

SUPPLEMENTARY DATA

Supplementary Table 1. Maternal characteristics of OCC participants eligible for 3rd trimester testing.

	Total (n=2,556)	Fasting glucose available (n=1,540)	Fasting glucose not available (n=1,016)	Danish background population (12) (n=389,609)
Age, years (n=2,556) §	30 (27-33) 30.2 ± 4.5	30 (27-33) 30.2 ± 4.5	30 (27-33) 30.1 ± 4.5	30.7 ± 4.8
Primiparity (n=2,524)* §	1,400 (55.5)	872 (57.4)	528 (52.4)	(44.1)
BMI, kg/m ² (n=2,535) †‡	23.3 (21.2- 26.3) 24.3 ± 4.7	23.5 (21.3- 26.6) 24.5 ± 4.6	22.9 (21.0- 26.0) 24.1 ± 4.7	24.1 ± 4.8
Caucasian ethnicity (n=2,555)*	2,321 (90.8)	1,420 (92.2)	901 (88.8)	
Family history of DM (n=1,860)	194 (10.4)	117 (10.1)	77 (11.0)	-
Smoking during pregnancy (n=2,524) † §	143 (5.7)	57 (3.7)	8670 (8.5)	(12.6)
Fasting venous plasma glucose (mmol/L) (n=1,540)	-	5.0 (4.8-5.3) 5.1 ± 0.4	-	-
Duration of pregnancy (days) (n=2,529) §	281 (274-287) 279.6 ± 11.0	281 (274-287) 279.6 ± 10.4	281 (275-287) 279.7 ± 11.9	278.4 ± 12.8
Birth weight (g) (n=2,529)	3540 (3195- 3865) 3525 ± 535	3530 (3192- 3870) 3525 ± 518	3550 (3195- 3850) 5224 ± 561	3523 ± 562

Data for OCC are presented as number (percent), median (quartiles) and mean (standard deviation). Data are extracted from medical records and questionnaires. Some of the numbers are less than 2,556 due to missing values. BMI: Body mass index, DM: diabetes mellitus.

* p<0.05 (FVPG available vs. FVPG not available); † p<0.01 (FVPG available vs. FVPG not available).

‡ p<0.05 (OCC vs. background population); § p<0.01 (OCC vs. background population).

Background population: Characteristics in 389,609 Danish women (after exclusion of 2.2% (n=9,014) with GDM) giving birth to a singleton from 2004 to 2010 (mean ± SD) (12) Risk factors considered as indications for full oral glucose tolerance testing (OGTT) in the OCC were as follows: BMI > 27; previous GDM, Previous infant birthweight > 4500 g; family history of diabetes; PCOS; glycosuria detected during pregnancy.

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Supplementary Table 2. (Full version, including data also presented in Table 1)

Participant characteristics and pregnancy outcomes according to 3rd trimester fasting venous plasma glucose in Odense Child Cohort (OCC).

Categories 1 – 7 follow the fasting glucose quantiles used in the Hyperglycemia and Adverse Pregnancy Outcome (HAPO) study

Category number		1	2	3	4	5	6	7	OCC 8 (Excluded from HAPO)
Fasting venous plasma glucose (FVPG) limits per category mmol/L		2.5 - 4.2	4.2 – 4.4	4.5 – 4.7	4.8 – 4.9	5.0 – 5.2	5.3 – 5.5	5.6-5.8	> 5.8
FVPG category – HAPO cohort (n=23,217 for fasting glucose)	% in each category as reported in blinded HAPO cohort	17.4	32.3	26.6	11.8	8.1	2.9	0.9	Total of 2.9% unblinded due to glucose results
FVPG category - OCC (n = 1,516)	Number and % in each category in OCC	n =8 0.6	n=99 6.8	n=311 21.5	n=336 23.2	n=377 26.1	n =235 16.3	n=80 5.5	n=70 Extra 4.8
GDM according to fasting IADPSG criterion	FVPG<5.1 mmol/l (n=896) 59.1% FVPG≥5.1 mmol/l (n =620) 40.1%	-	-	-	-	-	-	-	-
Age (years) †§	30 (27-32) 31 (27-34)	29 (25-32)	28 (26-31)	29 (27-32)	30 (27-33)	31 (27-34)	31 (27-34)	31 (29-33)	31 (27-33)
Pre-pregnancy BMI (kg/m ²) (n=1,496) †§	22.7 (20.9-25.2) 24.9 (22.5-28.6)	22.3 (20.6-22.9)	21.7 (20.5-23.5)	22.3 (20.7-24.7)	22.9 (21.0-25.5)	23.7 (21.8-26.6)	25.3 (23.1-29.0)	27.1 (23.7-30.7)	25.7 (23.7-30.1)
Maternal overweight or obesity (BMI >25) % (n=1,496) †§	227 (25.8) 300 (48.7)	1 (12.5)	13 (13.5)	71 (23.6)	93 (27.9)	136 (36.7)	125 (53.2)	52 (65.0)	36 (52.9)
Caucasian ethnicity*	835 (93.2) 562 (90.7)	8 (100)	91 (92.0)	296 (95.2)	305 (90.8)	351 (93.1)	213 (90.7)	72 (90.01)	61 (87.1)
Primiparity (n=1,495) †	521 (59.3) 336 (54.6)	5 (62.5)	59 (61.5)	180 (59.8)	195 (58.7)	213 (56.8)	125 (53.2)	41 (51.3)	39 (57.4)
Family history of DM (n=1,144) *	55 (8.2) 58 (12.3)	1 (16.7)	3 (4.1)	19 (8.4)	27 (10.6)	22 (7.6)	24 (13.21)	8 (12.9)	9 (17.3)
Fasting venous plasma glucose (mmol/l) †§	4.8 (4.6-5.0) 5.4 (5.2-5.6)	4.18 (4.15-4.19)	4.42 (4.34-4.45)	4.67 (4.59-4.74)	4.90 (4.85-4.95)	5.13 (5.06-5.20)	5.42 (5.35-5.51)	5.68 (5.63-5.72)	6.04 (5.92-6.21)
Male baby (n=1,495)	469 (53.4) 320 (52.0)	2 (25.0)	58 (60.4)	163 (54.2)	170 (51.2)	203 (54.1)	116 (49.4)	36 (45.0)	41 (60.3)
Gestational age at delivery (days) (n=1,496)	281 (274-287) 281 (274-287)	283 (269-287)	281 (276-287)	282 (274-287)	281 (274-288)	282 (275-288)	281 (274-288)	281 (275-287)	279 (273-286)
Birth weight (grams) (n=1,493) †§	3480 (3145-3825) 3598 (3280-3920)	3408 (3268-3700)	3403 (3105-3700)	3500 (3180-3805)	3485 (3128-3840)	3535 (3215-3900)	3594 (3280-3900)	3655 (3360-3933)	3700 (3293-4078)
Birthweight Z score (n=1,490) †§	-0.23 (-0.87-0.42) -0.01 (-0.61-0.75)	0.39 (-0.97-0.51)	-0.41 (-1.04-0.05)	-0.19 (-0.78-0.40)	-0.25 (-0.92-0.42)	-0.11 (-0.75-0.62)	-0.04 (-0.59-0.65)	0.18 (-0.34-0.85)	0.35 (-0.65-1.07)
LGA neonate (n=1,490) *§	57 (6.5) 64 (10.4)	1 (16.7)	1 (1.0)	20 (6.6)	21 (6.3)	33 (8.8)	17 (7.3)	14 (17.5)	14 (20.6)
Birth weight > 4000 g (n=1,493) *§	130 (14.8) 121 (19.7)	0	9 (9.4)	47 (15.6)	46 (13.9)	72 (19.2)	39 (16.7)	17 (21.3)	21 (30.9)
Birth weight > 4500 g (n=1,493)	16 (1.9) 22 (3.5)	0	1 (1.0)	4 (1.3)	6 (1.8)	13 (3.5)	7 (3.0)	4 (5.0)	3 (4.4)
Ponderal index (kg/m ³) (n=1,483) †§	24.8 (23.2-26.4) 25.3 (23.7-26.9)	24.4 (22.9-25.9)	24.4 (22.9-26.0)	25.0 (23.3-26.9)	24.6 (23.3-26.3)	25.2 (23.5-26.5)	25.2 (23.8-26.9)	26.2 (24.3-27.4)	25.5 (23.8-27.1)
Abdominal circumference (cm) § (n=1,489)	33 (32-35) 33 (32-35)	33.5 (32.5-34)	33 (32-34)	33 (32-34)	34 (32-35)	33 (32-35)	34 (32-35)	34 (32-35)	34 (32-36)
Gestational hypertension + Preeclampsia*†	46 (5.1) 58 (9.4)	0	5 (5.0)	15 (4.8)	16 (4.8)	35 (9.3)	15 (6.4)	9 (11.3)	9 (12.9)
C-section (n=1,494)	194 (22.1) 130 (21.1)	1 (12.5)	21 (21.9)	67 (22.3)	69 (20.8)	78 (20.8)	51 (21.8)	14 (17.5)	23 (33.8)
Stillbirth (n=1,494)	1 (0.1) 2 (0.3)	0	0	1 (0.3)	0	1 (0.2)	0	0	1 (1.4)

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Supplementary Table 2. (Abridged version not including outcomes presented in Table 1)

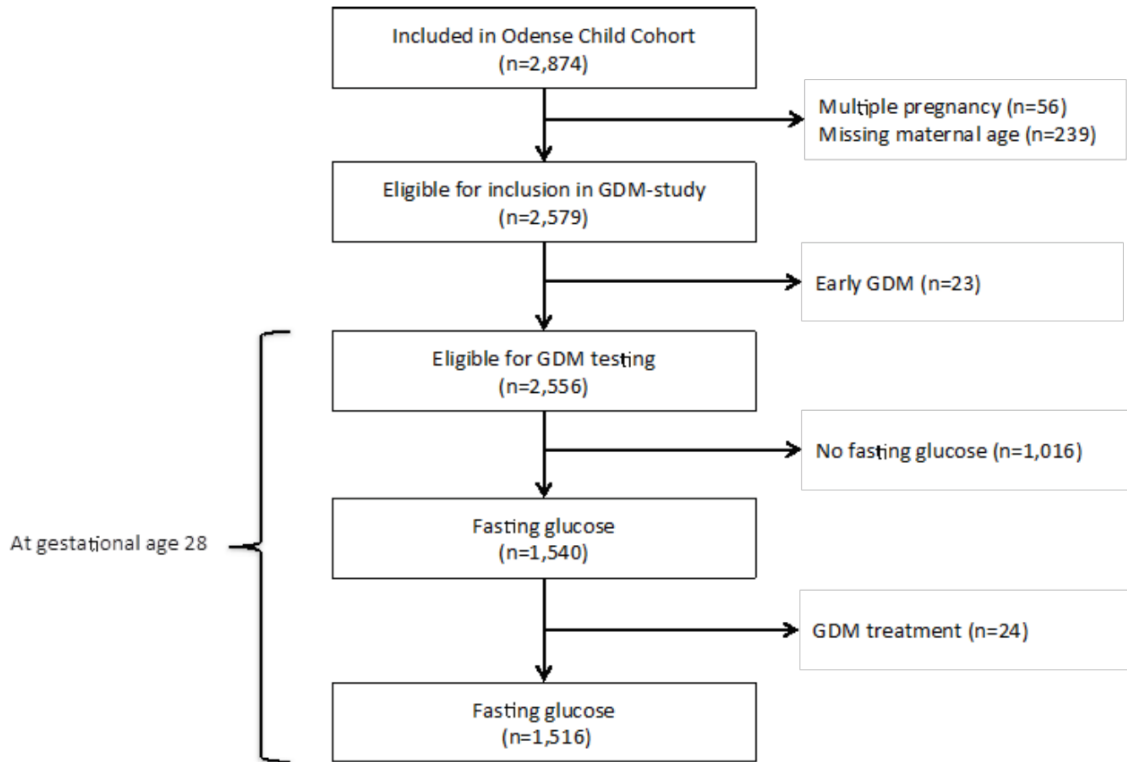
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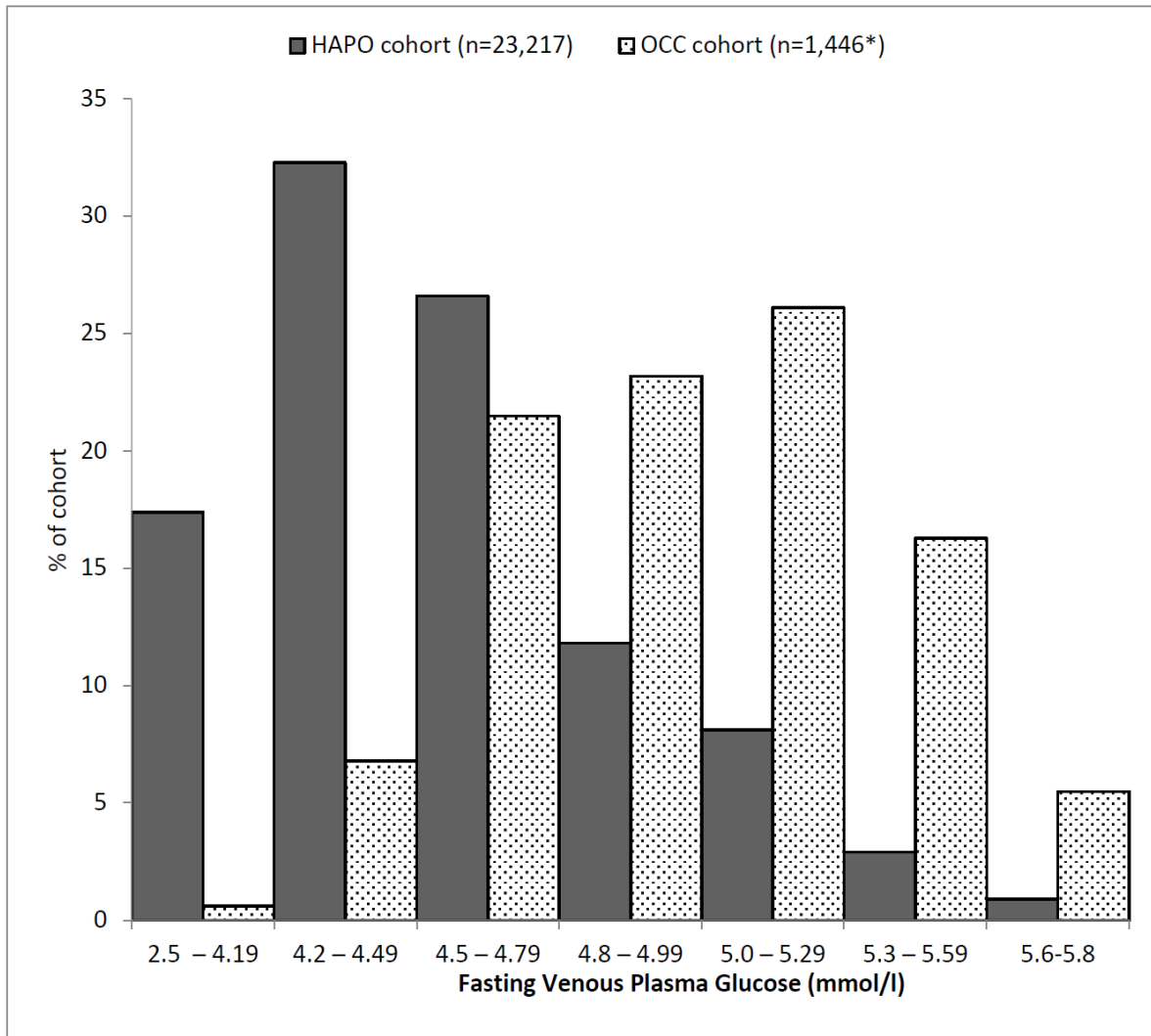
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Supplementary Figure 1. Flow diagram of participant exclusion and inclusion



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Supplementary Figure 2.



Legend for Supplementary Figure 2.

Third trimester fasting venous plasma glucose according to HAPO categories in Odense Child Cohort (OCC)

* Only subjects with fasting venous plasma glucose 2.5 - 5.8 mmol/l were included in the blinded HAPO study cohort and thus only OCC subjects with glucose levels in this range are included in the present figure.

Mean values for the two cohorts are shown with arrows (solid lines for HAPO and dotted lines for OCC).