

Supplemental Table S1. Description of health administrative databases.

Database	Description of database
WA Registry of Births, Deaths and Marriages	A state-wide register of all registered births, deaths and marriages in WA. This register provides information on the date of birth, sex, estimated gestational age, birthweight, plurality of the child and the age, date, and cause of death of the child.
WA Midwives Notification System	A legally-mandated perinatal data collection of all children born at least 20 weeks' gestation or birthweight of ≥ 400 g (where gestational age is unknown) in WA. This data collection includes maternal demographics and health information, obstetric history, date of delivery, gestational age, and birthweight.
WA Antenatal Vaccination Database	A state-wide database, managed by the WA Department of Health, summarising all vaccination records reported by healthcare providers administering vaccines, including seasonal inactivated influenza vaccine, to pregnant women. This database includes information on the date of vaccination, vaccine brand and batch number, and the estimated gestation at the time of vaccination.
Hospital Morbidity Data Collection	This data collection records all hospital inpatient admissions in public and private hospitals in WA, including the date of admission and separation, up to 21 ICD-10-AM diagnosis codes.
Emergency Department Data Collection	This data collection includes all emergency department presentations in metropolitan public and private hospitals in WA, including the date of presentation, one ICD-10-AM diagnosis code, and one symptom code.

Abbreviations: ICD-10-AM, International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification; WA, Western Australia.

Record linkage was performed by the WA Data Linkage Branch using complex non-unique identifiers or field matching algorithms (i.e., given name, surname, date of birth).

Supplemental Table S2. ICD-10-AM diagnosis codes used to identify neurodevelopmental disorders, and all-cause injuries, and frequency of outcomes by data source.

Outcome	ICD-10-AM or Symptom Code	Both data sources ^{a,b} (n)	Hospital inpatient admission (HMDC) ^a (n)	Emergency department episode (EDDC) ^b (n)
Neurodevelopmental disorder	Composite of all codes listed below:	7,436	5,657	2,978
Mental or behavioural disorder	Composite of all F codes listed below:	505	322	278
Organic, including symptomatic, mental disorders	F00-F09	76	35	58
Mental and behavioural disorders due to psychotic substance use	F10-F19	47	32	23
Schizophrenia, schizotypal and delusional disorders	F20-F29	0	0	0
Mood (affective) disorders	F30-F39	0	0	0
Neurotic, stress-related and somatoform disorders	F40-F48	45	12	39
Behavioural syndromes associated with physiological development	F50-F59	8	<5	<5
Disorders of adult personality and behaviours	F60-F69	<5	<5	<1
Intellectual disability	F70-F79	<5	<5	0
Disorders of psychological development	F80-F89	206	193	60
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	F90-F98	121	48	91
Unspecified mental disorder	F99	<5	0	<5
Neurological disorder	Composite of all G codes and R56 listed below:	7,093	5,486	2,803
Inflammatory disease of the central nervous system	G00-G09	175	129	74
Systematic atrophies primarily affecting the central nervous system	G10-G14	13	13	<5
Extrapyramidal and movement disorders	G20-G26	149	144	48
Other degenerative diseases of the central nervous system	G30-G32	<5	<5	0
Demyelinating diseases of the central nervous system	G35-G37	<5	<5	0
Episodic and paroxysmal disorders	G40-G47	3,880	3,683	375
Seizure disorder	G40-G41; R56	3,055	1,595	2,598
Epilepsy and status epileptus	G40-G41	354	199	309
Convulsions, not elsewhere classified	R56	2,709	1,404	2,296
Migraine	G43	5	<5	<5
Other headache syndromes	G44	<5	0	<5
Transient cerebral ischaemic attacks and related syndromes	G45	<5	<5	0
Vascular syndromes of brain in cerebrovascular diseases	G46	0	0	0
Sleep disorders	G47	3,696	3,659	183
Insomnia	G47.0	17	17	<5
Hypersomnia	G47.1	<5	<5	<5

Circadian rhythm sleep disorders	G47.2		13	13	<5
Sleep apnea	G47.3		3,557	3,551	136
Narcolepsy and cataplexy	G47.4		0	0	0
Parasomnia	G47.5		0	0	0
Sleep-related movement disorders	G47.6		0	0	0
Other sleep disorders	G47.8		47	46	6
Sleep disorder, unspecified	G47.9		61	32	37
Nerve, nerve root and plexus disorders	G50-G59		39	30	17
Polyneuropathies and other disorders of the peripheral nervous system	G60-G64		6	5	<5
Diseases of myoneural junction and muscle	G70-G73		17	16	<5
Cerebral palsy and other paralytic syndromes	G80-G83		79	78	17
Other disorders of the nervous system	G90-G99		204	160	78
Negative control condition: all-cause injury admission	Composite of all codes listed below:		24,285	4,010	23,288
Head	S01-S09		15,296	2,618	14,580
Neck	S11-S19		173	26	162
Thorax	S21-S29		107	58	81
Abdomen, lower back, lumbar spine and pelvis	S31-S39		337	68	303
Shoulder and upper arm	S41-S49		880	169	857
Elbow and forearm	S51-S59		3,260	235	3,234
Wrist and hand	S61-S69		1,719	491	1,634
Hip and thigh	S71-S79		242	131	229
Knee and lower leg	S81-S89		1,010	130	972
Ankle and foot	S91-S99		1,354	177	1,298
Multiple site	ABD*		0	-	0
Chest	ABE*		0	-	0
Head	ABF*		0	-	0
Limb	ABG*		0	-	0
Burn	ABH*		0	-	0
Laceration	ABI*		0	-	0
Facial	ABJ*		0	-	0
Eye	ABK*		0	-	0
Bite	ABL*		0	-	0
Sexual	ABM*		0	-	0
Insect bite	ABM*		0	-	0
Nil	ABO*		0	-	0

Abbreviations: EDDC, Emergency Department Data Collection; HMDC, Hospital Morbidity Data Collection; ICD-10-AM, International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification.

^a Principal and 20 additional diagnoses fields were used to classify outcomes.

^b Principal diagnosis fields, and symptom fields were used to classify outcomes.

* Symptom code used if principal diagnosis field is missing (EDDC only).

Supplemental Table S3. Post-hoc power analysis of detectable differences in risk of outcomes among children <5 years of age, by trimester of vaccination.

Condition	Number of outcomes	% of unexposed with outcome	Detectable alternative ^a			
			90% power		80% power	
			Lower	Upper	Lower	Upper
Exposed to seasonal influenza vaccine during any trimester						
Neurodevelopmental disorder	7,436	5.37	0.887	1.118	0.902	1.101
Mental or behavioural disorder	505	0.37	0.591	1.494	0.636	1.416
Neurological disorder	7,093	5.13	0.885	1.121	0.900	1.104
Seizure disorder	3,055	2.20	0.824	1.190	0.846	1.163
Sleep disorder	3,696	2.70	0.841	1.170	0.861	1.146
All-cause injury	24,285	17.48	0.941	1.060	0.949	1.052
Exposed to seasonal influenza vaccine during the first trimester						
Neurodevelopmental disorder	6,853	5.37	0.762	1.262	0.791	1.223
Mental or behavioural disorder	463	0.37	0.224	2.163	0.276	1.950
Neurological disorder	6,538	5.13	0.756	1.268	0.786	1.228
Seizure disorder	2,796	2.20	0.634	1.428	0.675	1.361
Sleep disorder	3,441	2.70	0.668	1.382	0.706	1.323
All-cause injury	22,309	17.48	0.873	1.132	0.890	1.113
Exposed to seasonal influenza vaccine during the second trimester						
Neurodevelopmental disorder	7,014	5.37	0.827	1.186	0.848	1.159
Mental or behavioural disorder	480	0.37	0.399	1.801	0.454	1.664
Neurological disorder	6,689	5.13	0.822	1.191	0.845	1.163
Seizure disorder	2,876	2.20	0.731	1.301	0.763	1.256
Sleep disorder	3,503	2.70	0.756	1.270	0.786	1.230
All-cause injury	22,858	17.48	0.908	1.094	0.920	1.081
Exposed to seasonal influenza vaccine during the third trimester						
Neurodevelopmental disorder	6,989	5.37	0.834	1.177	0.855	1.152
Mental or behavioural disorder	474	0.37	0.422	1.762	0.476	1.633
Neurological disorder	6,664	5.13	0.830	1.182	0.852	1.156
Seizure disorder	2,871	2.20	0.742	1.287	0.773	1.244
Sleep disorder	3,490	2.70	0.766	1.257	0.795	1.219
All-cause injury	22,764	17.48	0.912	1.090	0.924	1.078

^a Significance level: $\alpha = 5\%$.

Supplemental Table S4. Risk of neurodevelopmental disorders associated with maternal influenza vaccination among children <5 years of age who were born at term or later (>37 weeks gestational age), by trimester of vaccination.

	Unexposed to seasonal influenza vaccine during pregnancy	Exposed to seasonal influenza vaccine during pregnancy	Trimester of vaccine exposure		
	(N = 116,275) (N = 114,129) ^a	(N = 14,683) (N = 14,339) ^a	First trimester (N = 2,826) (N = 2,759) ^a	Second trimester (N = 5,531) (N = 5,437) ^a	Third trimester (N = 6,326) (N = 6,143) ^a
<i>Neurodevelopmental disorder</i>					
Cases, n (%)	5,965 (5.1)	646 (4.4)	126 (4.5)	258 (4.7)	262 (4.1)
Unweighted HR (95% CI)	1 [Reference]	1.01 (0.93-1.10)	1.02 (0.86-1.22)	1.00 (0.88-1.13)	1.02 (0.90-1.16)
Cases, n (%)	5,885 (5.2)	639 (4.5)	123 (4.5)	257 (4.7)	259 (4.2)
Weighted HR (95% CI) ^b	1 [Reference]	1.01 (0.92-1.10)	1.02 (0.85-1.23)	1.03 (0.90-1.18)	0.99 (0.86-1.13)
<i>Mental or behavioural disorder</i>					
Cases, n (%)	395 (0.3)	39 (0.3)	6 (0.2)	16 (0.3)	17 (0.3)
Unweighted HR (95% CI)	1 [Reference]	0.93 (0.67-1.30)	0.74 (0.33-1.66)	0.95 (0.57-1.56)	1.00 (0.62-1.63)
Cases, n (%)	390 (0.3)	37 (0.3)	5 (0.2)	16 (0.3)	16 (0.3)
Weighted HR (95% CI) ^b	1 [Reference]	0.94 (0.65-1.36)	0.80 (0.34-1.91)	1.02 (0.58-1.80)	0.97 (0.56-1.67)
<i>Neurological disorder</i>					
Cases, n (%)	5,692 (4.9)	619 (4.2)	122 (4.3)	248 (4.5)	249 (3.9)
Unweighted HR (95% CI)	1 [Reference]	1.02 (0.94-1.11)	1.04 (0.87-1.25)	1.01 (0.89-1.15)	1.02 (0.90-1.16)
Cases, n (%)	5,616 (4.9)	614 (4.3)	120 (4.4)	247 (4.6)	247 (4.0)
Weighted HR (95% CI) ^b	1 [Reference]	1.02 (0.93-1.11)	1.03 (0.85-1.25)	1.04 (0.90-1.20)	0.99 (0.85-1.14)
<i>Seizure disorder</i>					
Cases, n (%)	2,448 (2.1)	277 (1.9)	44 (1.6)	111 (2.0)	122 (1.9)
Unweighted HR (95% CI)	1 [Reference]	0.98 (0.86-1.11)	0.80 (0.60-1.08)	0.99 (0.82-1.19)	1.05 (0.87-1.26)
Cases, n (%)	2,413 (2.1)	273 (1.9)	42 (1.5)	110 (2.0)	121 (2.0)
Weighted HR (95% CI) ^b	1 [Reference]	1.00 (0.87-1.16)	0.72 (0.52-0.999)	1.10 (0.89-1.36)	1.05 (0.85-1.29)
<i>Sleep disorder</i>					
Cases, n (%)	2,998 (2.6)	296 (2.0)	63 (2.2)	119 (2.2)	114 (1.8)
Unweighted HR (95% CI)	1 [Reference]	1.01 (0.90-1.14)	1.12 (0.87-1.43)	0.98 (0.81-1.17)	0.99 (0.82-1.20)
Cases, n (%)	2,963 (2.6)	295 (2.1)	63 (2.3)	119 (2.2)	113 (1.8)
Weighted HR (95% CI) ^b	1 [Reference]	1.01 (0.88-1.15)	1.17 (0.90-1.52)	0.99 (0.81-1.20)	0.95 (0.77-1.17)

Abbreviations: CI, confidence interval; HR, unadjusted hazard ratio.

Bold values indicate statistically significant associations.

All outcomes were identified from ICD-10-AM codes found in the principal and 20 additional diagnosis fields of hospital inpatient and emergency department presentation records, and from the presenting symptom code found in the emergency department presentation records (**Supplemental Table 2**).^a Sample size after trimming the 1st and 99th percentile of the predicted probability of vaccination.^b Hazard ratios were weighted by trimmed inverse-probability of treatment weights factoring for maternal covariates including age, Aboriginal status, socioeconomic status, body mass index, parity, pre-existing medical conditions (asthma, essential hypertension, pre-existing diabetes), pregnancy complications (gestational diabetes, gestational hypertension, pre-eclampsia), smoking status during pregnancy, trimester at the first prenatal care visit, year and season of birth.

Supplemental Table S5. Risk of neurodevelopmental disorders associated with maternal influenza vaccination among children <5 years of age who were born preterm (<37 weeks gestational age), by trimester of vaccination.

	Unexposed to seasonal influenza vaccine during pregnancy	Exposed to seasonal influenza vaccine during pregnancy	Trimester of vaccine exposure		
	(N = 8,576) (N = 8,256) ^a	(N = 980) (N = 933) ^a	First trimester (N = 208) (N = 200) ^a	Second trimester (N = 483) (N = 459) ^a	Third trimester (N = 289) (N = 274) ^a
<i>Neurodevelopmental disorder</i>					
Cases, n (%)	745 (8.7)	80 (8.2)	17 (8.2)	46 (9.5)	17 (5.9)
Unweighted HR (95% CI)	1 [Reference]	1.02 (0.81-1.28)	1.01 (0.62-1.63)	1.13 (0.84-1.53)	0.80 (0.50-1.30)
Cases, n (%)	709 (5.6)	74 (7.9)	17 (8.5)	42 (9.2)	15 (5.5)
Weighted HR (95% CI) ^b	1 [Reference]	0.87 (0.66-1.16)	0.70 (0.39-1.26)	1.03 (0.72-1.48)	0.71 (0.39-1.31)
<i>Mental or behavioural disorder</i>					
Cases, n (%)	61 (0.7)	10 (1.0)	<5	8 (1.7)	<5
Unweighted HR (95% CI)	1 [Reference]	1.59 (0.81-3.09)	-	2.43 (1.17-5.09)	-
Cases, n (%)	57 (0.7)	10 (1.1)	<5	8 (1.7)	<5
Weighted HR (95% CI) ^b	1 [Reference]	1.12 (0.54-2.31)	-	1.85 (0.86-3.97)	-
<i>Neurological disorder</i>					
Cases, n (%)	704 (8.3)	75 (7.7)	17 (8.3)	42 (8.7)	16 (5.6)
Unweighted HR (95% CI)	1 [Reference]	1.00 (0.79-1.28)	1.06 (0.66-1.71)	1.09 (0.80-1.49)	0.80 (0.49-1.32)
Cases, n (%)	672 (8.2)	69 (7.4)	17 (8.6)	38 (8.3)	14 (5.2)
Weighted HR (95% CI) ^b	1 [Reference]	0.86 (0.64-1.16)	0.75 (0.42-1.34)	0.99 (0.67-1.45)	0.70 (0.37-1.32)
<i>Seizure disorder</i>					
Cases, n (%)	296 (3.5)	34 (3.5)	8 (3.9)	21 (4.4)	5 (1.7)
Unweighted HR (95% CI)	1 [Reference]	1.05 (0.74-1.50)	1.16 (0.57-2.33)	1.26 (0.81-1.97)	0.57 (0.23-1.37)
Cases, n (%)	282 (3.4)	30 (3.2)	8 (4.0)	17 (3.7)	5 (1.8)
Weighted HR (95% CI) ^b	1 [Reference]	0.87 (0.54-1.39)	0.86 (0.38-1.97)	1.07 (0.58-1.97)	0.54 (0.18-1.60)
<i>Sleep disorder</i>					
Cases, n (%)	371 (4.3)	31 (3.2)	9 (4.3)	15 (3.1)	7 (2.4)
Unweighted HR (95% CI)	1 [Reference]	0.83 (0.57-1.19)	1.12 (0.58-2.17)	0.76 (0.45-1.27)	0.72 (0.34-1.53)
Cases, n (%)	354 (4.3)	30 (3.2)	9 (4.5)	15 (3.3)	6 (2.2)
Weighted HR (95% CI) ^b	1 [Reference]	0.63 (0.41-0.98)	0.59 (0.24-1.44)	0.71 (0.40-1.25)	0.54 (0.22-1.31)

Abbreviations: CI, confidence interval; HR, unadjusted hazard ratio; -, indeterminate (a stable estimate could not be generated due to the low number of outcomes).

Bold values indicate statistically significant associations.

All outcomes were identified from ICD-10-AM codes found in the principal and 20 additional diagnosis fields of hospital inpatient records (**Supplemental Table 2**).

^a Sample size after trimming the 1st and 99th percentile of the predicted probability of vaccination.

^b Hazard ratios were weighted by trimmed inverse-probability of treatment weights factoring for maternal covariates including age, Aboriginal status, socioeconomic status, body mass index, parity, pre-existing medical conditions (asthma, essential hypertension, pre-existing diabetes), pregnancy complications (gestational diabetes, gestational hypertension, pre-eclampsia), smoking status during pregnancy, trimester at the first prenatal care visit, year and season of birth.

Supplemental Table S6. Risk of inpatient admission (only) for neurodevelopmental disorders associated maternal influenza vaccination among children <5 years of age, by trimester of vaccination.

	Unexposed to seasonal influenza vaccine during pregnancy	Exposed to seasonal influenza vaccine during pregnancy	Trimester of vaccine exposure		
	(N = 124,851) (N = 122,385) ^a	(N = 15,663) (N = 15,272) ^a	First trimester (N = 3,034) (N = 2,959) ^a	Second trimester (N = 6,014) (N = 5,896) ^a	Third trimester (N = 6,615) (N = 6,417) ^a
<i>Neurodevelopmental disorder</i>					
Cases, n (%)	5,187 (4.2)	560 (3.6)	124 (4.1)	233 (3.9)	203 (3.1)
Unweighted HR (95% CI)	1 [Reference]	1.04 (0.95-1.13)	1.18 (0.99-1.41)	1.04 (0.91-1.18)	0.96 (0.83-1.10)
Cases, n (%)	5,097 (4.2)	551 (3.6)	121 (4.1)	231 (3.9)	199 (3.1)
Weighted HR (95% CI) ^b	1 [Reference]	1.02 (0.92-1.12)	1.13 (0.94-1.38)	1.05 (0.91-1.22)	0.93 (0.79-1.09)
<i>Mental or behavioural disorder</i>					
Cases, n (%)	255 (0.2)	30 (0.2)	5 (0.2)	15 (0.3)	10 (0.2)
Unweighted HR (95% CI)	1 [Reference]	1.14 (0.78-1.67)	0.98 (0.41-2.38)	1.38 (0.82-2.32)	0.98 (0.52-1.85)
Cases, n (%)	251 (0.2)	28 (0.2)	<5	15 (0.3)	9 (0.1)
Weighted HR (95% CI) ^b	1 [Reference]	1.00 (0.64-1.54)	-	1.16 (0.65-2.08)	1.00 (0.49-2.06)
<i>Neurological disorder</i>					
Cases, n (%)	5,027 (4.0)	541 (3.5)	121 (4.0)	223 (3.7)	197 (3.0)
Unweighted HR (95% CI)	1 [Reference]	1.03 (0.94-1.13)	1.19 (0.99-1.42)	1.03 (0.90-1.17)	0.96 (0.83-1.11)
Cases, n (%)	4,940 (4.0)	534 (3.5)	119 (4.0)	221 (3.8)	194 (3.0)
Weighted HR (95% CI) ^b	1 [Reference]	1.02 (0.92-1.13)	1.14 (0.94-1.38)	1.05 (0.91-1.22)	0.93 (0.79-1.09)
<i>Seizure disorder</i>					
Cases, n (%)	1,394 (1.1)	163 (1.0)	31 (1.0)	67 (1.1)	65 (1.0)
Unweighted HR (95% CI)	1 [Reference]	1.02 (0.87-1.20)	0.99 (0.69-1.41)	1.03 (0.81-1.32)	1.02 (0.79-1.30)
Cases, n (%)	1,366 (1.1)	159 (1.0)	29 (1.0)	65 (1.1)	65 (1.0)
Weighted HR (95% CI) ^b	1 [Reference]	1.06 (0.88-1.28)	0.81 (0.54-1.20)	1.19 (0.89-1.59)	1.03 (0.79-1.36)
<i>Sleep disorder</i>					
Cases, n (%)	3,337 (2.7)	322 (2.1)	71 (2.3)	131 (2.2)	120 (1.8)
Unweighted HR (95% CI)	1 [Reference]	0.99 (0.88-1.11)	1.12 (0.88-1.42)	0.95 (0.79-1.13)	0.96 (0.80-1.15)
Cases, n (%)	3,285 (2.7)	320 (2.1)	71 (2.4)	131 (2.2)	118 (1.8)
Weighted HR (95% CI) ^b	1 [Reference]	0.96 (0.85-1.09)	1.12 (0.87-1.44)	0.95 (0.79-1.15)	0.90 (0.74-1.11)

Abbreviations: CI, confidence interval; HR, unadjusted hazard ratio; -, indeterminate (a stable estimate could not be generated due to the low number of outcomes).

Bold values indicate statistically significant associations.

All outcomes were identified from ICD-10-AM codes found in the principal and 20 additional diagnosis fields of hospital inpatient records (**Supplemental Table 2**).

^a Sample size after trimming the 1st and 99th percentile of the predicted probability of vaccination.

^b Hazard ratios were weighted by trimmed inverse-probability of treatment weights factoring for maternal covariates including age, Aboriginal status, socioeconomic status, body mass index, parity, pre-existing medical conditions (asthma, essential hypertension, pre-existing diabetes), pregnancy complications (gestational diabetes, gestational hypertension, pre-eclampsia), smoking status during pregnancy, trimester at the first prenatal care visit, year and season of birth.

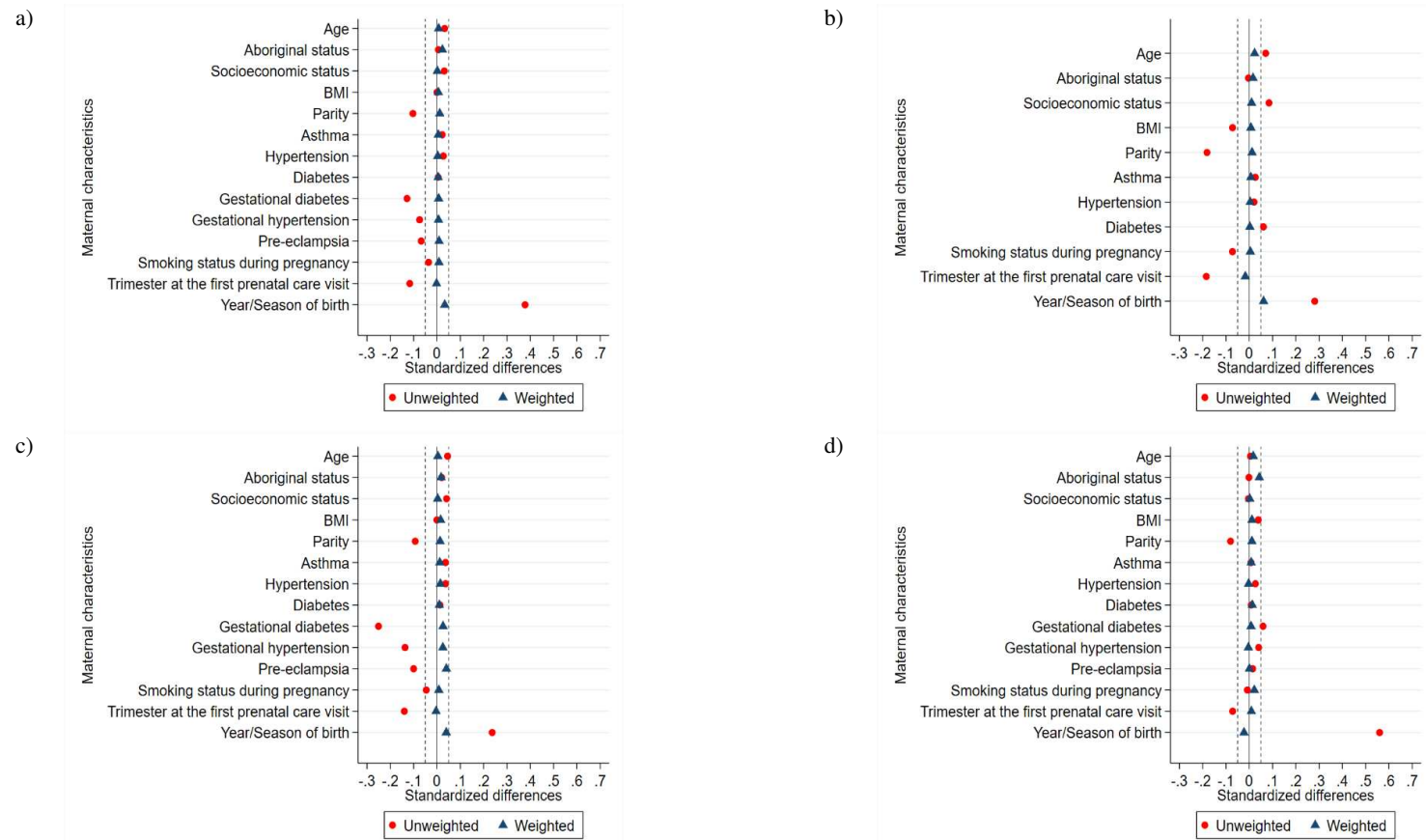
Supplemental Table S7. Risk of all-cause injury associated maternal influenza vaccination among children <5 years of age, by trimester of vaccination.

	Unexposed to seasonal influenza vaccine during pregnancy (N = 124,851) (N = 122,385) ^a	Exposed to seasonal influenza vaccine during pregnancy (N = 15,663) (N = 15,272) ^a	First trimester (N = 3,034) (N = 2,959) ^a	Trimester of vaccine exposure Second trimester (N = 6,014) (N = 5,896) ^a	Third trimester (N = 6,615) (N = 6,417) ^a
<i>Hospital inpatient admissions and emergency department presentations</i>					
Cases, n (%)	21,823 (17.5)	2,462 (15.7)	486 (16.0)	1,035 (17.2)	941 (14.2)
Unweighted HR (95% CI)	1 [Reference]	1.07 (1.03-1.12)	1.09 (1.00-1.19)	1.08 (1.02-1.15)	1.05 (0.99-1.12)
Cases, n (%)	21,465 (17.5)	2,431 (15.9)	480 (16.2)	1,025 (17.4)	926 (14.4)
Weighted HR (95% CI) ^b	1 [Reference]	1.04 (0.99-1.09)	1.06 (0.96-1.17)	1.05 (0.98-1.13)	1.01 (0.94-1.09)
<i>Hospital inpatient admissions only</i>					
Cases, n (%)	3,629 (2.9)	381 (2.4)	79 (2.6)	144 (2.4)	158 (2.4)
Unweighted HR (95% CI)	1 [Reference]	1.00 (0.90-1.11)	1.07 (0.86-1.34)	0.91 (0.77-1.08)	1.07 (0.91-1.25)
Cases, n (%)	3,574 (2.9)	374 (2.5)	78 (2.6)	142 (2.4)	154 (2.4)
Weighted HR (95% CI) ^b	1 [Reference]	1.01 (0.90-1.15)	1.12 (0.88-1.43)	0.96 (0.79-1.15)	1.04 (0.87-1.26)

Abbreviations: CI, confidence interval; HR, unadjusted hazard ratio.

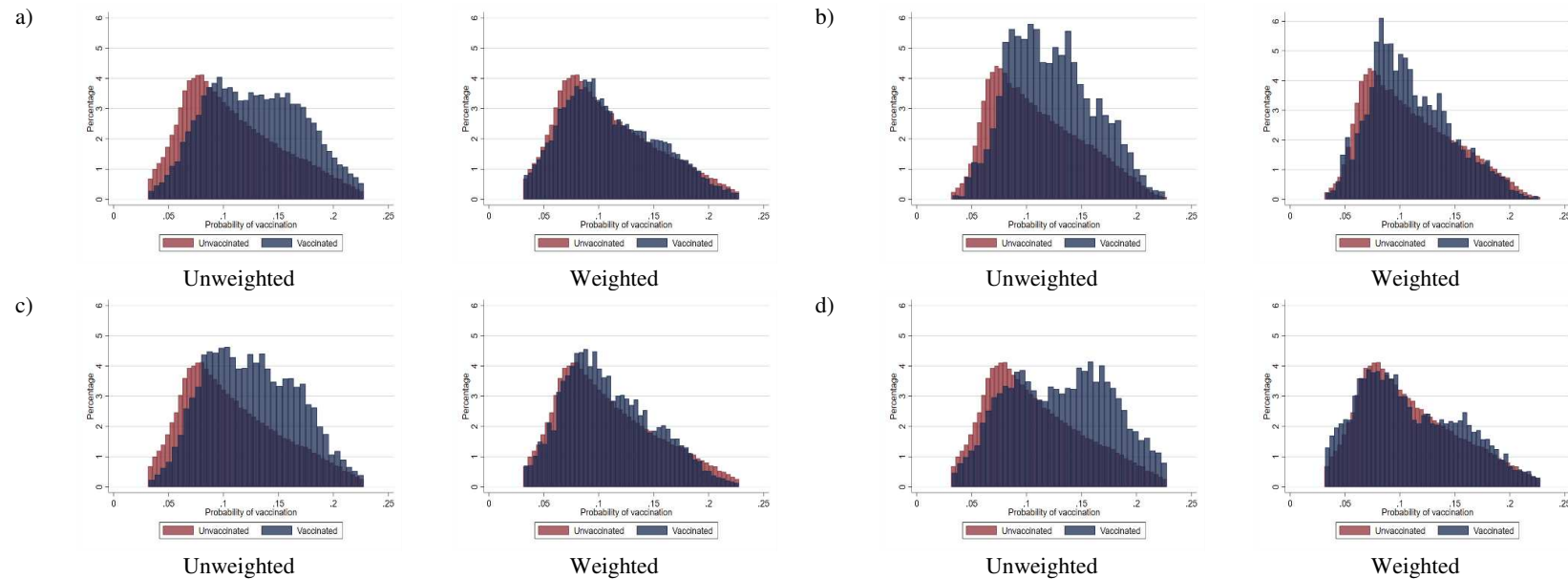
Bold values indicate statistically significant associations.

All-cause injury was identified from the ICD-10-AM codes: S01-S09, S11-S19, S21-S29, S31-S39, S41-S49, S51-S59, S61-S69, S71-S79, S81-S89, S91-S99, found in the principal and 20 additional diagnosis fields of hospital inpatient records and/or emergency department presentation records, and from the presenting symptom code found in the emergency department presentation records (**Supplemental Table 2**).^a Sample size after trimming the 1st and 99th percentile of the predicted probability of vaccination.^b Hazard ratios were weighted by trimmed inverse-probability of treatment weights factoring for maternal covariates including age, Aboriginal status, socioeconomic status, body mass index, parity, pre-existing medical conditions (asthma, essential hypertension, pre-existing diabetes), pregnancy complications (gestational diabetes, gestational hypertension, pre-eclampsia), smoking status during pregnancy, trimester at the first prenatal care visit, year and season of birth.



Supplemental Figure S1. Balance of maternal covariates before and after trimmed inverse-probability of treatment weighting, by trimester of vaccination: a) maternally vaccinated during any trimester, b) maternally vaccinated during the first trimester, c) maternally vaccinated during the second trimester, or d) maternally vaccinated during the third trimester.

Note: dashed lines indicates 5% standardised mean difference.



Supplemental Figure S2. Overlap of predicted probability of vaccination before and after trimmed inverse-probability of treatment weighting, by trimester of vaccination: a) maternally vaccinated during any trimester, b) maternally vaccinated during the first trimester, c) maternally vaccinated during the second trimester, or d) maternally vaccinated during the third trimester.