### Supplemental Table 3. Linear regression models of sleep variables, VLBW vs controls

<table>
<thead>
<tr>
<th></th>
<th>Controls (n = 341)</th>
<th>VLBW (n = 33)</th>
<th>Model</th>
<th>Units</th>
<th>Mean (SD)</th>
<th>B (95% CI)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bed Time</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 374</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>h:min:sec</td>
<td>0:09:50 (1:17:23)</td>
<td>0:05:26 (-0:22:35 to 0:33:28)</td>
<td>0.703</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>h:min:sec</td>
<td></td>
<td>0:10:14 (-0:25:40 to 0:46:08)</td>
<td>0.575</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td>h:min:sec</td>
<td></td>
<td>0:09:59 (-0:25:55 to 0:45:53)</td>
<td>0.585</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Get up time</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 374</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>h:min:sec</td>
<td>8:23:55 (1:31:30)</td>
<td>0:26:13 (-0:07:02 to 0:59:27)</td>
<td>0.122</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>h:min:sec</td>
<td></td>
<td>0:08:10 (-0:32:03 to 0:48:24)</td>
<td>0.690</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td>h:min:sec</td>
<td></td>
<td>0:07:59 (-0:32:16 to 0:48:15)</td>
<td>0.697</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Actual sleep time</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 374</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>h:min:sec</td>
<td>7:03:02 (0:51:14)</td>
<td>0:22:08 (0:03:55 to 0:40:21)</td>
<td>0.017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>h:min:sec</td>
<td></td>
<td>0:05:15 (-0:16:34 to 0:27:04)</td>
<td>0.636</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td>h:min:sec</td>
<td></td>
<td>0:05:23 (-0:16:26 to 0:27:12)</td>
<td>0.628</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wake after sleep onset</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 374</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>h:min:sec</td>
<td>0:59:48 (0:28:26)</td>
<td>-0:00:16 (-0:09:17 to 0:08:44)</td>
<td>0.952</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>h:min:sec</td>
<td></td>
<td>-0:02:24 (-0:13:31 to 0:08:43)</td>
<td>0.671</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td>h:min:sec</td>
<td></td>
<td>-0:02:27 (-0:13:35 to 0:08:41)</td>
<td>0.665</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sleep midpoint weekday</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 374</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>h:min:sec</td>
<td>04:06:48 (1:22:06)</td>
<td>0:16:26 (-0:13:52 to 0:46:44)</td>
<td>0.287</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>h:min:sec</td>
<td></td>
<td>0:08:21 (-0:28:22 to 0:45:05)</td>
<td>0.655</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td>h:min:sec</td>
<td></td>
<td>0:08:07 (-0:28:37 to 0:44:51)</td>
<td>0.664</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sleep midpoint weekend</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 334</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>h:min:sec</td>
<td>05:14:09 (1:32:40)</td>
<td>0:12:06 (-0:22:13 to 0:46:25)</td>
<td>0.489</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>h:min:sec</td>
<td></td>
<td>0:01:11 (-0:40:25 to 0:42:47)</td>
<td>0.955</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td>h:min:sec</td>
<td></td>
<td>0:01:05 (-0:40:34 to 0:42:44)</td>
<td>0.959</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Catch-up</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 334</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>h:min:sec</td>
<td>0:20:34 (1:31:40)</td>
<td>0:33:57 (-0:01:03 to 1:08:57)</td>
<td>0.057</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>h:min:sec</td>
<td></td>
<td>0:47:10 (0:04:16 to 1:30:03)</td>
<td>0.031</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td>h:min:sec</td>
<td></td>
<td>0:47:25 (0:04:35 to 1:30:15)</td>
<td>0.030</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Early preterm <34 weeks of gestation, late preterm 34 to <37 weeks of gestation, control ≥37 weeks of gestation.
The time shown in the VLBW-group is relative to the control group, a negative value is earlier, a positive value is later.
Model 1 = adjusted for age, sex and cohort (AYLS, Northern Finland Birth Cohort, 1987-89 cohort)
Model 2 = adjusted for variables in model 1 + parental education level (11 missing) + maternal smoking during pregnancy (5 missing) + maternal bmi before pregnancy (5 missing) + birth weight standard deviation score + being the first-born child + maternal hypertension during pregnancy (16 missing) + maternal diabetes during pregnancy (9 missing)
Model 3 = adjusted for variables in model 2 + participant BMI
SD, standard deviation; CI, confidence interval; BMI, body mass index (kg/m²)