Comparison of pregnancy and birth outcomes according to pre-pregnancy BMI categories using international and Asian classifications

	Sample proportion/ average	International BMI category pre-pregnancy					ASIAN BMI category pre-pregnancy				
		<18.5	18.5-24.9	25.0-29.9	≥30.0	Overall p value	<18.5	18.5-22.9	23.0-27.4	≥27.5	Overall p value
Mean GWG (kg)	10.2	12.7	10.0	7.6	5.4	**0.000*****	12.7	10.5	7.7	7.5	**0.000*****
SD	6.0	4.7	5.7	6.6	5.9		4.7	5.2	6.9	6.8	
n	544	105	344	74	6		105	280	115	29	
Mean birthweight (g)	3165	3140	3159	3222	3683	‡ **0.040***	3140	3129	3258	3325	‡**0.007*****
SD	402	370	382	479	519		370	380	433	462	
n	577	107	347	72	6		107	281	116	28	
Mean number of AN visits	10.0	10.2	9.9	11.0	8.7	‡ **0.161**	10.2	9.7	10.9	10.2	‡ **0.069**
SD	3.6	3.8	3.4	4.1	3.4		3.8	3.3	4.0	4.4	
n	565	106	331	69	6		106	272	108	26	
Mean gestation at delivery (Weeks)	39.3	39.4	39.2	39.7	40.3	‡ **0.830**	39.4	39.2	39.4	39.6	‡ **0.964**
SD	2.6	2.3	2.9	1.9	1.3		2.3	2.8	2.8	1.6	
n	217	43	118	29	3		43	103	33	14	
Inadequate weight gain — Int 297/529 (56.1%)	Asian 268/597 (50.7%)	50/105 (47.6%)	217/344 (63.1%)	28/74 (37.8%)	2/6 (33.3%)	§**0.000*****	50/105 (47.6%)	171/280 (61.1%)	38/115 (33.0%)	9/29 (31.0%)	**0.000*****
Trimester 2 Haemoglobin <11.0g/dl	213/473 (45.0%)	44/87 (50.6%)	125/280 (44.6%)	16/53 (30.2%)	2/5 (40.0%)	§**0.114**	44/87 (50.6%)	107/229 (46.7%)	29/89 (32.6%)	7/20 (35.0%)	**0.056**
Trimester 3 Haemoglobin <11.0g/dl	157/464 (33.8%)	29/79 (36.7%)	95/276 (34.4%)	15/55 (27.3%)	2/5 (40.0%)	§**0.681**	29/79 (36.7%)	78/223 (35.0 %)	29/93 (31.2%)	5/20 (25.0%)	**0.704**
Induction	44/511 (8.6%)	8/89 (9.0%)	24/307 (7.8%)	9/66 (13.6%)	1/5 (20.0%)	§**0.254**	8/89 (9.0%)	18/243 (7.4%)	12/112 (10.7%)	4/23 (17.4%)	**0.371**
Spontaneous vaginal delivery	484/591 (81.9%)	92/106 (86.8%)	293/352 (83.2%)	52/71 (73.2%)	4/6 (66.7%)	§**0.067**	92/106 (86.8%)	237/285 (83.2%)	91/115 (79.1%)	21/29 (72.4%)	**0.224**
Caesarean section	86/598 (14.4%)	11/106 (10.4%)	47/355 (13.2%)	15/73 (20.5%)	2/6 (33.3%)	**0.121**	11/106 (10.4%)	37/288 (12.8%)	19/117 (16.2%)	8/29 (27.6%)	**0.092**
LBW <2.5kg	19/577 (3.3%)	4/107 (3.7%)	7/347 (2.0%)	4/72 (5.6%)	0/6 (0%)	§**0.281**	4/107 (3.7%)	7/281 (2.5%)	3/116 (2.6%)	1/28 (3.6%)	§**0.732**
Macrosomia >4.0kg	10/577 (1.7%)	1/107 (0.9%)	5/347 (1.4%)	2/72 (2.8%)	2/6 (33.3%)	§**0.006****	1/107 (0.9%)	3/281 (1.1%)	3/116 (2.6%)	3/28 (10.7%)	§**0.018***
SGA	26/204 (12.7%)	5/42 (11.9%)	15/113 (13.3%)	3/29 (10.3%)	0/3 (0%)	§**1.000**	5/42 (11.9%)	15/99 (15.2%)	1/32 (3.1%)	2/14 (14.3%)	§**0.318**
LGA	8/204 (3.9%)	1/42 (2.4%)	3/113 (2.7%)	4/29 (13.8%)	0/3 (0%)	§**0.081**	1/42 (2.4%)	2/99 (2.0%)	3/32 (9.4%)	2/14 (14.3%)	§**0.050**
Born < 37 weeks	40/217 (18.4%)	7/43 (16.3%)	26/118 (22.0%)	2/29 (6.9%)	0/3 (0%)	§**0.263**	7/43 (16.3%)	23/103 (22.3%)	4/33 (12.1%)	1/14 (7.1%)	**0.353**
Born > 42 weeks	27/217 (12.4 %)	4/43 (9.3%)	16/118 (13.6%)	3/29 (10.3%)	0/3 (0%)	§**0.872**	4/43 (9.3%)	15/103 (14.6%)	3/33 (9.1%)	1/14 (7.1%)	§**0.790**
Postpartum haemorrhage	33/542 (6.1%)	5/94 (5.3%)	20/327 (6.1%)	7/69 (10.1%)	1/6 (16.7%)	§**0.284**	5/94 (5.3%)	14/262 (5.3%)	12/113 (10.6%)	2/27 (7.4%)	**0.275**
Sutures excluding Caesarean section	240/484 (49.6%)	53/91 (58.2%)	143/294 (48.6%)	24/56 (42.9%)	3/4 (75.0%)	§**0.187**	53/91 (58.2%)	125/239 (52.3%)	37/96 (38.5%)	8/19 (42.1%)	**0.037***
Initial feed at breast	541/581 (93.1%)	102/106 (96.2%)	331/348 (95.1%)	59/73 (80.8%)	3/5 (60.0%)	§**0.000*****	102/106 (96.2%)	268/281 (95.4%)	102/117 (87.2%)	23/28 (82.1%)	**0.002****
Breastfeeding at discharge	441/564 (78.2%)	82/101 (81.2%)	274/342 (80.1%)	47/71 (66.2%)	3/5 (60.0%)	§**0.038***	82/101 (81.2%)	221/275 (80.4%)	84/115 (73.0%)	19/28 (67.9%)	**0.184**
Back pain	21/539 (3.9%)	4/96 (4.2%)	12/329 (3.6%)	3/67 (4.5%)	0/5 (0%)	§**0.856**	4/96 (4.2%)	10/265 (3.8%)	5/111 (4.5%)	0/25 (0%)	§**0.906**
Baby admitted to intensive care unit	9/522 (1.7%)	0/92 (0%)	4/320 (1.3%)	2/64 (3.1%)	1/5 (20.0%)	§**0.030***	0/92 (0%)	4/257 (1.6%)	1/109 (0.9%)	2/23 (8.7%)	§**0.065**

BMI, Body mass index

GWG, gestational weight gain

SD, standard deviation

n, number

AN, antenatal

LBW, low birth weight

SGA, small for gestational age

LGA, large for gestational age

ANOVA used for continuous data

Chi square used for categorical data

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

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

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