

Supplemental Table: Multilevel Logistic Regression models of Readmission using Elixhauser Index using Hospital Level random intercept

<b>Model Info</b>	<b>Model 1</b>		<b>Model 2</b>		<b>Model 3</b>	
N	1,662,983		1,659,576		1,658,372	
LL	-1,692,216.5		-1,683,905.4		-1,677,856.3	
df	3		22		41	
AIC	3,384,439.0		3,367,854.8		3,355,794.5	
BIC	3,384,476.0		3,368,126.0		3,356,299.8	
<b>Predictors</b>	<b>OR (95% CI)</b>	<b>P</b>	<b>OR (95% CI)</b>	<b>P</b>	<b>OR (95% CI)</b>	<b>P</b>
<b>Elixhauser Index (per 3)</b>	1.06 (1.06, 1.06)	<.001	1.05 (1.05, 1.06)	<.001	1.05 (1.05, 1.05)	<.001
<b>Year (ref=2010)</b>						
2011			0.99 (0.97, 1.01)	0.515	0.99 (0.97, 1.01)	0.484
2012			0.95 (0.93, 0.97)	<.001	0.95 (0.93, 0.97)	<.001
2013			0.91 (0.89, 0.93)	<.001	0.91 (0.89, 0.93)	<.001
2014			0.89 (0.87, 0.91)	<.001	0.89 (0.87, 0.91)	<.001
2015			0.86 (0.84, 0.88)	<.001	0.86 (0.84, 0.88)	<.001
2016			0.86 (0.84, 0.88)	<.001	0.85 (0.83, 0.87)	<.001
<b>Quarter (ref=1<sup>st</sup>)</b>						
2 <sup>nd</sup> Quarter			0.96 (0.95, 0.98)	<.001	0.97 (0.95, 0.98)	<.001
3 <sup>rd</sup> Quarter			1.00 (0.98, 1.01)	0.739	1.00 (0.99, 1.02)	0.778
4 <sup>th</sup> Quarter			0.98 (0.97, 1.00)	0.019	0.99 (0.97, 1.00)	0.086
<b>Sex (ref=male)</b>						
Female			0.93 (0.93, 0.94)	<.001	0.92 (0.91, 0.92)	<.001
<b>Age (per 10 year)</b>						
			1.00 (1.00, 1.01)	0.058	0.98 (0.98, 0.99)	<.001
<b>Income Quartile (ref=1<sup>st</sup>)</b>						
2 <sup>nd</sup> Quartile			0.99 (0.97, 1.00)	0.035	0.98 (0.97, 1.00)	0.009
3 <sup>rd</sup> Quartile			0.98 (0.97, 1.00)	0.018	0.97 (0.96, 0.99)	<.001
4 <sup>th</sup> Quartile			0.97 (0.95, 0.99)	<.001	0.95 (0.93, 0.97)	<.001
Missing			0.97 (0.93, 1.01)	0.144	0.97 (0.93, 1.01)	0.136
<b>Payer (ref=Medicare)</b>						
Medicaid			1.07 (1.05, 1.09)	<.001	1.08 (1.06, 1.09)	<.001
Private			0.70 (0.68, 0.71)	<.001	0.71 (0.70, 0.73)	<.001
Self-Pay			0.61 (0.59, 0.63)	<.001	0.63 (0.61, 0.65)	<.001
Other/No Charge			0.78 (0.76, 0.81)	<.001	0.80 (0.77, 0.82)	<.001
<b>Disposition (ref=Routine to home)</b>						
Post-acute care					1.21 (1.19, 1.23)	<.001
Other					1.07 (1.00, 1.14)	0.038
Home Health					1.30 (1.28, 1.32)	<.001
<b>Length of Stay (per day)</b>						
					1.01 (1.01, 1.01)	<.001
<b>Care intensity (ref=No)</b>						
Non-invasive ventilation					1.08 (1.06, 1.10)	<.001
Mechanical ventilation					0.82 (0.79, 0.84)	<.001
Tracheostomy					1.04 (0.99, 1.11)	0.133
Cardiac arrest					0.81 (0.74, 0.90)	<.001
CPR					1.09 (0.95, 1.24)	0.210
<b>Hospital ownership (ref=government)</b>						
Private, non-profit					0.98 (0.96, 1.00)	0.022
Private, for-profit					1.03 (1.01, 1.06)	0.002
<b>Hospital teaching status (ref=Non-teaching)</b>						
Teaching Hospital					1.00 (0.98, 1.01)	0.902
<b>Hospital location (ref=Large metro area)</b>						
Small metro area					0.93 (0.92, 0.95)	<.001

<i>Metropolitan area</i>	0.90 (0.88, 0.92)	<.001
<i>Rural</i>	0.89 (0.86, 0.92)	<.001
<b>Hospital Bed Size (ref=Small)</b>		
<i>Medium</i>	1.01 (0.99, 1.03)	0.389
<i>Large</i>	1.01 (0.99, 1.03)	0.407
<b>Annual Discharge (per 10k)</b>	1.01 (1.00, 1.02)	0.012
<b>Proportion Medicaid per 10%</b>	1.00 (0.99, 1.01)	0.872