

# Super Obesity In Pregnancy Is A Super Big Problem: Outcomes Of Maternal Super Obesity

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**Introduction:**

In 2018 the AIHW reported half (48.6%) of women who gave birth were overweight (26.8%) or obese (21.8%).<sup>1</sup> BMI greater than 40 is referred to as morbid obesity and greater than 50 is super obesity.<sup>2</sup> A national study in 2010 estimated the prevalence of super obesity as 2.1 per 1000 women giving birth in Australia.<sup>3</sup> As a major tertiary institution in Queensland, RBWH is a referral centre for BMI greater than 40, seeing a prevalence of morbid obesity of 21.8 per 1000 and super obesity of 4.3 per 1000 births.

**Aims:**

We embarked on this study to analyse whether there are significantly different outcomes between morbidly and super obese pregnant women.

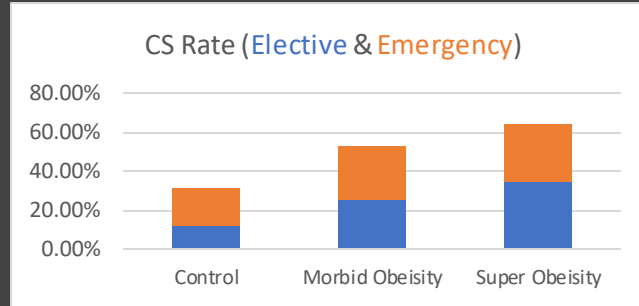
**Methods:**

This is a retrospective cohort study of all singleton women who delivered at the RBWH from 2010-2019. The Cohort was subdivided into 3 groups for analysis, a control group (BMI 17-30), morbidly obese (BMI 40-49.9) and super obese (BMI >50). From Jan 2010 to Dec 2019 there was a total of 45261 births.

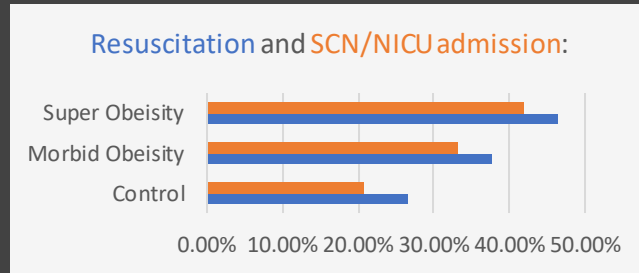
**Results:**

83.3% of births included were in the control (n=33751), 2.43% morbidly obese (n=985), 0.48% super obese (n=196). Hypertensive and diabetic disorders of pregnancy increased among the 3 groups.

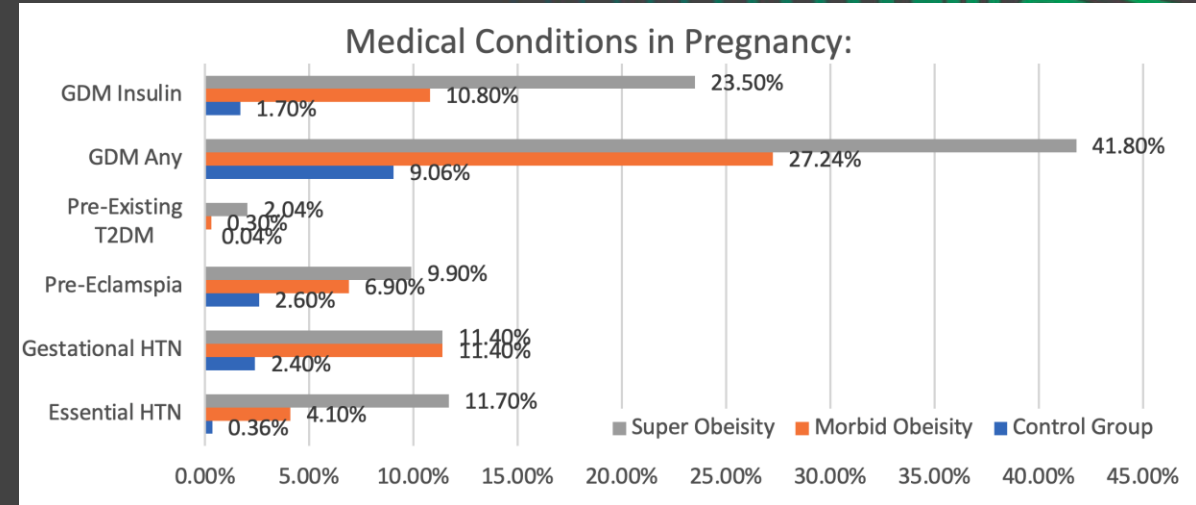
As the BMI increased mode of delivery by CS increased in both elective and emergency CS:



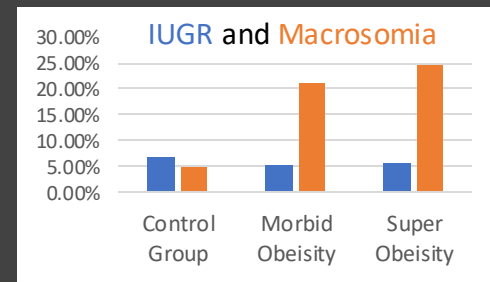
Stillborn rate was 0.60% in the control compared to 0.51% in morbidly obese and 1.0% in the super obese. Neonatal resuscitation at birth and need for admission to the Special Care Nursery or NICU increased with BMI:



Very preterm delivery <32 weeks was equal in the obese groups (4.2% morbid, 4.1% super) but higher than the control (2.1%), likely a result of the increased rate of complications.



Macrosomia was significantly higher than the control at 5% compared to 21.3% and 24.5% respectively. IUGR was similar across groups:



**Conclusion:**

The findings of this study demonstrate how poorer obstetric and neonatal outcomes are for pregnant women as BMI increases. There is a significant difference between the outcomes of morbidly and super obese pregnant women. Clinicians and health services should be having management strategies to minimize these risks to the mother and baby.

**References:**

1. Australian Institute of Health and Welfare 2020. *Australia's mothers and babies 2018: in brief*. Perinatal statistics series no. 36. Cat. no. PER 108. Canberra: AIHW.
2. Marshall NE, Guild C, Cheng YW, et al. Maternal superobesity and perinatal outcomes. *Am J Obstet Gynecol* 2012;206:417.e1-6.
3. Sullivan EA, Dickinson JE, Vaughan GA, et al. Maternal super-obesity and perinatal outcomes in Australia: a national population-based cohort study. *BMC Pregnancy Childbirth*. 2015;15:322.

