



# GESTATIONAL DIABETES MELLITUS IN WOMEN LESS THAN 25 YEARS FROM 14 TERTIARY HOSPITALS IN MALAYSIA



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## INTRODUCTION

Gestational Diabetes Mellitus (GDM) is carbohydrate intolerance first recognized during pregnancy. Maternal age is an established risk factor for GDM and in Malaysia the cut off age for screening is 25 years.

## METHODOLOGY

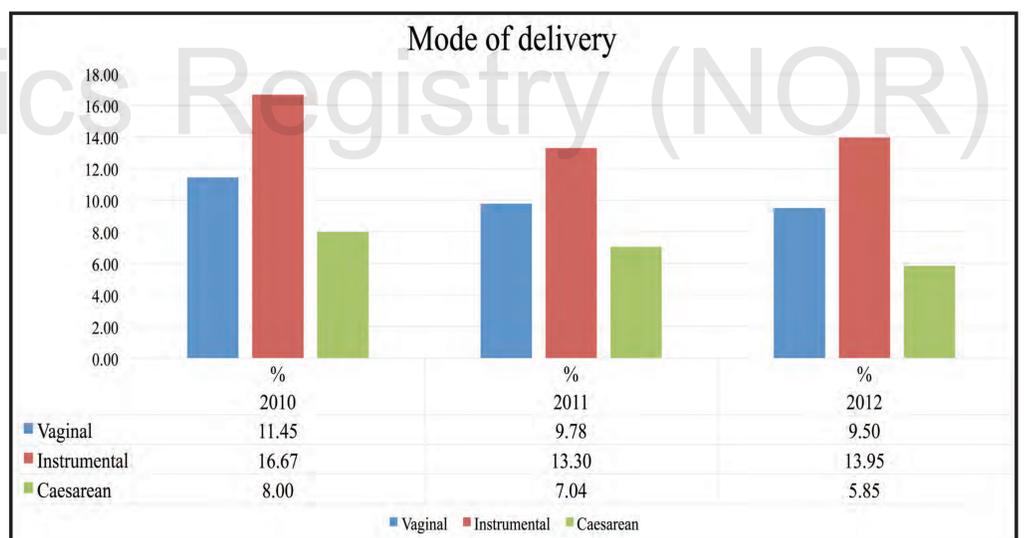
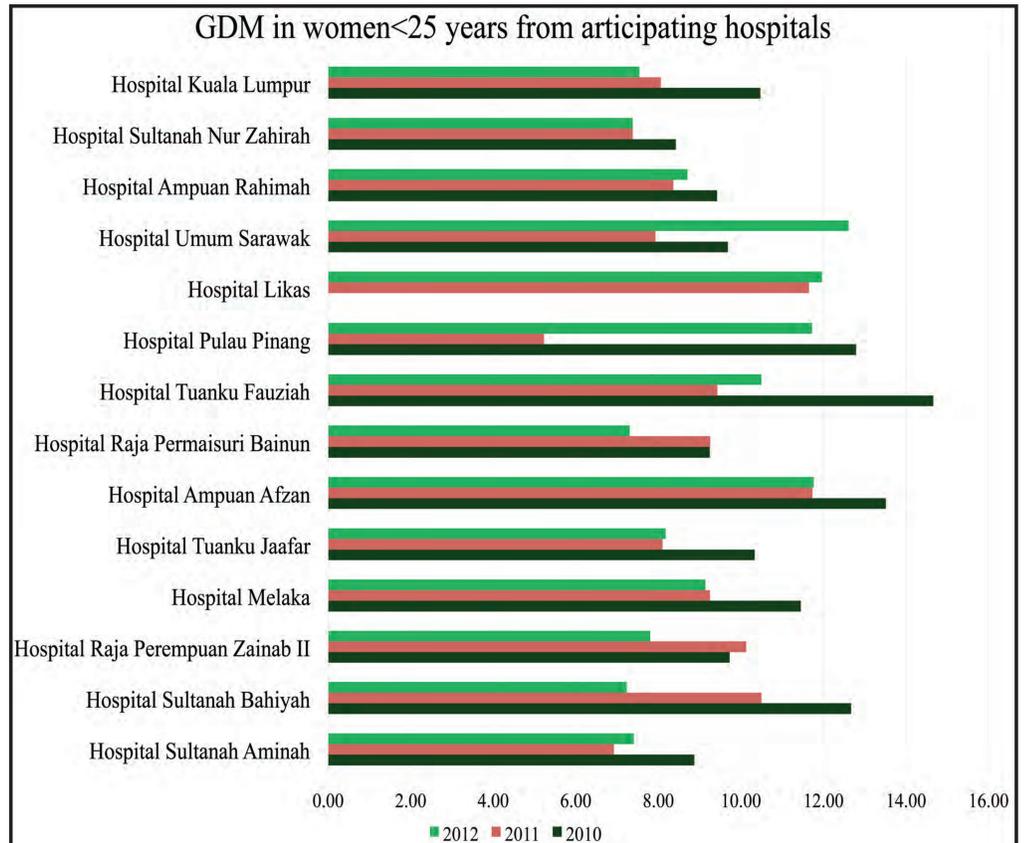
This was a retrospective study from the National Obstetrics Registry (NOR) which captured data from 14 tertiary hospitals in Malaysia over a 3 year period from 1st January 2010 to 31st December 2012. NOR captures one third of all deliveries in the country

## RESULTS

A total of 399, 274 deliveries were analysed. 32,328 women had GDM in this period of which 3004 were below 25 years. There was a higher prevalence of GDM in this group during this period, from the tertiary hospital in Pahang followed by Perlis and Sabah. 11.81% of the study population had BMI < 25 kg/m<sup>2</sup>. The prevalence of GDM was 9.29% and the incidence in primiparous women less than 25 years was 24.81%. Preterm rates were high at 8.87%. 12.5% were complicated with eclampsia, 6.67% had genital tract trauma and 7.35% had massive postpartum haemorrhage. 14.81% had Instrumental delivery was the commonest mode of delivery at 14.81% followed by vaginal delivery at 10.34% whilst 7.03% had Caesarean section. 8.13% of babies born had Apgar score <7 at 5 minutes, 12.5% had birth injuries and 6.17% had congenital anomalies. There were no Fresh still birth but the macerated stillbirth rate was 6.31%. 5.56% babies weighed 4kg and more whilst 6.90% experienced shoulder dystocia. The stillbirth rate in this group was 63 per 1000 live births.

## DISCUSSION/ CONCLUSIONS

Our findings show that GDM was high in women below 25 years. Approximately one in every four primiparous women in this group had GDM. Detection of GDM is important due to its significant association with maternal and fetal complications. Universal screening is ideal and should be aimed for but cost is a factor. As an interim measure, we recommend primiparous women below 25 years as a risk factor that should trigger.



Variables	2010			2011			2012			2010-2012		
	Total	<25 n	%	Total	<25 n	%	Total	<25 n	%	Total	<25 n	%
<b>Maternal Complication</b>												
Cord prolapse	31	2	6.45	31	2	6.45	30	2	6.67	92	6	6.52
Eclampsia	39	6	15.38	32	2	6.25	33	5	15.15	104	13	12.50
Genital tract trauma	254	26	10.24	2,187	147	6.72	2,090	129	6.17	4,531	302	6.67
Primary PPH												
<1500 mls	75	8	10.67	90	8	8.89	68	1	1.47	233	17	7.30
>=1500 mls	22	1	4.55	29	4	13.79	17	0	0.00	68	5	7.35
<b>Complication of baby</b>												
<b>Alive</b>												
Apgar score;												
At 1min <7	673	73	10.85	638	67	10.50	532	48	9.02	1,843	188	10.20
At 5 min <7	125	8	6.40	152	16	10.53	129	9	6.98	406	33	8.13
<b>Dead</b>												
FSB	18	0	0.00	17	0	0.00	14	0	0.00	49	0	0.00
MSB	86	8	9.30	62	2	3.23	58	3	5.17	206	13	6.31
Congenital Anomaly	19	0	0.00	42	4	9.52	20	1	5.00	81	5	6.17
Birth injuries	11	1	9.09	2	0	0.00	3	1	33.33	16	2	12.50
Shoulder dystocia	72	6	8.33	57	4	7.02	45	2	4.44	174	12	6.90
Baby weight												
<=1000	152	6	3.95	85	7	8.24	77	2	2.60	314	15	4.78
1001 - 1500	122	13	10.66	121	14	11.57	93	7	7.53	336	34	10.12
1501 - 2000	284	28	9.86	269	17	6.32	237	17	7.17	790	62	7.85
2001 - 2500	1,140	145	12.72	1,058	111	10.49	939	91	9.69	3,137	347	11.06
2501 - 3000	3,711	445	11.99	3,483	365	10.48	3,016	270	8.95	10,210	1080	10.58
3001 - 3500	4,372	438	10.02	3,779	320	8.47	3,332	276	8.28	11,483	1034	9.00
3501 - 3999	1,542	131	8.50	1,434	95	6.62	1,168	88	7.53	4,144	314	7.58
>=4000	576	36	6.25	531	24	4.52	476	28	5.88	1,583	88	5.56