

SUPPLEMENTAL MATERIAL

Table S1. ICD9/10 Codes for Prenatal Depression and Cardiovascular Diagnoses*

	ICD-9	ICD-10
Prenatal depression	684, 296.20, 296.21, 296.22, 296.23, 296.24, 296.25, 296.30, 296.31, 296.32, 296.33, 296.34, 296.35, 296.82, 298.0, 300.4, 301.12, 301.13, 309.0, 309.1, 309.28, 311	F06.31, F06.32, F32.0, F32.1, F32.2, F32.3, F32.4, F32.8, F32.81, F32.89, F32.9, F33.0, F33.1, F33.2, F33.3, F33.41, F33.8, F33.9, F34.1, F43.21, F43.23, O90.6, O99.34
Heart failure	428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9, 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 402.01, 402.11, 402.91	I09.81, I11.0, I13.0, I13.2, I50.1, I50.20, I50.21, I50.22, I50.23, I50.30, I50.31, I50.32, I50.33, I50.40, I50.41, I50.42, I50.43, I50.9, I50.810, I50.811, I50.812, I50.813, I50.814, I50.82, I50.83, I50.84, I50.8
Ischemic heart disease	410.x, 411.1, 411.8	I20.0, I20.1, I20.8, I20.9, I21.01, I21.02, I21.09, I21.11, I21.19, I21.21, I21.29, I21.3, I21.4, I21.9, I21.A1, I21.A9, I22.0, I22.1, I22.2, I22.8, I22.9, I23.0, I23.1, I23.2, I23.3, I23.4, I23.5, I23.6, I23.7, I23.8, I24.0, I24.1, I24.8, I24.9, I25.10, I25.110, I25.111, I25.118, I25.119, I25.2, I25.3, I25.41, I25.42, I25.5, I25.6, I25.700, I25.701, I25.708, I25.709, I25.710, I25.711, I25.718, I25.719, I25.720, I25.721, I25.728, I25.729, I25.730, I25.731, I25.738, I25.739, I25.750, I25.751, I25.758, I25.759, I25.760, I25.761, I25.768, I25.769, I25.790, I25.791, I25.798, I25.799, I25.810, I25.811, I25.812, I25.82, I25.83, I25.84, I25.89, I25.9
Cerebrovascular disease/stroke	430, 431, 432.x, 433.x, 434.x, 435.x, 436, 437.x, 6715.x, 6740.x, 997.02	G45.0, G45.1, G45.2, G45.3, G45.8, G45.9, G46.0, G46.1, G46.2, G46.3, G46.4, G46.5, G46.6, G46.7, G46.8, G97.31, G97.32, I60.00, I60.01, I60.02, I60.10, I60.11, I60.12, I60.20, I60.21, I60.22, I60.30, I60.31, I60.32, I60.4, I60.50, I60.51, I60.52, I60.6, I60.7, I60.8, I60.9, I61.0

		,I61.1 , I61.2 , I61.3 , I61.4 , I61.5 , I61.6 , I61.8 , I61.9 , I63.00 ,I63.011 , I63.012 , I63.013 , I63.019 , I63.02 , I63.031 , I63.032 , I63.039 , I63.09 , I63.10 , I63.111 , I63.112 , I63.119 , I63.12 , I63.131 , I63.132 , I63.133 , I63.139 , I63.19 , I63.20 , I63.211 , I63.212 , I63.213 , I63.219 , I63.22 , I63.231 , I63.232 , I63.233 , I63.239 , I63.29 , I63.30 , I63.311 , I63.312 , I63.313 , I63.319 , I63.321 , I63.322 , I63.323 , I63.329 , I63.331 , I63.332 , I63.333 , I63.339 , I63.341 , I63.342 , I63.343 , I63.349 , I63.39 , I63.40 , I63.411 , I63.412 , I63.413 , I63.419 , I63.421 , I63.422 , I63.423 , I63.429 , I63.431 , I63.432 , I63.433 , I63.439 , I63.441 , I63.442 , I63.443 , I63.449 , I63.49 , I63.50 , I63.511 , I63.512 , I63.513 , I63.519 , I63.521 , I63.522 , I63.523 , I63.529 , I63.531 , I63.532 , I63.533 , I63.539 , I63.541 , I63.542 , I63.543 , I63.549 , I63.59 , I63.6 , I63.8 , I63.9 , I66.01 , I66.02 , I66.03 , I66.09 , I66.11 , I66.12 , I66.13 , I66.19 , I66.21 , I66.22 , I66.23 , I66.29 , I66.3 , I66.8 , I66.9 , I67.841 , I67.848 , I97.810 , I97.811, I97.820 , I97.821 , I60.2 , I63.033 , I63.113 , I62.9 , I65.1 , I65.29 , I65.09 , I6781 , I67.2 , I67.82 , I67.89 , I67.4 , I67.1 , I67.7 , I67.5 , I67.6 , I67.9 , I67.848 , O87.3 , O99.4
Arrhythmia/cardiac arrest	427.31, 427.32, 427.41, 427.42, 427.5	I49.01 , I40.92 , I46.9 , I48.0 , I48.1 , I48.2 , I48.91 , I48.4 , I48.92
Cardiomyopathy	674.5x, 425.x	O90.3 , I42.1 , I42.2 , I42.4 , I42.5 , I42.6 , I42.7 , I42.8 , I42.9 , I43
Hypertension	401.x, 402.x, 403.x, 404.x, 405.x	I10 , I11 , I12 , I13 , I15 , I16

*Codes ending in .x refer to the stem codes.

Table S2. Characteristics of pregnancies by different insurance coverage windows

	Study Population		<i>At least 12 months prior to delivery through at least 12 months postpartum coverage</i>			
			NO		YES	
	N	%	N	%	N	%
Total	119422	100.0	50669	100.0	68753	100.0
Delivery year						
2007	10792	9.0	4372	8.6	6420	9.3
2008	10727	9.0	4164	8.2	6563	9.6
2009	10601	8.9	3901	7.7	6700	9.8
2010	10200	8.5	3583	7.1	6617	9.6
2011	10238	8.6	3444	6.8	6794	9.9
2012	10367	8.7	3950	7.8	6417	9.3
2013	9763	8.2	4769	9.4	4994	7.3
2014	9087	7.6	4573	9.0	4514	6.6
2015	9014	7.6	4669	9.2	4345	6.3
2016	7463	6.3	3723	7.4	3740	5.4
2017	7324	6.1	3571	7.1	3753	5.5
2018	7105	6.0	3280	6.5	3825	5.6
2019	6741	5.6	2670	5.3	4071	5.9
Maternal age						
Missing	50	0.0	14	0.0	36	0.1
15-19	7392	6.2	3305	6.5	4087	5.9
20-24	28161	23.6	14545	28.7	13616	19.8
25-29	35761	30.0	15599	30.8	20162	29.3
30-34	30257	25.3	11188	22.1	19069	27.7
35+	17801	14.9	6018	11.9	11783	17.1
Any stillbirth codes for delivery						
No	118796	99.5	50400	99.5	68396	99.5
Yes	626	0.5	269	0.5	357	0.5
Any C-section codes for delivery						
No	84970	71.2	36614	72.3	48356	70.3
Yes	34452	28.9	14055	27.7	20397	29.7
Preterm delivery						
No	110450	92.5	47208	93.2	63242	92.0
Yes	8972	7.5	3461	6.8	5511	8.0
Pregnancy number in this dataset						

1	79992	67.0	37176	73.4	42816	62.3
2	30642	25.7	10280	20.3	20362	29.6
3	6799	5.7	2471	4.9	4328	6.3
4	1523	1.3	561	1.1	962	1.4
5	349	0.3	137	0.3	212	0.3
6	83	0.1	33	0.1	50	0.1
7	31	0.0	10	0.0	21	0.0
8	*		*		*	
Health insurance coverage						
Medicaid	66014	55.3	32505	64.2	33509	48.7
Commercial	53120	44.5	18140	35.8	34980	50.9
Medicare	288	0.2	24	0.1	264	0.4
Last month of continuous insurance postpartum						
<6 months	23179	19.4	23179	45.8	0	0.0
6-11 months	10476	8.8	10476	20.7	0	0.0
12-23 months	16625	13.9	4341	8.6	12284	17.9
24+ months	69142	57.9	12673	25.0	56469	82.1
Any preexisting depression						
No	99185	83.1	44893	88.6	54292	79.0
Yes	20237	17.0	5776	11.4	14461	21.0
Any preexisting hypertension						
No	110761	92.8	47532	93.8	63229	92.0
Yes	8661	7.3	3137	6.2	5524	8.0
Any preexisting diabetes						
No	116049	97.2	49537	97.8	66512	96.7
Yes	3373	2.8	1132	2.2	2241	3.3
Any heart failure diagnosis prior to pregnancy						
No	119368	100.0	50659	100.0	68709	99.9
Yes	54	0.1	10	0.0	44	0.1
Any heart disease diagnosis prior to pregnancy						
No	119364	100.0	50652	100.0	68712	99.9
Yes	58	0.1	17	0.0	41	0.1
Any stroke diagnosis prior to pregnancy						
No	119231	99.8	50617	99.9	68614	99.8
Yes	191	0.2	52	0.1	139	0.2

Any arrhythmia diagnosis prior to pregnancy						
No	119344	99.9	50646	100.0	68698	99.9
Yes	78	0.1	23	0.1	55	0.1
Any cardiomyopathy diagnosis prior to pregnancy						
No	119345	99.9	50647	100.0	68698	99.9
Yes	77	0.1	22	0.0	55	0.1
Prenatal depression						
No	93585	78.4	40915	80.8	52670	76.6
Yes	25837	21.6	9754	19.3	16083	23.4
Hypertensive disorders of pregnancy						
No	104785	87.7	44494	87.8	60291	87.7
Yes	14637	12.3	6175	12.2	8462	12.3
Gestational diabetes						
No	109321	91.5	46718	92.2	62603	91.1
Yes	10101	8.5	3951	7.8	6150	9.0
Any anxiety disorder prior to pregnancy						
No	103936	87.0	46173	91.1	57763	84.0
Yes	15486	13.0	4496	8.9	10990	16.0
Any anxiety diagnosis during pregnancy						
No	103968	87.1	44773	88.4	59195	86.1
Yes	15454	12.9	5896	11.6	9558	13.9

*Suppressed cell count per data use agreement with Maine Health Data Organization
Abbreviations: PTSD=posttraumatic stress disorder

Table S3. Risk of cardiovascular disease diagnosis in the first 24 months' postpartum for people with prenatal depression, deliveries in Maine 2007-2019

	Unadjusted HR (95% CI)	aHR (95% CI)*	aHR (95% CI)**
Heart Failure			
No prenatal depression	Reference	Reference	Reference
Prenatal depression	2.11 (1.59, 2.81)	1.40 (0.99, 1.98)	1.48 (1.01, 2.16)
Ischemic Heart Disease			
No prenatal depression	Reference	Reference	Reference
Prenatal depression	3.22 (2.24, 4.65)	1.83 (1.20, 2.80)	1.47 (0.96, 2.24)
Cerebrovascular Disease/Stroke			
No prenatal depression	Reference	Reference	Reference
Prenatal depression	1.71 (1.40, 2.09)	1.27 (1.00, 1.60)	1.12 (0.86, 1.47)
Arrhythmia/Cardiac Arrest			
No prenatal depression	Reference	Reference	Reference
Prenatal depression	2.08 (1.50, 2.90)	1.60 (1.10, 2.31)	1.54 (1.06, 2.23)
Cardiomyopathy			
No prenatal depression	Reference	Reference	Reference
Prenatal depression	1.92 (1.45, 2.55)	1.61 (1.15, 2.24)	1.54 (1.08, 2.19)
Chronic Hypertension (43+ days after delivery)			
No prenatal depression	Reference	Reference	Reference
Prenatal depression	1.66 (1.50, 1.85)	1.32 (1.17, 1.50)	1.26 (1.10, 1.44)
Severe Cardiac Disease			
No prenatal depression	Reference	Reference	Reference
Prenatal depression	1.86 (1.60, 2.17)	1.39 (1.16, 1.67)	1.28 (1.05, 1.57)

Data source: Maine Health Data Organization's All Payer Claims Database

aHR=adjusted hazard ratio; CI=confidence interval; CVD= cardiovascular disease; HR= hazard ratio

*Adjusted for maternal age at time of delivery, pre-pregnancy depression, pre-pregnancy hypertension, pre-pregnancy diabetes, obesity, smoking, nulliparity, pregnancy number in dataset, year of delivery, Medicaid coverage during pregnancy, county-level measures, ZIP-code level measures, hypertensive disorders of pregnancy, and gestational diabetes.

***Additionally adjusted for anxiety during pregnancy.