<0.001****<0.001****<0.001** |
| ***Age group (years)***>35 years20-34 years<20 years | 1474 (25.5)4056 (70.1) 260 (4.5) | 1.00**-0.79** **-2.67**  | --**(-0.92; -0.67)****(-2.94; -2.40)** | **<0.001****<0.001** |
| ***Parity***SubsequentFirst born | 3368 (58.2)2417 (41.8) | 1.00**0.20**  | --**(0.09; 0.31)** | **<0.001** |
| ***Length of time living in NZ (years)*** Born in NZLiving in NZ for >4 yearsLiving in NZ for ≤4 years | 3779 (65.2)1330 (22.9) 690 (11.9) | 1.000.47 **-0.42**  | --(-0.09; 0.18)**(-0.60; -0.25)** | 0.49**<0.001** |
| ***BMI (kg/m2)***<25.025-29.99>30.0 | 3050 (59.6)1141 (22.3) 927 (18.1) | 1.00-0.14 **-0.58**  | --(-0.03; 0.00)**(-0.73; -0.43)** | 0.06**<0.001** |
| ***Adherence to food and nutrition guidelines in pregnancy-Fruits and Vegetables***YesNo | 1328 (25.0)3981 (75.0) | 1.00**-0.43**  | --**(-0.56; -0.30)** | **<0.001** |
| ***Adherence to food and nutrition guidelines in pregnancy-Breads and Cereals***YesNo | 1394 (26.3)3915 (73.7) | 1.00**0.66**  | --**(0.53; 0.78)** | **<0.001** |
| ***Adherence to food and nutrition guidelines in pregnancy-Milk and Milk products***YesNo | 3086 (58.1)2223 (41.9) | 1.00**-0.33**  | **--****(-0.45; -0.22)** | **<0.001** |
| ***Adherence to food and nutrition guidelines in pregnancy-Meats and alternatives and eggs***YesNo | 1161 (21.9)4145 (78.1) | 1.00**0.36**  | --**(0.22; 0.49)** | **<0.001** |
| ***Smoking before and during pregnancy***Non-smokers before and during pregnancyStopped smoking during pregnancySmokers before and during pregnancy | 4276 (80.8) 518 (9.8) 500 (9.4) | 1.00**-0.98** **-2.10**  | --**(-1.17; -0.80)****(-2.28; -1.90)** | **<0.001****<0.001** |
| ***Physical activity before and during pregnancy***†Moderate/vigorous physical activity before and during pregnancyModerate/vigorous physical activity only before or during pregnancyNo Moderate/vigorous physical activity before and during pregnancy | 1798 (33.9)1412 (26.6)2099 (39.5) | 1.000.13 0.00  | --(-0.01; 0.28)(-0.19; 0.06) | 0.0640.332 |

Unadj.β, unadjusted beta-coefficient; CI, confidence interval, NCEA, National Certificate of Educational Achievement; NZDep2006, neighbourhood deprivation index 2006; NZ, New Zealand; BMI; body mass index.

a Infants aged 6-12 months at the nine-month interview (excluded twins/triplets; babies born premature or with low birth weight). Missing (n): IFI (105); child’s sex (0); pregnancy planning (36); maternal education (24); maternal ethnicity (19); neighbourhood deprivation index (11); maternal age (<10¶); parity (14); length of time living in New Zealand (0); body mass index (681); maternal adherence to recommended intake of fruit and vegetables in pregnancy (490); maternal adherence to recommended intake of breads and cereals in pregnancy (490); maternal adherence to recommended intake of milk and milk products in pregnancy (490); maternal adherence to recommended intake of meats and alternatives and eggs in pregnancy (492); maternal smoking patterns (651); physical activity before/during pregnancy (490). ¶As per *Growing up in New Zealand* study anonymity requirement, “<10” represents greater than zero and less than 10 children in the cell.

\* Average increase or decrease in the infant feeding index score in relation to the categories of reference.

∞ Derived from the 2006 national census according to methodology described in Salmond et al(22).

† Moderate/vigorous physical activity defined as engagement in moderate physical activity for at least 30-min for at least five out of seven days, or vigorous physical activity for at least 30-min on at least two out of seven days.

**Table S2.** Number and percentage of children with overweight/obesity at the 54-month interview according to the covariates under study (all cohort and by sex).

|  |  |  |  |
| --- | --- | --- | --- |
| **Covariates** | **All (N=4898)a** | **Girls(N=2387)b** | **Boysc((N=2511)** |
| **BMI-for-age >+2z****N (%)(26)** | **P-value\*** | **BMI-for-age >+2z****N (%)(26)** | **P-value\*** | **BMI-for-ag e>+2z****N (%)(26)** | **P-value\*** |
| ***Infant Feeding Index (tertiles)***High Medium Low  | 155 (8.9)211 (12.8)279 (18.5) | **<0.001** | 57 (6.8)102 (12.5)124 (17.0) | **<0.001** | 102 (11.2)106 (12.7)154 (20.1) | **<0.001** |
| ***Sex***GirlBoy | 283 (11.9)362 (14.4) | **0.008** | **--** | **--** | **--** | **--** |
| ***Age***<54 months>54 months | 236 (10.4)409 (15.5) | **<0.001** | 110 (9.9)173 (13.6) | **0.005** | 126 (11.0)236 (17.3) | **<0.001** |
| ***Screen use during weekdays at 54-month CAPI***<60 minutes/day>60 minutes/day  |  76 (7.9)569 (14.5) | **<0.001** |  41 (8.5)242 (12.7) | **0.009** |  35 (7.4)327 (16.1) | **<0.001** |
| ***Pregnancy planning***YesNo | 310 (10.0)333 (18.8) | **<0.001** | 130 (8.5)152 (17.9) | **<0.001** | 180 (11.4)181 (19.6) | **<0.001** |
| ***Highest level of education***Higher than bachelor`s degreeBachelor’s degreeDiploma/Trade cert/NCEA 5-6Secondary school/NCEA 1-4No secondary school qualification |  64 (7.6)100 (8.2)231 (15.6)191 (17.9) 56 (20.0) | **<0.001** |  24 (6.0) 36 (6.2)100 (13.9) 94 (17.3) 28 (21.2) | **<0.001** |  40 (9.1) 64 (10.1)131 (17.3) 97 (18.4) 28 (18.9) | **<0.001** |
| ***Self-prioritised ethnicity*** EuropeanMāoriPacificAsianMELAA and others | 283 (9.7)125 (20.2)169 (29.6) 48 (7.5)<10¶ | **<0.001** | 127 (8.9) 49 (16.5)77 (27.3) 23 (7.3)<10¶ | **<0.001** | 156 (10.5) 76 (23.6) 92 (31.8) 25 (7.8) 12 (14.0) | **<0.001** |
| ***Neighbourhood deprivation (NZDep quintiles)*** ∞1-2 Least deprived3-45-67-89-10 Most deprived |  73 (8.5) 93 (9.5) 83 (9.5)143 (14.2)252 (21.4) | **<0.001** |  28 (6.5) 34 (7.2) 35 (8.4) 74 (15.1)112 (19.4) | **<0.001** |  45 (10.5) 59 (11.7) 48 (10.5) 69 (13.3)140 (23.3) | **<0.001** |
| ***Age group (years)***>35 years20-34 years<20 years | 148 (11.6)457 (13.4) 39 (19.9) | **0.002** | 69 (11.4)199 (11.8) 15 (15.3) | 0.53 |  79 (11.8)258 (14.8) 24 (24.5) | **0.005** |
| ***Parity***First bornSubsequent | 248 (12.1)396 (13.9) | **0.060** | 105 (10.5)178 (12.8) | 0.09 | 143 (13.6)218 (15.0) | 0.31 |
| ***Length of time mother living in NZ (years)*** Born in NZLiving in NZ for >4 yearsLiving in NZ for ≤4 years | 459 (13.8)130 (12.3) 56 (10.9) | 0.11 | 205 (12.7) 60 (11.7) 18 (7.0) | **0.033** | 254 (14.9) 70 (12.8) 38 (14.7) | 0.45 |
| ***BMI (kg/m2)***<25.025-29.99>30.0 | 204 (7.7)129 (13.4)183 (23.7) | **<0.001** |  79 (6.2) 66 (13.5) 82 (21.9) | **<0.001** | 125 (9.1) 63 (13.3)101 (25.5) | **<0.001** |
| ***Adherence to food and nutrition guidelines in pregnancy-Fruits and Vegetables***YesNo | 146 (12.9)451 (13.3) | 0.70 |  67 (12.4)199 (11.9) | 0.77 |  79 (13.3)252 (14.7) | 0.41 |
| ***Adherence to food and nutrition guidelines in pregnancy-Breads and Cereals***YesNo | 204 (17.9)393 (11.6) | **<0.001** |  93 (16.6)173 (10.5) | **<0.001** | 111 (19.2)220 (12.7) | **<0.001** |
| ***Adherence to food and nutrition guidelines in pregnancy-Milk and Milk products***YesNo | 335 (12.7)262 (14.0) | 0.20 | 152 (11.8)114 (12.9) | 0.66 | 183 (13.5)148 (15.5) | 0.18 |
| ***Adherence to food and nutrition guidelines in pregnancy-Meats***YesNo | 155 (16.7)442 (12.3) | **0.001** |  74 (16.4)192 (10.9) | **0.002** |  81 (17.0)250 (13.7) | **0.078** |
| ***Smoking before and during pregnancy***Non-smokers before and during pregnancyStopped smoking during pregnancySmokers before and during pregnancy | 396 (10.8) 93 (21.5)108 (27.1) | **<0.001** | 178 (9.8) 39 (20.1) 49 (25.7) | **<0.001** | 218 (11.8) 54 (22.7) 59 (28.5) | **<0.001** |
| ***Physical activity before and during pregnancy***†Moderate/vigorous physical activity before and during pregnancyModerate/vigorous physical activity only before or during pregnancyNo moderate/vigorous physical activity before and during pregnancy | 205 (13.1)161 (13.5)231 (13.1) | 0.96 |  81 (10.6) 74 (12.7)111 (12.8)  | 0.33 | 124 (15.5) 87 (14.2)120 (13.5) | 0.49 |

BMI, body mass index; CAPI, computer assisted personal interview; NCEA, National Certificate of Educational Achievement; MELAA, Middle Eastern, Latin American or African NZDep, neighbourhood deprivation index; NZ, New Zealand.

a Excluded children with BMI/A >+5 z).

b Excluded girls with BMI/A >+5 z).

c Excluded boys with BMI/A >+5 z).

\* Pearson chi-square tests for comparisons of proportions of overweight/obesity across the covariates` categories.

∞ Derived from the 2006 national census according to methodology described in Salmond et al(22).

† Moderate/vigorous physical activity defined as engagement in moderate physical activity for at least 30-min for at least five out of seven days, or vigorous physical activity for at least 30-min on at least two out of seven days.

¶ As per *Growing up in New Zealand* study anonymity requirement, “<10” represents greater than zero and less than 10 children in the cell.

**Table S3.** Unadjusted risk ratios and respective 95% confidence intervals for the associations between overweight/obesity (Yes/No) and the covariates under study (all cohort and by sex).

|  |  |  |  |
| --- | --- | --- | --- |
| **Covariates** | **All (N=4898)a** | **Girls (N=2387)b** | **Boys (N=2511)c** |
| **Unadj. RR** | **(95% CI)** | **Unadj. RR** | **(95% CI)** | **Unadj. RR** | **(95% CI)** |
| ***Infant Feeding Index (tertiles)***High Medium Low  | 1.00**1.43****2.07** | --**(1.17; 1.74)****(1.72; 2.49)** | 1.00**1.85****2.50** | --**(1.36; 2.52)****(1.86; 3.37)** | 1.001.14**1.80** | --(0.89; 1.47)**(1.43; 2.27)** |
| ***Sex***GirlBoy | 1.00**1.22** | **--****(1.05; 1.40)** | **--** | **--** | **--** | **--** |
| ***Age***<54 months>54 months | 1.00**1.49** | --**(1.28; 1.73)** | 1.00**1.39** | **--****(1.12; 1.74)** | 1.00**1.57** | **--****(1.29; 1.92)** |
| ***Screen use during weekdays at 54-month CAPI***<60 minutes/day>60 minutes/day  | 1.00**1.83** | --**(1.45; 2.30)** | 1.00**1.50** | --**(1.10; 1.05)** | 1.00**2.19** | --**(1.57; 3.05)** |
| ***Pregnancy planning***YesNo | 1.00**1.89** | --**(1.63; 2.18)** | 1.00**2.05** | --**(1.65; 2.56)** | 1.00**1.72** | --**(1.43; 2.08)** |
| ***Highest level of education***Higher than bachelor`s degreeBachelor’s degreeDiploma/Trade cert/NCEA 5-6Secondary school/NCEA 1-4No secondary school qualification | 1.001.07**2.04****2.34****2.62** | --(0.79; 1.50)**(1.57; 2.66)****(1.79; 3.06)****(1.88; 3.65)** | 1.001.02**2.30****2.87****3.53** | --(0.82; 1.69)**(1.50; 3.53)****(1.87; 4.41)****(2.12; 5.86)** | 1.001.10**1.90****2.02****2.08** | --(0.76; 1.61)**(1.36; 2.65)****(1.43; 2.86)****(1.33; 3.24)** |
| ***Self-prioritised ethnicity*** EuropeanMāoriPacificAsianMELAA and others | 1.00**2.08****3.04**0.771.24 | --**(1.71; 2.51)****(2.57; 3.60)**(0.58; 1.04)(0.80; 1.92) | 1.00**1.81****3.01**0.801.10 | --**(1.34; 2.45)****(2.34; 3.87)**(0.52; 1.22)(0.53; 2.27) | 1.00**2.25****3.04**0.741.33 | --**(1.76; 2.88)****(2.43; 3.80)**(0.50; 1.11)(0.77; 2.30) |
| ***Neighbourhood deprivation (NZDep quintiles)*** ∞ 1-2 Least deprived3-45-67-89-10 Most deprived | 1.001.131.13**1.68****2.53** | --(0.84; 1.51)(0.84; 1.52)**(1.29; 2.19)****(1.98; 3.30)** | 1.001.121.31**2.35****3.00** | --(0.69; 1.81)(0.81; 2.11)**(1.55; 3.55)****(2.02; 4.46)** | 1.001.111.001.27**2.22** | --(0.77; 1.60)(0.68; 1.47)(0.89; 1.81)**(1.62; 3.03)** |
| ***Age group (years)***>35 years20-34 years<20 years | 1.001.15**1.72** | --(0.97; 1.37)**(1.25; 2.37)** | 1.001.041.35 | --(0.80; 1.35)(0.80; 2.26) | 1.001.26**2.08** | --(0.99; 1.60)**(1.39; 3.12)** |
| ***Parity***First bornSubsequent | 1.000.87 | --(0.75; 1.01) | 1.000.82 | --(0.65; 1.03) | 1.000.91 | --(0.74; 1.10) |
| ***Length of time mother living in NZ (years)*** Born in NZLiving in NZ for >4 yearsLiving in NZ for ≤4 years | 1.000.890.79 | **--**(0.74; 1.06)(0.61; 1.02) | 1.000.91**0.56** | **--**(0.70; 1.19)**(0.36; 0.89)** | 1.000.860.98 | **--**(0.67; 1.09)(0.72; 1.35) |
| ***BMI (kg/m2)***<25.025-29.99>30.0 | 1.00**1.74****3.08** | --**(1.41; 2.14)****(2.56; 3.70)** | 1.00**2.12****3.53** | --**(1.56; 2.89)****(2.65; 4.70)** | 1.00**1.46****2.80** | --**(1.09; 1.93)****(2.21; 3.55)** |
| ***Adherence to food and nutrition guidelines in pregnancy-Fruits and Vegetables***YesNo | 1.001.04  | --(0.87; 1.23) | 1.000.96  | --(0.74; 1.25) | 1.001.10  | --(0.87; 1.40) |
| ***Adherence to food and nutrition guidelines in pregnancy-Breads and Cereals***YesNo | 1.00**0.65**  | --**(0.96; 0.76)** | 1.00**0.63**  | --**(0.50; 0.79)** | 1.00**0.66**  | --**(0.54; 0.82)** |
| ***Adherence to food and nutrition guidelines in pregnancy-Milk and Milk products***YesNo | 1.001.10  | --(0.95; 1.28) | 1.001.05  | --(0.84; 1.32) | 1.001.15  | --(0.94; 1.40) |
| ***Adherence to food and nutrition guidelines in pregnancy-Meats***YesNo | 1.00**0.74**  | --**(0.62; 0.87)** | 1.00**0.67**  | --**(0.52; 0.85)** | 1.000.81  | --(0.64; 1.02) |
| ***Smoking before and during pregnancy***Non-smokers before and during pregnancyStopped smoking during pregnancySmokers before and during pregnancy | 1.00**2.00** **2.52**  | --**(1.63; 2.44)****(2.09; 3.03)** | 1.00**2.06)****2.52**  | --**(1.51; 2.80****(1.91; 3.33)** | 1.00**1.93** **2.43**  | --**(1.48; 2.52)****(1.89; 3.12)** |
| ***Physical activity before and during pregnancy***†Moderate/vigorous physical activity before and during pregnancyModerate/vigorous physical activity only before or during pregnancyNo moderate/vigorous physical activity before and during pregnancy | 1.001.03 1.00  | --(0.85; 1.24)(0.84; 1.19) | 1.001.21 1.20  | --(0.92; 1.58)(0.89; 1.61) | 1.000.91 0.87  | --(0.71; 1.18)(0.69; 1.10) |

Unadj. RR, unadjusted risk ratio; CI, confidence interval; BMI, body mass index; CAPI, computer assisted personal interview; NCEA, National Certificate of Educational Achievement; MELAA, Middle Eastern, Latin American or African NZDep, neighbourhood deprivation index; NZ, New Zealand.

a Excluded children with BMI/A >+5 z).

b Excluded girls with BMI/A >+5 z).

c Excluded boys with BMI/A >+5 z).

∞ Derived from the 2006 national census according to methodology described in Salmond et al(22).

† Moderate/vigorous physical activity defined as engagement in moderate physical activity for at least 30-min for at least five out of seven days, or vigorous physical activity for at least 30-min on at least two out of seven days.

**Table S4.** Number and proportion of children with waist-to-height ratio >90th percentile at the 54-month CAPI according to the covariates under study (all cohort and by sex).

|  |  |  |  |
| --- | --- | --- | --- |
| **Covariates** | **All (N=4920)** | **Girls (N=2390)** | **Boys (N=2530)** |
| **WtHR >p90th****N(%)** | **P-value\*** | **WtHR >p90th****N(%)** | **P-value\*** | **WtHR >p90th****N(%)** | **P-value\*** |
| ***Infant Feeding Index (tertiles)***High Medium Low  | 113 (6.5)167 (10.1)225 (14.7) | **<0.001** |  61 (7.3) 90 (11.1)115 (15.6) | **<0.001** |  54 (5.9) 77 (9.2)108 (13.9) | **<0.001** |
| ***Child’s sex***GirlBoy | 266 (11.1)239 (9.4) | **0.05** | **-** | **-** | **-** | **-** |
| ***Child’s age***<54 months>54 months | 231 (10.2)274 (10.3) | 0.85 | 127 (11.3)139 (10.9) | 0.75 | 104 (9.0)135 (9.8) | 0.54 |
| ***Screen use during weekdays at 54-month CAPI***<60 minutes/day>60 minutes/day  |  83 (8.6)422 (10.7) | 0.05 |  51 (10.5)215 (11.3) | 0.61 |  32 (6.7)207 (10.1) | **0.02** |
| ***Pregnancy planning***YesNo | 257 (8.2)245 (13.7) | **<0.001** | 142 (9.3)122 (14.3) | **<0.001** | 115 (7.2)123 (13.2) | **<0.001** |
| ***Highest level of education***Higher than bachelor`s degreeBachelor’s degreeDiploma/Trade cert/NCEA5-6Secondary school/NCEA 1-4No secondary school qualification |  59 (7.1) 84 (6.9)184 (12.3)135 (12.6) 40 (14.1) | **<0.001** |  32 (8.1) 47 (8.1) 91 (12.6) 75 (13.7) 20 (14.9) | **<0.001** |  27 (6.2) 37 (5.8) 93 (12.0) 60 (11.4) 20 (13.3) | **0.003** |
| ***Self-prioritised ethnicity*** EuropeanMaoriPacificAsianMELAA and others | 227 (7.8) 88 (14.1)117 (19.8) 59 (9.3) 13 (8.2) | **<0.001** | 127 (9.0) 39 (13.1) 55 (19.0) 40 (12.7)<10¶ | **<0.001** | 100 (6.7) 49 (15.0) 62 (20.5) 19 (5.9)<10¶ | **<0.001** |
| ***Neighbourhood deprivation (NZDep quintiles)*** ∞ 1-2 Least deprived3-45-67-89-10 Most deprived |  58 (6.8) 63 (6.5) 76 (8.7)131 (12.9)176 (14.7) | **<0.001** |  32 (7.4) 35 (7.4) 41 (9.9) 67 (13.7) 91 (15.6) | **<0.001** |  26 (6.1) 28 (5.6) 36 (7.6) 64 (12.2) 85 (13.9) | **<0.001** |
| ***Age group (years)***>35 years20-34 years<20 years | 133 (10.4)344 (10.0) 27 (13.6) | 0.26 | 66 (10.8)188 (11.2) 12 (12.2) | 0.92 |  67 (10.0)156 (8.9) 15 (15.0) | 0.11 |
| ***Parity***First bornSubsequent | 311 (10.9)193 (9.4) | 0.10 | 167 (12.0) 99 (9.9) | 0.12 | 144 (9.8) 94 (8.9) | 0.44 |
| ***Length of time living in NZ (years)*** Born in NZLiving in NZ for >4 yearsLiving in NZ for ≤4 years | 341 (10.2)110 (10.3) 54 (10.3) | 0.99 | 174 (10.4) 66 (12.9) 26 (10.1) | 0.35 | 167 (9.7) 44 (8.0) 28 (10.6) | 0.39 |
| ***BMI (kg/m2)***<25.025-29.99>30.0 | 168 (6.4)114 (11.8)130 (16.6) | **<0.001** |  89 (7.0) 60 (12.2) 70 (18.4) | **<0.001** |  59 (5.8) 54 (11.3) 60 (15.0) | **<0.001** |
| ***Adherence to food and nutrition guidelines in pregnancy-Fruits and Vegetables***YesNo | 115 (10.1)337 (9.9) | 0.87 |  59 (10.9)186 (11.1) | 0.91 |  56 (9.3)151 (8.8) | 0.67 |
| ***Adherence to food and nutrition guidelines in pregnancy-Breads and Cereals***YesNo | 160 (14.0)292 (8.6) | **<0.001** |  79 (14.1)166 (10.0) | **0.008** |  81 (13.8)126 (7.3) | **<0.001** |
| ***Adherence to food and nutrition guidelines in pregnancy-Milk and Milk products***YesNo | 248 (9.3)204 (10.3) | 0.10 | 142 (11.0)103 (11.2) | 0.89 | 106 (7.8)101 (10.5) | **0.02** |
| ***Adherence to food and nutrition guidelines in pregnancy-Meats***YesNo | 117 (12.5)335 (9.3) | **0.003** |  63 (13.9)182 (10.3) | **0.03** |  54 (11.3)153 (8.3) | **0.05** |
| ***Smoking before and during pregnancy***Non-smokers before and during pregnancyStopped smoking during pregnancySmokers before and during pregnancy | 310 (8.4) 73 (16.7)68 (17.0) | **<0.001** | 171 (9.4) 33 (16.9) 40 (20.7) | **<0.001** | 139 (7.4) 40 (16.5) 28 (13.5) | **<0.001** |
| ***Physical activity before and during pregnancy***†Moderate/vigorous physical activity before and during pregnancyModerate/vigorous physical activity only before or during pregnancyNo Moderate/vigorous physical activity before and during pregnancy | 147 (9.4)112 (9.4)193 (10.9) | 0.25 |  68 (8.9) 62 (10.7)115 (13.2) | **0.02** |  79 (9.9) 50 (8.1) 78 (8.7) | 0.48 |

WtHR, waist-to-height ratio; CAPI, computer assisted personal interview; NCEA, National Certificate of Educational Achievement; MELAA, Middle Eastern, Latin American or African NZDep, neighbourhood deprivation index; NZ, New Zealand; BMI, body mass index.

\* Chi-square tests for comparisons of proportions of WtHR> p90th across the covariates` categories

∞ Derived from the 2006 national census according to methodology described in Salmond et al(22).

† Moderate/vigorous physical activity defined as engagement in moderate physical activity for at least 30-min for at least five out of seven days, or vigorous physical activity for at least 30-min on at least two out of seven days.

¶ As per *Growing Up in New Zealand* study anonymity requirement, “<10” represents greater than zero and less than 10 children in the cell.

**Table S5.** Unadjusted risk ratios and 95% confidence intervals for the associations between waist-to-height ratio >90th percentile and the covariates under study (all cohort and by sex).

|  |  |  |  |
| --- | --- | --- | --- |
| **Covariates** | **All (N=4920)** | **Girls (N=2390)** | **Boys (N=2530)** |
| **Unadj. RR** | **(95% CI)** | **Unadj. RR** | **(95% CI)** | **Unadj. RR** | **(95% CI)** |
| ***Infant Feeding Index (tertiles)***High Medium Low  | 1.00**1.55****2.26** | --**(1.23; 1.95)****(1.83; 2.81)** | 1.00**1.52****2.16** | --**(1.12; 2.08)****(1.61; 2.90)** | 1.00**1.56****2.35** | --**(1.12; 2.18)****(1.72; 3.22)** |
| ***Child’s sex***GirlBoy | 1.000.87 | **--**(0.74; 1.02) | **--** | **--** | **--** | **--** |
| ***Child’s age***<54 months>54 months | 1.001.02 | **--**(0.86; 1.20) | 1.000.95 | **--**(0.76; 1.19) | 1.001.10 | **--**(0.86; 1.39) |
| ***Screen use during weekdays at 54-month CAPI***<60 minutes/day>60 minutes/day  | 1.001.23 | --(0.99; 1.54) | 1.001.07 | --(0.80; 1.42) | 1.00**1.51** | --**(1.06; 2.15)** |
| ***Pregnancy planning***YesNo | 1.00**1.67** | --**(1.42; 1.97)** | 1.00**1.53** | --**(1.22; 1.92)** | 1.00**1.84** | --**(1.45; 2.33)** |
| ***Highest level of education***Higher than bachelor`s degreeBachelor degreeDiploma/Trade cert/NCEA5-6Secondary school/NCEA 1-4No secondary school qualification | 1.000.98 **1.71** **1.79** **1.99**  | --(0.71; 1.34)**(1.30;2.26)****(1.34; 2.38****(1.37; 2.89)** | 1.001.04 **1.55** **1.69** 1.81  | --(0.68; 1.59)**(1.06; 2.28)****(1.14; 2.50)**(1.07; 3.05) | 1.000.91 **1.89** **1.88** **2.19**  | --(0.56; 1.46)**(1.26; 2.84)****(1.22; 2.88)****(1.28; 3.74)** |
| ***Self-prioritised ethnicity*** EuropeanMaoriPacificAsianMELAA and others | 1.00**1.80** **2.54** 1.16 1.05  | --**(1.43; 2.26)****(2.07; 3.11)**(0.88; 1.52)(0.61; 1.79) | 1.00**1.45** **2.09** 1.39 0.78  | --**(1.04; 2.03)****(1.57; 2.79)**(0.99; 1.94)(0.33; 1.84**)** | 1.00**2.22** **3.10** 0.86 1.36  | --**(1.62; 3.05)****(2.33; 4.12)**(0.53; 1.38)(0.68; 2.70) |
| ***Neighbourhood deprivation (NZDep quintiles)***∞1-2 Least deprived3-45-67-89-10 Most deprived | 1.000.97 1.29 **1.89** **2.15**  | --(0.69; 1.36)(0.93; 1.79)**(1.41; 2.53)****(1.62; 2.85)** | 1.001.02 1.36 **1.81** **2.07**  | --(0.64; 1.61)(0.87; 2.11)**(1.22; 2.71)****(1.41; 3.04)** | 1.000.92 1.23 1.98 2.25  | --(0.55; 1.53)(0.76; 1.99)(1.29; 3.05)(1.48; 3.40) |
| ***Age group (years)***>35 years20-34 years<20 years | 1.001.29 0.96  | --(1.88;1.90)(0.80; 1.16) | 1.001.03 1.12  | --(0.79; 1.34)(0.63; 1.99) | 1.000.89 1.47  | --(0.68; 1.16)(0.87; 2.46) |
| ***Parity***First bornSubsequent | 1.000.85  | --(0.72; 1.01) | 1.000.83  | --(0.65; 1.04) | 1.000.89  | --(0.69; 1.13) |
| ***Length of time living in NZ (years)*** Born in NZLiving in NZ for >4 yearsLiving in NZ for ≤4 years | 1.001.02 0.98  | --(0.83; 1.24)(0.74; 1.28) | 1.001.18 0.91  | **--**(0.91; 1.54)(0.61; 1.34) | 1.000.85 1.05  | **--**(0.63; 1.16)(0.72; 1.53) |
| ***BMI (kg/m2)***<25.025-29.99>30.0 | 1.00**1.85** **2.64**  | --**(1.48; 2.32)****(2.13; 3.27)** | 1.00**1.75** **2.66**  | --**(1.28; 2.38)****(1.99; 3.56)** | 1.00**1.96** **2.61**  | --**(1.42; 2.72)****(1.91; 3.58)** |
| ***Adherence to food and nutrition guidelines in pregnancy-Fruits and Vegetables***YesNo | 1.000.97  | --(0.80; 1.19) | 1.001.00  | --(0.78; 1.31) | 1.000.94  | --(0.71; 1.26) |
| ***Adherence to food and nutrition guidelines in pregnancy-Breads and Cereals***YesNo | **1.00****0.62**  | --**(0.51; 0.74)** | 1.00**0.71**  | --**(0.55; 0.90)** | 1.00**0.53** | --**(0.41; 0.68)** |
| ***Adherence to food and nutrition guidelines in pregnancy-Milk and Milk products***YesNo | 1.001.16  | --(0.97; 1.38) | 1.001.02  | --(0.81; 1.30) | 1.00**1.33**  | --**(1.03; 1.72)** |
| ***Adherence to food and nutrition guidelines in pregnancy-Meats***YesNo | 1.00**0.74**  | --**(0.61; 0.89)** | 1.00**0.76**  | --**(0.58; 0.99)** | 1.00**0.71**  | --**(0.54; 0.95)** |
| ***Smoking before and during pregnancy***Non-smokers before and during pregnancyStopped smoking during pregnancySmokers before and during pregnancy | 1.00**2.00** **1.97**  | --**(1.59; 2.52)****(1.55; 2.50)** | 1.00**1.83** **2.14** | --**(1.31; 2.56)****(1.57; 2.93)** | 1.00**2.21** **1.77**  | --**(1.60; 3.04)****(1.21; 2.58)** |
| ***Physical activity before and during pregnancy***†Moderate/vigorous physical activity before and during pregnancyModerate/vigorous physical activity only before or during pregnancyNo Moderate/vigorous physical activity before and during pregnancy | 1.001.16  | --(0.79; 1.26)(0.95; 1.42) | 1.001.24 1.52  | --(0.89; 1.71)(1.15; 2.02) | 1.000.81 0.86  | --(0.58; 1.13)(0.64; 1.16) |

Unadj. RR, unadjusted risk ratio; CI, confidence interval; WtHR, waist-to-height ratio; CAPI, computer assisted personal interview; NCEA, National Certificate of Educational Achievement; MELAA, Middle Eastern, Latin American or African NZDep, neighbourhood deprivation index; NZ, New Zealand; BMI, body mass index.

∞ Derived from the 2006 national census according to methodology described in Salmond et al(22).

† Moderate/vigorous physical activity defined as engagement in moderate physical activity for at least 30-min for at least five out of seven days, or vigorous physical activity for at least 30-min on at least two out of seven days.