Indirect impact of the COVID-19 pandemic on emergency department presentations and hospital admissions for urgent early pregnancy conditions: a population-based retrospective cohort study

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## Background

- The COVID-19 pandemic has resulted in a range of unprecedented disruptions to the delivery of health care
- In response to the cancellation of elective surgery in Melbourne on 23 March 2020, RANZCOG urged health authorities to prioritize early pregnancy assessment for risk of miscarriage and ectopic pregnancy, and timely access to abortion services as Category 1 (urgent) surgeries during the pandemic.

### Aim

To examine the state-wide numbers of emergency department (ED) presentations and hospital admissions for urgent early pregnancy conditions in VIC before and after the onset of COVID-19 lockdown restrictions.

#### Methods

- We obtained state-wide hospital separation data from the Victorian Emergency Minimum Dataset and the Victorian Admitted Episodes Dataset from Jan 2018 to Oct 2020.
- Primary outcome measures: monthly ED presentations for miscarriage and ectopic pregnancy, hospital admissions for termination of pregnancy (TOP)
- A linear prediction model based on the pre-COVID period was used to identify the impact of COVID restrictions.

#### Results

- There was an overall decline in monthly ED presentations and hospital admissions for early pregnancy conditions in Melbourne
- Monthly ED presentations for miscarriage during the COVID period were consistently below predicted, with the nadir in April 2020 (790 observed vs 985 predicted, 95% CI 835-1135). (Fig 1)
- There was no increase in ED presentations for complications following abortion, ectopic or molar pregnancy during the pandemic



 Monthly admissions for termination of pregnancy were also below predicted throughout lockdown, with the nadir in August 2020 (893 observed vs 1116 predicted, 95% CI 905-1326).



# Fig 2. Hospital admissions for TOP

Predicted
Observed

Green line is the pre-COVID prediction line and the green shaded region, the 95% prediction interval.

# Conclusions

- Fewer women in metropolitan Victoria utilized hospitalbased care for early pregnancy conditions during the first 7 months of the pandemic, without any observable increase in maternal morbidity.
- As multiple pressures continue to mount on our hospitals, flexible, innovative, and patient-centered responses will be required to ensure we maintain the quality of our care for urgent early pregnancy conditions.

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