Online Supporting Material

**Supplemental Table 1** Child and maternal characteristics by the exclusive breastfeeding status in the children excluded from the analysis from the Jiaxing Birth Cohort (n = 54874)

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>&lt;1 mo</th>
<th>1-2 mo</th>
<th>3-5 mo</th>
<th>≥6 mo</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>27869</td>
<td>11766 (42.2)</td>
<td>3390 (12.2)</td>
<td>11041 (39.6)</td>
<td>1672 (6.0)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Female</td>
<td>26173</td>
<td>9617 (36.7)</td>
<td>3178 (12.1)</td>
<td>11687 (44.7)</td>
<td>1691 (6.46)</td>
<td></td>
</tr>
<tr>
<td><strong>Birth weight (g)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (&lt;2500)</td>
<td>1193</td>
<td>582 (48.8)</td>
<td>170 (14.3)</td>
<td>381 (31.9)</td>
<td>60 (5.03)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Normal (2500-3999)</td>
<td>48864</td>
<td>19153 (39.2)</td>
<td>5923 (12.1)</td>
<td>20752 (42.5)</td>
<td>3036 (6.21)</td>
<td></td>
</tr>
<tr>
<td>High (≥4000)</td>
<td>4016</td>
<td>1659 (41.3)</td>
<td>478 (11.9)</td>
<td>1609 (40.1)</td>
<td>270 (6.72)</td>
<td></td>
</tr>
<tr>
<td><strong>Gestational age (weeks)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preterm delivery (&lt;37)</td>
<td>1702</td>
<td>829 (48.7)</td>
<td>232 (13.6)</td>
<td>561 (33.0)</td>
<td>80 (4.70)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Term delivery (≥37)</td>
<td>52331</td>
<td>20551 (39.3)</td>
<td>6333 (12.1)</td>
<td>22164 (42.4)</td>
<td>3283 (6.27)</td>
<td></td>
</tr>
<tr>
<td><strong>Mother's age at birth (years)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;35</td>
<td>52368</td>
<td>20603 (39.3)</td>
<td>6406 (12.2)</td>
<td>22104 (42.2)</td>
<td>3255 (6.22)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>≥35</td>
<td>1698</td>
<td>788 (46.4)</td>
<td>165 (9.72)</td>
<td>636 (37.5)</td>
<td>109 (6.42)</td>
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</tr>
<tr>
<td><strong>Caesarean-section (C-section)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Born with C-section</td>
<td>36410</td>
<td>15138 (41.6)</td>
<td>4380 (12.0)</td>
<td>14764 (40.6)</td>
<td>2128 (5.84)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Born without C-section</td>
<td>17553</td>
<td>6226 (35.5)</td>
<td>2173 (12.4)</td>
<td>7921 (45.1)</td>
<td>1233 (7.02)</td>
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<tr>
<td><strong>Parity</strong></td>
<td></td>
<td></td>
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<tr>
<td>First pregnancy</td>
<td>44026</td>
<td>17689 (40.2)</td>
<td>5347 (12.2)</td>
<td>18416 (41.8)</td>
<td>2574 (5.85)</td>
<td>&lt;0.001</td>
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<tr>
<td>&gt; 1 pregnancy</td>
<td>10047</td>
<td>3705 (36.9)</td>
<td>1224 (12.2)</td>
<td>4326 (43.1)</td>
<td>792 (7.88)</td>
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</tbody>
</table>
### Online Supporting Material

<table>
<thead>
<tr>
<th>Mother's menarcheal age (years)</th>
<th>&lt;14</th>
<th>14-15</th>
<th>&gt;15</th>
<th>9244</th>
<th>3934 (42.6)</th>
<th>1058 (11.5)</th>
<th>3727 (40.3)</th>
<th>525 (5.68)</th>
<th>&lt;0.001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 400 (years)</td>
<td>9819</td>
<td>4141 (42.2)</td>
<td>1306 (13.3)</td>
<td>3869 (39.4)</td>
<td>503 (5.12)</td>
<td>&lt;0.001</td>
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<tr>
<td>Maternal BMI status</td>
<td>37238</td>
<td>14505 (39.0)</td>
<td>4524 (12.2)</td>
<td>15899 (42.7)</td>
<td>2310 (6.20)</td>
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<tr>
<td>Underweight (BMI&lt;18.5)</td>
<td>2706</td>
<td>1142 (42.2)</td>
<td>273 (10.1)</td>
<td>1083 (40.0)</td>
<td>208 (7.69)</td>
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<tr>
<td>Normal (25&gt;BMI≥18.5)</td>
<td>308</td>
<td>154 (50.0)</td>
<td>38 (12.3)</td>
<td>99 (32.1)</td>
<td>17 (5.52)</td>
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<tr>
<td>Overweight (30&gt;BMI≥25)</td>
<td>9356</td>
<td>4813 (51.4)</td>
<td>1026 (11.0)</td>
<td>3255 (34.8)</td>
<td>262 (2.80)</td>
<td></td>
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<tr>
<td>Maternal education level</td>
<td>34646</td>
<td>12192 (35.2)</td>
<td>4242 (12.2)</td>
<td>15550 (44.9)</td>
<td>2662 (7.68)</td>
<td>&lt;0.001</td>
<td></td>
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<tr>
<td>&lt;High school</td>
<td>10071</td>
<td>4389 (43.6)</td>
<td>1303 (12.9)</td>
<td>3937 (39.1)</td>
<td>442 (4.39)</td>
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<tr>
<td>High school</td>
<td>3575</td>
<td>1557 (43.6)</td>
<td>451 (12.6)</td>
<td>1409 (39.4)</td>
<td>158 (4.42)</td>
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<tr>
<td>Maternal occupation</td>
<td>33297</td>
<td>12011 (36.1)</td>
<td>4080 (12.3)</td>
<td>14620 (43.9)</td>
<td>2586 (7.77)</td>
<td>&lt;0.001</td>
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<td></td>
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<tr>
<td>Housework</td>
<td>10537</td>
<td>4510 (42.8)</td>
<td>1316 (12.5)</td>
<td>4330 (41.1)</td>
<td>381 (3.62)</td>
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<tr>
<td>Routine job</td>
<td>3575</td>
<td>1557 (43.6)</td>
<td>451 (12.6)</td>
<td>1409 (39.4)</td>
<td>158 (4.42)</td>
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</tr>
<tr>
<td>Temporary job</td>
<td>6469</td>
<td>3215 (49.7)</td>
<td>705 (10.9)</td>
<td>2311 (35.7)</td>
<td>238 (3.68)</td>
<td></td>
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</tr>
</tbody>
</table>

1 Presented in row percentages. All values are subject number (percentage).
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**Supplemental Table 2** Association of breastfeeding status at 1, 3 and 6 mo of age with relative risk of overweight (BMI z-score\(\geq 2\)) and being at risk of overweight (BMI z-score between 1 and 2) in the Jiaxing Birth Cohort\(^1\)

<table>
<thead>
<tr>
<th>Breastfeeding status</th>
<th>Total population</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never RR (95%CI)</td>
<td>Non-exclusive RR (95%CI)</td>
<td>Exclusive RR (95%CI)</td>
</tr>
<tr>
<td>Overweight (BMI z-score(\geq 2))</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breastfeeding status up to 1 mo</td>
<td>Case/study subjects</td>
<td>98/2950</td>
<td>374/10406</td>
</tr>
<tr>
<td>Model 1</td>
<td>1 (ref)</td>
<td>1.08 (0.86, 1.36)</td>
<td>0.87 (0.71, 1.08)</td>
</tr>
<tr>
<td>Model 2</td>
<td>1 (ref)</td>
<td>0.92 (0.73, 1.16)</td>
<td>0.80 (0.65, 1.00)</td>
</tr>
<tr>
<td>Model 3</td>
<td>1 (ref)</td>
<td>0.95 (0.75, 1.21)</td>
<td>0.83 (0.66, 1.03)</td>
</tr>
<tr>
<td>Breastfeeding status up to 3 mo</td>
<td>Case/study subjects</td>
<td>95/2836</td>
<td>538/15753</td>
</tr>
<tr>
<td>Model 1</td>
<td>1 (ref)</td>
<td>1.00 (0.80, 1.25)</td>
<td>0.86 (0.69, 1.07)</td>
</tr>
<tr>
<td>Model 2</td>
<td>1 (ref)</td>
<td>0.89 (0.71, 1.11)</td>
<td>0.79 (0.63, 0.98)</td>
</tr>
<tr>
<td>Model 3</td>
<td>1 (ref)</td>
<td>0.91 (0.72, 1.15)</td>
<td>0.81 (0.65, 1.02)</td>
</tr>
<tr>
<td>Breastfeeding status up to 6 mo</td>
<td>Case/study subjects</td>
<td>90/2786</td>
<td>1174/36626</td>
</tr>
<tr>
<td>Model 1</td>
<td>1 (ref)</td>
<td>0.97 (0.78, 1.21)</td>
<td>0.76 (0.56, 1.04)</td>
</tr>
<tr>
<td>Model 2</td>
<td>1 (ref)</td>
<td>0.88 (0.70, 1.10)</td>
<td>0.71 (0.52, 0.97)</td>
</tr>
<tr>
<td>Model 3</td>
<td>1 (ref)</td>
<td>0.90 (0.72, 1.13)</td>
<td>0.73 (0.52, 1.01)</td>
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</tbody>
</table>
### Being at risk of overweight (BMI z-score between 1 and 2)

#### Breastfeeding status up to 1 mo

<table>
<thead>
<tr>
<th>Case/study subjects</th>
<th>381/2950</th>
<th>1314/10406</th>
<th>3150/871</th>
<th>235/1559</th>
<th>850/5840</th>
<th>1832/14608</th>
<th>146/1391</th>
<th>464/4566</th>
<th>1318/14586</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>1 (ref)</td>
<td>0.98 (0.86, 1.10)</td>
<td>0.81 (0.72, 0.91)</td>
<td>1 (ref)</td>
<td>0.96 (0.82, 1.12)</td>
<td>0.80 (0.69, 0.93)</td>
<td>1 (ref)</td>
<td>0.97 (0.80, 1.18)</td>
<td>0.85 (0.71, 1.02)</td>
</tr>
<tr>
<td>Model 2</td>
<td>1 (ref)</td>
<td>0.87 (0.77, 0.99)</td>
<td>0.76 (0.67, 0.85)</td>
<td>1 (ref)</td>
<td>0.85 (0.72, 1.00)</td>
<td>0.72 (0.62, 0.84)</td>
<td>1 (ref)</td>
<td>0.90 (0.74, 1.11)</td>
<td>0.81 (0.67, 0.97)</td>
</tr>
<tr>
<td>Model 3</td>
<td>1 (ref)</td>
<td>0.87 (0.76, 0.99)</td>
<td>0.76 (0.67, 0.86)</td>
<td>1 (ref)</td>
<td>0.86 (0.73, 1.02)</td>
<td>0.75 (0.64, 0.87)</td>
<td>1 (ref)</td>
<td>0.89 (0.72, 1.09)</td>
<td>0.79 (0.65, 0.95)</td>
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</table>

#### Breastfeeding status up to 3 mo

<table>
<thead>
<tr>
<th>Case/study subjects</th>
<th>95/2836</th>
<th>538/15753</th>
<th>710/23961</th>
<th>228/1497</th>
<th>1191/8674</th>
<th>1498/11836</th>
<th>145/1339</th>
<th>664/7079</th>
<th>1119/12125</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>1 (ref)</td>
<td>0.88 (0.78, 0.99)</td>
<td>0.81 (0.72, 0.90)</td>
<td>1 (ref)</td>
<td>0.88 (0.75, 1.03)</td>
<td>0.80 (0.68, 0.93)</td>
<td>1 (ref)</td>
<td>0.86 (0.71, 1.04)</td>
<td>0.84 (0.70, 1.01)</td>
</tr>
<tr>
<td>Model 2</td>
<td>1 (ref)</td>
<td>0.80 (0.71, 0.90)</td>
<td>0.74 (0.66, 0.84)</td>
<td>1 (ref)</td>
<td>0.79 (0.68, 0.93)</td>
<td>0.72 (0.61, 0.84)</td>
<td>1 (ref)</td>
<td>0.82 (0.67, 0.99)</td>
<td>0.79 (0.65, 0.95)</td>
</tr>
<tr>
<td>Model 3</td>
<td>1 (ref)</td>
<td>0.80 (0.71, 0.91)</td>
<td>0.75 (0.66, 0.85)</td>
<td>1 (ref)</td>
<td>0.82 (0.69, 0.97)</td>
<td>0.74 (0.63, 0.87)</td>
<td>1 (ref)</td>
<td>0.79 (0.65, 0.97)</td>
<td>0.77 (0.64, 0.94)</td>
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</tbody>
</table>

#### Breastfeeding status up to 6 mo

<table>
<thead>
<tr>
<th>Case/study subjects</th>
<th>90/2786</th>
<th>1174/36626</th>
<th>793138</th>
<th>223/1469</th>
<th>2461/18993</th>
<th>233/1545</th>
<th>141/1317</th>
<th>1650/17633</th>
<th>137/1593</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>1 (ref)</td>
<td>0.84 (0.75, 0.94)</td>
<td>0.88 (0.75, 1.03)</td>
<td>1 (ref)</td>
<td>0.83 (0.71, 0.96)</td>
<td>0.97 (0.80, 1.19)</td>
<td>1 (ref)</td>
<td>0.86 (0.72, 1.04)</td>
<td>0.79 (0.61, 1.01)</td>
</tr>
<tr>
<td>Model 2</td>
<td>1 (ref)</td>
<td>0.77 (0.69, 0.95)</td>
<td>0.81 (0.69, 0.95)</td>
<td>1 (ref)</td>
<td>0.75 (0.64, 0.87)</td>
<td>0.87 (0.71, 1.07)</td>
<td>1 (ref)</td>
<td>0.82 (0.68, 0.99)</td>
<td>0.72 (0.56, 0.93)</td>
</tr>
<tr>
<td>Model 3</td>
<td>1 (ref)</td>
<td>0.78 (0.69, 0.88)</td>
<td>0.81 (0.69, 0.96)</td>
<td>1 (ref)</td>
<td>0.77 (0.66, 0.90)</td>
<td>0.89 (0.72, 1.10)</td>
<td>1 (ref)</td>
<td>0.79 (0.65, 0.96)</td>
<td>0.73 (0.56, 0.95)</td>
</tr>
</tbody>
</table>

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1. Model 1 did not have any adjustment; model 2 adjusted for age of children (mo), sex, birth weight, gestational age, C-section (yes vs. no), weight gain during first 3 mo (difference in weight-for-age z-score); model 3 adjusted for model 2 plus maternal characteristics (maternal age at birth, maternal menarcheal age, maternal BMI status, maternal parity status, maternal educational level, and maternal occupation).