

TABLE E-1 Annual Rates of Unilateral Primary* and Revision Total Knee Replacement (TKR) by Census Division

Census Division	Primary TKR per 10,000	Revision TKR Per 10,000
West North Central	68.2	6.3
Mountain	56.8	6.0
East North Central	55.0	5.7
West South Central	51.9	4.4
South Atlantic	48.2	4.4
Pacific	44.5	4.0
East South Central	43.3	4.0
New England	41.2	3.2
Mid Atlantic	38.5	3.6

*Unilateral primary TKR excludes same-hospital-admission bilateral TKR.

TABLE E-2 Adjusted* Analyses of Ninety-Day Postoperative Outcomes Following Unilateral Primary Total Knee Replacement

	Death RR (95% CI)	Additional Knee Surgery RR (95% CI)	Pulmonary Embolus RR (95% CI)	Deep Knee Infection RR (95% CI)	Acute Myocardial Infarction RR (95% CI)	Pneumonia Requiring Hospitalization RR (95% CI)	Manipulation RR (95% CI)
Age group (yr)							
65-69	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)
70-74	1.3 (1.0, 1.7)	0.8 (0.7, 1.0)	1.2 (1.0, 1.4)	1.0 (0.7, 1.3)	1.6 (1.3, 2.0)	1.3 (1.1, 1.6)	0.9 (0.8, 1.0)
75-79	2.4 (1.9, 3.0)	0.9 (0.8, 1.1)	1.3 (1.1, 1.6)	1.1 (0.9, 1.5)	2.4 (1.9, 3.0)	1.6 (1.4, 1.9)	0.5 (0.5, 0.6)
80-84	3.3 (2.5, 4.2)	1.0 (0.8, 1.2)	1.3 (1.0, 1.6)	1.2 (0.9, 1.7)	2.9 (2.3, 3.7)	2.2 (1.9, 2.6)	0.3 (0.3, 0.4)
85-89	5.7 (4.3, 7.7)	1.1 (0.8, 1.5)	1.1 (0.8, 1.5)	1.0 (0.6, 1.7)	5.1 (3.9, 6.6)	2.8 (2.3, 3.5)	0.3 (0.2, 0.4)
90+	11.4 (7.3, 17.7)	1.4 (0.7, 2.6)	2.6 (1.5, 4.5)	3.2 (1.5, 6.9)	5.0 (2.8, 8.6)	6.2 (4.4, 8.7)	0.1 (0.0, 0.5)
Gender							
Male	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)
Female	0.5 (0.5, 0.6)	0.8 (0.7, 0.9)	1.0 (0.9, 1.2)	0.7 (0.6, 0.8)	0.6 (0.5, 0.6)	0.7 (0.6, 0.7)	1.0 (0.9, 1.1)
Race							
White	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)
Black	1.4 (1.0, 1.8)	1.2 (1.0, 1.6)	1.0 (0.8, 1.3)	1.5 (1.0, 2.1)	0.8 (0.6, 1.1)	0.8 (0.6, 1.0)	1.4 (1.2, 1.7)
Charlson Comorbidity							
None	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)
One +	1.6 (1.4, 1.8)	1.4 (1.3, 1.6)	1.1 (1.0, 1.2)	1.4 (1.2, 1.8)	1.5 (1.3, 1.7)	1.6 (1.4, 1.8)	0.8 (0.8, 0.9)
Medicaid Supplementation							
No	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)
Yes	1.6 (1.2, 2.0)	1.9 (1.6, 2.3)	1.4 (1.1, 1.7)	1.7 (1.3, 2.4)	1.3 (1.0, 1.7)	1.5 (1.3, 1.8)	0.8 (0.7, 1.0)

*Adjusted for hospital and surgeon volume, as well as age, gender, race, comorbidity, and Medicaid supplementation.

TABLE E-3 Adjusted*Analyses of Ninety-Day Postoperative Outcomes Following Revision Total Knee Replacement

	Death RR (95%CI)	Additional Knee Surgery RR (95%CI)	Pulmonary Embolus RR (95%CI)	Deep Knee Infection RR (95%CI)	Acute Myocardial Infarction RR (95%CI)	Pneumonia Requiring Hospitalization RR (95%CI)	Manipulation RR (95% CI)
Age group (yr)							
65-69	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)
70-74	1.7 (0.8, 3.5)	0.8 (0.6, 1.1)	1.2 (0.5, 2.6)	0.8 (0.5, 1.3)	1.0 (0.5, 1.9)	1.5 (0.8, 2.7)	0.8 (0.5, 1.2)
75-79	1.9 (0.9, 3.9)	0.8 (0.6, 1.1)	1.4 (0.6, 3.0)	1.1 (0.7, 1.7)	1.5 (0.9, 2.8)	2.1 (1.2, 3.8)	0.8 (0.5, 1.2)
80+	4.4 (2.2, 8.6)	0.8 (0.6, 1.0)	1.1 (0.5, 2.6)	0.9 (0.6, 1.5)	1.7 (1.0, 3.1)	3.7 (2.1, 6.5)	0.5 (0.3, 0.9)
Gender							
Male	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)
Female	0.9 (0.6, 1.3)	0.8 (0.7, 1.0)	1.0 (0.6, 1.7)	0.7 (0.5, 0.9)	0.6 (0.4, 0.9)	0.9 (0.7, 1.3)	0.9 (0.6, 1.2)
Race							
White	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)
Black	0.4 (0.2, 1.2)	0.9 (0.6, 1.3)	1.4 (0.6, 3.5)	1.1 (0.6, 2.0)	0.6 (0.2, 1.4)	0.8 (0.4, 1.5)	1.6 (0.8, 3.0)
Charlson Comorbidity							
None	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)
One +	1.8 (1.3, 2.7)	1.3 (1.1, 1.6)	1.1 (0.6, 1.8)	1.3 (1.0,1.8)	1.4 (1.0, 2.0)	1.9 (1.4, 2.7)	0.9 (0.6, 1.3)
Medicaid Supplementation							
No	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)	1.0 (-, -)
Yes	2.3 (1.4, 4.0)	0.9 (0.6, 1.3)	1.6 (0.7, 3.5)	1.2 (0.7, 2.1)	2.4 (1.4, 4.2)	1.8 (1.1, 2.9)	0.5 (0.2, 1.3)

*Adjusted for hospital and surgeon volume, as well as age, gender, race, comorbidity, and Medicaid supplementation.