iPOP

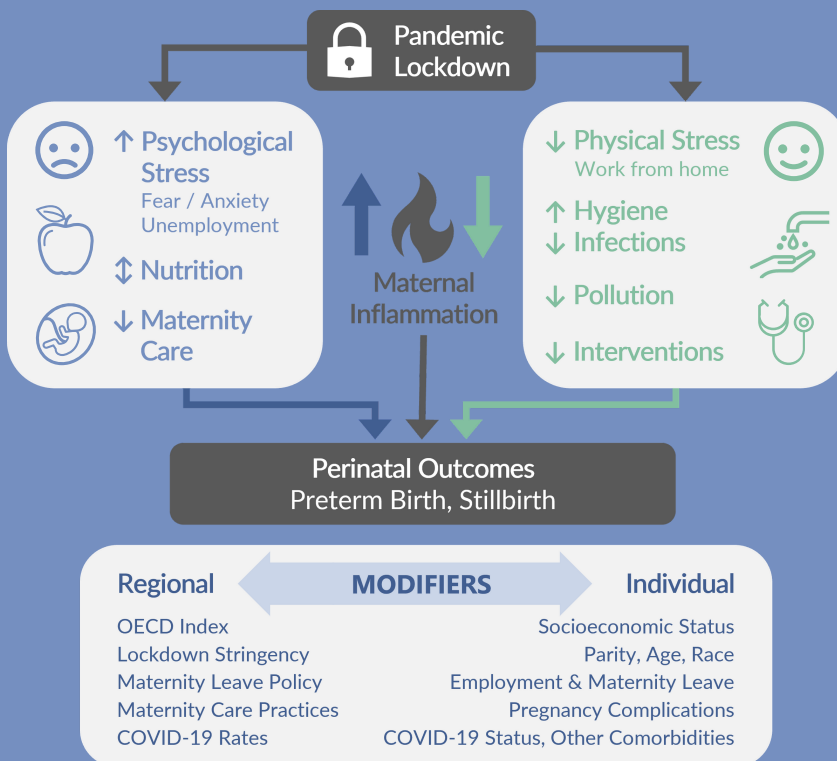International Perinatal Outcomes in the Pandemic Study

AUG 2021

The iPOP Study aims to...

1 Understand global trends & differences in

2 Identify potential causes of

3 Evaluate potential modifiers of

...adverse perinatal outcomes during COVID-19 pandemic lockdowns.

Overview

Preterm birth is the leading cause of infant mortality worldwide. During early COVID-19 lockdowns, dramatic reductions in preterm birth were reported in some countries. This unprecedented "natural experiment" offers a unique opportunity to understand the causes of adverse perinatal outcomes (preterm birth and stillbirth) and enable discoveries about their prevention.

Pandemic Lockdown

↑ **Psychological Stress**
Fear / Anxiety
Unemployment

↕ Nutrition

↓ **Maternity Care**

Maternal Inflammation

↓ **Physical Stress**
Work from home

↑ Hygiene
↓ Infections

↓ Pollution

↓ Interventions

Perinatal Outcomes
Preterm Birth, Stillbirth

Regional	MODIFIERS	Individual
OECD Index		Socioeconomic Status
Lockdown Stringency		Parity, Age, Race
Maternity Leave Policy		Employment & Maternity Leave
Maternity Care Practices		Pregnancy Complications
COVID-19 Rates		COVID-19 Status, Other Comorbidities

Methods

Collected
- Datasets from 25 different countries, capturing >20M births

Timeframe
- Jan 2015 - Jul 2020

Analyses
- Preterm and stillbirth rates
- Interrupted time series analysis
- Impacts of pandemic lockdown and regional differences

The iPOP Study will advance our understanding of adverse perinatal outcomes and their causes, informing policy during future pandemics.

Our Team

> **150 Collaborators**
- Researchers
- Clinician-scientists
- Knowledge users

> **40 Countries**
- >20 Low- & middle-income
- Population-level data
- Regional-level data