

Pregnancy and birth outcomes in relation to various gestational weight gains according to IOM recommendations for all BMI groups combined based on international and Asian classifications

	IOM weight gain recommendations applied to international BMI classification				IOM weight gain recommendations applied to Asian BMI classification			
	Inadequate	Recommended	Excessive	Overall p value	Inadequate	Recommended	Excessive	Overall p value
Mean birthweight (g)	3110	3208	3338	‡ 0.000***	3087	3226	3309	‡
SD	379	427	388		370	427	396	0.000***
N	285	169	60		259	177	78	
Mean number of AN visits	10.0	10.2	10.9	‡ 0.073	9.8	10.3	10.9	‡ 0.015*
SD	3.8	3.4	3.2		3.8	3.5	3.3	
N	273	163	58		248	171	75	
Mean gestation at delivery	38.9	40.1	39.7	‡ 0.053	38.9	40.0	39.7	‡ 0.088
SD	2.6	2.2	2.5		2.7	2.3	2.3	
N	107	57	18		101	56	25	
Haemoglobin <11.0g/dl in trimester 2	103/221 (46.6%)	56/137 (40.9%)	21/49 (42.9%)	0.558	96/205 (46.8%)	58/139 (41.7%)	26/63 (41.3%)	0.566
Haemoglobin <11.0g/dl in trimester 3	85/228 (37.3%)	39/132 (29.5%)	16/48 (33.3%)	0.326	79/208 (38.0%)	41/139 (29.5%)	20/61 (32.8%)	0.255
Induction	19/250 (7.6%)	16/151 (10.6%)	7/51 (13.7%)	0.310	17/224 (7.6%)	15/162 (9.3%)	10/66 (15.2%)	0.177
Spontaneous vaginal delivery	241/289 (83.4%)	134/166 (80.7%)	49/61 (80.3%)	0.714	218/260 (83.8%)	144/178 (80.9%)	62/78 (79.5%)	0.583
Caesarean section	36/293 (12.3%)	29/167 (17.4%)	8/61 (13.1%)	0.313	31/264 (11.7%)	30/179 (16.8%)	12/78 (15.4%)	0.305
LBW <2.5kg	9/285 (3.2%)	6/169 (3.6%)	0/60 (0%)	§0.417	9/259 (3.5%)	5/177 (2.8%)	1/78 (1.3%)	0.599
Macrosomia >4.0kg	2/285 (0.7%)	6/169 (3.6%)	2/60 (3.3%)	§0.058	1/259 (0.4%)	6/177 (3.4%)	3/78 (3.8%)	§0.020*
SGA	18/102 (17.6%)	4/56 (7.1%)	1/18 (5.6%)	0.105	18/97 (18.6%)	3/54 (5.6%)	2/25 (8.0%)	0.054
LGA	2/102 (2.0%)	3/56 (5.4%)	2/18 (11.1%)	§0.122	2/97 (2.1%)	1/54 (1.9%)	4/25 (16.0%)	§0.014*
Born < 37 weeks	25/107 (23.4%)	5/57 (8.8%)	3/18 (16.7%)	0.068	24/101 (23.8%)	5/56 (8.9%)	4/25 (16.0%)	0.066
Born ≥ 42 weeks	8/107 (7.5%)	12/57 (21.1%)	2/18 (11.1%)	0.039*	8/101 (7.9%)	11/56 (19.6%)	3/25 (12.0%)	0.097
Postpartum Haemorrhage	15/263 (5.7%)	9/157 (5.7%)	7/58 (12.1%)	0.183	13/236 (5.5%)	9/168 (5.4%)	9/74 (12.2%)	0.097
Sutures excluding CS	108/244 (44.3%)	77/135 (57.0%)	26/49 (53.1%)	0.050	99/221 (44.8%)	84/146 (57.5%)	28/61 (45.9%)	0.049*
Initial feed at breast	269/284 (94.7%)	152/168 (90.5%)	55/61 (90.2%)	0.169	242/256 (94.5%)	163/178 (91.6%)	71/79 (89.9%)	0.278
Breastfeeding at discharge	210/275 (76.4%)	131/166 (78.9%)	46/59 (78.0%)	0.820	187/247 (75.7%)	139/176 (79.0%)	61/77 (79.2%)	0.670
Back pain	1/261 (0.4%)	12/161 (7.5%)	6/58 (10.3%)	0.000***	1/235 (0.4%)	10/171 (5.8%)	8/74 (10.8%)	0.000***
Baby admitted to intensive care unit	2/252 (0.8%)	3/157 (1.9%)	2/55 (3.6%)	§0.178	2/226 (0.9%)	2/167 (1.2%)	3/71 (4.2%)	§0.161

IOM, institute of medicine

BMI, Body mass index

SD, standard deviation

n, number

AN, antenatal

LBW, low birth weight

SGA, small for gestational age

LGA, large for gestational age

*= p<0.05, ** = p<0.01, *** = p<0.001

Chi-square test used for categorical data

‡ Kruskal - Wallis Test for continuous variables due to non-normality of distribution within each category

§ Exact test used where Chi-square test assumptions violated (expected count <5 in >20% of cells)