

Supplementary Table 1: Databases used to identify cohort and derive study variables*

Data source	Abbreviation	Description of data held
Ontario Drug Benefit Program	ODB	Prescription drug benefit information for persons who live in Ontario and are older than 65 years of age; under 65 years who are unemployed (receiving benefits from Ontario Works); have disabilities (receiving benefits from Ontario Disability Support Program); or have high prescription costs relative to net household income (enrolled in Trillium Drug Program).
Ontario Health Insurance Plan	OHIP	Physician claims for services provided related to diagnosing mental health concerns.
Registered Persons Database	RPDS	Personal health information on persons registered under OHIP who are eligible for the Ontario Drug Program. Data is linked to programs that deliver health services to the public such as hospital services, physicians services and drug benefits.
Better Outcomes Registry and Network	BORN	Ontario's prescribed maternal newborn registry. This is an acquired registry at ICES and captures 99% of health records for in-hospital births.**
Narcotics Monitoring System	NMS	All prescription narcotics and other controlled substances are recorded regardless of mode of payment (publicly funded drug program, private insurance, or cash). The purpose of the NMS is to help reduce misuse, addiction, unlawful activities, and deaths related to these medications. For this study we will identify dispensed opioids from the <i>Monitored Drugs List</i> .
ICES	MOMBABY	Validated database of pregnancies, pregnancy outcomes, and mother–infant linkage from these healthcare data.
Canadian Institute for Health Information-Discharge Abstract Database	DAD	Demographic and clinical information about all hospital admissions and discharges, including transfers and deaths. DX10CODE was used to identify newborns who were diagnosed with neonatal withdrawal.

*Diagnoses in these datasets are recorded using the Canadian Coding Standards for the International Statistical Classification of Diseases and Related Health Problems (hospital) and physician billing claim codes (OHIP).

**Source: Murphy MSQ, Fell DB, Sprague AE, et al. Data resource profile: Better Outcomes Registry & Network (BORN) Ontario. *Int J Epidemiol.* Nov 10 2021;50(5):1416–1417h. <https://doi.org/10.1093/ije/dyab033>

Supplementary Table 2: Secondary outcome

Variable	Source	Code	Definition
Rate of transfer to the NICU (%)	DAD	50	Special Care Unit Neonatal Intensive Care Nursing Unit Undifferentiated/ General
		51	Neonatal Intensive Care Nursing Unit Level 1
		52	Neonatal Intensive Care Nursing Unit Level 2
		53	Neonatal Intensive Care Nursing Unit Level 3
		70	Paediatric Intensive Care Nursing Unit



Supplementary Table 3: Covariates included in the propensity score

Variable	Categories
Gestational age (weeks)	< 37 (preterm) ≥37 (term)
Type of birth	Vaginal Cesarean
Parity	0 1+
Maternal age (years)	mean
Neighbourhood income quintiles	1 2 3 4 5
Other antidepressant medication exposure one year prior to/during pregnancy (non-SSRIs)	Yes No
Psychotropic medication exposure one year prior to/during pregnancy	Yes No
Any opioid use one year prior to/during pregnancy	Yes No
Alcohol exposure in pregnancy	Yes No
Smoking at time of birth	Yes No
Rurality	Yes No
Elixhauser Co-morbidity Index* (Sum of scores)	0 1 2+

*Source: van Walraven C, Austin PC, Jennings A, Quan H, Forster AJ. A modification of the Elixhauser comorbidity measures into a point system for hospital death using administrative data. *Medical Care*. 2009;47(6):626–633. <https://doi.org/10.1097/MLR.0b013e31819432e5>

Supplementary Table 4: Type and frequencies of SSRI medication exposure

SSRI	Frequency n (%)*
Escitalopram	3672 (37)
Sertraline	2979 (30)
Citalopram	1612 (16)
Fluoxetine	1154 (12)
Paroxetine	448 (5)
Fluvoxamine	58 (1)
TOTAL	9,923 (101)

*Does not equal 100% due to rounding. Among the 9,014 women, a total of 9,923 SSRI exposures were identified with 909 women taking more than one medication during their pregnancy.

Supplementary Table 5: Trimester of SSRI medication exposure

Trimester of SSRI exposure	Frequency n (%)
Any exposure in pregnancy	5,079 (100)
Trimester 1	3,712 (73.1)
Trimester 2	3,088 (60.8)
Trimester 3	2,916 (57.4)
All trimesters	1,636 (32.2)

Supplementary Table 6: Distribution of maternal age at birth: comparison of NeoWISE study cohort versus general population

NeoWISE study cohort	Ontario- general population*
15–20 = 9.4%	<20 = 1.9%
20–25 = 44.1%	20–24 = 10.2 %
26–34 = 35.9%	25–29 = 26.9%
	30–34 = 37.3 %
35–49 = 10.6%	35–39 = 19.5%
	≥40 = 4.3%

*Source: Better Outcomes Registry and Network (2018). One in a Million. BORN Ontario Biennial Report 2016-2018. Ottawa, Ontario. Retrieved on July 30, 2024 from Annual and Biennial Reports - BORN Ontario p. 42.



Supplementary Figure 1: Cohort creation

