

SUPPLEMENTAL MATERIAL

Table S1. Pregnancy related diagnosis codes.

Diagnosis	ICD-9-CM code	ICD-10-CM code
Antepartum	V22.x, V23.x, V28.x, V30.x - V37.x, V39.x, V91.x, 630-633, 638, 640-679 with fifth code as '3', without mention of a labor and delivery or post-partum ICD-9 code.	000-008 - Pregnancy with abortive outcome 009 - Supervision of high-risk pregnancy 010-016 - Edema, proteinuria and hypertensive disorders in pregnancy, childbirth and the puerperium 020-029 - Other maternal disorders predominantly related to pregnancy
Labor	Procedure Codes: 72.x - 74.x Diagnosis Codes: V27.x, V30.x00, V30.x01, V31.x00, V31.x01, V32.x00, V32.x01, V33.x00, V33.x01, V34.x00, V34.x01, V35.x00, V35.x01, V36.x00, V36.x01, V37.x00, V37.x01, V39.x00, V39.x01	030-048 - Maternal care related to the fetus and amniotic cavity and possible delivery problems 060-077 - Complications of labor and delivery 080-082 - Encounter for delivery 085-092 - Complications predominantly related to the puerperium 094-09A - Other obstetric conditions, not elsewhere classified
Postpartum	V24.x, V27.x, 634-637, 639, 640-679 with fifth code as '1', '2', '4', without mention of a labor and delivery code.	
Pregnancy, Unspecified time	640-679 with fifth code as '0' OR with both antepartum and post-partum codes present without mention of a labor and delivery code	
Gestational Hypertension	642.3x	O13.x
Pre-eclampsia/ Eclampsia	642.4x, 642.5x, 642.6x, 642.7x	O14.x, O15.x
Gestational Diabetes	648.0x	O24.4x
Cesarean Section	Procedure Codes: 74.x, Diagnosis Codes: 669.7	O82, 10D00Z0, 10D00Z1, 10D00Z2

Other comorbidities diagnosis codes:

Diagnosis	ICD-9-CM code	ICD-10-CM code
AMI	410	I21, I22
STEMI	410.0, 410.1, 410.2, 410.3, 410.4, 410.5, 410.6, 410.8	I21.0, I21.1, I21.2, I21.3, I22.0, I22.1, I22.8, I22.9
NSTEMI	410.7	I21.4, I22.2
Unspecified AMI	410.9	I21.9, I21.A1, I21.A9
Prior myocardial infarction	412	I25.2
Prior PCI	V45.82	Z95.5, Z98.61
Prior CABG	V45.81, 414.02, 414.03, 414.04, 414.05	I25.700, I25.708, I25.709, I25.71, I25.72, I25.73, I25.76, I25.79, I25.810, I25.812, Z95.1
Prior pacemaker	V45.01	Z95.0
Prior cerebrovascular disease	438, V12.54	I699.1, Z86.73
Mitral valve disease	394.0, 394.1, 394.2, 746.5, 746.6	I05.0, I05.1, I05.2, I34.0, I34.2, Q23.2, Q23.3

Tricuspid valve disease	397.0, 424.2, 746.1	I07.0, I07.1, I07.2, I36.0, I36.1, I36.2, Q22.4
Atrial fibrillation	427.31	I48.0, I48.1, I48.2, I48.91
Atrial flutter	427.32	I48.3, I48.4, I48.92
Chronic pulmonary disease	From the Elixhauser comorbidities provided by the AHRQ comorbidity measures	
Carotid disease	433.1	I65.2
Peripheral vascular disease	From the Elixhauser comorbidities provided by the AHRQ comorbidity measures	
Renal failure	From the Elixhauser comorbidities provided by the AHRQ comorbidity measures	
Liver disease	From the Elixhauser comorbidities provided by the AHRQ comorbidity measures	
Malignancy	140-165, 170-176, 179-195, 199-209	C00-C97
Rheumatoid arthritis/collagen vascular disease	From the Elixhauser comorbidities provided by the AHRQ comorbidity measures	
Hypothyroidism	From the Elixhauser comorbidities provided by the AHRQ comorbidity measures	
Coagulopathy	From the Elixhauser comorbidities provided by the AHRQ comorbidity measures	
Deficiency anemia	From the Elixhauser comorbidities provided by the AHRQ comorbidity measures	
Chronic blood loss anemia	From the Elixhauser comorbidities provided by the AHRQ comorbidity measures	
Depression	From the Elixhauser comorbidities provided by the AHRQ comorbidity measures	
Dementia	290, 294.10, 294.11, 294.20, 294.21, 330.8, 330.9, 331.0, 331.1, 331.2, 331.6, 331.7, 331.82, 331.83, 331.89, 331.9	F01, F02, F03, G30, G31
Hypertension	401.1, 401.9, 642.00, 642.01, 642.02, 642.03, 642.04, 401.0, 4372, 642.20, 642.21, 642.22, 642.23, 642.24, 402.00, 402.10, 402.90, 405.09, 405.19, 405.99, 402.01, 402.11, 402.91, 403.00, 403.10, 403.90, 405.01, 405.11, 405.91, 642.10, 642.11, 642.12, 642.13, 642.14, 403.01, 403.11, 403.91, 404.00, 404.10, 404.90, 404.01., 404.11, 404.91, 404.02., 404.12, 404.92, 404.03., 404.13, 404.93, 642.70,	I13.0, I13.2, I13.10, I13.11, I129, I15.0, I15.1, I120, I10, O10.011, O10.012, O10.013, O10.019, O10.02, O10.03, O10.911, O10.912, O10.913, O10.919, O10.92, O10.93, I160, I161, I169, I674, O10.111, O10.112, O10.113, O10.119, O10.12, O10.13, O10.211, O10.212, O10.213, O10.219, O10.22, O10.23, O10.311, O10.312, O10.313, O10.319, O10.32, O10.33, O10.411, O10.412, O10.413, O10.419, O10.42, O10.43, O11.1, O11.2, O11.3, O11.4, O11.5, O11.9, I110, I119, I15.2, I15.8, I15.9

	642.71, 642.72, 642.73, 642.74, 642.90, 642.91, 642.92, 642.93, 642.94	
Diabetes mellitus	From the Elixhauser comorbidities provided by the AHRQ comorbidity measures	
Dyslipidemia	272.0, 272.1, 272.2, 272.3, 272.4	E78.0, E78.00, E78.01, E78.1, E78.2, E78.3, E78.4, E78.5, E78.81, E78.89, E8889, E78.9
Obesity	From the Elixhauser comorbidities provided by the AHRQ comorbidity measures	
Smoking history	V15.82, 305.1	Z87.891, F17.200 to F17.229, F172.90, F172.93 , F172.98 , F172.99
Acute heart failure	428.21, 428.23, 428.31, 428.33, 428.41, 428.43	I50.21, I50.23, I50.31, I50.33, I50.41, I50.43
Cardiogenic shock	785.51	R57.0
Stroke	430, 431, 432, 433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 434.01, 434.11, 434.91, 997.02	I60, I61, I62, I63, I64
Acute kidney injury	584	N17
Bleeding	998.11, 998.12, 285.1	D62, G97.32, G97.52, I97.410, I97.411, I97.418, I97.42, I97.610, I97.611, I97.618, I97.620, T82.837, T82.838, T85.838

ICD-9-CM = International Classification of Diseases, Ninth Revision, Clinical Modification; ICD-10-CM = International Classification of Diseases, Tenth Revision, Clinical Modification; TAVR = transcatheter aortic valve replacement; SAVR = surgical aortic valve replacement; PCI = percutaneous coronary intervention; CABG = coronary artery bypass grafting; AMI = acute myocardial infarction; STEMI = ST-segment elevation myocardial infarction; NSTEMI = non-ST-elevation myocardial infarction; AHRQ = Agency for Healthcare Research and Quality.

Table S2. Hospital-related characteristics of the included cohort.

	White (n=21,663,575) 46.4%	African American (n=6,302,089) 13.5%	Hispanic (n=8,914,065) 19.1%	Asian/Pacific Islander (n=2,251,824) 4.8%	P value
Hospital ownership					<.001
Government, nonfederal	11.05%	15.47%	17.93%	11.33%	
Private, not-profit	76.09%	69.15%	61.31%	75.91%	
Private, invest-own	12.86%	15.39%	20.76%	12.76%	
Hospital bed-size					<.001
Small	14.75%	10.74%	12.25%	10.78%	
Medium	28.07%	29.54%	27.78%	29.43%	
Large	57.18%	59.72%	59.96%	59.80%	
Hospital teaching status					<.001
Rural	13.49%	6.22%	4.57%	2.98%	
Urban nonteaching	36.60%	26.68%	38.52%	34.70%	
Urban teaching	49.91%	67.10%	56.91%	62.32%	
Hospital region					<.001
Northeast	19.15%	17.43%	13.19%	20.35%	
Midwest	22.48%	16.82%	6.66%	9.48%	
South	38.16%	57.06%	38.41%	21.40%	
West	20.22%	8.68%	41.74%	48.77%	
Patient disposition					<.001
Routine	97.51%	96.28%	98.33%	98.12%	
Transfer to Short-term Hospital	0.43%	0.49%	0.33%	0.27%	
Skilled Nursing Facility (SNF)	0.11%	0.21%	0.08%	0.06%	
Home Health Care (HHC)	1.70%	2.34%	1.02%	1.43%	
Against Medical Advice (AMA)	0.23%	0.66%	0.23%	0.11%	

Table S3. Sensitivity analysis of temporal trends of outcomes by race in females of known risk factors for cardiovascular disease.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
White											
Mortality	0.46 %	0.45 %	0.45 %	0.38 %	0.55 %	0.40 %	0.30 %	0.18 %	0.09 %	0.11 %	0.16 %
AMI	1.28 %	0.80 %	1.40 %	1.03 %	0.99 %	1.06 %	0.90 %	0.65 %	0.95 %	0.32 %	0.53 %
Stroke	1.46 %	1.84 %	2.00 %	2.06 %	1.67 %	1.46 %	1.49 %	1.33 %	0.71 %	0.25 %	0.37 %
PE	0.41 %	0.31 %	0.33 %	0.32 %	0.59 %	0.35 %	0.34 %	0.36 %	0.36 %	0.30 %	0.28 %
African American											
Mortality	1.32 %	0.62 %	1.82 %	1.30 %	0.55 %	0.81 %	0.89 %	0.48 %	0.54 %	0.28 %	0.38 %
AMI	2.61 %	1.48 %	2.15 %	1.30 %	2.02 %	1.31 %	1.18 %	1.26 %	1.01 %	0.80 %	1.06 %
Stroke	3.55 %	2.25 %	2.47 %	2.89 %	2.39 %	2.01 %	2.37 %	2.51 %	1.15 %	0.38 %	0.51 %
PE	0.90 %	0.74 %	0.59 %	0.86 %	1.25 %	0.60 %	0.20 %	0.39 %	0.34 %	0.59 %	0.38 %
Hispanic											
Mortality	1.05 %	0.92 %	0.25 %	1.29 %	0.42 %	0.21 %	0.18 %	0.33 %	0.11 %	0.18 %	0.08 %
AMI	1.27 %	0.49 %	0.50 %	1.55 %	0.38 %	1.87 %	1.09 %	0.49 %	0.77 %	0.27 %	0.49 %
Stroke	2.00 %	2.33 %	2.32 %	3.52 %	2.65 %	3.53 %	3.64 %	2.60 %	0.88 %	0.14 %	0.29 %
PE	0.28 %	0.24 %	0.45 %	0.21 %	0.00 %	0.00 %	0.18 %	0.00 %	0.11 %	0.18 %	0.08 %