

Appendix 1. Details of ICES Health Administrative Datasets

Data source	Construct	Coding structure	Inception
Canadian Institute for Health Information Discharge Abstract Database	Hospital admissions, including those for maternal-newborn records (MOMBABY)	Canadian Coding Standards for the International Classification of Diseases and Related Health Problems codes	1988
National Ambulatory Care Reporting System	Emergency department visits	Canadian Coding Standards for the International Classification of Diseases and Related Health Problems codes	2002
Ontario Health Insurance Database	Outpatient physician visits	Physician billing codes	1991
Ontario Mental Health Reporting System	Psychiatric hospital admissions	Diagnostic and Statistical Manual of Mental Disorders	2005
Ontario Registrar General Database	Deaths	N/A	1990
Registered Persons Database	Sociodemographic data, including postal code for linkage with Census	N/A	1991

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Appendix 2. ICD-10 Codes for the Identification of Interpersonal Violence¹

Type of violence	ICD-10 code*	Description
Physical	T74.1	Physical abuse
	X85	Assault by drugs, medicaments and biological substances
	X86	Assault by corrosive substance
	X87	Assault by pesticides
	X88	Assault by gases and vapours
	X89	Assault by other specified chemicals and noxious substances
	X90	Assault by unspecified chemical or noxious substance
	X91	Assault by hanging, strangulation and suffocation
	X92	Assault by drowning and submersion
	X93	Assault by handgun discharge
	X94	Assault by rifle, shotgun and larger firearm discharge
	X95	Assault by other and unspecified firearm discharge
	X96	Assault by explosive material
	X97	Assault by smoke, fire and flames
	X98	Assault by steam, hot vapours and hot objects
	X99	Assault by sharp object
	Y00	Assault by blunt object
	Y01	Assault by pushing from high place
	Y02	Assault by pushing or placing victim before moving object
	Y03	Assault by crashing of motor vehicle
	Y04	Assault by bodily force
	Y08	Assault by other specified means
	Y09	Assault by unspecified means
	Y87.1	Sequelae of assault
	Z04.58	Examination and observation following other inflicted injury
Z61.6	Problems related to alleged physical abuse of child (15 to 18 th birthday only)	
Sexual	T74.2	Sexual abuse
	Y05	Sexual assault by bodily force
	Z04.4	Examination and observation following alleged rape and seduction
	Z04.50	Examination and observation following alleged adult sexual and physical abuse
	Z04.51	Examination and observation following alleged child sexual and physical abuse (15 to 18 th birthday only)
	Z61.4	Problems related to alleged sexual abuse of child by person within primary support group (15 to 18 th birthday only)
	Z61.5	Problems related to alleged sexual abuse of child by person outside primary support group (15 to 18 th birthday only)
	Z70.2	Counselling related to sexual behaviour and orientation of third party
	Z70.3	Counselling related to combined concerns regarding sexual attitude, behaviour and orientation
	Psychological	T73
T74.0		Neglect or abandonment
T74.3		Psychological abuse
T74.8		Other maltreatment syndromes
T74.9		Maltreatment syndrome, unspecified
Y06		Neglect and abandonment
Y07		Other maltreatment syndromes

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Type of violence	ICD-10 code*	Description
Physical	T74.1	Physical abuse
	Z62.9	Problems related to upbringing, unspecified (15 to 18 th birthday only)

* One or more of these codes was required to be present in any diagnostic field.

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Appendix 3. Measurement of the Covariates

Covariate	Definition	Dataset
Age	Age at conception	MOMBABY
Parity	Number of prior obstetrical deliveries	MOMBABY
Neighbourhood income quintile	Median family income in dissemination area associated with residential postal code	RPDB linked with Census data
Rural residence	Rurality Index of Ontario, ² a standard, normalized scale ranging from 0 to 100 that reflects a community's degree of rurality	RPDB linked with Census data
Chronic conditions	Stable and unstable chronic conditions recorded in the two years before conception, where unstable conditions are more likely to have complications and are require more ongoing resources such as specialty care ³	Johns Hopkins Adjusted Clinical Groups (ACG) [®] System version 10 applied to OHIP
Mental illness	Any mood or anxiety disorder, psychotic disorder, or other mental disorder diagnosed in the two years before conception ⁴	OHIP: (1) with a general practitioner/family physician with (a) a general service code (A001, A003-A008, A888, A901, A905) for diagnostic codes 295-298, 300-302, 306, 309, 311 or (b) a mental health service code (K005, K007, K623) for diagnostic codes 295-298, 300-302, 306, 309, 311 OR (2) a visit with a psychiatrist for diagnostic codes 295-298, 300-302, 306, 309, 311; CIHI-DAD/NACRS: ICD-9 295-298, 300-302, 306, 309, 311; ICD-10 F20 (excluding F20.4), F21-F25, F28-F34, F38-F43, F48.8, F48.9, F53.1, F53.0, F60-F62, F68, F69; OMHRS: DSM-IV 295-298, 300, 308.3, 309.0, 309.24, 309.28, 309.3, 309.4, 309.8, 309.9; PROV DX 1, 5, 6, 7, 15, 16
Substance use disorder	Any addiction diagnosis related to drugs or alcohol in the two years before conception	OHIP: (1) with a general practitioner/family physician with (a) a general service code (A001, A003-A008, A888, A901, A905) for diagnostic codes 303, 304 or (b) a mental health service code (K005, K007, K623) for diagnostic codes 303, 304 OR (2) a visit with a psychiatrist for diagnostic codes 303, 304; CIHI-DAD/NACRS: ICD-9 303-305; ICD-10 F10-F19, F55; OMHRS: DSM-IV 291 (excluding 291.82), 292 (excluding 292.85), 303, 304, 305, PROV DX 4
Any history of interpersonal violence	History of interpersonal violence in ≥ 1 emergency department visits or hospitalizations for physical, sexual, or psychological violence any time before conception	CIHI-DAD, NACRS: T73, T74, X85-X99, Y01-Y09, Y87.1, Z04.4, Z04.50, Z04.51, Z04.58, Z61.4-Z61.6, Z62.9, Z70.2, Z70.3
Recent history of interpersonal violence	History of interpersonal violence in ≥ 1 emergency department visits or hospitalizations for physical, sexual, or psychological violence in the two years before conception	CIHI-DAD, NACRS: T73, T74, X85-X99, Y01-Y09, Y87.1, Z04.4, Z04.50, Z04.51, Z04.58, Z61.4-Z61.6, Z62.9, Z70.2, Z70.3

Abbreviations: CIHI-DAD = Canadian Institute for Health Information Discharge Abstract Database, NACRS = National Ambulatory Care Reporting System, OHIP = Ontario Health Insurance Plan, OMHRS = Ontario Mental Health Reporting System, RPDB = Registered Persons Database.

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Appendix 4. Standardized Differences for Table 1

	Physical disability (N=147 414)	Sensory disability (N=47 459)	Intellectual or developmental disability (N=2557)	Multiple disabilities (N=9598)
Age, years				
15-24	0.01	0.13	0.64	0.17
25-34	0.05	0.12	0.44	0.17
35-49	0.06	0.01	0.20	0.04
Multiparous	0.02	0.05	0.03	0.02
Neighborhood income quintile (Q)				
Q1 (lowest)	0.02	0.00	0.36	0.09
Q2	0.01	0.01	0.05	0.02
Q3	0.01	0.00	0.10	0.01
Q4	0.01	0.01	0.25	0.06
Q5 (highest)	0.02	0.01	0.16	0.05
Missing	0.01	0.01	0.05	0.01
Rural region of residence	0.07	0.01	0.07	0.07
Missing	0.02	0.01	0.12	0.02
Stable chronic conditions	0.10	0.07	0.04	0.22
Unstable chronic conditions	0.14	0.10	0.11	0.29
Mental illness	0.19	0.13	0.69	0.37
Substance use disorder	0.09	0.03	0.36	0.19
Any history of interpersonal violence before conception	0.07	0.05	0.35	0.18
Recent history of interpersonal violence < 2 years before conception	0.13	0.10	0.43	0.26

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Appendix 5. Risk of Interpersonal Violence Between Fertilization and Up to 365 Days After Delivery, in Individuals With a Disability, Compared With Those Without Any Recognized Disability, by Timing of Violence

Disability status	N (%) with outcome	Unadjusted RR (95% CI)	Model 1: Adjusted RR (95% CI) *	Model 2: Adjusted RR (95% CI) †
Interpersonal violence in pregnancy				
No disability (N=1 594 441)	3496 (0.2)	[Referent]	[Referent]	[Referent]
Physical disability only (N=147 414)	581 (0.4)	1.83 (1.66-2.01)	1.60 (1.45-1.75)	1.45 (1.32-1.59)
Sensory disability only (N=47 459)	164 (0.3)	1.60 (1.36-1.89)	1.27 (1.08-1.49)	1.18 (1.01-1.39)
Intellectual or developmental disability only (N=2557)	58 (2.3)	10.14 (7.66-13.41)	2.63 (1.99-3.48)	2.01 (1.52-2.65)
Multiple disabilities (N=9598)	79 (0.8)	3.66 (2.86-4.70)	2.18 (1.71-2.77)	1.73 (1.36-2.19)
Interpersonal violence in the postpartum period				
No disability (N=1 594 441)	4221 (0.3)	[Referent]	[Referent]	[Referent]
Physical disability only (N=147 414)	664 (0.5)	1.69 (1.54-1.86)	1.48 (1.36-1.62)	1.34 (1.23-1.46)
Sensory disability only (N=47 459)	167 (0.4)	1.33 (1.12-1.57)	1.06 (0.89-1.25)	0.98 (0.83-1.16)
Intellectual or developmental disability only (N=2557)	82 (3.2)	12.37 (9.78-15.66)	3.12 (2.49-3.92)	2.36 (1.88-2.95)
Multiple disabilities (N=9598)	111 (1.2)	4.72 (3.82-5.83)	2.76 (2.25-3.38)	2.16 (1.77-2.63)

* Model 1 adjusts for age, parity, neighbourhood income quintile, rurality, stable and unstable chronic conditions, mental illness, and substance use disorders.

† Model 2 adjusts for Model 1 variables in addition to any history of interpersonal violence.

Appendix 6. Risk of Interpersonal Violence Between Fertilization and Up to 365 Days After Delivery, in Individuals With a Disability, Compared With Those Without Any Recognized Disability, by Type of Violence

Disability status	N (%) with outcome	Unadjusted RR (95% CI)	Model 1: Adjusted RR (95% CI) *	Model 2: Adjusted RR (95% CI) †
Physical violence				
No disability (N=1 594 441)	5903 (0.4)	[Referent]	[Referent]	[Referent]
Physical disability only (N=147 414)	941 (0.6)	1.68 (1.55-1.82)	1.52 (1.40-1.64)	1.39 (1.29-1.50)
Sensory disability only (N=47 459)	239 (0.5)	1.33 (1.16-1.54)	1.10 (0.95-1.26)	1.02 (0.89-1.17)
Intellectual or developmental disability only (N=2557)	92 (3.6)	9.17 (7.19-11.70)	2.59 (2.05-3.26)	2.02 (1.60-2.54)
Multiple disabilities (N=9598)	133 (1.4)	3.73 (3.05-4.56)	2.30 (1.91-2.78)	1.89 (1.57-2.28)
Sexual violence				
No disability (N=1 594 441)	1244 (0.1)	[Referent]	[Referent]	[Referent]
Physical disability only (N=147 414)	211 (0.1)	1.86 (1.58-2.20)	1.59 (1.36-1.87)	1.45 (1.23-1.70)
Sensory disability only (N=47 459)	70 (0.1)	1.94 (1.48-2.54)	1.47 (1.12-1.91)	1.36 (1.04-1.77)
Intellectual or developmental disability only (N=2557)	44 (1.7)	22.82 (16.20-32.14)	4.86 (3.51-6.73)	3.76 (2.72-5.21)
Multiple disabilities (N=9598)	49 (0.5)	6.72 (4.91-9.21)	3.70 (2.74-4.99)	2.93 (2.19-3.93)
Psychological violence				
No disability (N=1 594 441)	1357 (0.1)	[Referent]	[Referent]	[Referent]
Physical disability only (N=147 414)	224 (0.2)	1.81 (1.54-2.12)	1.58 (1.34-1.85)	1.47 (1.25-1.72)
Sensory disability only (N=47 459)	39 (0.1)	0.99 (0.71-1.39)	0.81 (0.58-1.13)	0.76 (0.54-1.07)
Intellectual or developmental disability only (N=2557)	11 (0.4)	4.99 (2.60-9.56)	1.34 (0.70-2.58)	1.11 (0.58-2.13)
Multiple disabilities (N=9598)	30 (0.3)	3.87 (2.62-5.72)	2.31 (1.57-3.38)	1.94 (1.32-2.84)

* Model 1 adjusts for age, parity, neighbourhood income quintile, rurality, stable and unstable chronic conditions, mental illness, and substance use disorders.

† Model 2 adjusts for Model 1 variables in addition to any history of interpersonal violence.

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Appendix 7. Odds of One and Two or More Health Care Encounters for Interpersonal Violence Between Fertilization and Up to 365 days After Delivery, in Individuals With a Disability, Compared With Those Without Any Recognized Disability

Disability status	N (%) with 1 encounter	N (%) with ≥ 2 encounters	Adjusted RR (95% CI) for 1 encounter *†	Adjusted RR (95% CI) for ≥ 2 encounters *†
No disability (N=1 594 441)	6024 (0.4)	1,450 (0.1)	1.00 (Referent)	1.00 (Referent)
Physical disability only (N=147 414)	911 (0.6)	272 (0.2)	2.04 (1.78-2.35)	1.38 (1.29-1.47)
Sensory disability only (N=47 459)	249 (0.5)	62 (0.1)	1.51 (1.16-1.97)	1.05 (0.93-1.18)
Intellectual or developmental disability only (N=2557)	117 (4.6)	18 (0.7)	7.06 (4.16-11.98)	2.60 (2.13-3.17)
Multiple disabilities (N=9598)	123 (1.3)	50 (0.5)	6.48 (4.87-8.62)	1.97 (1.67-2.33)

* Results of multinomial logistic regression with 0 violence-related health care encounters as the referent.

† Model adjusts for age, parity, neighbourhood income quintile, rurality, stable and unstable chronic conditions, mental illness, and substance use disorders, and any history of interpersonal violence.

REFERENCES

1. Saunders N, Plumptre L, Diong C, Gandhi S, Schull M Guttman A, Paterson M. Acute care visits for assault and maltreatment before vs during the COVID-19 pandemic in Ontario, Canada. *JAMA Health Forum* 2021;2:e211983. doi:10.1001/jamahealthforum.2021.1983
2. Kralj B. Measuring “rurality” for purposes of health-care planning: an empirical measure for Ontario. *Ont Med Rev* 2000;67:33-52.
3. Johns Hopkins School of Public Health. The Johns Hopkins CGH system: Technical reference guide version 10.0. Accessed July 18, 2022.
<https://www.hopkinsacg.org/document/acg-system-version-10-0-technical-reference-guide/>
4. Steele LS, Glazier RH, Lin E, Evans M. Using administrative data to measure ambulatory mental health service provision in primary care. *Med Care* 2004;960-965. doi: 10.1097/00005650-200410000-00004

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