**Additional file 3: Detailed characteristics on all 81 studies included**

| **First author, year, country** | **Sample characteristics** | **Study design** | **Dietary assess-ment** | **Validity dietary assessment** | **Sub-groups** | **Dietary factor** | **Effect estimates** | | **Statistical method,**  **Effect size** | **Selection bias** | **Quality Score** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Outcome: Fasting triglycerides** | | | | | | | | | | |
| Ambrosini et al. 2010, Australia[1] | n: 1139;  age: 14;  female: 47.9% | Cross- sectional; Cohort study | FFQ | Unknown | Boys  Girls | “Healthy dietary pattern”  “Western dietary pattern”  “Healthy dietary pattern”  “Western dietary pattern” | n.s.a  n.s.a  n.s.a  n.s.a | ANOVA,  Mean | | No | 9 |
| Ambrosini et al. 2013, Australia[2] | n: 1366;  age: 14-17;  female: 48.3% | Prospective cohort study | FFQ | Yes | Boys  Girls | SSB  SSB | n.s.a  n.s.a | Mixed linear regression models,  % of change | | Unknown | 7 |
| Appannah et al. 2015, Australia[3] | n: 1163;  age: 14, 17;  female: 48.0% | Prospective cohort study | FFQ | Yes | Boys  Girls | “Energy dense, high fat and low fiber dietary pattern”  “Energy dense, high fat and low fiber dietary pattern” | n.s.  n.s. | GEE,  -coefficient | | Yes | 6 |
| Au et al. 2012, USA[4] | n: 148;  age: 9-15;  female: 58.8% | Cross-sectional | FFQ | Yes | no | SFA  MUFA  PUFA  Carbohydrates | n.s.  n.s.  n.s.  n.s. | Linear regression,  -coefficient | | Yes | 3 |
| Bel-Serrat et al. 2014a,  Multiple European Countries[5] | n: 454;  age: 12.5-17.5;  female: 56.0% | Cross-sectional | 24h recall | Yes | no | Proteins  Carbohydrates  Fat | n.s.  n.s.  -0.32\*\* | Multi-level regression,  -coefficient | | Unknown | 4 |
| Bel-Serrat et al. 2014b,  Multiple European countries[6] | n: 454;  age: 12.5-17.5;  female: 56.0% | Cross - sectional | 24h recall | Yes | Boys  Girls | Alanine  Glycine  Isoleucine  Leucine  Valine  Phenylalanine  Tryptophan  Tyrosine  Arginine  Histidine  Lysine  Asparagine acids  Glutamic acid  Serine  Threonine  Cysteine  Methionine  Proline  Alanine  Glycine  Isoleucine  Leucine  Valine  Phenylalanine  Tryptophan  Tyrosine  Arginine  Histidine  Lysine  Asparagine acids  Glutamic acid  Serine  Threonine  Cysteine  Methionine  Proline | -0.26\*  -0.29\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  -0.29\*  -0.28\*  -0.26\*  -0.29\*  n.s.  -0.30\*  n.s.  n.s.  n.s.  n.s.  -0.23\*  -0.23\*  -0.30\*\*  -0.29\*  -0.30\*\*  -0.30\*  -0.29\*  -0.30\*\*  -0.27\*  -0.25\*  -0.23\*  -0.23\*  -0.31\*  -0.31\*  -0.27\*  -0.29\*  -0.27\*  -0.29\* | Multilevel linear regression,  -coefficient | | Yes | 4 |
| Bremer et al. 2009, USA[7] | n: 6967;  age: 12-19;  female: 48.9% | Cross-sectional | 24h recall | Unknown | Boys  Girls | SSB  SSB | 0.47\*  2.25\* | Linear regression,  -coefficient | | No | 7 |
| Casazza et al. 2009b, USA[8] | n: 202;  age: 7-12;  female:47.03% | Cross-sectional | 24h recall | Unknown | no | Fat  Carbohydrates  Proteins | -0.20\*  0.18\*  n.s. | Multiple linear regression, Standardized  -coefficient | | Yes | 3 |
| Chan et al. 2014a, China[9] | n: 200;  age: 12-16;  female: 51.0% | Cross-sectional | FFQ | Unknown | no | SSB | significant a | Multiple linear regression, Multivariate adjusted difference | | Unknown | 1 |
| Chan et al. 2014b, China[10] | n: 2727;  age: 12-16;  female: 51.3% | Cross-sectional | FFQ | Unknown | Boys  Girls | SSB  SSB | n.s.  n.s. | Linear regression,  -coefficient | | No | 6 |
| Chan et al. 2015, Australia  [11] | n: 2262;  age: 14, 17;  female: 50.4% | Prospective cohort study | FFQ | Unknown | n: 1512 | DGI-CA | -0.003\* | Linear regression,  -coefficient | | Unknown | 7 |
| Day et al. 2009, USA[12] | n: 489;  age: 8, 11, 14;  female: 51.3% | Cross-sectional | FFQ | Yes | Boys  Girls | Fat  Fat | n.s. a  n.s. a | ANCOVA,  Mean | | Yes | 2 |
| Hong et al. 2009, South Korea[13] | n: 246;  age: 12-13;  female: 47.6% | Cross-sectional | Dietary record | Unknown | no | Carbohydrates  Proteins  Fat | n.s.  n.s.  n.s. | Partial correlation analysis, Partial correlation coefficient | | Unknown | 2 |
| Hur et al. 2012, USA[14] | n: 4928;  age: 12-19;  female: 49.4% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Whole grains  Whole grains | n.s. a  n.s. a | Multiple linear regression, Adjusted mean values | | No | 8 |
| Kell et al. 2014, USA[15] | n: 320;  age: 7-12;  female: 46.9% | Cross-sectional | 24h recall | Unknown | no | Added sugars  Fat | 0.11\*  n.s. | Linear regression,  -coefficient | | Unknown | 4 |
| Kosova et al. 2013, USA[16] | n: 4880;  age: 3-11;  female: 49.3% | Cross-sectional | 24h recall | Unknown | Age 3-5  (n:468)  Age 6-8  (n:560)  Age 9-11  (n:576) | SSB  SSB  SSB | n.s.  n.s.  n.s. | Linear regression, Adjusted  -coefficient | | No | 9 |
| Kuzawa et al. 2003, Philippines[17] | n: 608  age: 14-16;  female: 50.7% | Prospective cohort study | 24h recall | Unknown | Boys  Girls | Fat  Fat | n.s.  n.s. | Partial correlation coefficiens, Partial correlation coefficient | | Yes | 3 |
| Lin et al. 2014, Multiple European countries[18] | n: 1804;  age: 12.5-17.5;  female: 52.6% | Cross-sectional | 24h recall | Yes | no | Fiber  Soluble fiber  Insoluble fiber | n.s.  n.s.  n.s. | GLM multivariate analysis,  -coefficient | | Unknown | 6 |
| Michels et al. 2015, Multiple European countries[19] | n: 387;  age: 12.5-17.5;  female: n.a. | Cross-sectional | FFQ | No | no | Ready to eat cereals | n.s. a | Linear regression, Estimated marginal means | | Yes | 1 |
| Nobre et al. 2013, Brazil[20] | n: 227;  age: 4-5;  female: n.a. | Cross-sectional | FFQ | No | no | “Mixed dietary pattern“ (representing a typical Brazilian diet) | n.s. a | Multivariate poisson regression, Adjusted prevalence ratios | | Unknown | 1 |
| Ochoa-Avilés et al. 2014, Euqador[21] | n: 334;  age: 10-16;  female: n.a. | Cross-sectional | 24h recall | Unknown | no | “Rice-rich non-animal fat pattern”  “Wheat-dense animal-fat pattern” | n.s.  n.s. | Linear regression,  -% | | Unknown | 2 |
| Rinaldi et al. 2012, Brazil[22] | n: 147;  age: 4-11 female: 51.7% | Cross-sectional | 24h recall | Yes | no | Dairy products  (full fat)  Carbohydrates  Proteins  SFA  Fat  MUFA  PUFA  Cholesterol  Fiber  Cereals  Meat  Legumes  Vegetables  Fruits  Sugar, sweet food  Oils and fats | n.s.  n.s.  n.s.  n.s.  0.17\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | Multiple linear regression,  -coefficient | | Yes | 3 |
| Royo-Bordonada et al. 2003, Spain[23] | n: 1112;  age: 6-7;  female: 49.9% | Cross-sectional | FFQ | Unknown | no | “Dietary variety index” | n.s. | Partial correlation analysis,  Partial correlation coefficient | | No | 7 |
| Royo-Bordonada et al. 2006, Spain[24] | n: 1112;  age: 6-7;  female: 49.9% | Cross-sectional | FFQ | Unknown | no | SFA | n.s. a | T-test,  Mean | | Yes | 7 |
| Sanchez-Bayle et al. 2008, Spain[25] | n: 673;  age: 6;  female: 47.7% | Cross-sectional | 24h recall | Unknown | no | Fat  SFA  MUFA  PUFA  Carbohydrates  Proteins | positive\*\* a  n.s. a  n.s. a  n.s. a  negative\* a  n.s. a | ANOVA,  Differences in means | | Unknown | 3 |
| Scaglioni et al. 2004, Italy[26] | n: 105;  age: 8;  female: 41.0% | Cross-sectional | FFQ;  24h recall | Unknown | no | High pasta, low red meat vs. Low pasta, high red meat | n.s. | Mann-Whitney U test, Mean | | Unknown | 2 |
| Shang et al. 2012, China[27] | n: 6974;  age: 6-13;  female: 49.0% | Cross-sectional | FFQ;  24h recall | No | no | SSB vs. milk, vs. other beverages | n.s.a | General linear model, Mean differences | | Unknown | 6 |
| Song et al. 2015, Korea[28] | n: 2209;  age: 10-18;  female: 47.3% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Carbohydrates  White rice  Carbohydrates  White rice | n.s. a  n.s. a  n.s. a  n.s. a | Multivariate linear regression,  Quartiles | | No | 8 |
| Steffen et al. 2003, USA[29] | n: 285;  age: 13, 15;  female: 45.6% | Prospective cohort study | FFQ | Unknown | no | Whole grains | n.s. a | Multiple linear regression, Adjusted mean values | | Yes | 4 |
| Takada et al. 1998, Japan[30] | n: 457;  age: 10;  female: 45.1% | Cross-sectional | FFQ | No | no | “Japanese diet score” | n.s. | Multiple linear regression,  -coefficient | | Unknown | 0 |
| Van Rompay et al. 2015, USA[31] | n: 613;  age: 8-15;  female: n.a. | Cross-sectional | FFQ | No | no | SSB | n.s. a | Linear regression and ANCOVA,  Adjusted least square means | | Yes | 6 |
| Vyncke et al. 2013, Multiple European Countries[32] | n: 552;  age: 12.5-17.5;  female: 52.0% | Cross-sectional | 24h recall | Yes | Boys  Girls | DQI-A  DQI-A | n.s.  n.s. | Multilevel regression models,  -coefficient | | Yes | 2 |
| Wajid et al. 1995, Kashmir  [33] | n: 314;  age: 5-14;  female: 46.2% | Cross-sectional | Dietary history | Unknown | no | Fat | n.s. a | Pearson correlation,  Mean | | Unknown | 1 |
| Wang et al. 2013, Canada[34] | n: 548;  age: 8-10;  female: n.a. | Cross-sectional | 24h recall | Yes | no | SSB | n.s. | Multivariate linear regression analysis,  -coefficient | | Yes | 4 |
| Washi & Ageib 2010, Saudi Arabia[35] | n: 239;  age: 13-18;  female: 53.1% | Cross-sectional | FFQ | Unknown | no | Carbohydrates  SFA | 8.76\*  7.27\* | Chi-2-Test,  Chi-2-Value | | Yes | 2 |
| Zhu et al. 2014, USA[36] | n: 5124;  age: 2-18;  female: 51.2% | Cross-sectional | FFQ | Unknown | n: 1266 | Yoghurt | n.s. a | Multivariate linear regression,  Least square means | | Unknown | 6 |
|  | **Outcome: Total cholesterol** | | | | | | | | | | |
| Akerblom et al. 1984, Finland[37] | n: 233;  age: 12;  female: 46.4% | Cross-sectional | 24h recall | No | no | FA | positive\*\* a | T-tests,  Mean difference | | No | 3 |
| Altwaiji et al. 2009, USA[38] | n: 678;  age: 8-18;  female: 49.1% | Prospective cohort study | FFQ | Yes | Boys  Girls | Cholesterol  Cholesterol | 0.01\*  n.s. | Multilevel regression models,  -coefficient | | Yes | 3 |
| Ambrosini et al. 2010, Australia[1] | n: 1139;  age: 14;  female: 47.9% | Cross –sectional; Cohort study | FFQ | Unknown | Boys  Girls | “Healthy dietary pattern”  “Western dietary pattern”  “Healthy dietary pattern”  “Western dietary pattern” | n.s. a  n.s. a  n.s. a  positive\* a | ANOVA,  Mean | | No | 9 |
| Beck et al. 2014, Brazil[39] | n: 660;  age: 14-19;  female: 52.0% | Cross-sectional | 24h recall | No | no | Lipids  SFA  Cholesterol  Fiber | n.s.  n.s.  n.s.  n.s. | Linear and multiple regression,  -coefficient | | No | 7 |
| Bel-Serrat et al. 2014a,  Multiple European Countries[5] | n: 454;  age: 12.5-17.5;  female: 56.0% | Cross-sectional | 24h recall | Yes | no | Proteins  Carbohydrates  Fat | n.s.  n.s.  n.s. | Multi-level regression,  -coefficient | | Unknown | 4 |
| Bel-Serrat et al. 2014b,  Multiple European countries[6] | n: 454;  age: 12.5-17.5;  female: 56.0% | Cross-sectional | 24h recall | Yes | Boys  Girls | Alanine  Glycine  Isoleucine  Leucine  Valine  Phenylalanine  Tryptophan  Tyrosine  Arginine  Histidine  Lysine  Asparagine acids  Glutamic acid  Serine  Threonine  Cysteine  Methionine  Proline  Alanine  Glycine  Isoleucine  Leucine  Valine  Phenylalanine  Tryptophan  Tyrosine  Arginine  Histidine  Lysine  Asparagine acids  Glutamic acid  Serine  Threonine  Cysteine  Methionine  Proline | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  -0.10\*  -0.10\*  n.s.  n.s.  -0.10\*  n.s.  n.s.  n.s.  -0.11\*  -0.09\*  -0.08\*  -0.10\*  n.s.  n.s.  -0.10\*  -0.11\*  n.s.  n.s. | Multilevel linear regression,  -coefficient | | Yes | 4 |
| Boulton et al. 1995, Australia  [40] | n: 134  age: 1, 2, 8, 11, 13, 15;  female: 42.5% | Prospective study | Dietary record | Unknown | Boys  Girls | Proteins  Sugar  Starch  Fat  SFA  MUFA  PUFA  Fiber  Proteins  Sugar  Starch  Fat  SFA  MUFA  PUFA  Fiber | n.s.  n.s.  n.s.  -0.24\*  n.s.  -0.27\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | Correlation analysis, Correlation coefficient | | Yes | 3 |
| Bremer et al. 2009, USA[7] | n: 6967;  age: 12-19;  female: 48.9% | Cross-sectional | 24h recall | Unknown | Boys  Girls | SSB  SSB | n.s.  n.s. | Linear regression,  -coefficient | | No | 7 |
| Chan et al. 2014a, China[9] | n: 200;  age: 12-16;  female: 51.0% | Cross-sectional | FFQ | Unknown | no | SSB | n.s. a | Multiple linear regression, Multivariate adjusted difference | | Unknown | 1 |
| Chan et al. 2014b, China[10] | n: 2727;  age: 12-16;  female: 51.3% | Cross-sectional | FFQ | Unknown | Boys  Girls | SSB  SSB | n.s.  n.s. | Linear regression,  -coefficient | | No | 6 |
| Chan et al. 2015, Australia[11] | n: 2262;  age: 14; 17  female: 50.4% | Prospective cohort study | FFQ | Unknown | n: 1479 | DGI-CA | n.s. | Linear regression,  -coefficient | | Unknown | 7 |
| Day et al. 2009, USA[12] | n: 489;  age: 8, 11, 14;  female: 51.3% | Cross-sectional | FFQ | Yes | Boys  Girls | Fat  Fat | n.s. a  n.s. a | ANCOVA,  Mean | | Yes | 2 |
| Franko et al. 2010, USA[41] | n: 2371;  age: 9-19;  female: 100.0% | Prospective cohort study | Dietary record | Yes | Girls | Cereals | negative\* a | Mixed regression models,  Mean | | Yes | 8 |
| Fukushima et al. 1999, Japan[42] | n: 514;  age: 10-15;  female: 49.2% | Cross-sectional | FFQ | Unknown | no | Fish  Soybean  Meat  Milk  Eggs  Vegetables  Seaweed  Oil | n.s.  n.s.  n.s.  n.s.  n.s.  0.24\*  n.s.  n.s. | Correlation analysis,  Correlation coefficient | | Unknown | 3 |
| Hong et al. 2009, South Korea[13] | n: 246;  age: 12-13;  female: 47.6% | Cross-sectional | Dietary record | Unknown | no | Carbohydrates  Proteins  Fat | n.s.  n.s.  n.s. | Partial correlation analysis, Partial correlation coefficient | | Unknown | 2 |
| Hur et al. 2012, USA[14] | n: 4928;  age: 12-19;  female:49.4% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Whole grains  Whole grains | n.s. a  n.s. a | Multiple linear regression, Adjusted mean values | | No | 8 |
| Kell et al. 2014, USA[15] | n: 320;  age: 7-12;  female: 46.9% | Cross-sectional | 24h recall | Unknown | no | Added sugars  Dietary fat | n.s.  n.s. | Linear regression,  -coefficient | | Unknown | 4 |
| Kosova et al. 2013, USA[16] | n: 4880;  age: 3-11;  female: 49.3% | Cross-sectional | 24h recall | Unknown | Age 3-5  (n: 1153)  Age 6-8  (n: 1284)  Age 9-11  (n: 1355) | SSB  SSB  SSB | n.s.  n.s.  n.s. | Linear regression, Adjusted  -coefficient | | No | 9 |
| Kuzawa et al. 2003, Philippines  [17] | n:608  age: 14-16;  female: 50.66% | Prospective cohort study | 24h recall | Unknown | Boys  Girls | Fat  Fat | n.s.  n.s. | Partial correlation coefficient | | Yes | 3 |
| Lin et al. 2014, Multiple European countries[18] | n: 1804;  age: 12.5-17.5;  female: 52.6% | Cross-sectional | 24h recall | Yes | no | Fiber  Soluble fiber  Insoluble fiber | n.s.  n.s.  n.s. | GLM multivariate analysis,  -coefficient | | Unknown | 6 |
| Llyod et al. 1998, USA[43] | n: 86;  age: 16.5-17.5;  female: 100.0% | Cross-sectional | Dietary record | Unknown | Girls | Fruits | n.s. | Multiple regression,  -coefficient | | No | 4 |
| Ochoa-Avilés et al. 2014, Euqador[21] | n: 334;  age:10-16;  female: n.a. | Cross-sectional | 24h recall |  | Rural  (n: n.a.)  Urban  (n: n.a.) | “Rice-rich non-animal fat pattern”  “Wheat-dense animal-fat pattern”  “Wheat-dense animal-fat pattern” | n.s.  3.7\*  n.s. | Linear regression,  -% | |  | 2 |
| Rinaldi et al. 2012, Brazil[22] | n: 147;  age: 4-11 female: 51.7% | Cross-sectional | 24h recall | Yes | no | Dairy products  (full fat)  Carbohydrates  Proteins  SFA  Fat  MUFA  PUFA  Cholesterol  Fiber  Cereals  Meat  Legumes  Vegetables  Fruits  Sugar, sweet food  Oils and fats | 0.36\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | Multiple linear regression,  -coefficient | | Yes | 3 |
| Royo-Bordonada et al. 2003, Spain[23] | n: 1112;  age: 6-7;  female: 49.9% | Cross-sectional | FFQ | Unknown | no | “Dietary variety index” | n.s. | Partial correlation analysis,  Partial correlation coefficient | | No | 7 |
| Royo-Bordonada et al. 2006, Spain  [24] | n: 1112;  age: 6-7;  female: 49.9% | Cross-sectional | FFQ | Unknown | no | SFA | n.s. a | T-test,  Mean | | Yes | 5 |
| Sanchez-Bayle et al. 2008, Spain[25] | n: 673;  age: 6;  female: 47.7% | Cross-sectional | 24h recall | Unknown | no | Fat  SFA  MUFA  PUFA  Carbohydrates  Proteins | positive\*\*\* a  positive\*\*\* a  positive\*\*\* a  n.s. a  positive\*\*\* a  n.s. a | ANOVA,  Differences in means | | Unknown | 3 |
| Scaglioni et al. 2004, Italy[26] | n: 105;  age: 8;  female: 41.0% | Cross-sectional | FFQ;  24h recall | Unknown | no | High pasta, low red meat vs. Low pasta, high red meat | n.s. | Mann-Whitney U test, Mean | | Unknown | 2 |
| Shang et al. 2012, China[27] | n: 6974;  age: 6-13;  female: 49.0% | Cross-sectional | FFQ, 24h recall | No | no | SSB; vs. milk vs. other beverages | n.s.a | General linear model, Mean differences | | Unknown | 6 |
| Steffen et al. 2003, USA[29] | n: 285;  age: 13, 15;  female: 45.6% | Prospective cohort study | FFQ | Unknown | no | Whole grains | n.s. a | Multiple linear regression, Adjusted mean values | | Yes | 4 |
| Takada et al. 1998, Japan[30] | n: 457;  age: 10;  female: 45.1% | Cross-sectional | FFQ | No | no | “Japanese diet score” | n.s. | Multiple linear regression,  -coefficient | | Unknown | 0 |
| Truthmann et al. 2012, Germany[44] | n: 5198;  age: 12-17;  female: 49.1% | Cross-sectional | FFQ | Yes | Boys  (n: 2634)  Girls  (n: 2104) | HFD  HuSKY  IFI  F &V Index  HFD  HuSKY  IFI  F & V Index | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | Linear regression,  -coefficient | | No | 10 |
| Vyncke et al. 2013, Multiple European Countries[32] | n: 552;  age: 12.5-17.5;  female: 52.0% | Cross-sectional | 24h recall | Yes | Boys  Girls | DQI-A  DQI-A | -0.00061\*  n.s. | Multilevel regression models,  -coefficient | | Yes | 2 |
| Wajid et al. 1995, Kashmir  [33] | n: 314;  age: 5-14;  female: 46.2% | Cross-sectional | Dietary history | Unknown | no | Fat | positive\* a | Pearson correlation, Mean | | Unknown | 1 |
| Washi & Ageib 2010, Saudi Arabia[35] | n: 239;  age: 13-18;  female: 53.1% | Cross-sectional | FFQ | Unknown | no | Carbohydrates | 6.82\* | Chi-2-Test,  Chi-2-Value | | Yes | 2 |
| Zhu et al. 2014, USA[36] | n: 5124;  age: 2-18;  female: 51.2% | Cross-sectional | FFQ | Unknown | n: 3272 | Yoghurt | n.s. a | Linear regression,  Least square means | | Unknown | 6 |
|  | **Outcome: HDL-cholesterol** | | | | | | | | | | |
| Akerblom et al. 1984, Finland[37] | n: 233;  age: 12;  female: 46.4% | Cross-sectional | 24h recall | No | no | SFA  Sucrose | positive \*\* a  negative\*\*\*a | T-tests,  Mean difference | | No | 3 |
| Ambrosini et al. 2010, Australia[1] | n: 1139;  age: 14;  female: 47.9% | Cross-sectional | FFQ | Unknown | Boys  Girls | “Healthy dietary pattern”  “Western dietary pattern”  “Healthy dietary pattern”  “Western dietary pattern” | positive \* a  n.s. a  n.s. a  n.s. a | ANOVA,  Mean | | No | 9 |
| Ambrosini et al. 2013, Australia[2] | n: 1366;  age: 14-17;  female: 48.3% | Prospective cohort study | FFQ | Yes | Boys  (n:587)  Girls  (n:537) | SSB  SSB | n.s. a  n.s. a | Mixed linear regression,  % of change | | Unknown | 7 |
| Appannah et al. 2015, Australia[3] | n: 1163;  age: 14;17;  female: 48.0% | Prospective cohort study | FFQ | Yes | Boys  Girls | “Energy dense, high fat and low fibre dietary pattern”  “Energy dense, high fat and low fibre dietary pattern” | n.s.  0.02\* | GEE,  -coefficient | | Yes | 6 |
| Au et al. 2012, USA[4] | n: 148;  age: 9-15;  female: 58.8% | Cross-sectional | FFQ | Yes | no | SFA  MUFA  PUFA  Carbohydrates | n.s.  n.s.  n.s.  n.s. | Linear regression,  -coefficient | | Yes | 3 |
| Beck et al. 2014, Brazil[39] | n: 660;  age: 14-19;  female:52.0% | Cross-sectional | 24h recall | No | no | Lipids  SFA  Cholesterol  Fiber | n.s.  n.s.  n.s.  n.s. | Linear and multiple regression,  -coefficient | | No | 7 |
| Bel-Serrat et al. 2014a,  Multiple European Countries[5] | n: 454;  age: 12.5-17.5;  female: 56.0% | Cross-sectional | 24h recall | Yes | no | Proteins  Carbohydrates  Fat | n.s.  -0.19\*\*  n.s. | Multi-level regression,  -coefficient | | Unknown | 4 |
| Bremer et al. 2009, USA[7] | n: 6967;  age: 12-19;  female: 48.9% | Cross-sectional | 24h recall | Unknown | Boys  Girls | SSB  SSB | -0.35\*  -0.73\* | Linear regression,  -coefficient | | No | 7 |
| Boreham et al. 1999, Northern Ireland[45] | n: 454;  age: 12-15;  female: 50.7% | Longitudinal cohort study | Dietary history | Unknown | Girls | Carbohydrates  Cholesterol  Fat | -0.22\*  -0.09\*  -0.21\* | GEE,  -coefficient | | No | 4 |
| Casazza et al. 2009b, USA[8] | n: 202;  age: 7-12;  female: 47.0% | Cross-sectional | 24h recall | Unknown | no | Fat  Carbohydrates  Proteins | n.s.  n.s.  n.s. | Linear regression, Standardized  -coefficient | | Yes | 3 |
| Chan et al. 2014a, China[9] | n: 200;  age: 12-16;  female: 51.0% | Cross-sectional | FFQ | Unknown | no | SSB | n.s. a | Multiple linear regression, Multivariate adjusted difference | | Unknown | 1 |
| Chan et al. 2014b, China[10] | n: 2727;  age: 12-16;  female: 51.3% | Cross-sectional | FFQ | Unknown | Boys  Girls | SSB  SSB | n.s.  n.s. | Linear regression,  -coefficient | | No | 6 |
| Chan et al. 2015, Australia  [11] | n: 2262;  age: 14, 17;  female: 50.4% | Prospective cohort study | FFQ | Unknown | n: 1479 | DGI-CA | n.s. | Linear regression,  -coefficient | | Unknown | 7 |
| Day et al. 2009, USA[12] | n: 489;  age: 8, 11, 14;  female: 51.3% | Cross-sectional | FFQ | Yes | Boys  Girls | Fat  Fat | n.s. a  n.s. a | ANCOVA,  Mean | | Yes | 2 |
| Franko et al. 2010, USA[41] | n: 2371;  age: 9-19;  female: 100.0% | Prospective cohort study | Dietary record | Yes | Girls | Cereals | n.s. a | Mixed regression models,  Mean | | Yes | 8 |
| Hong et al. 2009, South Korea[13] | n: 246;  age: 12-13;  female: 47.6% | Cross-sectional | Dietary record | Unknown | no | Carbohydrates  Proteins  Fat | n.s.  n.s.  n.s. | Partial correlation analysis, Partial correlation coefficient | | Unknown | 2 |
| Hur et al. 2012, USA[14] | n: 4928;  age: 12-19;  female: 49.4% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Whole grains  Whole grains | n.s. a  n.s. a | Multiple linear regression, Adjusted mean values | | No | 8 |
| Kell et al. 2014, USA[15] | n:320;  age: 7-12;  female: 46.9% | Cross-sectional | 24h recall | Unknown | no | Added sugars  Fat | n.s.  n.s. | Linear regression,  -coefficient | | Unknown | 4 |
| Kosova et al. 2013, USA[16] | n: 4880;  age: 3-11;  female: 49.3% | Cross-sectional | 24h recall | Unknown | Age 3-5  (n: 1151)  Age 6-8  (n: 1284)  Age 9-11  (n: 1354) | SSB  SSB  SSB | n.s.  n.s.  -0.95\*\*\* | Linear regression, Adjusted  -coefficient | | No | 9 |
| Kuzawa et al. 2003, Philippines  [17] | n: 608  age: 14-16;  female: 50.6% | Prospective cohort study | 24h recall | Unknown | Boys  Girls | Fat  Fat | n.s.  0.13\* | Partial correlation coefficiens | | Yes | 3 |
| Lin et al. 2014, Multiple European countries[18] | n:1804;  age: 12.5-17.5;  female: 52.6% | Cross-sectional | 24h recall | Yes | no | Fiber  Soluble fiber  Insoluble fiber | n.s.  n.s.  n.s. | GLM multivariate analysis,  -coefficient | | Unknown | 6 |
| Llyod et al. 1998, USA[43] | n: 86;  age: 16.5-17.5;  female: 100.0% | Cross-sectional | Dietary record | Unknown | Girls | Fruits | n.s. | Multiple regression,  -coefficient | | No | 4 |
| Michels et al. 2015, Multiple European countries[19] | n: 387;  age: 12.5-17.5;  female: n.a. | Cross-sectional | FFQ | No | no | Ready to eat cereals | n.s. a | Linear regression, Estimated marginal means | | Yes | 1 |
| Nobre et al. 2013, Brazil[20] | n: 227;  age: 4-5;  female: n.a. | Cross-sectional | FFQ | No | no | “Mixed dietary pattern“ (representing a typical Brazilian diet) | n.s. a | Multivariate poisson regression, Adjusted prevalence ratios | | Unknown | 1 |
| Ochoa-Avilés et al. 2014, Euqador[21] | n: 334;  age: 10-16;  female: n.a. | Cross-sectional | 24h recall |  | no | “Rice-rich non-animal fat pattern”  “Wheat-dense animal-fat pattern” | n.s.  n.s. | Linear regression,  -% | |  | 2 |
| Rinaldi et al. 2012, Brazil[22] | n: 147;  age: 4-11 female: 51.7% | Cross-sectional | 24h recall | Yes | no | Dairy products  (full fat)  Carbohydrates  Proteins  SFA  Fat  MUFA  PUFA  Cholesterol  Fiber  Cereals  Meat  Legumes  Vegetables  Fruits  Sugar, sweet food  Oils and fats | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | Multiple linear regression,  -coefficient | | Yes | 3 |
| Royo-Bordonada et al. 2003, Spain[23] | n: 1112;  age: 6-7;  female: 49.9% | Cross-sectional | FFQ | Unknown | no | “Dietary variety index” | n.s. | Partial correlation analysis,  Partial correlation coefficient | | No | 7 |
| Royo-Bordonada et al. 2006, Spain[24] | n:1112;  age: 6-7;  female: 49.9% | Cross-sectional | FFQ | Unknown | no | SFA | n.s. a | T-test,  Mean | | Yes | 5 |
| Sanchez-Bayle et al. 2008, Spain[25] | n: 673;  age: 6;  female: 47.7% | Cross-sectional | 24h recall | Unknown | no | Fat  SFA  MUFA  PUFA  Carbohydrates  Proteins | positive\* a  negative\* a  positive\* a  n.s. a  n.s. a  n.s. a | ANOVA,  Differences in means | | Unknown | 3 |
| Scaglioni et al. 2004, Italy[26] | n: 105;  age: 8;  female: 41.0% | Cross-sectional | FFQ; 24h recall | Unknown | no | High pasta, low red meat vs. Low pasta, high red meat | n.s. | Mann-Whitney U test, Mean | | Unknown | 2 |
| Shang et al. 2012, China[27] | n: 6974;  age: 6-13;  female: 49.0% | Cross-sectional | FFQ; 24h recall | No | no | SSB vs. milk, vs. other beverages | n.s.a | General linear model, Mean differences | | Unknown | 6 |
| Song et al. 2015, Korea[28] | n: 2209;  age: 10-18;  female: 47.3% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Carbohydrates  White rice  Carbohydrates  White rice | n.s. a  n.s. a  negative\* a  negative\*\*\*a | Multivariate linear regression,  Quartiles | | No | 8 |
| Steffen et al. 2003, USA[29] | n: 285;  age: 13, 15;  female: 45.6% | Prospective cohort study | FFQ | Unknown | no | Whole grains | n.s. a | Multiple linear regression, Adjusted mean values | | Yes | 4 |
| Takada et al. 1998, Japan[30] | n: 457;  age: 10;  female: 45.1% | Cross-sectional | FFQ | No | no | “Japanese diet score” | n.s. | Multiple linear regression,  -coefficient | | Unknown | 0 |
| Truthmann et al. 2012, Germany[44] | n: 5198;  age: 12-17;  female: 49.1% | Cross-sectional | FFQ | Yes | Boys  Girls | HFD  HuSKY  IFI  F & V Index  HFD  HuSKY  IFI  F & V Index | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | Linear regression,  -coefficient | | No | 10 |
| Van Rompay et al. 2015, USA[31] | n: 613;  age: 8-15;  female: n.a. | Cross-sectional | FFQ | No | no | SSB | n.s. a | Linear regression and ANCOVA,  Adjusted least square means | | Yes | 6 |
| Vyncke et al. 2013, Multiple European Countries  [32] | n: 552;  age: 12.5-17.5;  female: 52.0% | Cross-sectional | 24h recall | Yes | Boys  Girls | DQI-A  DQI-A | n.s.  n.s. | Multilevel regression models,  -coefficient | | Yes | 2 |
| Wajid et al. 1995, Kashmir  [33] | n: 314;  age: 5-14;  female: 46.2% | Cross-sectional | Dietary history | Unknown | no | Fat | n.s. a | Pearson correlation, Mean | | Unknown | 1 |
| Wang et al. 2013, Canada[34] | n: 548;  age: 8-10;  female: n.a. | Cross-sectional | 24h recall | Yes | no | SSB | n.s. | Multivariate linear regression analysis,  -coefficient | | Yes | 4 |
| Zhu et al. 2014, USA[36] | n: 5124;  age: 2-18;  female: 51.3% | Cross-sectional | FFQ | Unknown | n: 3272 | Yoghurt | n.s. a | Multivariate linear regression,  Least square means | | Unknown | 6 |
|  | **Outcome: LDL-cholesterol** | | | | | | | | | | |
| Ambrosini et al. 2010, Australia[1] | n: 1139;  age: 14;  female: 47.9% | Cross-sectional | FFQ | Unknown | Boys  Girls | “Healthy dietary pattern”  “Western dietary pattern”  “Healthy dietary pattern”  “Western dietary pattern” | n.s. a  n.s. a  n.s. a  n.s. a | | ANOVA,  Mean | No | 9 |
| Ambrosini et al. 2013, Australia[2] | n: 1366;  age: 14-17;  female: 48.3% | Prospective cohort study | FFQ | Yes | Boys  (n: 587)  Girls  (n: 537) | SSB  SSB | n.s. a  n.s. a | | Linear regression,  % of change | Unknown | 7 |
| Appannah et al. 2015, Australia[3] | n: 1163;  age: 14-17;  female: 48.0% | Prospective cohort study | FFQ | Yes | Boys  Girls | “Energy dense, high fat and low fiber dietary pattern”  “Energy dense, high fat and low fiber dietary pattern” | n.s.  n.s. | | GEE,  -coefficient | Yes | 6 |
| Au et al. 2012, USA[4] | n:148;  age: 9-15;  female: 58.8% | Cross-sectional | FFQ | Yes | no | SFA  MUFA  PUFA  Carbohydrates | n.s.  n.s.  n.s.  n.s. | | Linear regression,  -coefficient | Yes | 3 |
| Bel-Serrat et al. 2014a,  Multiple European Countries[5] | n: 454;  age: 12.5-17.5;  female: 56.0% | Cross-sectional | 24h recall | Yes | no | Proteins  Carbohydrates  Fat | n.s.  n.s.  n.s. | | Multi-level regression,  -coefficient | Unknown | 4 |
| Bel-Serrat et al. 2014b,  Multiple European countries[6] | n: 454;  age: 12.5-17.5;  female: 56.0% | Cross- sectional | 24h recall | Yes | Boys  Girls | Alanine  Glycine  Isoleucine  Leucine  Valine  Phenylalanine  Tryptophan  Tyrosine  Arginine  Histidine  Lysine  Asparagine acids  Glutamic acid  Serine  Threonine  Cysteine  Methionine  Proline  Alanine  Glycine  Isoleucine  Leucine  Valine  Phenylalanine  Tryptophan  Tyrosine  Arginine  Histidine  Lysine  Asparagine acids  Glutamic acid  Serine  Threonine  Cysteine  Methionine  Proline | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  -0.14\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  -0.14\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Multilevel linear regression,  -coefficient | Yes | 4 |
| Bremer et al. 2009, USA[7] | n: 6967;  age: 12-19;  female: 48.9% | Cross-sectional | 24h recall | Unknown | Boys  Girls | SSB  SSB | n.s.  n.s. | | Linear regression,  -coefficient | No | 7 |
| Chan et al. 2014a, China[9] | n: 200;  age: 12-16;  female: 51.0% | Cross-sectional | FFQ | Unknown | no | SSB | n.s. a | | Multiple linear regression, Multivariate adjusted difference | Unknown | 1 |
| Chan et al. 2015, Australia  [11] | n: 2262;  age: 14, 17  female: 50.4% | Prospective cohort study | FFQ | Unknown | n: 1547 | DGI-CA | n.s. | | Linear regression,  -coefficient | Unknown | 7 |
| Day et al. 2009, USA[12] | n: 489;  age: 8, 11, 14;  female: 51.3% | Cross-sectional | FFQ | Yes | Boys  Girls | Fat  Fat | n.s. a  n.s. a | | ANCOVA,  Mean | Yes | 2 |
| Franko et al. 2010, USA[41] | n: 2371;  age: 9-19;  female: 100.0% | Prospective cohort study | Dietary record | Yes | Girls | Cereal consumption | negative\* a | | Mixed regression models, Mean | Yes | 8 |
| Hur et al. 2012, USA[14] | n: 4928;  age: 12-19;  female: 49.8% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Whole grains  Whole grains | n.s. a  n.s. a | | Multiple linear regression, Adjusted mean values | No | 8 |
| Kell et al. 2014, USA[15] | n: 320;  age: 7-12;  female: 46.9% | Cross-sectional | 24h recall | Unknown | no | Added sugars  Dietary fat | n.s.  n.s. | | Linear regression,  -coefficient | Unknown | 4 |
| Kosova et al. 2013, USA[16] | n: 4880;  age: 3-11;  female: 49.3% | Cross-sectional | 24h recall | Unknown | Age 3-5  (n: 467)  Age 6-8  (n: 558)  Age 9-11  (n: 574) | SSB  SSB  SSB | 1.64\*  n.s.  n.s. | | Linear regression, Adjusted  -coefficient | No | 9 |
| Kuzawa et al. 2003, Philippines  [17] | n: 608  age: 14-16;  female: 50.7% | Prospective cohort study | 24h recall | Unknown | Boys  Girls | Fat  Fat | 0.13\*  n.s. | | Partial correlation coefficiens | Yes | 3 |
| Lin et al. 2014, Multiple European countries  [18] | n: 1804;  age: 12.5-17.5;  female: 52.6% | Cross-sectional | 24h recall | Yes | no | Dietary fiber  WSF  WIF | n.s.  0.03\*  n.s. | | GLM multivariate analysis,  -coefficient | Unknown | 6 |
| Michels et al. 2015, Multiple European countries[19] | n: 387;  age: 12.5-17.5;  female: n.a. | Cross-sectional | FFQ | No | no | Ready to eat cereals | n.s. a | | Linear regression, Estimated marginal means | Yes | 1 |
| Nobre et al. 2013, Brazil[20] | n:227;  age: 4-5;  female: n.a. | Cross-sectional | FFQ | No | no | “Mixed dietary pattern“ (representing a typical Brazilian diet) | negative\*\* a | | Multivariate poisson regression, Adjusted prevalence ratios | Unknown | 1 |
| Ochoa-Avilés et al. 2014, Euqador[21] | n: 334;  age: 10-16;  female: n.a. | Cross-sectional | 24h recall |  | Rural  (n: n.a.)  Urban  (n: n.a.) | Rice-rich non-animal fat pattern  Wheat-dense animal-fat pattern  Wheat-dense animal-fat pattern | n.s.  8.4\*  n.s. | | Linear regression,  -% |  | 2 |
| Rinaldi et al. 2012, Brazil[22] | n: 147;  age: 4-11 female: 51.7% | Cross-sectional | 24h recall | Yes | no | Full fat dairy products  Carbohydrates  Proteins  SFA  Fat  MUFA  PUFA  Cholesterol intake  Fiber  Cereals  Meat  Legumes  Vegetables  Fruits  Sugar, sweet food  Oils and fats | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Multiple linear regression,  -coefficient | Yes | 3 |
| Royo-Bordonada et al. 2003, Spain[23] | n: 1112;  age: 6-7;  female: 49.9% | Cross-sectional | FFQ | Unknown | no | Dietary variety index | n.s. | | Partial correlation analysis,  Partial correlation coefficient | No | 7 |
| Royo-Bordonada et al. 2006, Spain[24] | n: 1112;  age: 6-7;  female: 49.9% | Cross-sectional | FFQ | Unknown | no | SFA | positive\* a | | T-test,  Mean | Yes | 5 |
| Sanchez-Bayle et al. 2008, Spain[25] | n: 673;  age: 6;  female: 47.7% | Cross-sectional | 24h recall | Unknown | no | Fat  SFA  MUFA  PUFA  Carbohydrates  Proteins | positive\*\*\* a  positive\*\*\* a  negative\*\*\* a  n.s. a  negative\*\*\* a  n.s. a | | ANOVA,  Differences in means | Unknown | 3 |
| Scaglioni et al. 2004, Italy[26] | n: 105;  age: 8;  female: 41.0% | Cross-sectional | FFQ; 24h recall | Unknown | no | High pasta, low red meat vs. Low pasta, high red meat | n.s. a | | Mann-Whitney U test, Mean | Unknown | 2 |
| Shang et al. 2012, China[27] | n: 6974;  age: 6-13;  female: 49.0% | Cross-sectional | FFQ; 24h recall | No | no | SSB; vs. milk, vs. other beverages | n.s.a | | General linear model, Mean differences | Unknown | 6 |
| Steffen et al. 2003, USA[29] | n: 285;  age: 13, 15;  female: 45.6% | Prospective cohort study | FFQ | Unknown | no | Whole grains | n.s. a | | Multiple linear regression, Adjusted mean values | Yes | 4 |
| Takada et al. 1998, Japan[30] | n: 457;  age: 10;  female: 45.1% | Cross-sectional | FFQ | No | no | Japanese diet score | -0.95\* | | Multiple linear regression, -coefficient | Unknown | 0 |
| Vyncke et al. 2013, Multiple European Countries[32] | n: 552;  age: 12.5-17.5;  female: 52.0% | Cross-sectional | 24h recall | Yes | Boys  Girls | DQI-A  DQI-A | n.s.  n.s. | | Multilevel regression models,  -coefficient | Yes | 2 |
| Wajid et al. 1995, Kashmir  [33] | n: 314;  age: 5-14;  female: 46.2% | Cross-sectional | Dietary history | Unknown | no | Fat | n.s. a | | Pearson correlation, Mean | Unknown | 1 |
| Washi & Ageib 2010, Saudi Arabia[35] | n: 239;  age: 13-18;  female: 53.1% | Cross-sectional | FFQ | Unknown | no | Fat | 13.43\* | | Chi-2-Test,  Chi-2-Value | Yes | 2 |
| Zhu et al. 2014, USA[36] | n: 5124;  age: 2-18;  female: 51.3% | Cross-sectional | FFQ | Unknown | n: 1265 | Yoghurt | n.s. a | | Multivariate linear regression,  Least square means | Unknown | 6 |
|  | **Outcome: Fasting insulin** | | | | | | | | | | |
| Ambrosini et al. 2010, Australia[1] | n: 1139;  age: 14;  female: 47.9% | Cross-sectional | FFQ | Unknown | Boys  Girls | “Healthy dietary pattern”  “Western dietary pattern”  “Healthy dietary pattern”  “Western dietary pattern” | n.s. a  n.s. a  n.s. a  n.s. a | | ANOVA,  Mean | No | 9 |
| Ambrosini et al. 2013, Australia[2] | n: 1366;  age: 14-17;  female: 48.3% | Prospective cohort study | FFQ | Yes | Boys  (n: 564)  Girls  (n: 519) | SSB  SSB | n.s. a  n.s. a | | Linear regression,  % of change | Unknown | 7 |
| Appannah et al. 2015, Australia[3] | n: 1163;  age: 14-17;  female: 48.0% | Prospective cohort study | FFQ | Yes | Boys  Girls | “Energy dense, high fat and low fiber dietary pattern”  “Energy dense, high fat and low fiber dietary pattern” | 3.0\*  3.0\* | | GEE,  -coefficient (%) | Yes | 6 |
| Casazza et al. 2009a, USA[46] | n: 250;  age: 7-12;  female: 48.9% | Cross-sectional | 24h recall | Yes | no | Fat  Carbohydrates  Proteins  Sugar  fiber intake  SFA  MUFA  PUFA | n.s.  -0.10\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Linear regression, Standardized parameter estimate | Unknown | 3 |
| Chan et al. 2015, Australia  [11] | n: 2262;  age: 14; 17  female: 50.4% | Prospective cohort study | FFQ | Unknown | n: 1479 | DGI-CA | -0.03\* | | Linear regression,  -coefficient | Unknown | 7 |
| Cook et al. 2014, USA[47] | n: 175;  age: 8-18;  female: 68.6% | Cross-sectional | 24h recall | Yes | no | Vegetables  No starchy vegetables  Nutrient rich vegetables | n.s. a  n.s. a  n.s. a | | ANOVA, Mean | Yes | 3 |
| Hur et al. 2012, USA[14] | n: 4928;  age:12-19;  female: 49.4% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Whole grains  Whole grains | significant a  negative\* a | | Multiple linear regression, Adjusted mean values | No | 8 |
| Jimenez-Pavon et al. 2013, Multiple European countries[48] | n: 637;  age: 12.5-17.5;  female: 54.5% | Cross-sectional | 24h recall | Yes | Boys  Girls | DQI-A  DQI-A | n.s.  n.s. | | Multiple linear regression, Standardized  -coefficient | Unknown | 2 |
| Lin et al. 2014, Multiple European countries[18] | n: 1804;  age: 12.5-17.5;  female: 52.6% | Cross-sectional | 24h recall | Yes | no | Dietary fiber  WSF  WIF | n.s.  n.s.  n.s. | | GLM multivariate analysis,  -coefficient | Unknown | 6 |
| Michels et al. 2015, Multiple European countries[19] | n: 387;  age: 12.5-17.5;  female: n.a. | Cross-sectional | FFQ | No | no | Ready to eat cereals | n.s. a | | Linear regression, Estimated marginal means | Yes | 1 |
| Scaglioni et al. 2004, Italy[26] | n: 105;  age: 8;  female: 41.0% | Cross-sectional | FFQ;  24h recall | Unknown | no | High pasta, low red meat vs. Low pasta, high red meat | significant a | | Mann-Whitney U test, Mean | Unknown | 2 |
| Song et al. 2015, Korea[28] | n: 2209;  age: 10-18;  female: 47.3% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Carbohydrates  White rice  Carbohydrates  White rice | n.s. a  n.s. a  n.s. a  positive\*\* a | | Linear regression, Quartiles | No | 8 |
| Steffen et al. 2003, USA[29] | n: 285;  age: 13, 15;  female: 45.6% | Prospective cohort study | FFQ | Unknown | no | Whole grains | n.s. a | | Multiple linear regression, Adjusted mean values | Yes | 4 |
| Wang et al. 2013, Canada[34] | n: 457;  age: 8-10;  female: n.a. | Prospective cohort study | 24h recall | Unknown | no | Added sugars (solid sources)  Added sugars (liquid sources) | n.s.  2.26\*\* | | Linear regression,  -coefficient | Yes | 4 |
| White et al. 2012, USA[49] | n: 774;  age: 16-17;  female: 100.0% | Prospective cohort study | Dietary record | Unknown | no | SFA  MUFA  PUFA  Carbohydrates  Sucrose  Starch  Soluble fiber  Insoluble fiber | n.s.  n.s.  -0.84\*  n.s.  n.s.  n.s.  n.s.  n.s. | | Multiple linear regression,  -coefficient | Yes | 5 |
| Zhu et al. 2014, USA[36] | n: 5124;  age: 2-18;  female: 51.3% | Cross-sectional | FFQ | Unknown | n: 913 | Yoghurt | negative\*\*\* a | | Linear regression,  Least square means | Unknown | 6 |
|  | **Outcome: Fasting glucose** | | | | | | | | | | |
| Ambrosini et al. 2010, Australia[1] | n: 1139;  age: 14;  female: 47.9% | Cross-sectional | FFQ | Unknown | Boys  Girls | “Healthy dietary pattern”  “Western dietary pattern”  “Healthy dietary pattern”  “Western dietary pattern” | negative\* a  n.s. a  negative\* a  n.s. a | | ANOVA,  Mean | No | 9 |
| Ambrosini et al. 2013, Australia[2] | n: 1366;  age: 14-17;  female: 48.3% | Prospective cohort study | FFQ | Yes | Boys  (n: 587)  Girls  (n: 537) | SSB  SSB | n.s. a  n.s. a | | Linear regression,  % of change | Unknown | 7 |
| Appannah et al. 2015, Australia[3] | n: 1163;  age: 14-17;  female: 48.0% | Prospective cohort study | FFQ | Yes | Boys  Girls | “Energy dense, high fat and low fiber dietary pattern”  “Energy dense, high fat and low fiber dietary pattern” | 0.04\*  n.s. | | GEE,  -coefficient | Yes | 6 |
| Casazza et al. 2009b, USA[8] | n: 202;  age: 7-12;  female: 47.0% | Cross-sectional | 24h recall | Unknown | no | Fat  Carbohydrates  Proteins | -0.36\*  0.49\*  -0.43\* | | Linear regression, Standardized  -coefficient | Yes | 3 |
| Chan et al. 2014b, China[10] | n: 2727;  age: 12-16;  female: 51.3% | Cross-sectional | FFQ | Unknown | Boys  Girls | SSB  SSB | n.s.  n.s. | | Linear regression,  -coefficient | No | 6 |
| Chan et al. 2015, Australia  [11] | n: 2262;  age: 14, 17;  female: 50.4% | Prospective cohort study | FFQ | Unknown | n: 1478 | DGI-CA | n.s. | | Linear regression,  -coefficient | Unknown | 7 |
| Cook et al. 2014, USA  [47] | n: 175;  age: 8-18;  female: 68.6% | Cross-sectional | 24h recall | Yes | no | Vegetables  No starchy vegetables  Nutrient rich vegetables | n.s. a  n.s. a  n.s. a | | ANOVA,  Mean | Yes | 3 |
| Donin et al. 2014, England[50] | n: 1841  age: 9-10;  female: n.a. | Cross-sectional | 24h recall | Yes | no | Fat  SFA  MUFA  PUFA  Carbohydrates  Sugars  Starch  No starch polysaccharides  Proteins | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Multilevel linear regression,  % of change | Yes | 7 |
| Hong et al. 2009, South Korea[13] | n: 246;  age: 12-13;  female: 47.6% | Cross-sectional | Dietary record | Unknown | no | Carbohydrates  Proteins  Fat | n.s.  n.s.  n.s. | | Partial correlation analysis, Partial correlation coefficient | Unknown | 2 |
| Hur et al. 2012, USA[14] | n: 4928;  age:12-19;  female: 49.4% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Whole grains  Whole grains | n.s. a  n.s. a | | Multiple linear regression, Adjusted mean values | No | 8 |
| Lin et al. 2014, Multiple European countries[18] | n: 1804;  age: 12.5-17.5;  female: 52.6% | Cross-sectional | 24h recall | Yes | no | Dietary fiber  WSF  WIF | n.s.  -0.01\*  n.s. | | GLM multivariate analysis,  -coefficient | Unknown | 6 |
| Michels et al. 2015, Multiple European countries[19] | n: 387;  age: 12.5-17.5;  female: n.a. | Cross-sectional | FFQ | No | no | Ready to eat cereals | n.s. a | | Linear regression, Estimated marginal means | Yes | 1 |
| Ochoa-Avilés et al. 2014, Euqador  [21] | n: 334;  age: 10-16;  female: n.a. | Cross-sectional | 24h recall |  | Rural  (n.a.);  Urban  (n.a.) | “Rice-rich non-animal fat pattern”  “Rice-rich non-animal fat pattern”  “Wheat-dense animal-fat pattern” | n.s.  3.3\*\*  n.s. | | Linear regression,  -% |  | 2 |
| Royo-Bordonada et al. 2003, Spain[23] | n: 1112;  age: 6-7;  female: 49.9% | Cross-sectional | FFQ | Unknown | no | “Dietary variety index | n.s. | | Partial correlation analysis,  Partial correlation coefficient | No | 7 |
| Royo-Bordonada et al. 2006, Spain[24] | n: 1112;  age: 6-7;  female: 49.9% | Cross-sectional | FFQ | Unknown | no | SFA | n.s. a | | T-test,  Mean | Yes | 5 |
| Scaglioni et al. 2004, Italy[26] | n: 105;  age: 8;  female: 41.0% | Cross-sectional | FFQ;  24h recall | Unknown | no | High pasta, low red meat vs. Low pasta, high red meat | n.s. | | Mann-Whitney U test, Mean | Unknown | 2 |
| Shang et al. 2012, China[27] | n: 6974;  age: 6-13;  female: 49.0% | Cross-sectional | FFQ; 24h recall | No | no | SSB vs. milk, vs. other beverages | n.s.a | | General linear model, Mean differences | Unknown | 6 |
| Song et al. 2015, Korea[28] | n: 2209;  age: 10-18;  female: 47.3% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Carbohydrates  White rice  Carbohydrates  White rice | n.s. a  n.s. a  n.s. a  n.s. a | | Linear regression, Quartiles | No | 8 |
| Steffen et al. 2003, USA[29] | n: 285;  age: 13, 15;  female: 45.6% | Prospective cohort study | FFQ | Unknown | no | Whole grains | n.s. a | | Multiple linear regression, Adjusted mean values | Yes | 4 |
| Wang et al. 2014, Canada[51] | n: 457;  age: 8-10;  female: n.a. | Prospective cohort study | 24h recall | Unknown | no | Added sugars (solid sources)  Added sugars (liquid sources) | n.s.  0.04\*\* | | Linear regression,  -coefficient | Yes | 4 |
| White et al. 2012, USA[49] | n: 774;  age: 16-17;  female: 100.0% | Prospective cohort study | Dietary record | Unknown | no | SFA  MUFA  PUFA  Carbohydrates  Sucrose  Starch  Soluble fiber  Insoluble fiber | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Multiple linear regression,  -coefficient | Yes | 5 |
| Zhu et al. 2014, USA[36] | n: 5124;  age: 2-18;  female: 51.3% | Cross-sectional | FFQ | Unknown | no | Yoghurt | n.s. a | | Linear regression,  Least square means | Unknown | 6 |
|  | **Outcome: (HOMA-) insulin resistance** | | | | | | | | | | |
| Ambrosini et al. 2010, Australia[1] | n: 1139;  age: 14;  female: 48.0% | Cross-sectional | FFQ | Unknown | Boys  Girls | “Healthy dietary pattern”  “Western dietary pattern”  “Healthy dietary pattern”  “Western dietary pattern” | n.s. a  n.s. a  n.s. a  n.s. a | | ANOVA,  Mean | No | 9 |
| Ambrosini et al. 2013, Australia[2] | n: 1366;  age: 14-17;  female: 48.3% | Prospective cohort study | FFQ | Yes | Boys  (n: 564)  Girls  (n: 519) | SSB  SSB | n.s. a  n.s. a | | Linear regression,  % of change | Unknown | 7 |
| Appannah et al. 2015, Australia[3] | n: 1163;  age: 14-17;  female: 48.0% | Prospective cohort study | FFQ | Yes | Boys  Girls | “Energy dense, high fat and low fiber dietary pattern”  “Energy dense, high fat and low fiber dietary pattern” | 4.0\*  4.0\* | | GEE, -coefficient(%) | Yes | 6 |
| Bremer et al. 2009, USA[7] | n: 6967;  age: 12-19;  female: 48.9% | Cross-sectional | 24h recall | Unknown | Boys  Girls | SSB  SSB | n.s.  0.07\* | | Linear regression,  -coefficient | No | 7 |
| Chan et al. 2015, Australia  [11] | n: 2262;  age: 14, 17;  female: 50.4% | Prospective cohort study | FFQ | Unknown | n: 1464 | DGI-CA | -0.004\*\* | | Linear regression,  -coefficient | Unknown | 7 |
| Cook et al. 2014, USA[47] | n: 175;  age: 8-18;  female: 68.6% | Cross-sectional | 24h recall | Yes | no | Vegetables  No starchy vegetables  Nutrient rich vegetables | n.s. a  n.s. a  n.s. a | | ANOVA, Mean | Yes | 3 |
| Donin et al. 2014, England[50] | n: 1841  age: 9-10;  female: n.a. | Cross-sectional | 24h recall | Yes | no | Fat  SFA  MUFA  PUFA  Carbohydrates  Sugars  Starch  No starch polysaccharides  Proteins | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Multilevel linear regression,  % of change | Yes | 7 |
| Hirschler et al. 2008, Argentina[52] | n: 365;  age: 8-12;  female: 48.0% | Cross-sectional | FFQ | Unknown | no | Milk | -0.14\* | | Linear regression,  -coefficient | Unknown | 1 |
| Jimenez-Pavon et al. 2013, Multiple European countries[48] | n: 637;  age: 12.5-17.5;  female: 54.5% | Cross-sectional | 24h recall | Yes | Boys  Girls | DQI-A  DQI-A | n.s.  n.s. | | Multiple linear regression, Standardized  -coefficient | Unknown | 2 |
| Jimenez-Pavon et al. 2014, Multiple European countries  [53] | n: 794;  age: 12.5-17.5;  female: 54.4% | Cross-sectional | 24h recall | Yes | Boys  Girls | DQI-A  DQI-A | n.s.  n.s. | | Logistic regression,  Odds ratio | Unknown | 2 |
| Karatzi et al. 2014, Greece[54] | n: 1912;  age: 9-13;  female: 51.4% | Cross-sectional | 24h recall | Unknown | no | Pattern 1: Fried potatoes, red meat, SSB;  Pattern 2: Processed meat, cheese;  Pattern 3: Margarine, sweets, savory snacks;  Pattern 4: Legumes, Fruits;  Pattern 5: Egg, fish | n.s.  n.s.  0.08\*\*\*  n.s.  n.s. | | Multiple linear regression, Logistic regression, Standardized  -coefficient | No | 8 |
| Kondaki et al. 2012, Multiple European countries  [55] | n: 546;  age: 12.5-17.5;  female: 54.6% | Cross-sectional | FFQ | Unknown | no | SSB  White bread  Brown bread | significant a  n.s.  n.s. | | Multiple linear regression,  -coefficient | Unknown | 4 |
| Kynde et al. 2009, Denmark[56] | n: 651;  age: 8-16;  female: 62.5% | Prospective study | 24 hour recall; food record | Unknown | 1. Boys  1.1 Children school  1.2 Adolescents  2. Girls  2.1 Children school  2.2 Adolescents | Total sugar  Added sugars  Non added sugars  Starch  Fiber  Total sugar  Added sugars  Non added sugars  Starch  Fiber  Total sugar  Added sugars  Non added sugars  Starch  Fiber  Total sugar  Added sugars  Non added sugars  Starch  Fiber | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  0.23\*  n.s.  n.s.  n.s.  -1.28\*  n.s.  n.s.  n.s.  n.s.  n.s. | | Linear regression,  -coefficient | Unknown | 5 |
| Lopez Alarcon et al. 2014, Mexico[57] | n: 229;  age: 10-18;  female: 46.7% | Cross-sectional | 24h recall | Unknown | no | Proteins  Carbohydrates  Lipids  Fiber  SFA | n.s. a  mixed a  mixed a  mixed a  n.s. a | | Logistic regression,  Odds ratio | Yes | 2 |
| Michels et al. 2015, Multiple European countries  [19] | n: 387;  age: 12.5-17.5;  female: n.a. | Cross-sectional | FFQ | No | no | Ready to eat cereals | n.s. a | | Linear regression, Estimated marginal means | Yes | 1 |
| Romero-Polvo et al. 2012, Mexico[58] | n: 916;  age: 7-18;  female: 50.8% | Cohort study | FFQ |  | no | Western dietary pattern  Prudent dietary pattern  High protein/fat dietary pattern | positivea  n.s. a  n.s. a | | Multiple logistic regressions,  Odd’s ratio |  | 5 |
| Sese et al. 2012, Multiple European Countries[59] | n: 826  age: 12.5-17.5;  female: 52.1% | Cross-sectional | FFQ | Yes | Boys  Girls | Fresh fruits  Vegetables  Dried fruits  Nuts, peanuts, seeds  Yoghurt, yoghurt products  Cheese products  Sweets, candy  Chocolate  Biscuits, cookies  Cake, muffins, pastries  Crisps, tortilla chips  Crackers, rice cakes, salty sticks  Popcorn  Meat based snacks  Bread, toast  Cereals  Oatmeal, porridge  Cereal bars  Sandwiches, toasties, pannini  Pizza  Hamburger  Hot dog, sausages  French fries  Pasta dishes  Pasta snack products  Milk  Chocolate milk  Soft drinks  Juices  Water  Fresh fruits  Vegetables  Dried fruits  Nuts, peanuts, seeds  Yoghurt, yoghurt products  Cheese products  Sweets, candy  Chocolate  Biscuits, cookies  Cake, muffins, pastries  Crisps, tortilla chips  Crackers, rice cakes, salty sticks  Popcorn  Meat based snacks  Bread, toast  Bowl of cereal  Oatmeal, porridge  Cereal bars  Sandwiches, toasties, pannini  Pizza  Hamburger  Hot dog, sausages  French fries  Pasta dishes  Pasta snack products  Milk  Chocolate milk  Soft drinks  Juices  Water | n.s.a  n.s.a  n.s.a  n.s.a  n.s. a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  significant**a**  significant**a**  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  significant**a**  n.s.a  n.s.a  n.s.a  significant**a**  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  significant**a**  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  significant**a**  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  n.s.a  significant**a**  significant**a**  n.s.a | | One way ANOVA,  Mean | Unknown | 1 |
| Song et al. 2015, Korea[28] | n: 2209;  age: 10-18;  female: 47.3% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Carbohydrates  White rice  Carbohydrates  White rice | n.s. a  n.s. a  n.s. a  positive\*\* a | | Linear regression, Quartiles | No | 8 |
| Wang et al. 2013, Canada[34] | n: 548;  age: 8-10;  female: n.a. | Cross-sectional | 24h recall | Yes | no | SSB | n.s. | | Linear regression analysis,  -coefficient | Yes | 4 |
| Wang et al. 2014, Canada[51] | n: 457;  age: 8-10;  female: n.a. | Prospective cohort study | 24h recall | Unknown | no | Added sugars (solid sources)  Added sugars (liquid sources) | n.s.  0.09\*\* | | Linear regression,  -coefficient | Yes | 4 |
| White et al. 2012, USA[49] | n: 774;  age: 16-17;  female: 100.0% | Prospective cohort study | Dietary record | Unknown | no | SFA  MUFA  PUFA  Carbohydrates  Sucrose  Starch  Soluble fiber  Insoluble fiber | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Multiple linear regression,  -coefficient | Yes | 5 |
| Zhu et al. 2014, USA[36] | n: 5124;  age: 2-18;  female: 51.3% | Cross-sectional | FFQ | Unknown | n: 3769 | Yoghurt | negative\*\*\* a | | Linear regression,  Least square means | Unknown | 6 |
|  | **Outcome: insulin sensitivity** | | | | | | | | | | |
| Casazza et al. 2009a, USA[46] | n: 250;  age: 7-12;  female: 48.9% | Cross-sectional | 24h recall | Yes | no | Fat  Carbohydrates  Proteins  Sugar  Fiber  SFA  MUFA  PUFA | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Linear regression, Standardized parameter estimate | Unknown | 3 |
| Cook et al. 2014, USA[47] | n: 175;  age: 8-18;  female: 68.6% | Cross-sectional | 24h recall | Yes | no | Vegetables  No starchy vegetables  Nutrient rich vegetables | n.s. a  n.s. a  positive\* a | | ANOVA, Mean | Yes | 3 |
| Davis et al. 2007, USA[60] | n: 120;  age: 10-17;  female: 43.3% | Cross-sectional | 24h recall | Unknown | no | Sugar | -0.02\* | | Hierarchical multiple regression analyses, Unstandar-dized  -coefficient | Yes | 3 |
| Forbes et al. 2013, Canada[61] | n: 378;  age: 10-14;  female: 60.1% | Cross- sectional; Cohort study | 24h recall | Yes | Boys  Girls | Sugar  Fiber  Fruits/Vegetables  Fat  Sugar  Fiber  Fruits/Vegetables  Fat | n.s.  n.s.  n.s.  n.s.  n.s.  -0.18\*  n.s.  n.s. | | Least squares multiple regression analysis,  -coefficient | Yes | 3 |
| Steffen et al. 2003, USA[29] | n: 285;  age: 13, 15;  female: 45.6% | Prospective cohort study | FFQ | Unknown | no | Whole grains | positive\* a | | Multiple linear regression, Adjusted mean values | Yes | 4 |
|  | **Outcome: C-reactive Protein** | | | | | | | | | | |
| Aeberli et al. 2006, Switzerland  [62] | n: 79;  age: 6-14;  female: 46.8% | Cross-sectional | 24h recall; 1d food record | Yes | no | Fat  Fat (% energy)  SFA  PUFA  MUFA  Dairy products  Meat  Plant oils  Animal fat | 0.28\*\*  0.28\*\*  0.24\*  0.21\*  0.27\*  n.s.  n.s.  0.24\*  n.s. | Multiple regression and ANCOVA,  -coefficient | | Yes | 3 |
| Au et al. 2012, USA[4] | n: 148;  age: 9-15;  female: 58.8% | Cross-sectional | FFQ | Yes | no | SFA  MUFA  PUFA  Carbohydrates | n.s.  n.s.  n.s.  n.s. | Linear regression,  -coefficient | | Yes | 3 |
| Chan et al. 2015, Australia  [11] | n: 2262;  age: 14, 17;  female: 50.4% | Prospective cohort study | FFQ | Unknown | n: 1458 | DGI-CA | n.s. | Linear regression,  -coefficient | | Unknown | 7 |
| Gonzalez Gil et al. 2015, Multiple European countries  [63] | n: 3884;  age: 6-9;  female: 50.9% | Cross-sectional | FFQ | No | Boys  Gils | Raw vegetables  Raw vegetables | 0.7\*  n.s. | Multilevel ordinal logistic regression,  Odds ratio | | Unknown | 5 |
| Holt et al. 2009, USA[64] | n: 285;  age: 13-17;  female: 45.6% | Cross –sectional; Cohort study | FFQ | Yes | no | Fruits (no fruit juice)  Fruit juice  Vegetables  French fries  Legumes  Fruits/Vegetables | -0.19\*\*  n.s.  n.s.  n.s.  n.s.  -0.15\* | Spearman partial correlation coefficients, Correlation coefficient | | Yes | 4 |
| Hur et al. 2012, USA[14] | n: 4928;  age: 12-19;  female: 49.4% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Whole grains  Whole grains | n.s. a  significant a | Multiple linear regression, Adjusted mean values | | No | 8 |
| Kosova et al. 2013, USA[16] | n: 4880;  age: 3-11;  female: 49.3% | Cross-sectional | 24h recall | Unknown | Age 3-5  (n: 1227)  Age 6-8  (n: 1316)  Age 9-11  (n: 1375) | SSB  SSB  SSB | n.s.  n.s.  0.01\* | Linear regression, Adjusted  -coefficient | | No | 9 |
| Lin et al. 2014, Multiple European countries  [18] | n: 1804;  age: 12.5-17.5;  female: 52.6% | Cross-sectional | 24h recall | Yes | no | Dietary fiber  Soluble Fiber  Insoluble Fiber | n.s.  n.s.  n.s. | GLM multivariate analysis,  -coefficient | | Unknown | 6 |
| Qureshi et al. 2009, USA[65] | n: 4110;  age: 5-16;  female: 49.9% | Cross-sectional | 24h recall | Unknown | no | Dairy products  Milk  Cheese  Yoghurt  Grains  Refined grains  Whole grains  Fruits  Citrus, melon, berries  Other fruits  Vegetables  Non starchy vegetables  Dark green vegetables  Deep yellow/orange vegetables  Tomatoes  Starchy vegetables  Legumes  Potatoes  Meat/other Proteins  Red meat  White meat  Other Proteins sources | significant a  significant a  n.s. a  n.s. a  significant a  significant a  n.s. a  n.s. a  significant a  n.s. a  significant a  significant a  n.s. a  n.s. a  significant a  significant a  n.s. a  n.s. a  n.s. a  n.s. a  n.s. a  n.s. a | ANOVA, Mean differences | | No | 7 |
| Thomas et al. 2008, UK[66] | n: 164;  age: 12-13;  female: 54.3% | Cross-sectional | FFQ , food diary | Yes | Boys  Girls | Fat  SFA  Fat  SFA | n.s.  n.s.  n.s.  n.s. | Pearson correlation, Partial correlation coefficient | | No | 4 |
| Truthmann et al. 2012, Germany[44] | n: 5198;  age:12-17;  female: 49.1% | Cross-sectional | FFQ | Yes | Boys  (n: 2554)  Girls  (n: 2438) | HFD  HuSKY  IFI  F & V Index  HFD  HuSKY  IFI  F & V Index | n.s.  -8.20\*  n.s.  n.s.  n.s.  n.s.  -14.00\*\*  n.s. | Linear regression,  -coefficient | | No | 10 |
| Vyncke et al. 2013, Multiple European Countries[32] | n: 552;  age: 12.5-17.5;  female: 52.0% | Cross-sectional | 24h recall | Yes | Boys  Girls | DQI-A  DQI-A | n.s.  n.s. | Multilevel regression models,  -coefficient | | Yes | 2 |
| Zhu et al. 2014, USA[36] | n: 5124;  age: 2-18;  female: 51.3% | Cross-sectional | FFQ | Unknown | n: 3769 | Yoghurt | n.s. a | Linear regression,  Least square means | | Unknown | 6 |
|  | **Outcome: systolic blood pressure** | | | | | | | | | | |
| Ambrosini et al. 2013, Australia[2] | n: 1366;  age: 14-17;  female: 48.3% | Prospective cohort study | FFQ | Yes | Boys  Girls | SSB  SSB | n.s. a  n.s. a | | Linear regression,  % of change | Unknown | 7 |
| Aounallah-Skhiri et al. 2011, Tunisia[67] | n: 1019;  age: 15-19;  female: 57.6% | Cross-sectional | FFQ | Yes | Boys  Girls | “Modern dietary pattern”  “Meat & fish dietary pattern”  “Modern dietary pattern”  “Meat & fish dietary pattern” | n.s. a  n.s. a  n.s. a  n.s. a | | Linear/ Logistic regression,  Mean difference | Yes | 8 |
| Bobridge et al. 2013, Australia  [68] | n: 814;  age: 13.0-14.9;  female: 48.5% | Cross-sectional | Dietary record | Yes | Boys  Girls | Fructose  Fructose | n.s.  n.s. | | Linear regression, Standardized  -coefficient | Yes | 4 |
| Bremer et al. 2009, USA[7] | n: 6967;  age: 12-19;  female: 48.9% | Cross-sectional | 24h recall | Unknown | Boys  Girls | SSB  SSB | n.s.  0.38\* | | Linear regression,  -coefficient | No | 7 |
| Boreham et al. 1999, Northern Ireland[45] | n: 454;  age: 12-15;  female: 50.7% | Longitudinal cohort study | Dietary history | Unknown | Boys | Carbohydrates | 0.27\* | | GEE,  -coefficient | No | 4 |
| Casazza et al. 2009b, USA[8] | n: 202;  age: 7-12;  female: 47.0% | Cross-sectional | 24h recall | Unknown | no | Fat  Carbohydrates  Proteins | 0.05\*  n.s.  -0.15\* | | Linear regression, Standardized  -coefficient | Yes | 3 |
| Chan et al. 2014b, China[10] | n: 2727;  age: 12-16;  female: 51.3% | Cross-sectional | FFQ | Unknown | Boys  Girls | SSB  SSB | 1.6\*  n.s. | | Linear regression,  -coefficient | No | 6 |
| Chan et al. 2015, Australia  [11] | n: 2262;  age: 14, 17;  female: 50.4% | Prospective cohort study | FFQ | Unknown | no | DGI-CA | n.s. | | Linear regression,  -coefficient | Unknown | 7 |
| Coelho et al. 2015, Brazil[69] | n: 738;  age: 6-14;  female: 51.3% | Cross-sectional | FFQ |  | age: 6-9  age: 10-14 | RFS adapted by Coelho et al. 2012  RFS adapted by Coelho et al. 2012 | -0.11\*  n.s. | | Linear regression,  -coefficient |  | 2 |
| Colin Ramirez et al. 2009, Mexico[70] | n: 1239;  age: 8-10 years;  female: 49.5% | Cross-sectional | 24h recall | No | no | Fat  SFA  MUFA | n.s.  n.s.  n.s. | | Logistic regression,  -coefficient | Yes | 5 |
| Day et al. 2009, USA[12] | n: 489;  age: 8, 11, 14;  female: 51.3% | Cross-sectional | FFQ | Yes | Boys  Girls | Fat  Fat | n.s. a  significant**a** | | ANCOVA,  Mean | Yes | 2 |
| De Moraes et al. 2015, Multiple European countries[71] | n: 1605;  age: 12.5-17.5;  female: 51.9% | Cross-sectional | 24h recall |  | Boys  Girls | Vegetal Proteins  Animal Proteins  Total Proteins  Alanine  Glycine  Isoleucine  Leucine  Valine  Phenilalanine  Tryptophane  Tyrosine  Arginine  Histidine  Lysine  Asparaginic acid  Glutamic acid  Serine  Theorine  Cysteine  Methionine  Proline  Vegetal Proteins  Animal Proteins  Total Proteins  Alanine  Glycine  Isoleucine  Leucine  Valine  Phenilalanine  Tryptophane  Tyrosine  Arginine  Histidine  Lysine  Asparaginic acid  Glutamic acid  Serine  Theorine  Cysteine  Methionine  Proline | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  1.01\*\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  4.41\*\*  -2.14\*  n.s.  1.13\*\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Multiple linear regression,  -coefficient |  | 6 |
| Gopinath et al. 2014, Australia  [72] | n: 888;  age: baseline 12, follow up 17;  female: 49.0% | Cohort study | FFQ | Unknown | Boys  Girls | Total dairy  Milk  Cheese  Yoghurt  Total dairy  Milk  Cheese  Yoghurt | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  -7.18\*\*  n.s. | | Linear regression,  -coefficient | Yes | 5 |
| Hojhabrimanesh et al. 2015, Iran[73] | n: 557;  age: 12-14.9;  female: 56.4% | Cross-sectional | FFQ | Yes | no | Mixed dietary pattern score  Western Dietary pattern score  Prudent Dietary pattern Score | n.s. a  significanta  n.s. a | | ANCOVA,  Mean | No | 8 |
| Hong et al. 2009, South Korea[13] | n: 246;  age: 12-13;  female: 47.6% | Cross-sectional | Dietary record | Unknown | no | Carbohydrates  Proteins  Fat | n.s.  n.s.  n.s. | | Partial correlation analysis, Partial correlation coefficient | Unknown | 2 |
| Hur et al. 2012, USA[14] | n: 4928;  age: 12-19;  female: 49.4% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Whole grains  Whole grains | n.s. a  n.s. a | | Multiple linear regression, Adjusted mean values | No | 8 |
| Kelishadi et al. 2006, Iran[74] | n: 21111;  age: 6-18;  female: 51.4% | Cross-sectional | FFQ | Yes | no | Dairy products  Sweets/Candy  Solid hydrogenated fat  Fast food | -0.43\*\*  0.32\*\*  1.64\*\*  1.38\*\* | | Linear regression,  -coefficient  Logistic regression,  Odds ratio | No | 8 |
| Kell et al. 2014, USA[15] | n: 320;  age: 7-12;  female: 46.9% | Cross-sectional | 24h recall | Unknown | no | Added sugars | n.s. | | Linear regression,  -coefficient | Unknown | 4 |
| Kollias et al. 2009, Greece[75] | n: 558;  age: 12-17;  female: 50.0% | Cross-sectional | FFQ | No | Boys  Girls | Meat  Legumes  Fruits/Vegetables  Milk  Snacks  Meat  Legumes  Fruits/Vegetables  Milk  Snacks | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Multiple regression analysis,  -coefficient | Yes | 1 |
| Lazarou et al. 2009, Republic of Cyprus[76] | n: 622;  age: 9-13;  female: 50.8% | Cross-sectional | FFQ | Unknown | no | Food E-KINDEX Score | 0.43\* | | Logistic regression,  Odds ratio | Unknown | 6 |
| Moore et al. 2005, USA[77] | n: 91;  age:  Dietary intake assessment at age 3.0-5.9 years and 6.0-11.9 years, blood pressure assessment at age 10.0-12.9 years;  female: n.a. | Prospective study | Dietary record | Yes | no | Fruits/Vegetables  Dairy intake | n.s. a  n.s. a | | ANOCVA,  Mean | Unknown | 3 |
| O Sullivan et al. 2012, Australia  [78] | n: 814;  age: 13-15;  female: 48.5% | Cohort study | Dietary record | Unknown | Boys  Girls | Fat  PUFA  Total omega 3 FA  Alpha linoleic acid  Long chain omega 3 FA  EPA  DPA  DHA  Total omega 6 FA  Linoleic acid  Arachidonic acid  Fat  PUFA  Total omega 3 FA  Alpha linoleic acid  Long chain omega 3 FA  EPA  DPA  DHA  Total omega 6 FA  Linoleic acid  Arachidonic acid | -0.12\*  -0.15\*  -0.12\*  n.s.  n.s.  -0.11\*  n.s.  n.s.  -0.11\*  -0.11\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Linear regression, Standardized  -coefficient | Yes | 4 |
| Ochoa-Avilés et al. 2014, Euqador[21] | n: 334;  age: 10-16;  female: n.a. | Cross-sectional | 24h recall |  | Rural  (n: n.a.)  Urban  (n: n.a.) | “Rice-rich non-animal fat pattern”  “Wheat-dense animal-fat pattern”  “Wheat-dense animal-fat pattern” | n.s.  n.s.  n.s. | | Linear regression,  -% |  | 2 |
| Shang et al. 2012, China[27] | n: 6974;  age: 6-13;  female: 49.0% | Cross-sectional | FFQ, 24h recall | No | no | SSB vs. milk, vs. other beverages | n.s. a | | General linear model, Mean differences | Unknown | 6 |
| Shi et al. 2014, Germany[79] | n: 435;  age: 4-18;  female: 51.3% | Prospective cohort study | Dietary record | Yes | no | Fruits/Vegetables  intake | n.s. | | Linear mixed effects regression models,  -coefficient | Yes | 5 |
| Song et al. 2015, Korea[28] | n: 2209;  age: 10-18;  female: 47.3% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Carbohydrates  White rice intake  Carbohydrates  White rice | n.s. a  n.s. a  n.s. a  n.s. a | | Linear regression, Quartiles | No | 8 |
| Souza et al. 2016, Brazil[80] | n: 488  age: 9-16;  female: 49.4% | Cross-sectional | FFQ | Yes | no | Soft drinks | significant a | | Linear regression,  Estimated mean | Unknown | 2 |
| Steffen et al. 2003, USA[29] | n: 285;  age: 13, 15;  female: 45.6% | Prospective cohort study | FFQ | Unknown | no | Whole grains | n.s. a | | Multiple linear regression, Adjusted mean values | Yes | 4 |
| Sugiyama et al. 2007, USA[81] | n: 4508;  age: 12-19;  female: 49.1% | Cross-sectional | 24h recall | Unknown | no | Carbohydrates  Proteins  SFA  MUFA  PUFA  Fiber | n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Multiple linear regression,  -coefficient | No | 7 |
| Truthmann et al. 2012, Germany[44] | n: 5198;  age: 12-17;  female: 49.1% | Cross-sectional | FFQ | Yes | Boys  Girls | HFD  HuSKY  IFI  F & V Index  HFD  HuSKY  IFI  F & V Index | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Linear regression,  -coefficient | No | 10 |
| Wang et al. 2013, Canada[34] | n: 548;  age: 8-10;  female: n.a. | Cross-sectional | 24h recall | Yes | no | SSB | 0.58\*\* | | Linear regression,  -coefficient | Yes | 4 |
| Zhu et al. 2014, USA[36] | n: 5124;  age: 2-18;  female: 51.3% | Cross-sectional | FFQ | Unknown | n: 2868 | Yoghurt | n.s. a | | Linear regression,  Least square means | Unknown | 6 |
|  | **Outcome: diastolic blood pressure** | | | | | | | | | | |
| Ambrosini et al. 2013, Australia[2] | n: 1366;  age: 14-17;  female: 48.3% | Prospective cohort study | FFQ | Yes | Boys  Girls | SSB  SSB | n.s. a  n.s. a | | Linear regression,  % of change | Unknown | 7 |
| Aounallah-Skhiri et al. 2011, Tunisia[67] | n: 1019;  age: 15-19;  female: 57.6% | Cross-sectional | FFQ | Yes | Boys  Girls | “Modern dietary pattern”  “Meat & fish dietary pattern”  “Modern dietary pattern”  “Meat & fish dietary pattern” | n.s. a  n.s. a  n.s. a  n.s. a | | Linear/ Logistic regression,  Mean difference | Yes | 8 |
| Bobridge et al. 2013, Australia  [68] | n: 814;  age: 13.0-14.9;  female: 48.5% | Cross-sectional | Dietary record | Yes | Boys  Girls | Fructose  Fructose | n.s.  n.s. | | Yes |  | 4 |
| Bremer et al. 2009, USA[7] | n: 6967;  age: 12-19;  female: 48.9% | Cross-sectional | 24h recall | Unknown | Boys  Girls | SSB  SSB | n.s.  n.s. | | Linear regression,  -coefficient | No | 7 |
| Chan et al. 2014b, China[10] | n: 2727;  age: 12-16;  female: 51.3% | Cross-sectional | FFQ | Unknown | Boys  Girls | SSB  SSB | n.s.  n.s. | | Linear regression,  -coefficient | No | 6 |
| Chan et al. 2015, Australia  [11] | n: 2262;  age: 14, 17;  female: 50.4% | Prospective cohort study | FFQ | Unknown | n:1701 | DGI-CA | n.s. | | Linear regression,  -coefficient | Unknown | 7 |
| Colin Ramirez et al. 2009, Mexico[70] | n: 1239;  age: 8-10 years;  female: 49.5% | Cross-sectional | 24h recall | No | no | Fat  SFA  MUFA | 2.61\*\*  n.s.  n.s. | | Logistic regression,  -coefficient | Yes | 5 |
| Day et al. 2009, USA[12] | n:489;  age: 8, 11, 14;  female: 51.3% | Cross-sectional | FFQ | Yes | Boys  Girls | Fat  Fat | n.s. a  n.s. a | | ANCOVA,  Mean | Yes | 2 |
| De Moraes et al. 2015, Multiple European countries[71] | n: 1605;  age: 12.5-17.5;  female: 51.9% | Cross-sectional | 24h recall |  | Boys  Girls | Plant Proteins  Animal Proteins  Total Proteins  Alanine  Glycine  Isoleucine  Leucine  Valine  Phenilalanine  Tryptophane  Tyrosine  Arginine  Histidine  Lysine  Asparaginic acid  Glutamic acid  Serine  Theorine  Cysteine  Methionine  Proline  Plant Proteins  Animal Proteins  Total Proteins  Alanine  Glycine  Isoleucine  Leucine  Valine  Phenilalanine  Tryptophane  Tyrosine  Arginine  Histidine  Lysine  Asparaginic acid  Glutamic acid  Serine  Theorine  Cysteine  Methionine  Proline | -1.16\*  -1.82\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  -1.41\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  2.78\*\*\*  n.s. | | Linear regression,  -coefficient |  | 6 |
| Gopinath et al. 2014, Australia  [72] | n: 888;  age: baseline 12, follow up 17;  female: 49.0% | Cohort study | FFQ | Unknown | Boys  Girls | Total dairy  Milk  Cheese  Yoghurt  Total dairy  Milk  Cheese  Yoghurt | n.s.  n.s.  n.s.  n.s.  -1.04\*  -1.14\*  -5.28\*\*  n.s. | | Linear regression,  -coefficient | Yes | 5 |
| Hojhabrimanesh et al. 2015, Iran[73] | n: 557;  age: 12-14.9;  female: 56.4% | Cross-sectional | FFQ | Yes | no | “Mixed dietary pattern score”  “Western Dietary pattern score”  “Prudent Dietary pattern Score” | n.s. a  n.s. a  n.s. a | | ANCOVA,  Mean | No | 8 |
| Hong et al. 2009, South Korea[13] | n: 246;  age: 12-13;  female: 47.6% | Cross-sectional | Dietary record | Unknown | no | Carbohydrates  Proteins  Fat | n.s.  n.s.  n.s. | | Partial correlation analysis, Partial correlation coefficient | Unknown | 2 |
| Kelishadi et al. 2006, Iran[74] | n: 21111;  age: 6-18;  female: 51.4% | Cross-sectional | FFQ | Yes | no | Whole grain bread  Vegetables  Sweets/Candy  Trans-fat  Fast food | -0.47\*\*  -0.44\*\*  0.41\*  1.61\*\*  1.41\*\* | | Linear regression,  -coefficient;  Logistic regression,  Odds ratio | No | 8 |
| Kell et al. 2014, USA[15] | n: 320;  age: 7-12;  female: 46.9% | Cross-sectional | 24h recall | Unknown | no | Added sugars | 0.02\* | | Linear regression,  -coefficient | Unknown | 4 |
| Kollias et al. 2009, Greece[75] | n: 558;  age: 12-17;  female: 50.0% | Cross-sectional | FFQ | No | Boys  Girls | Meat  Legumes  Fruits/Vegetables  Milk  Snacks  Meat  Legumes  Fruits/Vegetables  Milk  Snacks | n.s.  n.s.  n.s.  -2.14\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Multiple regression analysis,  -coefficient | Yes | 1 |
| Lazarou et al. 2009, Republic of Cyprus[76] | n: 622;  age: 9-13;  female: 50.8% | Cross-sectional | FFQ |  | no | Food E-KINDEX Score | 0.52\* | | Logistic regression,  Odds ratio |  | 6 |
| Moore et al. 2005, USA[77] | n: 91;  age at intake assessment: 3.0-5.9 ; 6.0-11.9, age at outcome assessment: 10.0-12.9  female: n.a. | Prospective study | Dietary record | Yes | no | Fruits/Vegetables  Dairy | n.s. a  n.s. a | | ANOCVA,  Mean | Unknown | 3 |
| O Sullivan et al. 2012, Australia  [78] | n: 814;  age: 13-15;  female: 48.5% | Cohort study | Dietary record | Unknown | Boys  Girls | Fat  PUFA  Total n3-FA  Alpha linoleic acid  LC-n3-FA  EPA  DPA  DHA  Total n6-FA  Linoleic acid  Arachidonic acid  Fat  PUFA  Total n3-FA  Alpha linoleic acid  LC-n3-FA  EPA  DPA  DHA  Total n6-FA  Linoleic acid  Arachidonic acid | n.s.  n.s.  n.s.  n.s.  -0.15\*  -0.15\*  n.s.  -0.14\*  n.s.  n.s.  -0.12\*  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Linear regression, Standardized  -coefficient | Yes | 4 |
| Ochoa-Avilés et al. 2014, Euqador  [21] | n: 334;  age: 10-16;  female: n.a. | Cross-sectional | 24h recall |  | no | “Rice-rich non-animal fat pattern”  “Wheat-dense animal-fat pattern” | n.s.  n.s. | | Linear regression,  -% |  | 2 |
| Shang et al. 2012, China[27] | n: 6974;  age: 6-13;  female: 49.0% | Cross-sectional | FFQ; 24h recall | No | no | SSB vs. milk, vs. other beverages | n.s. a | | General linear model, Mean differences | Unknown | 6 |
| Shi et al. 2014, Germany  [79] | n: 435;  age: 4-18;  female: 51.3% | Prospective cohort study | Dietary record | Yes | no | Fruits/Vegetables | n.s. | | Linear mixed effects regression models,  -coefficient | Yes | 5 |
| Song et al. 2015, Korea[28] | n: 2209;  age: 10-18;  female: 47.3% | Cross-sectional | 24h recall | Unknown | Boys  Girls | Carbohydrates  White rice  Carbohydrates  White rice | n.s. a  n.s. a  n.s. a  n.s. a | | Linear regression, Quartiles | No | 8 |
| Souza et al. 2016, Brazil[80] | n: 488  age: 9-16;  female: 49.4% | Cross-sectional | FFQ | Yes | no | Soft drinks | significant a | | Linear regression,  Estimated mean | Unknown | 2 |
| Sugiyama et al. 2007, USA[81] | n: 4508;  age: 12-19;  female: 49.1% | Cross-sectional | 24h recall | Unknown | no | Carbohydrates  Proteins  SFA  MUFA  PUFA  Fiber | n.s.  n.s.  n.s.  0.09\*  n.s.  n.s. | | Multiple linear regression,  -coefficient | No | 7 |
| Truthmann et al. 2012, Germany[44] | n: 5198;  age: 12-17;  female: 49.1% | Cross-sectional | FFQ | Yes | Boys  Girls | HFD  HuSKY  IFI  F&V Index  HFD  HuSKY  IFI  F&V Index | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  0.33\*  0.26\* | | Linear regression,  -coefficient | No | 10 |
| Zhu et al. 2014, USA[36] | n: 5124;  age: 2-18;  female: 51.3% | Cross-sectional | FFQ | Unknown | no | Yoghurt | n.s. a | | Linear regression,  Least square means | Unknown | 6 |
|  | **Outcome: Leptin** | | | | | | | | | | |
| Aeberli et al. 2006, Switzerland  [62] | n: 79;  age: 6-14;  female: 46.8% | Cross-sectional | 24h recall; 1d food record | Yes | no | Fat  Fat (% energy)  SFA  PUFA  MUFA  Dairy products  Meat  Plant oils  Animal fat | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  0.17\*  n.s.  n.s. | | ANCOVA,  -coefficient | Yes | 3 |
| Lin et al. 2014, Multiple European countries[18] | n: 1804;  age: 12.5-17.5;  female: 52.6% | Cross-sectional | 24h recall | Yes | no | Fiber  Soluble fiber  Insoluble fiber | n.s.  n.s.  n.s. | | GLM multivariate analysis,  -coefficient | Unknown | 6 |
|  | **Outcome: HbA1c** | | | | | | | | | | |
| Donin et al. 2014, England[50] | n: 1841  age: 9-10;  female: n.a. | Cross-sectional | 24h recall | Yes | no | Fat  SFA  MUFA  PUFA  Carbohydrates  Sugars  Starch  No starch polysaccharides  Proteins | n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s.  n.s. | | Multilevel linear regression,  % of change | Yes | 7 |
| Truthmann et al. 2012, Germany[44] | n: 5198;  age: 12-17;  female: 49.1% | Cross-sectional | FFQ | Yes | Boys  (n: 2646)  Girls  (n:2552) | HFD  HuSKY  IFI  F&V Index  HFD  HuSKY  IFI  F&V Index | n.s.  n.s.  -0.01\*  n.s.  n.s.  n.s.  n.s.  n.s. | | Linear regression,  -coefficient | No | 10 |

Effect estimates: p<: 0.001: \*\*\*; p<: 0.01: \*\*; p<: 0.05: \*

Quality Score: 0-4 : low; 5-8 : moderate; 9-11 : high

n.s.: not significant; n.a. : not available

a) Categorized intake variable, please see original manuscript for further details

**Abbreviations:**

ANCOVA: Analysis of Covariance

DGI-CA: Dietary Guideline Index for Children and Adolescents

DHA: Decosahexaenoic acid

DPA: Decosapentaenoic acid

DQI-A: Dietary quality index

EPA: Eicosapentaenoic acid

FA: Fatty acids

FFQ: Food Frequency Questionnaire

F&V Index: Fruit and Vegetable Index

GEE: Generalised estimation equasions

HFD: Healthy Food Diversity Index

HuSKY: Healthy Nutrition Score for Kids and Youth

IFI: Indicator Food Index

MUFA: Monounsaturated Fatty Acids

PUFA: Polyunsaturated Fatty Acids

RFS: Recommended Food Score

SFA: Saturated Fatty Acids

SSB: Sugar sweetened beverages

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