**Supplementary material**



**Supplementary Figure 1. Flowchart of ERICA’s eligible participants.**

1. Among the 102,327 eligible students, 23.7% (24,284) did not answer any of the information blocks: questionnaire, anthropometrics, arterial blood pressure, and 24-hour dietary recall.
2. Among the 72,508 eligible morning shift students, 22.3% (16,131) did not answer any of the information blocks: questionnaire, anthropometrics, arterial blood pressure, and 24-hour dietary recall.
3. Among the 29, 819 eligible afternoon shift students, 27.3% (8,153) did not answer any of the information blocks: questionnaire, anthropometrics, arterial blood pressure, and 24-hour dietary recall.
4. Among the 36,956 eligible students, 3.6% (1342) had a diagnosis of diabetes or use of insulin/ oral antidiabetics.

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| **Supplement Table 1.** Overall characteristics of the study participants without previously diagnosed diabetes. ERICA1 |
|  | **FINAL SAMPLE****(n=35,614)** |
| Sex, n (%) |
|    Male | 14,216 (39.9) |
|    Female | 21,398 (60.1) |
| Age group, n (%) |  |
|    12-13 | 9,972 (28.0) |
|    14-15  | 12,970 (36.4) |
|    16-17 | 12,672 35.6) |
| Skin color, n (%) |  |
|    Brown | 18,422 (52.9) |
|    White | 12,767 (36.7) |
|    Black | 2,539 (7.3) |
|    Asian, native | 1,096 (3.15) |
| School type, n (%) |  |
|    Public  | 26,268 (73.8) |
|    Private  | 9,346 (26.2) |
| Region n (%) |  |
|    Northeast | 11,026 (30.9) |
|    Southeast | 8,088 (22.7) |
|    North | 6,766 (19.0) |
|    Midwest | 5,223 (14.7) |
|    South | 4,511 (12.7) |
| Breakfast, n (%)  |  |
|    Never | 9,126 (25.6) |
|    Sometimes | 10,667 (30.0) |
|    Always | 15,821 (44.4) |
| BMI2 category, n (%) |  |
|   Normal weight3 | 26,514 (74.5) |
|   Overweight | 6,233 (17.5) |
|   Obesity | 2,867 (8.0) |
| Waist circumference, cm (SE) | 71.6 (9.6) |
| Physical activity, n (%) |  |
|    Active | 16,521 (49.7) |
|    Inactive | 16,735 (50.3) |
| Energy intake, kcal/day (SE) | 2309.4 (1143.4) |
| Food groups, g/d (SE) |  |
|   Fruits | 48.2 (36.7) |
|   Vegetables | 56.0 (20.0) |
|   Whole grains4 | 23.3 (10.3) |
|   Beans and legumes | 151.5 (50.7) |
|   Processed meat5 | 24.7 (6.1) |
|   Snacks and candies6 | 95.5 (29.1) |
|   Sugared drinks7 | 511.9 (204.6) |
| Nutrients |  |
|   SFAs8, g/d (SE) | 29.1 (23.3) |
|   PUFAs9, g/d (SE) | 15.1 (10.9) |
|   Calcium, mg/d (SE) | 608.5 (480.4) |
| Smoker, n (%) |  |
|   Yes | 600 (1.7) |
|   No | 35,014 (98.3) |
| Screen time, n (SE) |  |
|   ≤2h/d | 14,047 (43.0) |
|   >2h/dPre-diabetes10 %Diabetes11 % | 18,615 (57.0)15,49%0,18% |

1ERICA:  Study of Cardiovascular Risk in Adolescents

2BMI: Body mass index

3Normal weight includes normal (Z-scores ≥ −1 e ≤ 1), low weight (Z-scores ≥−3 and <−1), and malnutrition Z-scores <-3. (OMS 2017)

4Whole grains: Cereals with no added sugar, whole grain bread, granola, oats, flaxseed, amaranth; baked potato, wholemeal pasta, brown rice, yam, cassava, yam, corn

5Processed meat: Fried meats, nuggets, sausage, ham, salami.

6Snacks and candies: All types of sweet and savory cookies, cereal bars, powdered chocolate (Nescau and similar), jellies, chocolates, oilseeds with sugar or chocolate (dessert)

7Sugared drinks, fruit juices, and alcohol: Natural fruit juices, box juices, powdered juices (Tang, Clight), energy drinks, vodka, beer

8SFA: Saturated fatty acids

9PUFA: Polyunsaturated fatty acid

10Adolescents with altered levels of the prediabetes markers detected in the study: defined by glucose levels between 100 and 125 mg/dL (5.6-6.9 mmol/L) or HbA1c between 5.7% and 6.4% (39-47 mmol/-mol )

11Adolescents with altered levels of diabetes markers detected in the study: defined by glucose new cases of T2DM glucose level ≥126 mg/dL (7.0 mmol/L) or HbA1c ≥6.5% (48 mmol/L) mol)

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| **Supplement Table 2.** Median consumption by category of dairy subgroups |
| **Dairy subgroups** | **Median (g)** |
| Whole milk | 165.9 |
| Low-fat milk | 1.3 |
| Milk | 59.7 |
| Yogurt | 13.9 |
| Cheese | 5.9 |
| Butter | 1.4 |
| Desert | 17.2 |

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| **Supplement TABLE 3.** Multiple linear regression for fasting glucose, HbA1c, and HOMA-IR by category of dairy subgroups and by category of BMI |
|  |  | Low consumption1 | High consumption2 |
| **Total sample** |
| Milk | **FG, mg/dL** |  |  |
|  | Mean | 86.45 (85.96; 86.95) | 86.16 (85.63; 86.70) |
|  | Model 1 | Ref | -0.373 (-1.201; 0.456) |
|  | Model 2 | Ref | -0.491 (-1.293; 0.312) |
|  | Model 3 | Ref | -0.543 (-1.323; 0.237) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.37 (5.35; 5.39) | 5.38 (5.36; 5.39) |
|  | Model 1 | Ref | 0.017 (-0.021; 0.055) |
|  | Model 2 | Ref | 0.015 (-0.020; 0.050) |
|  | Model 3 | Ref | 0.012 (-0.022; 0.046) |
|  | **HOMA-IR** |  |  |
|  | Mean | 2.03 (1.93; 2.14) | 2.03 (1.96; 2.11) |
|  | Model 1 | Ref | -0.086 (-0.371; 0.199) |
|  | Model 2 | Ref | -0.103 (-0.407; 0.201) |
|  | Model 3 | Ref | -0.154 (-0.443; 0.134) |
| Yogurt | **FG, mg/dL** |  |  |
|  | Mean | 87.30 (86.85; 87.75) | 85.20 (84.71; 85.70) |
|  | Model 1 | Ref | -0.594 (-1.266; 0.078) |
|  | Model 2 | Ref | -0.846 (-1.553; -0.140) |
|  | Model 3 | Ref | -0.868 (-1.568; -0.167) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.40 (5.39; 5.42) | 5.35 (5.33; 5.37) |
|  | Model 1 | Ref | -0.001 (-0.034; 0.033) |
|  | Model 2 | Ref | -0.003 (-0.038; 0.033) |
|  | Model 3 | Ref | -0.000 (-0.034; 0.034) |
|  | **HOMA-IR** |  |  |
|  | Mean | 1.94 (1.87; 2.01) | 2.13 (2.02; 2.23) |
|  | Model 1 | Ref | -0.013 (-0.151; 0.125) |
|  | Model 2 | Ref | -0.082 (-0.239; 0.076) |
|  | Model 3 | Ref | -0.030 (-0.184; 0.125) |
| Cheese | **FG, mg/dL** |  |  |
|  | Mean | 85.67 (85.17; 86.16) | 86.81 (86.33; 87.30) |
|  | Model 1 | Ref | -0.085 (-0.624; 0.454) |
|  | Model 2 | Ref | -0.035 (-0.578; 0.508) |
|  | Model 3 | Ref | -0.045 (-0.615; 0.525) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.37 (5.36; 5.39) | 5.38 (5.36; 5.40) |
|  | Model 1 | Ref | 0.005 (-0.014; 0.024) |
|  | Model 2 | ref | 0.017 (-0.006; 0.040) |
|  | Model 3 | ref | 0.016 (-0.006; 0.038) |
|  | **HOMA-IR** |  |  |
|  | Mean | 2.12 (2.01; 2.23) | 1.95 (1.88; 2.02) |
|  | Model 1 | ref | -0.039 (-0.141; 0.064) |
|  | Model 2 | ref | -0.024 (-0.129; 0.081) |
|  | Model 3 | ref | -0.051 (-0.160; 0.057) |
| Butter | **FG, mg/dL** |  |  |
|  | Mean | 86.04 (85.52; 86.56) | 86.37 (85.85; 86.90) |
|  | Model 1 | ref | 0.266 (-0.348; 0.880) |
|  | Model 2 | ref | 0.360 (-0.253; 0.974) |
|  | Model 3 | ref | 0.163 (-0.438; 0.763) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.36 (5.34; 5.38) | 5.39 (5.37; 5.40) |
|  | Model 1 | ref | 0.027 (0.003; 0.051) |
|  | Model 2 | ref | 0.024 (-0.000; 0.049) |
|  | Model 3 | ref | 0.025 (0.001; 0.048) |
|  | **HOMA-IR** |  |  |
|  | Mean | 2.26 (2.17; 2.36) | 1.906 (1.83; 1.97) |
|  | Model 1 | ref | -0.092 (-0.244; 0.060) |
|  | Model 2 | ref | -0.089 (-0.246; 0.069) |
|  | Model 3 | ref | -0.081 (-0.224; 0.062) |
| Dessert | **FG, mg/dL** |  |  |
|  | Mean | 87.26 (86.80; 87.73) | 84.86 (84.34; 85.37) |
|  | Model 1 | ref | 0.015 (-0.670; 0.699) |
|  | Model 2 | ref | -0.281 (-1.013; 0.450) |
|  | Model 3 | ref | -0.196 (-0.935; 0.542) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.39 (5.37; 5.41) | 5.36 (5.34; 5.38) |
|  | Model 1 | ref | 0.011 (-0.018; 0.040) |
|  | Model 2 | ref | -0.003 (-0.036; 0.031) |
|  | Model 3 | ref | -0.001 (-0.034; 0.033) |
|  | **HOMA-IR** |  |  |
|  | Mean | 1.95 (1.88; 2.02) | 2.15 (2.03; 2.26) |
|  | Model 1 | ref | -0.018 (-0.174; 0.138) |
|  | Model 2 | ref | -0.087 (-0.252; 0.079) |
|  | Model 3 | ref | -0.047 (-0.207; 0.113) |
| **Normal weight** |
| Milk | **FG, mg/dL** |  |  |
|  | Mean | 86.17 (85.57; 86.78) | 85.72 (85.11; 86.34) |
|  | Model 1 | ref | -0.524 (-1.341; 0.292) |
|  | Model 2 | ref | -0.939 (-1.862; -0.017) |
|  | Model 3 | ref | -0.933 (-1.873; -0.006) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.37 (5.34; 5.39) | 5.37 (5.35; 5.39) |
|  | Model 1 | ref | 0.029 (-0.013; 0.071) |
|  | Model 2 | ref | 0.020 (-0.024; 0.065) |
|  | Model 3 | ref | 0.020 (-0.026; 0.065) |
|  | **HOMA-IR** |  |  |
|  | Mean | 1.71 (1.65; 1.78) | 1.74 (1.68; 1.80) |
|  | Model 1 | ref | -0.006 (-0.129; 0.117) |
|  | Model 2 | ref | -0.026 (-0.156; 0.103) |
|  | Model 3 | ref | -0.021 (-0.152; 0.110) |
| Yogurt  | **FG, mg/dL** |  |  |
|  | Mean | 86.93 (86.39; 87.47) | 84.82 (84.31; 85.33) |
|  | Model 1 | ref | -0.542 (-1.355; 0.271) |
|  | Model 2 | ref | -0.665 (-1.531; 0.202) |
|  | Model 3 | ref | -0.713 (-1.669; 0.242) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.40 (5.38; 5.42) | 5.34 (5.32; 5.36) |
|  | Model 1 | ref | -0.014 (-0.051; 0.022) |
|  | Model 2 | ref | -0.016 (-0.053; 0.021) |
|  | Model 3 | ref | -0.015 (-0.050; 0.020) |
|  | **HOMA-IR** |  |  |
|  | Mean | 1.63 (1.57; 1.68) | 1.84 (1.77; 1.90) |
|  | Model 1 | ref | -0.049 (-0.171; 0.073) |
|  | Model 2 | ref | -0.065 (-0.197; 0.068) |
|  | Model 3 | ref | -0.048 (-0.173; 0.077) |
| Cheese | **FG, mg/dL** |  |  |
|  | Mean | 85.32 (84.80; 85.84) | 86.38 (85.78; 86.97) |
|  | Model 1 | ref | -0.191 (-0.699; 0.317) |
|  | Model 2 | ref | -0.243 (-0.805; 0.318) |
|  | Model 3 | ref | -0.320 (-0.899; 0.259) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.36 (5.35; 5.38) | 5.38 (5.36; 5.40) |
|  | Model 1 | ref | 0.016 (-0.006; 0.038) |
|  | Model 2 | ref | 0.021 (-0.005; 0.047) |
|  | Model 3 | ref | 0.019 (-0.005; 0.044) |
|  | **HOMA-IR** |  |  |
|  | Mean | 1.83 (1.76; 1.89) | 1.65 (1.59; 1.70) |
|  | Model 1 | ref | -0.018 (-0.095; 0.060) |
|  | Model 2 | ref | -0.044 (-0.130; 0.041) |
|  | Model 3 | ref | -0.070 (-0.155; 0.016) |
| Butter | **FG, mg/dL** |  |  |
|  | Mean | 85.68 (85.14; 86.21) | 85.96 (85.36; 86.56) |
|  | Model 1 | ref | -0.043 (-0.642; 0.556) |
|  | Model 2 | ref | 0.077 (-0.539; 0.693) |
|  | Model 3 | ref | 0.317 (-0.371; 1.005) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.35 (5.33; 5.37) | 5.38 (5.36; 5.40) |
|  | Model 1 | ref | 0.015 (-0.014; 0.043) |
|  | Model 2 | ref | 0.015 (-0.015; 0.044) |
|  | Model 3 | ref | 0.012 (-0.015; 0.039) |
|  | **HOMA-IR** |  |  |
|  | Mean | 1.91 (1.85; 1.97) | 1.63 (1.58; 1.69) |
|  | Model 1 | ref | 0.011 (-0.097; 0.119) |
|  | Model 2 | ref | 0.023 (-0.095; 0.142) |
|  | Model 3 | ref | 0.071 (-0.051; 0.193) |
| Dessert | **FG, mg/dL** |  |  |
|  | Mean | 86.85 (86.32; 87.38) | 84.54 (83.99; 85.09) |
|  | Model 1 | ref | 0.200 (-0.564; 0.964) |
|  | Model 2 | ref | -0.165 (-1.043; 0.713) |
|  | Model 3 | ref | -0.088 (-0.978; 0.802) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.39 (5.37; 5.40) | 5.35 (5.37; 5.40) |
|  | Model 1 | ref | 0.019 (-0.018; 0.056) |
|  | Model 2 | ref | 0.004 (-0.037; 0.045) |
|  | Model 3 | ref | 0.005 (-0.039; 0.049) |
|  | **HOMA-IR** |  |  |
|  | Mean | 1.63 (1.58; 1.68) | 1.87 (1.80; 1.94) |
|  | Model 1 | ref | -0.024 (-0.139; 0.090) |
|  | Model 2 | ref | -0.050 (-0.177; 0.078) |
|  | Model 3 | ref | -0.038 (-0.162; 0.087) |
| **Overweight and obesity** |
| Milk |
|  | **FG, mg/dL** |  |  |
|  | Mean | 87.28 (86.49; 88.07) | 87.37 (86.79; 87.95) |
|  | Model 1 | ref | -0.111 (-2.077; 1.855) |
|  | Model 2 | ref | 0.567 (-0.735; 1.869) |
|  | Model 3 | ref | 0.503 (-0.700; 1.707) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.41 (5.38; 5.43) | 5.42 (5.39; 5.44) |
|  | Model 1 | ref | -0.019 (-0.091; 0.052) |
|  | Model 2 | ref | -0.000 (-0.045; 0.044) |
|  | Model 3 | ref | -0.011 (-0.055; 0.033) |
|  | **HOMA-IR** |  |  |
|  | Mean | 2.97 (2.68; 3.27) | 2.85 (2.74; 2.96) |
|  | Model 1 | ref | -0.335 (-1.316; 0.646) |
|  | Model 2 | ref | -0.391 (-1.457; 0.674) |
|  | Model 3 | ref | -0.492 (-1.507; 0.522) |
| Yogurt  | **FG, mg/dL** |  |  |
|  | Mean | 88.30 (87.72; 88.88) | 86.32 (85.54; 87.11) |
|  | Model 1 | ref | -0.788 (-2.091; 0.516) |
|  | Model 2 | ref | -1.150 (-2.410; 0.109) |
|  | Model 3 | ref | -0.664 (-1.730; 0.402) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.43 (5.40; 5.45) | 5.40 (5.37; 5.43) |
|  | Model 1 | ref | 0.032 (-0.047; 0.112) |
|  | Model 2 | ref | 0.035 (-0.044; 0.114) |
|  | Model 3 | ref | 0.056 (-0.014; 0.125) |
|  | **HOMA-IR** |  |  |
|  | Mean | 2.79 (2.68; 2.90) | 2.98 (2.75; 3.21) |
|  | Model 1 | ref | 0.039 (-0.248; 0.326) |
|  | Model 2 | ref | 0.005 (-0.303; 0.313) |
|  | Model 3 | ref | 0.034 (-0.248; 0.316) |
| Cheese | **FG, mg/dL** |  |  |
|  | Mean | 86.64 (85.86; 87.41) | 88.03 (87.46; 88.60) |
|  | Model 1 | ref | 0.335 (-0.861; 1.532) |
|  | Model 2 | ref | 0.453 (-0.662; 1.567) |
|  | Model 3 | ref | 0.139 (-1.023; 1.301) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.42 (5.40; 5.44) | 5.40 (5.38; 5.43) |
|  | Model 1 | ref | -0.021 (-0.071; 0.030) |
|  | Model 2 | ref | 0.007 (-0.041; 0.055) |
|  | Model 3 | ref | -0.006 (-0.050; 0.038) |
|  | **HOMA-IR** |  |  |
|  | Mean | 2.95 (2.72; 3.18) | 2.82 (2.69; 2.95) |
|  | Model 1 | ref | -0.038 (-0.303; 0.227) |
|  | Model 2 | ref | -0.026 (-0.307; 0.255) |
|  | Model 3 | ref | -0.066 (-0.304; 0.173) |
| Butter | **FG, mg/dL** |  |  |
|  | Mean | 86.97 (86.17; 87.76) | 87.59 (87.03; 88.16) |
|  | Model 1 | ref | 1.117 (-0.242; 2.476) |
|  | Model 2 | ref | 0.973 (-0.439; 2.385) |
|  | Model 3 | ref | 1.103 (-0.371; 2.578) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.39 (5.36; 5.41) | 5.43 (5.41; 5.46) |
|  | Model 1 | ref | 0.065 (0.017; 0.112) |
|  | Model 2 | ref | 0.058 (0.012; 0.105) |
|  | Model 3 | ref | 0.065 (0.018; 0.112) |
|  | **HOMA-IR** |  |  |
|  | Mean | 3.16 (2.91; 3.40) | 2.70 (2.58; 2.83) |
|  | Model 1 | ref | -0.401 (-0.933; 0.131) |
|  | Model 2 | ref | -0.391 (-0.941; 0.158) |
|  | Model 3 | ref | -0.300 (-0.800; 0.200) |
| Dessert  | **FG, mg/dL** |  |  |
|  | Mean | 88.38 (87.80; 88.96) | 85.80 (85.01; 86.59) |
|  | Model 1 | ref | -0.561 (-2.527; 1.405) |
|  | Model 2 | ref | -0.107 (-1.978; 1.765) |
|  | Model 3 | ref | -0.056 (-0.403; 0.292) |
|  | **HbA1c, %** |  |  |
|  | Mean | 5.42 (5.40; 5.45) | 5.40 (5.38; 5.43) |
|  | Model 1 | ref | -0.006 (-0.069; 0.058) |
|  | Model 2 | ref | -0.005 (-0.070; 0.060) |
|  | Model 3 | ref | 0.002 (-0.059; 0.063) |
|  | **HOMA-IR** |  |  |
|  | Mean | 2.82 (2.69; 2.94) | 2.98 (2.73; 3.23) |
|  | Model 1 | ref | 0.050 (-0.312; 0.412) |
|  | Model 2 | ref | 0.031 (-0.360; 0.421) |
|  | Model 3 | ref | -0.056 (-0.403; 0.292) |

Values are adjusted by multivariable linear regression. Values are 𝛃 (CI95%).

Linear trend was tested by modeling dairy servings per day as a continuous variable in the multivariable regression models (P-value).

1ERICA sample low consumption: ≤ Median (P50)

2ERICA sample high consumption: > Median (P50)

3FG (fasting glucose), HbA1c (glycated hemoglobin), and HOMA-IR (homeostatic model assessment) as continuous outcomes.

4Model 1: adjusted for age, sex, region (North, Northeast, Midwest, Southeast, and South), skin color, and type of school.

5Model 2: adjusted for model 1 plus breakfast, physical activity, caloric intake, food groups (fruits, vegetables, whole grains, beans and legumes, processed meat, snacks and sweets, sugary drinks), smoking, and screen time.

6Model 3: adjusted for model 2 plus BMI

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| **Supplement TABLE 4.** Poisson regression between prediabetes and diabetes detected in the study and consumption category of dairy subgroups and by BMI category. |
|  |  | Low consumption1 | High consumption2 |
| **Total sample** |  |  |  |
| Milk | Prop3 | 15.1 (13.8-16.6) | 15.8 (14.3-17.4) |
|  | Model 1 | ref | 1.079 (0.899; 1.295) |
|  | Model 2 | ref | 1.034 (0.858; 1.248) |
|  | Model 3 | ref | 1.021 (0.848; 1.228) |
| Yogurt | Prop3 | 18.6 (17.0-20.3) | 12.6 (11.3-14.1) |
|  | Model 1 | ref | 0.885 (0.739; 1.059) |
|  | Model 2 | ref | 0.872 (0.709; 1.071) |
|  | Model 3 | ref | 0.880 (0.722; 1.073) |
| Cheese | Prop3 | 14.3 (13.1-15.5) | 16.9 (15.3-15.8) |
|  | Model 1 | ref | 1.155 (1.023; 1.305) |
|  | Model 2 | ref | 1.352 (1.146; 1.595) |
|  | Model 3 | ref | 1.335 (1.138; 1.567) |
| Butter | Prop3 | 14.0 (12.6-15.6) | 16.5 (15.0-18.1) |
|  | Model 1 | ref | 0.995 (0.847; 1.169) |
|  | Model 2 | ref | 1.012 (0.842; 1.218) |
|  | Model 3 | ref |  1.014 (0.846; 1.215) |
| Desert | Prop3 | 17.5 (15.9-19.2) | 13.0 (11.6-14.6) |
|  | Model 1 | ref | 1.181 (0.893; 1.563) |
|  | Model 2 | ref | 1.040 (0.743; 1.456) |
|  | Model 3 | ref | 1.053 (0.751; 1.474) |
| **Normal weight** |  |  |  |
| Milk | Prop3 | 14.6 (13.0; 16.3) | 15.0 (13.7; 16.4) |
|  | Model 1 | ref | 1.128 (0.927; 1.373) |
|  | Model 2 | ref | 1.039 (0.863; 1.252) |
|  | Model 3 | ref | 1.036 (0.859; 1.250) |
| Yogurt  | Prop3 | 18.0 (16.1; 20.0) | 11.8 (10.4; 13.4) |
|  | Model 1 | ref | 0.823 (0.655; 1.033) |
|  | Model 2 | ref | 0.828 (0.646; 1.062) |
|  | Model 3 | ref | 0.855 (0.674; 1.084) |
| Cheese | Prop3 | 13.2 (11.9; 14.7) | 16.4 (14.7; 18.2) |
|  | Model 1 | ref | 1.206 (0.993; 1.465) |
|  | Model 2 | ref | 1.334 (1.062; 1.677) |
|  | Model 3 | ref | 1.320 (1.050; 1.660) |
| Butter | Prop3 | 13.3 (11.9; 14.9) | 15.7 (14.3; 17.1) |
|  | Model 1 | ref | 0.936 (0.762; 1.152) |
|  | Model 2 | ref | 0.963 (0.771; 1.202) |
|  | Model 3 | ref | 0.983 (0.803; 1.202) |
| Dessert | Prop3 | 16.5 (14.9; 18.2) | 12.6 (11.0; 14.5) |
|  | Model 1 | ref | 1.562 (1.039; 2.348) |
|  | Model 2 | ref | 1.297 (0.825; 2.039) |
|  | Model 3 | ref | 1.340 (0.869; 2.068) |
| **Overweight and obesity** |  |  |  |
| **Milk** |  | 17.0 (14.7; 19.6) | 18.2 (15.4; 21.4) |
|  | Model 1 | ref | 0.959 (0.669; 1.375) |
|  | Model 2 | ref | 0.980 (0.666; 1.441) |
|  | Model 3 | ref | 0.950 (0.634; 1.425) |
| **Yogurt** |  | 20.3 (17.7; 23.1) | 15.3 (12.1; 19.1) |
|  | Model 1 | ref | 1.029 (0.601; 1.763) |
|  | Model 2 | ref | 1.022 (0.610; 1.713) |
|  | Model 3 | ref | 1.182 (0.711; 1.965) |
| **Cheese** |  | 17.3 (14.4; 20.7) | 18.4 (15.8, 21.3) |
|  | Model 1 | ref | 1.068 (0.765; 1.491) |
|  | Model 2 | ref | 1.358 (0.995; 1.854) |
|  | Model 3 | ref | 1.139 (0.825; 1.572) |
| **Butter** |  | 15.9 (13.7; 18.5) | 19.1 (16.1; 22.6) |
|  | Model 1 | ref | 1.134 (0.853; 1.507) |
|  | Model 2 | ref | 1.185 (0.857; 1.639) |
|  | Model 3 | ref | 1.155 (0.859; 1.555) |
| **Dessert** |  | 20.2 (17.7; 23.0) | 14.4 (11.8; 17.4) |
|  | Model 1 | ref | 0.679 (0.463; 0.996) |
|  | Model 2 | ref | 0.699 (0.443; 1.102) |
|  | Model 3 | ref | 0.798 (0.536; 1.188) |

Values are RRs (95% CIs) adjusted by using multiple Poisson regression

Diagnosis of prediabetes and diabetes by glycemic ≥ 100 mg/dL and Hb A1c ≥ 5,7%.

1ERICA sample low consumption: ≤ Median (P50)

2ERICA sample high consumption: > Median (P50)

3Proportion of adolescents with altered levels of prediabetes and diabetes markers detected in the study.

4Model 1: adjusted for age, sex, region (North, Northeast, Midwest, Southeast, and South), skin color, and type of school.

5Model 2: adjusted for model 1 plus breakfast, physical activity, caloric intake, food groups (fruits, vegetables, whole grains, beans and legumes, processed meat, snacks and sweets, sugary drinks), smoking, and screen time.

6Model 3: adjusted for model 2 plus BMI.