

## SUPPLEMENTARY DATA

**Supplementary Table 1.** Difference in average school grades between index children and their matched controls, by maternal HbA<sub>1c</sub> level.

Pregestational HbA <sub>1c</sub>		1 <sup>st</sup> trimester HbA <sub>1c</sub>		3 <sup>rd</sup> trimester HbA <sub>1c</sub>	
HbA <sub>1c</sub> % [mmol/mol]	β (95% CI)	HbA <sub>1c</sub> % [mmol/mol]	β (95% CI)	HbA <sub>1c</sub> % [mmol/mol]	β (95% CI)
<7.0 [53]	0.22 (-0.11, 0.56)	<6.5 [48]	0.28 (-0.08, 0.64)	<5.6 [38]	0.52 (0.09, 0.96)
7.0-7.7 [53-61]	0.28 (-0.14, 0.69)	6.5-7.3 [48-56]	0.13 (-0.20, 0.46)	5.6-6.6 [38-49]	-0.002 (-0.27, 0.27)
7.8-8.8 [62-73]	-0.28 (-0.68, 0.13)	7.4-8.3 [57-67]	-0.04 (-0.39, 0.31)	6.7-7.4 [50-57]	-0.12 (-0.49, 0.25)
>8.8 [73]	-0.42 (-0.79, -0.04)	>8.3 [67]	-0.65 (-0.99, -0.31)	>7.4 [57]	-0.58 (-0.92, -0.23)

β-values are regression coefficients representing the mean difference in grades between index children and their matched controls, adjusted for gender, maternal age at birth, original grading scale and parental educational status. Confidence intervals are calculated with robust standard errors. Grouping according to maternal HbA<sub>1c</sub> level are generated using the recommended levels and quartiles dependent on the numbers of mothers with accessible HbA<sub>1c</sub>.

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**Supplementary Table 2.** HbA<sub>1c</sub> distribution by parental educational status for the index children.

<b>Pregestational HbA<sub>1c</sub></b>				
HbA <sub>1c</sub> % [mmol/mol]	Primary or secondary school	Vocational training, short- cycle higher education	Bachelor degree or higher	Total
<7.0 [53]	12 (30.8%)	70 (26.5%)	64 (37.2%)	146 (30.7%)
7.0-7.7 [53-61]	3 (7.7%)	56 (21.2%)	46 (26.7%)	105 (22.1%)
7.8-8.8 [62-73]	9 (23.1%)	54 (20.5%)	39 (22.7%)	102 (21.5%)
>8.8 [73]	15 (38.5%)	84 (31.8%)	23 (13.4%)	122 (25.7%)
Total	39 (100%)	264 (100%)	172 (100%)	475 (100 %)

  

<b>1<sup>st</sup> trimester HbA<sub>1c</sub></b>				
HbA <sub>1c</sub> % [mmol/mol]	Primary or secondary school	Vocational training, short- cycle higher education	Bachelor degree or higher	Total
<6.5 [48]	10 (19.2%)	68 (21.1%)	54 (27.3%)	132 (23.0%)
6.5-7.3 [48-56]	14 (26.9%)	85 (26.3%)	62 (31.3%)	161 (28.1%)
7.4-8.3 [57-67]	8 (15.4%)	75 (23.2%)	49 (24.6%)	132 (23.0%)
>8.3 [67]	20 (38.5%)	95 (29.4%)	33 (16.7%)	148 (25.8%)
Total	52 (100%)	323 (100%)	198 (100%)	573 (100%)

  

<b>3<sup>rd</sup> trimester HbA<sub>1c</sub></b>				
HbA <sub>1c</sub> % [mmol/mol]	Primary or secondary school	Vocational training, short- cycle higher education	Bachelor degree or higher	Total
<5.6 [38]	4 (7.4%)	35 (10.6%)	31 (15.7%)	70 (12.0%)
5.6-6.6 [38-49]	18 (33.3%)	114 (34.7%)	91 (46.0%)	223 (38.4%)
6.7-7.4 [50-57]	10 (18.5%)	79 (24.0%)	49 (24.7%)	138 (23.8%)
>7.4 [57]	22 (40.7%)	101 (30.7%)	27 (13.6%)	150 (25.8%)
Total	54 (100%)	329 (100%)	198 (100%)	581 (100%)

Test for trend: Pregestational HbA<sub>1c</sub>: P<0.001, 1<sup>st</sup> trimester HbA<sub>1c</sub>: P=0.001, 3<sup>rd</sup> trimester HbA<sub>1c</sub>: P<0.001