

APPENDIX

Members of the Writing Group are: Boyd E. Metzger, MD, Northwestern University Feinberg School of Medicine; Steven G. Gabbe, MD, The Ohio State University; Bengt Persson MD, PhD, Karolinska Institute; Thomas A Buchanan, MD, Keck School of Medicine, University of Southern California; Patrick M. Catalano, MD, Case Western Reserve University, MetroHealth Medical Center; Peter Damm, MD, DMSc, Rigshospitalet, University of Copenhagen; Alan R. Dyer, PhD, Northwestern University Feinberg School of Medicine; Alberto de Leiva, MD, Hospital de Sant Paul, Universitat Autònoma of Barcelona; Moshe Hod, MD, Helen Schneider Hospital for Women, Rabin Medical Center-Sackler Faculty of Medicine, Tel-Aviv University; John L. Kitzmiller, MD, Santa Clara Valley Medical Center; Lynn P. Lowe, PhD, Northwestern University Feinberg School of Medicine; H. David McIntyre, MB, BS, Mater Misericordiae Mothers' Hospital-University of Queensland; Jeremy J. N. Oats, MD, Royal Women's Hospital, University of Melbourne; Yasue Omori, MD, Tokyo Women's Medical University; Maria Ines Schmidt, MD, PhD, Federal University of Rio Grande do Sul.

Other IADPSG Consensus Panel Members who Approved these Recommendations: Vijayam Balaji, MD; Dr. Seshiah Diabetes Research Institute - Dr. Balaji Diabetes Care Centre; William M. Callaghan, MD, MPH, Centers for Disease Control and Prevention; Rony Chen, MD, Helen Schneider Hospital for Women, Rabin Medical Center-Sackler Faculty of Medicine, Tel-Aviv University; Deborah Conway, MD, University of Texas at San Antonio; Rosa Corcoy, MD, PhD, Hospital de la Santa Creu I Sant Pau, Instituto de Salud Carlos III; Donald R. Coustan, MD, Warren Alpert Medical School of Brown University, Women & Infants Hospital of Rhode Island; Dana Dabelea MD, PhD, Colorado School of Public Health, University of Colorado Denver; Cathy Fagen, MA, RD, Miller Children's Hospital, Long Beach Memorial Center; Denice S. Feig, MD, University of Toronto Division of Endocrinology; Assiamira Ferrara, MD, PhD, Division of Research, Kaiser Permanente Northern California; Patti Geil MS, RD, Geil Nutrition Communications; David R. Hadden, MD, Royal Jubilee Maternity Hospital; Teresa A. Hillier, MD, MS, Kaiser Permanente Center for Health Research; Yuji Hiramatsu, MD, PhD, Okayama University Graduate School of Medicine; Ghislaine Houde, MD, Université de Sherbrooke; Maribeth Inturissi, RN, MS, University of California-San Francisco, California Pacific Medical Center; Hak C Jang, MD, Seoul National University Bundang Hospital; Lois Jovanovic, MD, Keck School of Medicine, University of California-Santa Barbara; Alexandra Kautsky-Willer, MD, Medical University of Vienna; M. Sue Kirkman, MD, American Diabetes Association; Siri L. Kjos, MD, Harbor-UCLA Medical Center; Mark B. Landon, MD, Ohio State University College of Medicine; Annunziata Lapolla, MD, Padova University; Julia Lowe, MD, University of Toronto; H. Elisabeth R. Mathiesen, MD, Rigshospitalet, University of Copenhagen; Giorgio Mello, MD, University of Florence; Sara J. Meltzer, MD, McGill University School of Medicine; Thomas R. Moore, MD, University of California-San Diego School of Medicine; Christopher J. Nolan, MD, Australian National University Medical School; Per Ovesen, DMSc, Aarhus University Hospital; David Pettitt, MD, Sansum Diabetes Research Institute; Diane M. Reader, BS, RD, International Diabetes Center; Janet A. Rowan, MD, Auckland City Hospital; David A. Sacks, MD, Southern California Permanente Medical Group; Ute Schaefer-Graf, MD, St. Josef Hospital; Veeraswamy Seshiah, MD, Dr. Seshiah Diabetes Research Institute – Dr. Balaji Diabetes Care Centre; David Simmons, MD, Cambridge University Hospitals NHS Foundation Trust, University of Melbourne; Takashi Sugiyama, MD, PhD, Mie University Graduate School of Medicine; Elisabeth R. Trimble, MD, Queen's

University Belfast; Surendra Varma, MD, TTUHSC School of Medicine; Huixia Yang, MD, Peking University First Hospital; Ichiro Yasuhi, MD, NHO Nagasaki Medical Center.

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

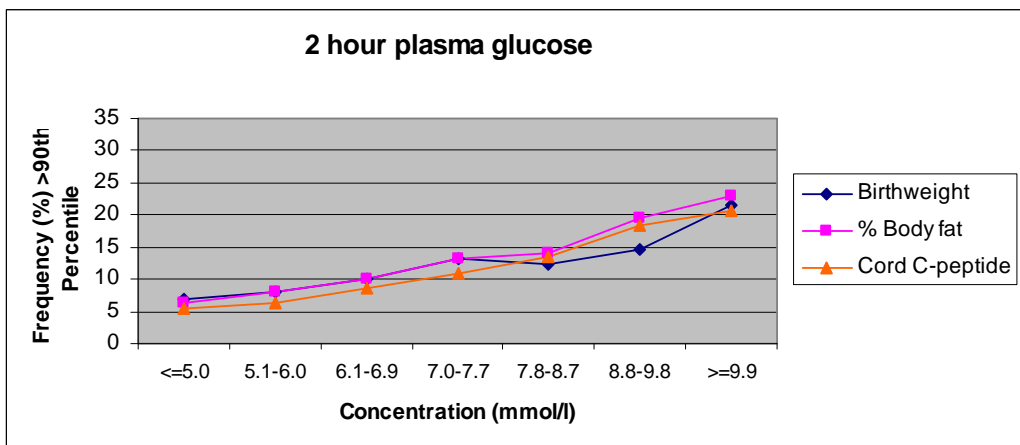
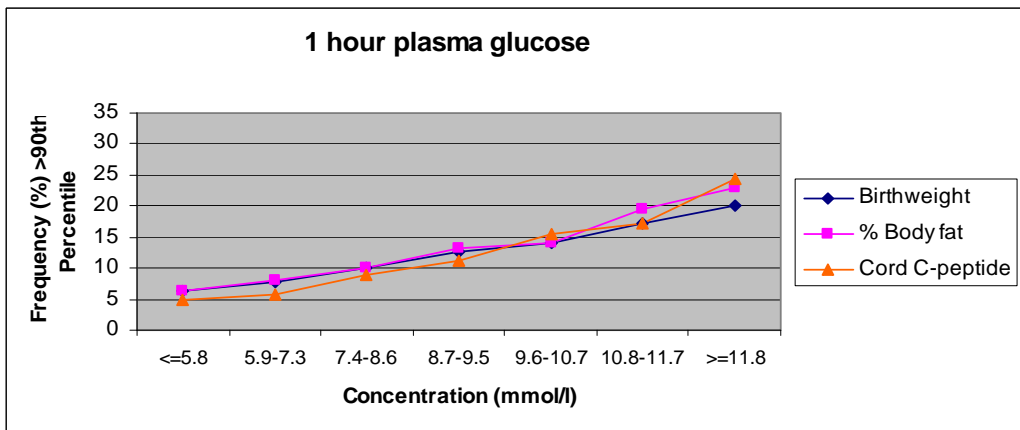
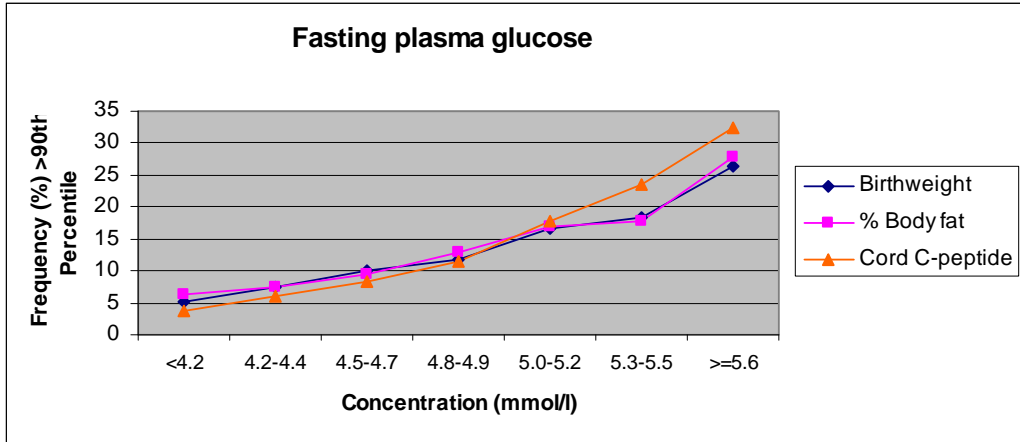


Table A. Adjusted odds ratios and 95% confidence intervals for associations between maternal glucose and perinatal outcomes in the HAPO Study

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 \geq 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 \geq 5.1 mmol/l (92 mg/dl), 1-hr PG \geq 10.0 mmol/l (180 mg/dl), 2-hr \geq 8.5 mmol/l (153 mg/dl)

*Difference between groups significant at $p < 0.01$

**Difference between groups significant at $p < 0.001$