

DISTANCE AND DISADVANTAGE:

THE IMPLICATION OF LOCATION AND SOCIOECONOMIC STATUS ON PREMATURE BIRTH IN NORTH QUEENSLAND

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Introduction

- Preterm birth (PTB) remains a preventable cause of mortality in infants. In Australia in 2020, 8.3 percent of babies were born preterm.¹
- Spontaneous preterm birth, resulting from causes including sociodemographic factors, inflammatory and cervical factors, constitutes between 70 and 80 percent of PTB.²
- Townsville University Hospital (TUH) is a tertiary centre that services a unique and complex population with maternal-fetal medicine and neonatal intensive care departments.
- Townsville is comprised of a higher percentage of First Nations-identifying and unemployed persons than state and national averages.³

Aims

- **Primary:** Define the incidence of PTB at TUH in 2021 and compare to state and national data.
- **Secondary:** Compare the influence of PTB risk factors on preterm gestations and consider utilisation of appropriate preventative measures.

Methods

- Data was extracted from the integrated electronic medical record and Queensland Health Perinatal Data Collection Portal and compared to the National Perinatal Data 2020.

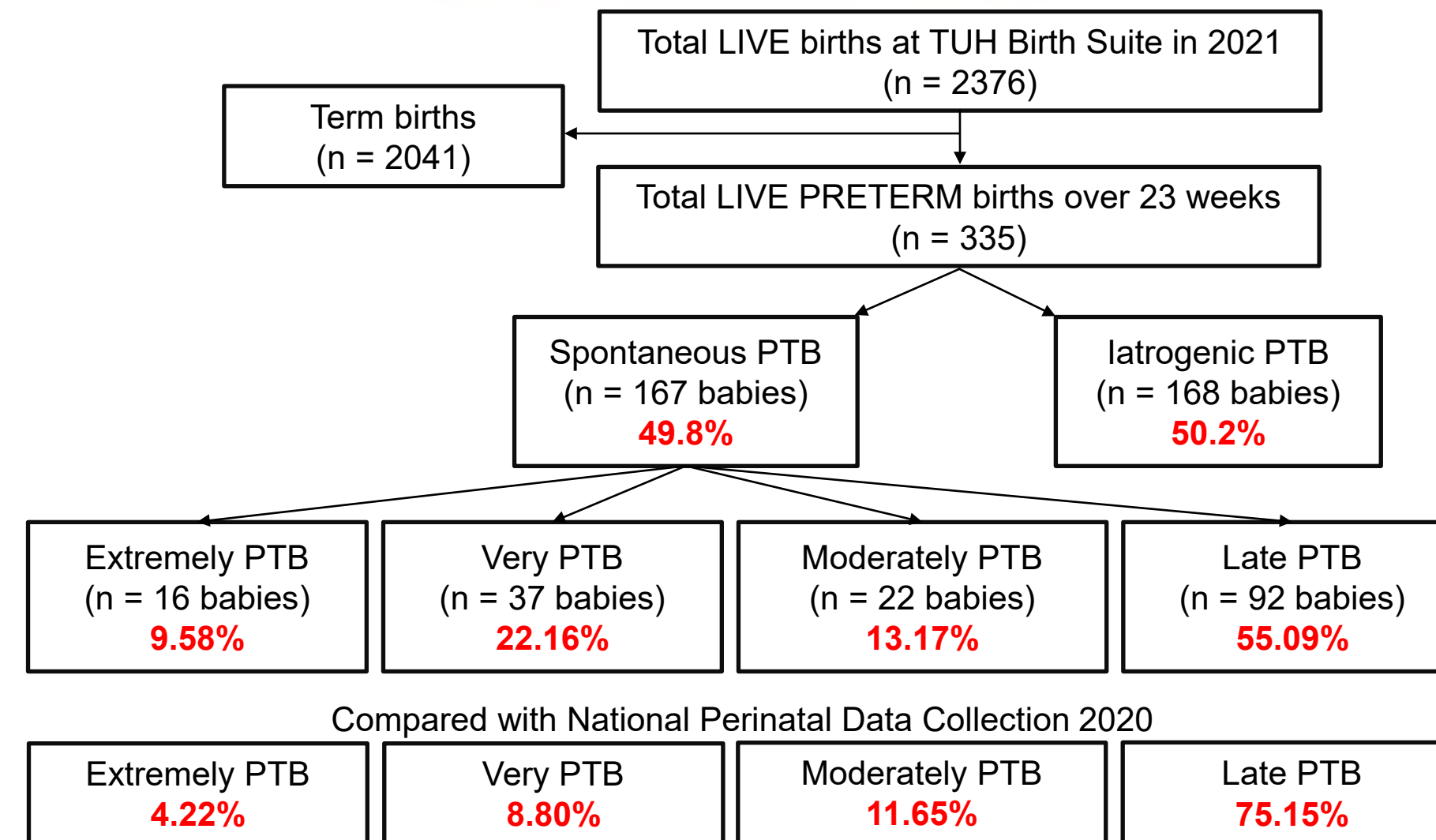


Figure 1: Flowchart of live births at TUH in 2021, compared to National Perinatal Data

	BMI >40	Active smoker	First Nations	IHT to TUH
Extremely PTB (22+6 - 27+6)	20%	47%	53%	60%
Very PTB (28 - 31+6)	3%	38%	28%	59%
Moderately PTB (32 - 33+6)	0%	39%	33%	44%
Late PTB (34 - 36+6)	6%	30%	27%	13%
Term Gestation (37+)	1%	22%	22%	3%

Table 1: Characteristics of mothers by gestation of live spontaneous preterm birth. (IHT: Inter-hospital Transfer)

Results

- At TUH in 2021, 13.1 percent of births were pre-term. Percentages of PTB were 9.0 and 8.3 in Queensland and Australia respectively in 2020.
- Risk factors including BMI >40, smoking, First Nations-identifying and IHT were more prevalent in the extremely PTB group.
- 27 percent of mothers (n = 40) had previous PTB. Four women had intervention (progesterone, cerclage or both). 90 percent did not have intervention to prevent recurrent PTB.

Conclusions

- TUH services a higher percentage of preterm births than Queensland and Australian averages from 2020.
- Approximately half of preterm births at TUH were iatrogenic.
- A large proportion of women did not receive preterm birth prophylaxis where indicated.
- A limitation of this audit includes missing early pregnancy data from IHT mothers coming from a non-electronic medical record site.

References

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