# How might trends in Victorian Aboriginal and Torres Strait Islander maternal

characteristics have influenced their perinatal outcomes?

Sophie Nunn <sup>1,2,3</sup>, Tanya Farrell <sup>2,3</sup> Mary-Ann Davey M-A<sup>1,2</sup>

1 Department of Obstetrics and Gynaecology (School of Clinical Sciences, Monash University) 2 Safer Care Victoria (Department of Health and Human Services 3 Consultative Council on Obstetric and Paediatric Mortality and Morbidity



#### Background

Nationally, Aboriginal and Torres Strait Islander perinatal death rates remain far higher than non-Aboriginal rates, displaying little recent progress. In contrast, Victoria has seen reductions in Aboriginal and Torres Strait Islander PND Leading us to wonder rates since 2008.

what drove these reductions...

Notably, the number of Victorian mothers identifying as Aboriginal and Torres Strait Islander has more than tripled.

> **1.138** mothers in 2000 2018

This increase may be associated with changes to the socio-demographic profile of this population.

If these changes impacted wellestablished risk or protective factors for PND they may have influenced trends in perinatal outcomes.



Obesity

Timing of first antenatal visit

Living location

Teenage mother

## Hypothesis

Improvements in perinatal outcomes within the Aboriginal and Torres Strait Islander population may have been influenced by changes in the characteristics of mothers identified as Aboriginal and Torres Strait Islander.

#### Aims



To examine trends in key maternal characteristics of Aboriginal and Torres Strait Islander women giving birth in Victoria between 2000 and 2019.

To explore relationships between these characteristics of interest and adverse perinatal outcomes in the Victorian maternal population.

## Methods and design

Retrospective population-based study of all births in Victoria from 2000-2019

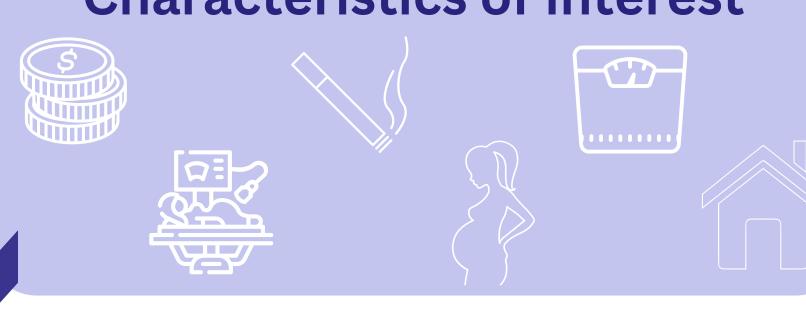
Utilising the Victorian Perinatal Data Collection + CCOPMM database

## **Outcome of interest**

Perinatal Death

Neonatal death Stillbirth

## **Characteristics of interest**





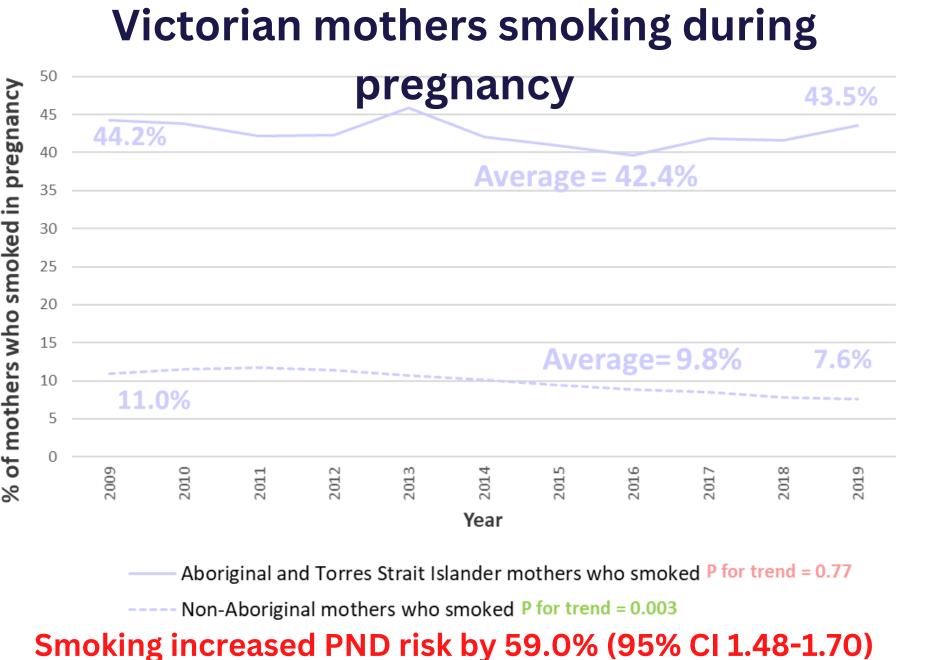
Frequencies and crosstabulations with trends graphed over time Statistical analysis

Trend analysis, Chi square or Fisher's exact, Relative risk ratios

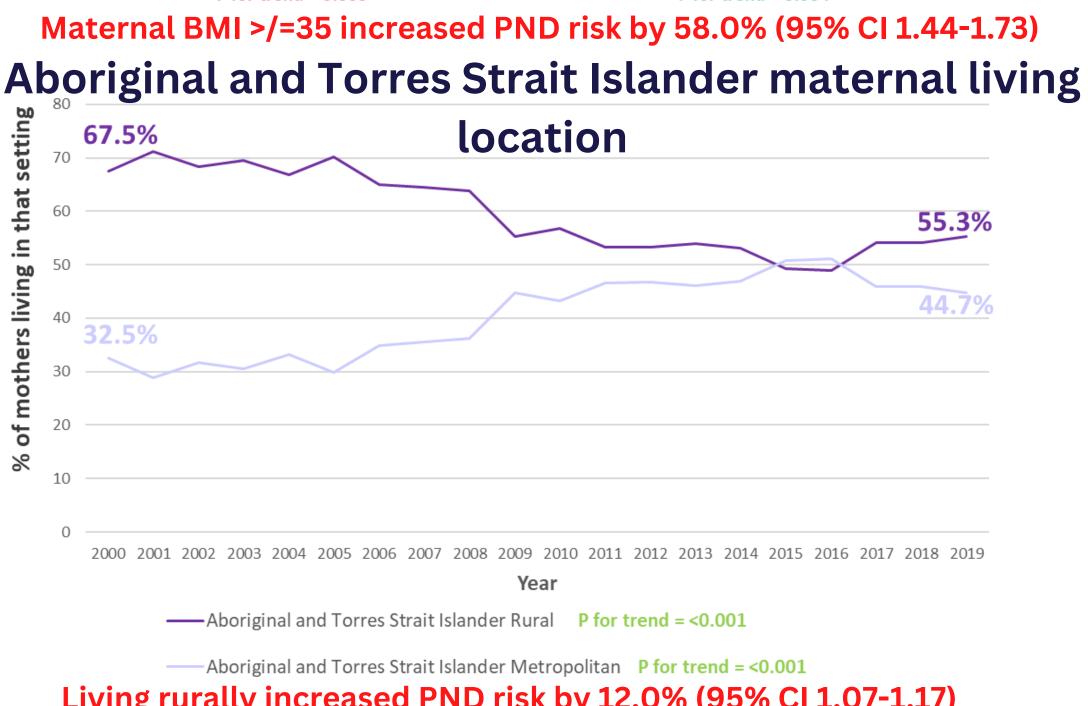
#### Results



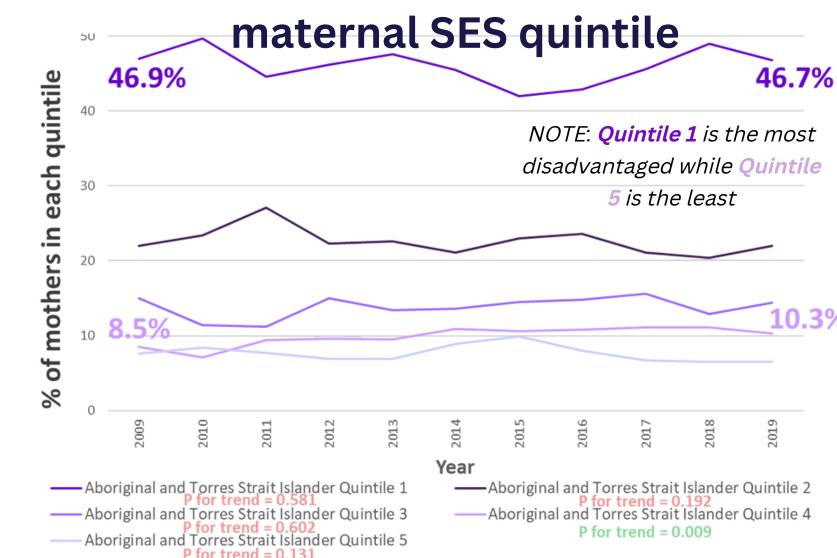
Teenage motherhood increased PND risk by 143.0% (95% CI 2.22-2.66)



Aboriginal and Torres Strait Islander maternal BMI 38.4% Aboriginal and Torres Strait Islander 30 to <35 Aboriginal and Torres Strait Islander > or = 35



Living rurally increased PND risk by 12.0% (95% CI 1.07-1.17)



**Aboriginal and Torres Strait Islander** 

Low SES increased PND risk by 55.0% (95% CI 1.43-1.68) **Aboriginal and Torres Strait Islander** antenatal visit timing 61.4%

——Aboriginal and Torres Strait Islander < or = 12 weeks ——Aboriginal and Torres Strait Islander 13 to 19 weeks ——Aboriginal and Torres Strait Islander 20 to 27 weeks Aboriginal and Torres Strait Islander > or = 28 weeks Late first visit increased PND risk by 55.0% (95% CI 1.43-1.68)

Contact: Sophie Nunn at sknun1@student.monash.edu

#### Conclusion

An increase in characteristics associated with lower perinatal death risk Metropolitan living

Higher SES Early first antenatal visit

A decrease in characteristics associated with higher perinatal death risk Teenage Pregnancy Rural Living

May have contributed to

The reduction in Victorian Aboriginal and Torres Strait Islander Perinatal death rates we observed over the study period

Unfavourable trends Decrease in normal BMI Increase in BMI >/=35 Stagnant and high smoking rates