**To: Australian Government Department of Prime Minister and Cabinet**

**Re: Submission to the Australian Government COVID-19 Response Inquiry**

## Terms of reference addressed in this submission:

*Key health response measures of the maternity sector in Victoria and associated impacts on maternal and newborn health outcomes*

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I live and work in [redacted] which was subject to the strictest lockdown conditions in the country. As a clinical academic in maternal fetal medicine, I monitored the impacts of the Victorian COVID-19 response on maternal and newborn outcomes through my roles with the Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity, the University of Melbourne, Mercy Health, Northern Health, and the Murdoch Children's Research Institute.

**Evidence**: The data provided in this submission is publicly available in peer reviewed scientific publications and state government commissioned reports listed in the references below.

## *The challenges for the maternity sector in Victoria*

Metropolitan Melbourne experienced one of the longest and most stringent lockdown conditions in the world during the COVID-10 pandemic. However, the maternity sector in Melbourne had to continue providing hospital-based in-patient and outpatient care for ~4000 births per month.

Pregnant women are a medically vulnerable population as they have increased risks of severe morbidity and mortality from COVID-19 infection. Maternal COVID-19 infection also increases risks for the unborn baby, such as preterm birth and stillbirth.

Numerous modifications to pregnancy care were adopted during the pandemic to mitigate the anticipated strain on maternity health services and reduce infection risks to patients and staff. These included rapid transition to telehealth, hospital visitor restrictions, increasing the interval between in-person visits, reducing face-to-face appointment time, changes to gestational diabetes screening, and ultrasound surveillance of fetal growth. There was also a dramatic reduction in hospital length of stay for mothers and babies during the pandemic.

The COVID-19 vaccine roll-out to pregnant women was delayed until June 2021 due to concerns about lack of safety data in pregnancy. Similarly, the inclusion of pregnant women in clinical trials of COVID-19 therapies was delayed, and only overcome after intense advocacy from the maternity sector.

### *The successes*

- In Victoria, there were no maternal deaths directly attributable to COVID-19 infection in 2020-2022.
- Telehealth consultations supported the maintenance of antenatal and postnatal visits throughout the pandemic.(1)
- In Victoria, COVID-19 vaccination rates in pregnant women exceeded 85% within 12 months, surpassing rates of other high-income countries such as UK and USA.(2,3)
- The adjusted odds of stillbirth, preterm birth, and neonatal intensive care admission were significantly reduced among infants born to COVID-19 vaccinated women compared with unvaccinated women. We did not observe any adverse impacts of vaccination on fetal growth or development.(3)

### *The concerns*

- The 2020 Melbourne lockdown was associated with a significant increase in preterm stillbirths and a significant reduction in medically indicated preterm birth for fetal compromise. This suggests that our pandemic response may have led to a failure to identify and appropriately care for patients at an increased risk of stillbirth. (4)
- COVID-19 vaccine coverage among pregnant people was significantly influenced by known social determinants of health, including country of birth, socioeconomic status, and age. This was associated with worse pregnancy outcomes for unvaccinated women, exacerbating health inequities. (3)
- There was a sharp withdrawal of hospital-based abortion services after the cancellation of elective surgery at the end of March 2020. The availability of outpatient abortion was important for maintaining access during the COVID-19 pandemic. (5)
- Despite mandatory data collection on all births from 20 weeks gestation, timely state-wide data collection and reporting back to maternity services during the pandemic was not available. A research collaboration of all 12 public maternity services in Melbourne was formed to fill this gap (the Collaborative Maternity and Newborn Dashboard for the COVID-19 Pandemic), funded by philanthropy. (6,7) This CoMaND project has produced 13 reports to date to inform health services and policy makers on perinatal outcomes.(8)
- The reduction in hospital length of stay for mothers and babies has persisted well beyond the end of lockdown restrictions.(2) It has been associated with a statistically significant increase in unplanned hospital readmissions of infants.

## Key recommendations for maternity care

- Access to population-based maternal and newborn data through government sources is currently too slow to inform a future pandemic response. No system exists for the timely detection of congenital anomalies that might arise from future pandemics. A comprehensive maternity and newborn surveillance system will require a whole-of-government approach to overcome structural barriers to data collection and reporting.
- Maternal and newborn health inequities due to socioeconomic disadvantage were exacerbated during the pandemic. This was reflected in vaccination coverage and

associated perinatal outcomes. More work needs to be done to engage with vulnerable populations to improve trust in health authorities and safeguard access to healthcare.

- Further analysis of the impact of shorter hospital length of stay should be conducted to understand the consumer experience and the effect on infant readmission rates and breastfeeding.
- Automatic clinical trial exclusion due to pregnancy should not be the norm in future pandemics. Pregnant people can be safely included in clinical trials and should have the same access to life-saving therapies and evidence-based care as other individuals. (8)

**References**


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2. Safer Care Victoria COVID-19 communique A report on maternal and newborn outcomes during the COVID-19 pandemic. Hui L, Marzan M, Davey M, et al. https://www.safercare.vic.gov.au/reports-and-publications/covid-19-communique
3. Hui L, Marzan MB, Rolnik DL, et al. Reductions in stillbirths and preterm birth in COVID-19-vaccinated women: a multicenter cohort study of vaccination uptake and perinatal outcomes. Am J Obstet Gynecol. 2023 May;228(5):585.e1-585.e16..
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5. Marzan MB, Johnson E, Moore P, Jiang H, Hui L. Changes in the numbers of hospital-based abortions and outpatient early medical abortions in Victoria, 2012–22: a retrospective cohort study. Medical Journal of Australia 2024. Accepted, in press.
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7. Hui L, Marzan MB, Potenza S, Rolnik DL, Said JM, Palmer KR, Whitehead CL, Sheehan PM, Ford J, Pritchard N, Mol BW, Walker SP. Collaborative maternity and newborn dashboard (CoMaND) for the COVID-19 pandemic: Report #13 (period ending April 30, 2022.
8. Hui L, Whitehead C, Walker SP. Evidence and advocacy in Melbourne maternity care during the COVID-19 pandemic. Med J Aust. 2021 Nov 1;215(9):433-434.