

APPENDIX

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Figure 1: Maternal glucose associations with birthweight >90th percentile, cord C-peptide >90th percentile, and percent body fat > 90th percentile (see references 25,26)

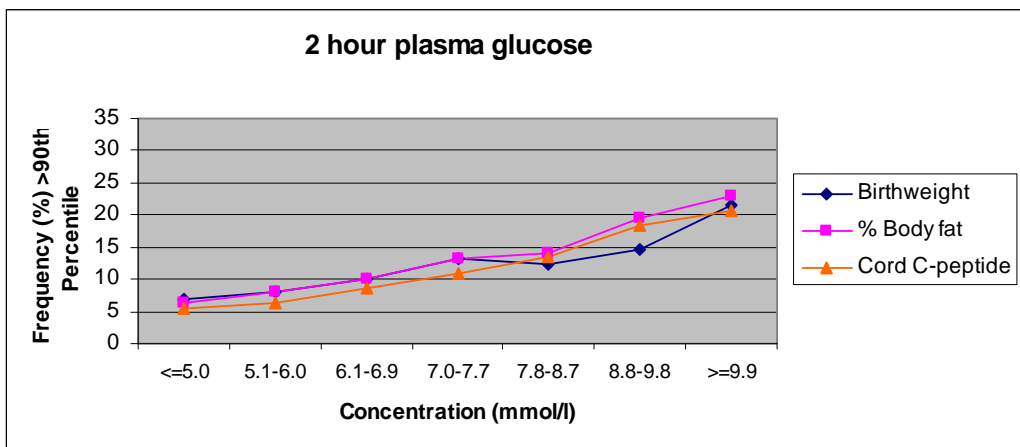
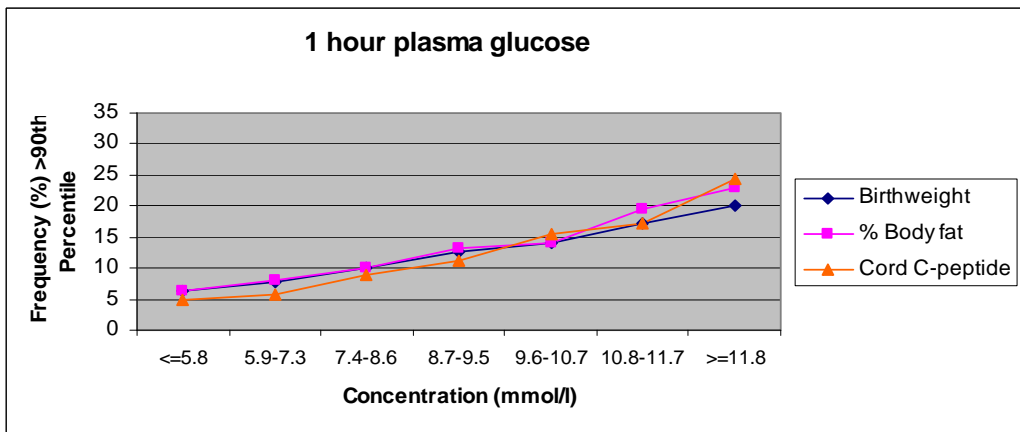
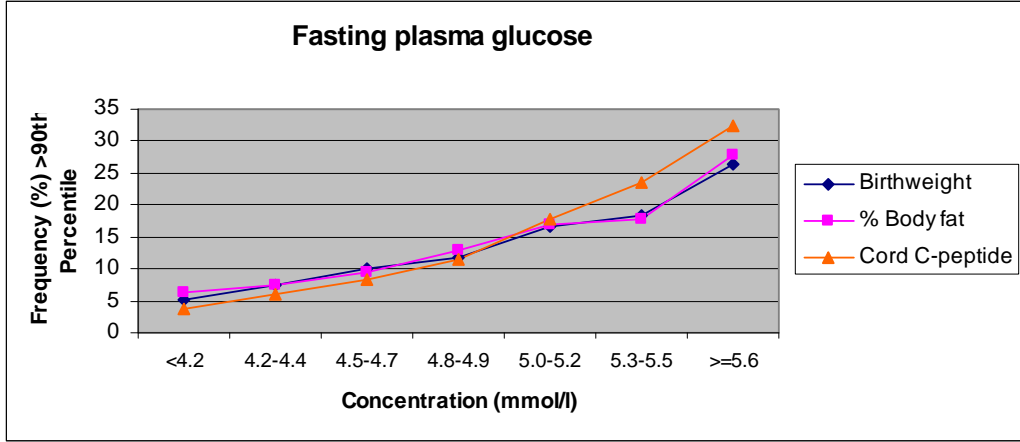


Table A. Adjusted odds ratios and 95% confidence intervals for associations between maternal glucose and perinatal outcomes in the HAPO Study

Outcome ¹	FPG		1-hr PG		2-hr PG	
	OR ^{2,3}	95% CI	OR	95% CI	OR	95% CI
Birthweight > 90 th percentile	1.68	(1.56, 1.80)	1.75	(1.63, 1.87)	1.77	(1.63, 1.92)
Cord C-peptide > 90 th percentile	2.02	(1.85, 2.21)	1.76	(1.62, 1.91)	1.75	(1.59, 1.92)
Percent body fat > 90 th percentile	1.62	(1.49, 1.75)	1.72	(1.60, 1.86)	1.72	(1.57, 1.87)
Preeclampsia	1.40 ⁴	(1.26, 1.56)	1.45	(1.31, 1.60)	1.57	(1.40, 1.77)
Preterm delivery (< 37 wks)	1.16	(1.05, 1.28)	1.29	(1.18, 1.40)	1.31	(1.19, 1.44)
Primary cesarean section	1.18	(1.11, 1.26)	1.16	(1.09, 1.23)	1.14	(1.06, 1.22)
Shoulder dystocia and/or birth injury	1.30	(1.07, 1.58)	1.36	(1.14, 1.62)	1.43	(1.16, 1.76)
Clinical neonatal hypoglycemia	1.24 ⁴	(1.05, 1.46)	1.21	(1.03, 1.40)	1.18	(0.99, 1.41)
Hyperbilirubinemia	1.00	(0.92, 1.09)	1.17	(1.08, 1.26)	1.14	(1.04, 1.25)
Intensive neonatal care	0.99	(0.91, 1.08)	1.11	(1.03, 1.20)	1.16	(1.05, 1.27)

¹See references 25 and 26 for definitions of outcomes.

²Odds ratios for FPG higher by 0.6 mmol/l, 1-hr PG higher by 2.6 mmol/l, and 2-hr PG higher by 2.3 mmol/l (mg/dl = mmol/l x 18). These differences correspond to the difference in glucose between the HAPO cohort means and the recommended thresholds.

³All models were adjusted for field center, age, BMI, height, smoking, alcohol use, family history of diabetes, gestational age at OGTT, baby's sex, parity (not included in model for primary cesarean delivery), hospitalization prior to delivery and mean arterial blood pressure (not included in model for preeclampsia). Cord glucose was included in the model for C-peptide > 90th percentile, and family history of hypertension and prenatal urinary tract infection were included in the model for preeclampsia.

⁴Calculated from models that included fasting glucose squared, due to non-linear relations of FPG with these outcomes

Table B. Frequency of outcomes when all glucose values are below threshold or any one or more is equal to or above threshold[†]

Outcome	FPG, 1-hr and 2-Hr OGTT values all < threshold	FPG and/or 1-hr and/or 2-hr OGTT values ≥ threshold
Birthweight > 90 th percentile	8.3%	16.2%**
Cord C-peptide > 90 th percentile	6.7%	17.5%**
Percent body fat > 90 th percentile	8.5%	16.6%**
Preeclampsia	4.5%	9.1%**
Preterm delivery (< 37 weeks)	6.4%	9.4%**
Primary cesarean section	16.8%	24.4%**
Shoulder dystocia and/or birth injury	1.3%	1.8%*
Clinical neonatal hypoglycemia	1.9%	2.7%*
Hyperbilirubinemia	8.0%	10.0%**
Intensive neonatal care	7.8%	9.1%*

[†]Threshold values: FPG ≥ 5.1 mmol/l (92 mg/dl), 1-hr PG ≥ 10.0 mmol/l (180 mg/dl), 2-hr ≥ 8.5 mmol/l (153 mg/dl)

*Difference between groups significant at p < 0.01

**Difference between groups significant at p < 0.001