

# 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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## Abstract

**Objective:** To compare emergency department (ED) presentations and hospital admissions for urgent early pregnancy conditions in Victoria before and after the onset of COVID-19 lockdown on 31 March 2020. **Design:** Population-based retrospective cohort study **Setting:** Australian state of Victoria **Population:** Pregnant women presenting to emergency departments or admitted to hospital **Methods:** We obtained state-wide hospital separation data from the Victorian Emergency Minimum Dataset and the Victorian Admitted Episodes Dataset from January 1, 2018, to October 31, 2020. A linear prediction model based on the pre-COVID period was used to identify the impact of COVID restrictions. **Main outcome measures:** Monthly ED presentations for miscarriage and ectopic pregnancy, hospital admissions for termination of pregnancy, with subgroup analysis by region, socioeconomic status, disease acuity, hospital type. **Results:** There was an overall decline in monthly ED presentations and hospital admissions for early pregnancy conditions in metropolitan areas where lockdown restrictions were most stringent. 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). 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). There was no increase in ED presentations for complications following abortion, ectopic or molar pregnancy during the COVID period. **Conclusions:** Fewer women in metropolitan Victoria utilized hospital-based care for early pregnancy conditions during the first seven months of the pandemic, without any observable increase in maternal morbidity.

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