

**Supplemental Table 1.** Logistic Regressions of Hospital Inpatient Mortality among Admissions for AAA Repair: ACOs without Stratification.

<b>Effect</b>	<b>Level</b>	<b>Odds Ratio: Point Estimate</b>	<b>Lower 95% Confidence Limit</b>	<b>Upper 95% Confidence Limit</b>	<b>P-value</b>
<b>ACO in 2011</b>		1.06	0.77	1.47	0.71
<b>ACO in 2012</b>		1.02	0.73	1.41	0.91
<b>ACO in 2013</b>		0.84	0.59	1.21	0.36
<b>ACO in 2014</b>		1.07	0.76	1.50	0.71
<b>Sex × Age group</b>	<b>Male × 65-69</b>	1.00			
	<b>Male × 70-74</b>	1.22	1.06	1.40	0.01
	<b>Male × 75-79</b>	1.26	1.10	1.45	0.00
	<b>Male × 80-84</b>	1.78	1.55	2.05	0.00
	<b>Male × 85+</b>	2.44	2.11	2.83	0.00
	<b>Female × 65-69</b>	1.58	1.28	1.96	0.00
	<b>Female × 70-74</b>	1.88	1.57	2.26	0.00
	<b>Female × 75-79</b>	2.22	1.88	2.62	0.00
	<b>Female × 80-84</b>	3.08	2.63	3.62	0.00
	<b>Female × 85+</b>	4.04	3.42	4.79	0.00
<b>Intercept</b>		0.02	0.02	0.03	0.00
<b>Year</b>	<b>2008</b>	1.60	1.39	1.83	0.00
	<b>2009</b>	1.45	1.27	1.67	0.00
	<b>2010</b>	1.43	1.24	1.64	0.00
	<b>2011</b>	1.20	1.04	1.39	0.01
	<b>2012</b>	1.19	1.03	1.37	0.02
	<b>2013</b>	1.11	0.96	1.29	0.16
	<b>2014</b>	1.00			

Notes: ACO = Accountable Care Organization; AAA = abdominal aortic aneurysm. Hospital-specific coefficients not shown.

**Supplemental Table 2.** Logistic Regressions of Hospital Inpatient Mortality among Admissions for CABG: ACOs without Stratification.

<b>Effect</b>	<b>Level</b>	<b>Odds Ratio: Point Estimate</b>	<b>Lower 95% Confidence Limit</b>	<b>Upper 95% Confidence Limit</b>	<b>P-value</b>
<b>ACO in 2011</b>		1.07	0.91	1.27	0.40
<b>ACO in 2012</b>		0.79	0.65	0.95	0.01
<b>ACO in 2013</b>		0.81	0.67	0.98	0.03
<b>ACO in 2014</b>		1.12	0.94	1.32	0.20
<b>Sex × Age group</b>	<b>Male × 65-69</b>	1.00			
	<b>Male × 70-74</b>	1.43	1.34	1.54	0.00
	<b>Male × 75-79</b>	1.89	1.77	2.02	0.00
	<b>Male × 80-84</b>	2.60	2.42	2.80	0.00
	<b>Male × 85+</b>	3.40	3.10	3.74	0.00
	<b>Female × 65-69</b>	1.58	1.45	1.71	0.00
	<b>Female × 70-74</b>	2.07	1.91	2.23	0.00
	<b>Female × 75-79</b>	2.88	2.68	3.10	0.00
	<b>Female × 80-84</b>	3.71	3.44	4.00	0.00
	<b>Female × 85+</b>	4.30	3.87	4.77	0.00
<b>Intercept</b>		0.02	0.02	0.02	0.00
<b>Year</b>	<b>2008</b>	1.14	1.06	1.22	0.00
	<b>2009</b>	1.03	0.96	1.11	0.38
	<b>2010</b>	1.04	0.97	1.11	0.32
	<b>2011</b>	1.06	0.99	1.14	0.10
	<b>2012</b>	1.07	0.99	1.14	0.08
	<b>2013</b>	1.00	0.93	1.07	0.99
	<b>2014</b>	1.00			

*Notes:* ACO = Accountable Care Organization; CABG, coronary artery bypass grafting. Hospital-specific coefficients not shown.

**Supplemental Table 3.** Logistic Regressions of Hospital Inpatient Mortality among Admissions for AMI: ACOS without Stratification.

<b>Effect</b>	<b>Level</b>	<b>Odds Ratio: Point Estimate</b>	<b>Lower 95% Confidence Limit</b>	<b>Upper 95% Confidence Limit</b>	<b>P-value</b>
<b>ACO in 2011</b>		1.00	0.91	1.09	0.98
<b>ACO in 2012</b>		1.00	0.91	1.09	0.94
<b>ACO in 2013</b>		1.03	0.94	1.13	0.52
<b>ACO in 2014</b>		1.07	0.98	1.17	0.12
<b>Sex × Age group</b>	<b>Male × 65-69</b>	1.00			
	<b>Male × 70-74</b>	1.32	1.26	1.37	0.00
	<b>Male × 75-79</b>	1.72	1.65	1.79	0.00
	<b>Male × 80-84</b>	2.10	2.02	2.19	0.00
	<b>Male × 85+</b>	2.88	2.78	2.99	0.00
	<b>Female × 65-69</b>	1.07	1.03	1.13	0.00
	<b>Female × 70-74</b>	1.34	1.28	1.40	0.00
	<b>Female × 75-79</b>	1.65	1.58	1.71	0.00
	<b>Female × 80-84</b>	1.97	1.89	2.05	0.00
	<b>Female × 85+</b>	2.59	2.50	2.68	0.00
<b>Intercept</b>		0.05	0.05	0.06	0.00
<b>Year</b>	<b>2008</b>	1.24	1.21	1.28	0.00
	<b>2009</b>	1.19	1.15	1.23	0.00
	<b>2010</b>	1.16	1.12	1.20	0.00
	<b>2011</b>	1.12	1.09	1.16	0.00
	<b>2012</b>	1.08	1.05	1.12	0.00
	<b>2013</b>	1.03	0.99	1.06	0.13
	<b>2014</b>	1.00			

Notes: ACO = Accountable Care Organization; AMI = acute myocardial infarction. Hospital-specific coefficients not shown.

**Supplemental Table 4.** Logistic Regressions of Hospital Inpatient Mortality among Admissions for Pneumonia: ACOs without Stratification.

<b>Effect</b>	<b>Level</b>	<b>Odds Ratio: Point Estimate</b>	<b>Lower 95% Confidence Limit</b>	<b>Upper 95% Confidence Limit</b>	<b>P-value</b>
<b>ACO in 2011</b>		1.00	0.91	1.09	0.94
<b>ACO in 2012</b>		0.98	0.88	1.07	0.61
<b>ACO in 2013</b>		0.99	0.89	1.09	0.77
<b>ACO in 2014</b>		1.00	0.90	1.11	0.94
<b>Sex × Age group</b>	<b>Male × 65-69</b>	1.00			
	<b>Male × 70-74</b>	1.12	1.07	1.17	0.00
	<b>Male × 75-79</b>	1.31	1.26	1.37	0.00
	<b>Male × 80-84</b>	1.51	1.45	1.57	0.00
	<b>Male × 85+</b>	1.97	1.90	2.04	0.00
	<b>Female × 65-69</b>	0.76	0.72	0.79	0.00
	<b>Female × 70-74</b>	0.87	0.83	0.91	0.00
	<b>Female × 75-79</b>	1.07	1.03	1.12	0.00
	<b>Female × 80-84</b>	1.32	1.27	1.38	0.00
	<b>Female × 85+</b>	1.82	1.75	1.88	0.00
<b>Intercept</b>		0.03	0.03	0.03	0.00
<b>Year</b>	<b>2008</b>	1.34	1.30	1.38	0.00
	<b>2009</b>	1.29	1.25	1.33	0.00
	<b>2010</b>	1.23	1.19	1.27	0.00
	<b>2011</b>	1.18	1.15	1.22	0.00
	<b>2012</b>	1.12	1.08	1.15	0.00
	<b>2013</b>	1.08	1.05	1.12	0.00
	<b>2014</b>	1.00			

Notes: ACO = Accountable Care Organization. Hospital-specific coefficients not shown.

**Supplemental Table 5.** Logistic Regressions of Hospital Inpatient Mortality among Admissions for AAA Repair: ACOs Stratified by Leadership.

Effect	Level	Odds Ratio: Point Estimate	Lower 95% Confidence Limit	Upper 95% Confidence Limit	P-value
Hospital or jointly led ACO in 2011		1.24	0.76	2.02	0.38
Hospital or jointly led ACO in 2012		0.94	0.54	1.62	0.81
Hospital or jointly led ACO in 2013		0.94	0.52	1.71	0.84
Hospital or jointly led ACO in 2014		1.40	0.83	2.34	0.21
Other-led ACO in 2011		0.96	0.63	1.46	0.85
Other-led ACO in 2012		1.07	0.72	1.59	0.73
Other-led ACO in 2013		0.80	0.52	1.25	0.32
Other-led ACO in 2014		0.91	0.59	1.40	0.66
Sex × Age group	Male × 65-69	1.00			
	Male × 70-74	1.22	1.06	1.40	0.01
	Male × 75-79	1.26	1.10	1.45	0.00
	Male × 80-84	1.78	1.55	2.05	0.00
	Male × 85+	2.44	2.11	2.83	0.00
	Female × 65-69	1.58	1.28	1.96	0.00
	Female × 70-74	1.88	1.57	2.26	0.00
	Female × 75-79	2.22	1.88	2.62	0.00
	Female × 80-84	3.08	2.62	3.62	0.00
Female × 85+	4.04	3.41	4.79	0.00	
Intercept		0.02	0.02	0.03	0.00
Year	2008	1.60	1.39	1.83	0.00
	2009	1.45	1.27	1.67	0.00
	2010	1.43	1.24	1.64	0.00
	2011	1.20	1.04	1.39	0.01
	2012	1.19	1.03	1.37	0.02
	2013	1.11	0.96	1.29	0.16
	2014	1.00			

Notes: ACO = Accountable Care Organization; AAA = Abdominal Aortic Aneurysm. Hospital-specific coefficients not shown.

**Supplemental Table 6.** Logistic Regressions of Hospital Inpatient Mortality among Admissions for CABG: ACOs Stratified by Leadership.

Effect	Level	Odds Ratio: Point Estimate	Lower 95% Confidence Limit	Upper 95% Confidence Limit	P-value
Hospital or jointly led ACO in 2011		1.12	0.85	1.49	0.43
Hospital or jointly led ACO in 2012		0.91	0.67	1.22	0.51
Hospital or jointly led ACO in 2013		1.13	0.85	1.50	0.39
Hospital or jointly led ACO in 2014		1.25	0.94	1.66	0.12
Other-led ACO in 2011		1.05	0.86	1.28	0.64
Other-led ACO in 2012		0.73	0.58	0.92	0.01
Other-led ACO in 2013		0.65	0.50	0.83	0.00
Other-led ACO in 2014		1.06	0.86	1.30	0.60
Sex × Age group	Male × 65-69	1.00			
	Male × 70-74	1.44	1.34	1.54	0.00
	Male × 75-79	1.89	1.77	2.02	0.00
	Male × 80-84	2.60	2.42	2.80	0.00
	Male × 85+	3.40	3.09	3.74	0.00
	Female × 65-69	1.58	1.45	1.71	0.00
	Female × 70-74	2.07	1.91	2.23	0.00
	Female × 75-79	2.88	2.68	3.10	0.00
	Female × 80-84	3.71	3.44	4.00	0.00
Female × 85+	4.29	3.87	4.77	0.00	
Intercept		0.02	0.02	0.02	0.00
Year	2008	1.14	1.06	1.22	0.00
	2009	1.03	0.96	1.11	0.38
	2010	1.04	0.97	1.11	0.33
	2011	1.06	0.99	1.14	0.10
	2012	1.07	0.99	1.14	0.08
	2013	1.00	0.93	1.07	0.99
	2014	1.00			

Notes: ACO = Accountable Care Organization; CABG = coronary artery bypass grafting. Hospital-specific coefficients not shown.

**Supplemental Table 7.** Logistic Regressions of Hospital Inpatient Mortality among Admissions for AMI: ACOs Stratified by Leadership.

Effect	Level	Odds Ratio: Point Estimate	Lower 95% Confidence Limit	Upper 95% Confidence Limit	P-value
Hospital or jointly led ACO in 2011		0.93	0.80	1.08	0.33
Hospital or jointly led ACO in 2012		0.94	0.81	1.09	0.43
Hospital or jointly led ACO in 2013		1.01	0.87	1.18	0.85
Hospital or jointly led ACO in 2014		1.12	0.97	1.31	0.13
Other-led ACO in 2011		1.04	0.93	1.15	0.51
Other-led ACO in 2012		1.03	0.92	1.14	0.64
Other-led ACO in 2013		1.04	0.93	1.15	0.51
Other-led ACO in 2014		1.05	0.94	1.17	0.38
Sex × Age group	Male × 65-69	1.00			
	Male × 70-74	1.32	1.26	1.37	0.00
	Male × 75-79	1.72	1.65	1.79	0.00
	Male × 80-84	2.10	2.02	2.19	0.00
	Male × 85+	2.88	2.78	2.99	0.00
	Female × 65-69	1.07	1.03	1.13	0.00
	Female × 70-74	1.34	1.28	1.40	0.00
	Female × 75-79	1.65	1.58	1.71	0.00
	Female × 80-84	1.97	1.89	2.05	0.00
Female × 85+	2.59	2.50	2.68	0.00	
Intercept		0.05	0.05	0.06	0.00
Year	2008	1.24	1.21	1.28	0.00
	2009	1.19	1.15	1.23	0.00
	2010	1.16	1.12	1.20	0.00
	2011	1.12	1.09	1.16	0.00
	2012	1.08	1.05	1.12	0.00
	2013	1.03	0.99	1.06	0.13
	2014	1.00			

Notes: ACO = Accountable Care Organization; AMI = acute myocardial infarction. Hospital-specific coefficients not shown.

**Supplemental Table 8.** Logistic Regressions of Hospital Inpatient Mortality among Admissions for Pneumonia: ACOs Stratified by Leadership.

Effect	Level	Odds Ratio: Point Estimate	Lower 95% Confidence Limit	Upper 95% Confidence Limit	P-value
Hospital or jointly led ACO in 2011		1.12	0.96	1.32	0.15
Hospital or jointly led ACO in 2012		1.15	0.98	1.36	0.09
Hospital or jointly led ACO in 2013		1.14	0.96	1.34	0.13
Hospital or jointly led ACO in 2014		1.03	0.86	1.23	0.77
Other-led ACO in 2011		0.94	0.84	1.06	0.31
Other-led ACO in 2012		0.90	0.80	1.01	0.08
Other-led ACO in 2013		0.92	0.82	1.04	0.18
Other-led ACO in 2014		1.00	0.88	1.13	0.95
Sex × Age group	Male × 65-69	1.00			
	Male × 70-74	1.12	1.07	1.17	0.00
	Male × 75-79	1.31	1.26	1.37	0.00
	Male × 80-84	1.51	1.45	1.57	0.00
	Male × 85+	1.97	1.90	2.04	0.00
	Female × 65-69	0.76	0.72	0.79	0.00
	Female × 70-74	0.87	0.83	0.91	0.00
	Female × 75-79	1.07	1.03	1.12	0.00
	Female × 80-84	1.32	1.27	1.38	0.00
Female × 85+	1.82	1.75	1.88	0.00	
Intercept		0.03	0.03	0.03	0.00
Year	2008	1.34	1.30	1.38	0.00
	2009	1.29	1.25	1.33	0.00
	2010	1.23	1.19	1.27	0.00
	2011	1.18	1.15	1.22	0.00
	2012	1.12	1.08	1.15	0.00
	2013	1.08	1.05	1.12	0.00
	2014	1.00			

Notes: ACO = Accountable Care Organization. Hospital-specific coefficients not shown.