

DIABETIC PREGNANCY IN MALAYSIA

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INTRODUCTION

Diabetes is a common endocrine disorder in pregnancy. In its chronic forms, diabetes is associated with long-term vascular complications, including retinopathy, nephropathy, neuropathy and vascular disease. There are 2 categories of Diabetes in pregnancy which is pre-gestational and gestational diabetes. Pre-gestational diabetes can be Type 1 diabetes (Insulin Dependent Diabetes Mellitus) or Type 2 diabetes (Non Insulin Dependent Diabetes). Gestational diabetes mellitus (GDM) is a metabolic disorder defined as glucose intolerance of variable severity with onset or first recognition during pregnancy. Diabetic pregnancy associated with maternal and fetal morbidity and mortality. The clinical implications of diabetic pregnancy are primarily associated with adverse outcomes in pregnancy, such as preeclampsia, Caesarean delivery, macrosomia, and birth trauma. In addition, women with GDM are at an increased risk for type 2 diabetes mellitus later in life.

OBJECTIVE

To study the incidence of diabetes in various state in Malaysia and to study the demographic data, and perinatal outcome of diabetes in Malaysia.

METHODS

The data obtained from National Obstetric Registry from 1st January 2010 until 31st December 2010 involving 14 government hospitals in various states in Malaysia. This data included all diabetic patient whether pre-existing or gestational diabetes mellitus. A total of 13,560 diabetic patients were analysed, their demographic data, mode of delivery, perinatal outcome such as shoulder dystocia, Apgar score and macrosomic baby (weight more than 4 kg) were studied.

RESULTS

There were 136,856 deliveries in 14 state hospitals in Malaysia. The incidence of diabetes in pregnancy was 9.90%. Majority of patients were gestational diabetes 11,848 (8.66%) whereas 1,009 (0.74%) had pre-existing diabetes. Diabetes in pregnancy was highest among Indians (14.39%), followed by Malays (11.37%) and Chinese (10.4%). Most of the patients with diabetes were in the age group between 31-40 years old (48.3%) by total number of diabetes. In diabetic patients, caesarean section rate was higher (14.7%) compared to vaginal deliveries (8.5%).

Incidence of macrosomic baby was double in diabetic patients (5.58%) compared to non diabetics (2.99%). Out of 13,560 diabetic patients, 82 of them (0.6%) had shoulder dystocia whereas in non diabetic patients, 216 (0.17%) of them had shoulder dystocia. Birth asphyxia rate in diabetic patients and non diabetic patients was almost equal (5.71% and 5.37% respectively).

TYPES OF DIABETIC PREGNANCY IN MALAYSIA

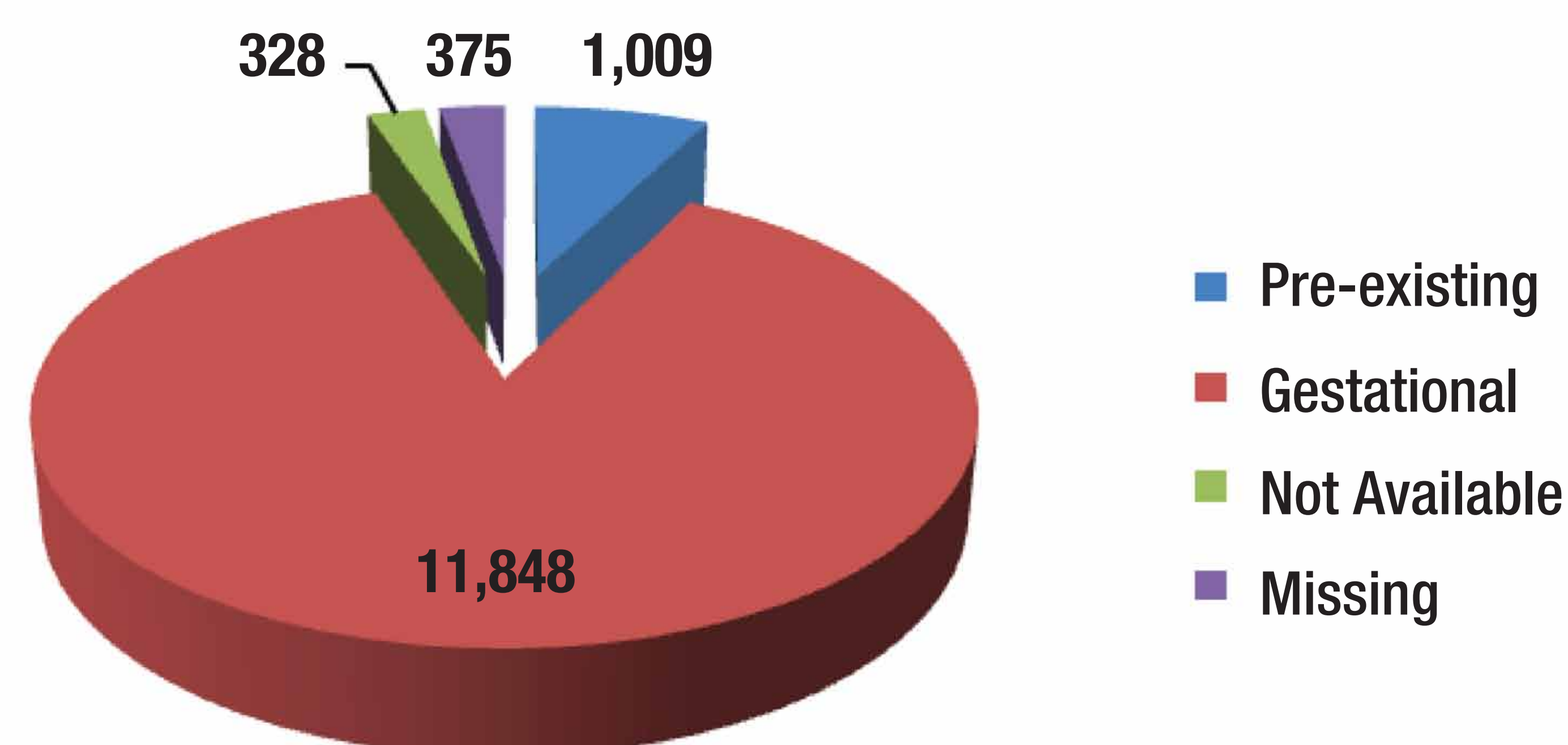


Table 1: Types of Diabetic Pregnancy

DIABETES BY ETHNICS GROUP

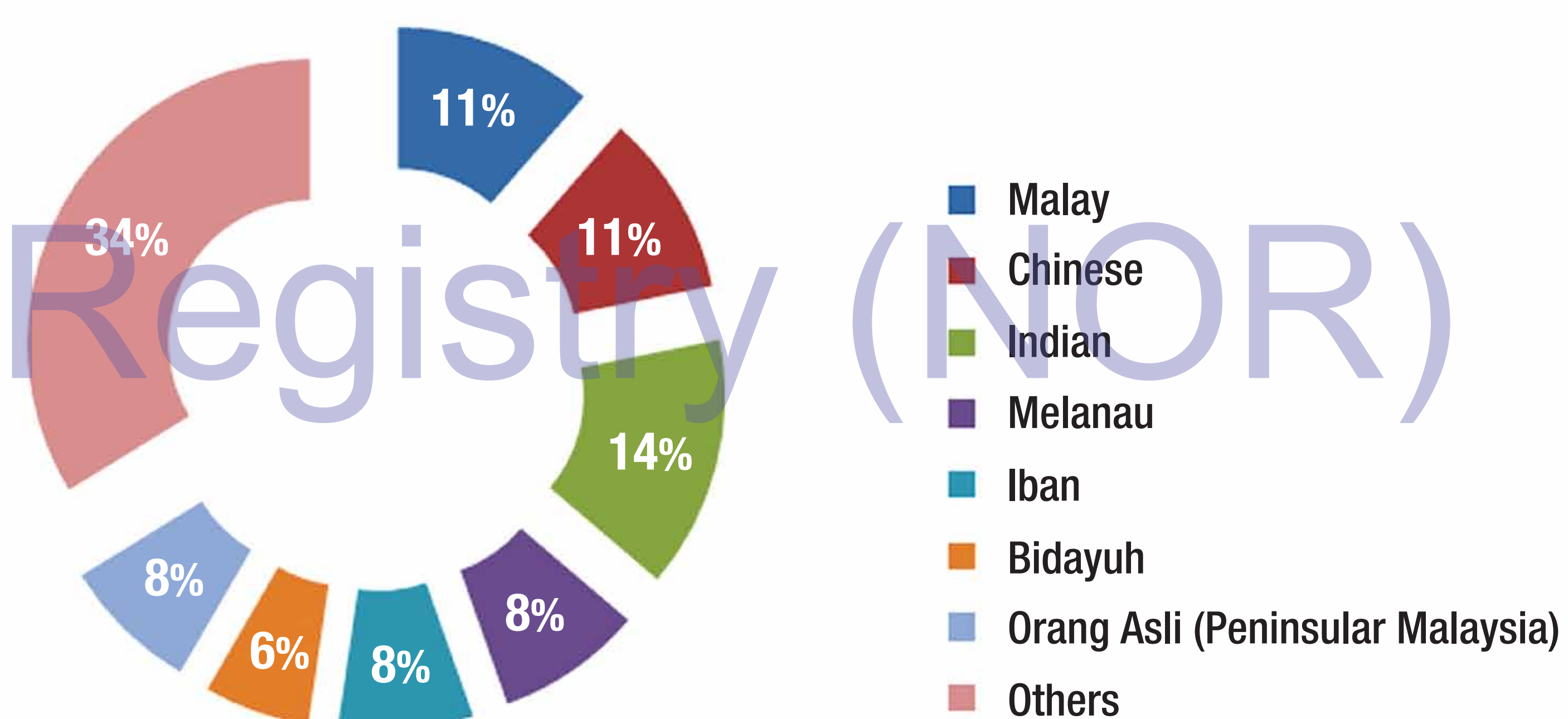


Table 2: Diabetes by Ethnic Group

	DM		NON DM		TOTAL	
	N	%	N	%	N	%
Macrosomia (Birth weight \geq 4kg)	766	5.58	3,730	2.99	4,496	3.25
Birth weight < 4kg	12,954	94.42	120,865	97.01	133,819	96.75
Total	13,720	100	124,595	100	138,315	100

Table 3: Comparison macrosomic baby in diabetic and non diabetic

CONCLUSION

In diabetic patient, incidence of macrosomia was doubled, this could contribute to increase caesarean section rate. Shoulder dystocia was 3 times higher compared to non diabetic patient. There was no difference in birth asphyxia incidence. This could be due to other factors related to birth asphyxia.

REFERENCES

1. NICE Clinical Guideline 63 – Diabetes in Pregnancy, March 2008.
2. Prevalence of Diabetes in the Malaysian National Health Morbidity Survey III 2006.