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TABLES

| | Included children n=58,675 | | Excluded children ¹ n=54,029 |
|--|-------------------------------|--------------------------------|--|
| | Coeliac disease n=440 | No coeliac disease n=58,235 | |
| Maternal age (Mean (SD)) | - | - | - |
| | 30.2 (4.2) | 30.3 (4.4) | 29.9 (4.9) |
| Maternal parity (n [%]) | | | |
| 0 | 206 (46.8) | 27,286 (46.9) | 21,924 (41.1) |
| 1 | 160 (36.4) | 20,178 (34.7) | 19,755 (37.0) |
| 2+ | 74 (16.8) | 10,771(18.5) | 11,651 (21.8) |
| Maternal education (n [%]) 2 | | | |
| High school or less than high school | 138 (31.5) | 19,842 (34.2) | 18,371 (42.4) |
| Up to 4 years of college | 185 (42.2) | 24,860 (42.8) | 15,758 (36.3) |
| More than 4 years of college | 115 (26.3) | 13,320 (23.0) | 9,241 (21.3) |
| Maternal length (Mean [SD] ³ | | | |
| | 168.1 (6.2) | 168.2 (5.9) | 167.9 (6.1) |
| Maternal pre-pregnancy BMI (n [%]) ⁴ | | | |
| Underweight (<18.5) | 20 (4.6) | 1,626 (2.9) | 1,485 (3.5) |
| Normal weight (18.5-24.9) | 290 (66.8) | 37,598 (66.0) | 27,226 (64.6) |
| Overweight/obese (>=25) | 124 (28.6) | 17,736 (31.1) | 13,456 (31.9) |
| Paternal length (Mean [SD] ^e | | | |
| | 181.7 (5.8) | 181.6 (6.4) | 181.4 (6.5) |
| Paternal BMI (n [%]) ⁵ | | | |
| Underweight (<18.5) | 2 (0.5) | 110 (0.2) | 98 (0.2) |
| Normal weight (18.5-24.9) | 193 (45.7) | 25,198 (45.1) | 18,170 (44.2) |
| Overweight/obese (>=25) | 227 (53.8) | 30,536 (54.7) | 22,847 (55.6) |
| Smoking during pregnancy (n [%]) ⁶ | | | , , , , |
| Yes | 23 (5.2) | 4,088 (7.1) | 4,501 (10.4) |
| Maternal coeliac disease (n [%]) ⁷ | - () | ,, | / (- / |
| Yes | 43 (9.8) | 424 (0.7) | 415 (0.8) |
| Gestational age in weeks (categorical) ⁸ | ~ / | × / | - () |
| < 37 | 23 (5.3) | 2,273 (3.9) | 5,319 (10.0) |
| Sex | () | _,(, | -,() |
| Female | 270 (61.4) | 28,321 (48.6) | 25,874 (48.7) |
| Duration of breastfeeding (n [%]) ⁹ | 270 (01.1) | 20,021 (10.0) | 20,07 1 (1017) |
| <6 months | 57 (13.2) | 9,277 (16.4) | 3,579 (22.0) |
| 6-12 months | 170 (39.5) | 24,979 (44.2) | 7,000 (43.1) |
| ≥ 12 months | 203 (47.2) | 22,276 (39.4) | 5,667 (34.9) |
| Infection frequency 0-18 months $(n [\%])^{10}$ | 203 (17.2) | 22,270 (39.1) | 5,007 (54.57 |
| 0-4 episodes | 104 (24.3) | 14,151 (25.2) | 4,046 (25.4) |
| 5-6 episodes | 73 (17.1) | 11,494 (20.5) | 3,091 (19.4) |
| 7-9 episodes | 110 (25.7) | 14,538 (25.9) | 4,026 (25.3) |
| >=10 episodes | 141 (32.9) | 16,005 (28.5) | |
| * | 141 (32.9) | 10,005 (28.5) | 4,764 (29.9) |
| Attained age end 2013 (Mean [SD]) ¹¹ | 2 0 (2 1) | 96(22) | 0 5 (2 2) |
| Pinth weight in k_{α} (SD) ¹² | 8.9 (2.1) | 8.6 (2.2) | 8.5 (2.2) |
| Birth weight in kg (SD) ¹² | 2 54 (0 52) | 262 (0 52) | |
| Dirth longth in any (CD) 13 | 3.54 (0.53) | 3.62 (0.53) | 3.50 (0.64) |
| Birth length in cm (SD) ¹³ | 50.0 (0.0) | E0 E (0 0) | |
| | 50.2 (2.2) | 50.5 (2.2) | 50.1 (2.5) |

| Table 1. Background | characteristics | s of the study cohort. |
|---------------------|-----------------|------------------------|
|---------------------|-----------------|------------------------|

SD, Standard deviation; BMI, body mass index.

¹ Prevalence of coeliac disease among excluded participants; 326/54,029 (0.6 %)

² Maternal education level at time of pregnancy, categorized into ≤ 12 years of education (corresponding to primary school, secondary school and high school), 13-15 years (corresponding to ≤ 3 years of college or university studies) and ≥ 16 years (corresponding to >3 years of college or university studies). Percentages may not total 100% because of rounding. Missing n (%): cases 2 (0.5), controls 213 (0.4), excluded 10,659 (19.7) ³ Missing n (%): cases 4 (0.9), controls 547 (0.9), excluded 10,978 (20.3).

- ⁴ Missing n (%): cases 6 (1.4), controls 1,275 (2.2), excluded 11,862 (22.0).
- ⁵ Missing n (%): cases 10 (2.3), controls 1,415 (2.4), excluded 11,925 (22.1).
- ⁶ Missing n (%): cases 18 (4.1), controls 2,391 (4.1), excluded 12,914 (23.9).
- ⁷ Missing n (%): cases 0 (0), controls 312 (0.5), excluded 10,681 (19.8).
- ⁸ Identified through pregnancy questionnaires and the Norwegian Patient Registry.
- ⁹ Data from the Medical Birth Registry. Missing n (%): cases 3 (0.7), controls 211 (0.4), excluded 1,001 (2.2).
- ¹⁰ Missing n (%): cases 10 (2.3), controls 1,703 (2.9), excluded 37,783 (69.9).
- ¹¹ Missing n (%): cases 12 (2.7), controls 2047 (3.5), excluded 38,102 (70.5).
- ¹² Missing n (%): cases 0, controls 0, excluded 699 (1.3).
- ¹³ Missing n (%): cases 0, controls 0, excluded 1528 (2.8).
- ¹⁴ Missing n (%): cases 0, controls 0, excluded 6,219 (11.5).

| Anthropometric measurement | Model 1 ¹ (β, 95% CI) | Model 2 ² (aβ, 95% CI) | Model 3 ³ (aβ, 95% CI) |
|-------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|
| Length | - <u>-</u> | | |
| Birth | -0.06 (-0.15 to 0.04) | -0.06 (-0.15 to 0.04) | -0.02 (-0.11 to 0.06) 4 |
| 3 months | -0.08 (-0.18 to 0.02) | -0.06 (-0.13 to 0.01) | -0.07 (-0.14 to 0.00) 5 |
| 6 months | -0.10 (-0.20 to -0.01) | -0.07 (-0.15 to 0.01) | -0.08 (-0.16 to -0.00) 6 |
| 8 months | -0.12 (-0.22 to -0.02) | -0.07 (-0.15 to 0.01) | -0.07 (-0.15 to 0.02) 7 |
| 12 months | -0.12 (-0.21 to -0.02) | -0.08 (-0.17 to 0.00) | -0.09 (-0.18 to -0.01) 8 |
| 15-18 months | -0.12 (-0.22 to -0.03) | -0.10 (-0.19 to -0.02) | -0.11 (-0.19 to -0.03) ⁹ |
| 24 months | -0.26 (-0.39 to -0.12) | -0.23 (-0.35 to -0.11) | -0.24 (-0.36 to -0.12) ¹⁰ |
| Weight | | | |
| Birth | -0.12 (-0.21 to -0.03) | -0.12 (-0.21 to -0.03) | -0.07 (-0.15 to 0.02) 11 |
| 3 months | -0.08 (-0.18 to 0.02) | -0.03 (-0.11 to 0.05) | -0.03 (-0.11 to 0.05) 12 |
| 6 months | -0.11 (-0.21 to -0.02) | -0.06 (-0.15 to 0.03) | -0.05 (-0.14 to 0.04) 13 |
| 8 months | -0.11 (-0.21 to -0.01) | -0.05 (-0.14 to 0.04) | -0.02 (-0.11 to 0.07) 14 |
| 12 months | -0.15 (-0.24 to -0.05) | -0.10 (-0.19 to -0.01) | -0.07 (-0.16 to 0.02) 15 |
| 15-18 months | -0.15 (-0.24 to -0.06) | -0.11 (-0.20 to -0.02) | -0.09 (-0.18 to -0.00) 16 |
| 24 months | -0.21 (-0.35 to -0.08) | -0.17 (-0.29 to -0.04) | -0.16 (-0.29 to -0.03) 17 |

Table 2. Association between coeliac disease and anthropometric z-scores at different time points from birth till 24 months of age.

CI, confidence interval; ${}^{a}\beta$, adjusted beta.

Note. Values (β s) are based on linear regression models and reflect between-group differences in mean height and weight relative to reference group.

¹ "Crude model" unadjusted.

² "Baseline model" adjusted for z-score at birth.

³ "Multivariable model" adjusted for z-score at birth, maternal coeliac disease, maternal education, maternal

smoking in pregnancy, birth weight, preterm birth, duration of breastfeeding, childhood infections 0-18 months.

⁴ Missing n (%); Model 3, 5,840 (10); Model 2, 0 (0).

⁵ Missing n (%); Model 3, 8,294 (14); Model 2, 4,414 (8).

⁶ Missing n (%); Model 3, 9,437 (16); Model 2, 5,615 (10).

⁷ Missing n (%); Model 3, 11,004 (19); Model 2, 5,715 (10).

⁸ Missing n (%); Model 3, 8,357 (14); Model 2, 2,866 (5).

⁹ Missing n (%); Model 3, 5,911 (10); Model 2, 76 (0).

¹⁰ Missing n (%); Model 3, 34,308 (58); Model 2, 32,165 (55).

¹¹ Missing n (%); Model 3, 4,626 (8); Model 2, 0 (0).

¹² Missing n (%); Model 3, 6,376 (11); Model 2, 3,608 (6).

¹³ Missing n (%); Model 3, 8,035 (14); Model 2, 5,353 (9).

¹⁴ Missing n (%); Model 3, 9,520 (16); Model 2, 5,353 (9).

¹⁵ Missing n (%); Model 3, 7,154 (12); Model 2, 2,809 (5).

¹⁶ Missing n (%); Model 3, 4,697 (8); Model 2, 78 (0).

¹⁷ Missing n (%); Model 3, 33,728 (57); Model 2, 32,252 (55).