

## APPENDIX

Bivariate results for all county factors evaluated in study. R<sup>2</sup> is percent of county level variance explained. N = 4,079 hospitals.

Characteristic	Hospitals N(%)	Readmission mean(sd)	R-squared County	P-value
<b>N</b>	4073 (100.0)	20.8 ( 1.8)		
<b>Demographics/SES</b>				
<b>C:Household Income</b>			2.9%	<0.001
Q: 1	525 (12.9)	21.2 ( 2.0)		
Q: 2	592 (14.5)	20.8 ( 1.8)		
Q: 3	638 (15.7)	20.4 ( 1.6)		
Q: 4	883 (21.7)	20.7 ( 1.8)		
Q: 5	1435 (35.2)	21.2 ( 1.7)		
<b>ARF:% Never married</b>			3.6%	<0.001
Q: 1	510 (12.5)	20.4 ( 1.8)		
Q: 2	563 (13.8)	20.2 ( 1.5)		
Q: 3	684 (16.8)	20.6 ( 1.7)		
Q: 4	941 (23.1)	20.8 ( 1.5)		
Q: 5	1375 (33.8)	21.4 ( 1.9)		
<b>ARF:% below poverty line</b>			3.8%	<0.001
Q: 1	878 (21.6)	20.8 ( 1.7)		
Q: 2	787 (19.3)	20.6 ( 1.6)		
Q: 3	853 (20.9)	20.6 ( 1.6)		
Q: 4	910 (22.3)	21.1 ( 1.8)		
Q: 5	645 (15.8)	21.7 ( 2.0)		
<b>ARF:Medicare benes/100k</b>			0.5%	0.014
Q: 1	1313 (32.2)	21.1 ( 1.8)		
Q: 2	935 (23.0)	21.0 ( 1.8)		
Q: 3	648 (15.9)	20.7 ( 1.7)		
Q: 4	626 (15.4)	20.7 ( 1.6)		
Q: 5	551 (13.5)	20.5 ( 1.8)		
<b>ARF:Low Education</b>			2.6%	<0.001
No	3472 (85.2)	21.1 ( 1.7)		
Yes	601 (14.8)	21.9 ( 2.0)		
<b>ARF:Low Employment</b>			2.6%	<0.001
No	3649 (89.6)	21.1 ( 1.7)		
Yes	424 (10.4)	22.2 ( 2.1)		
<b>ARF:Retirement Destination</b>			0.3%	0.008
No	3553 (87.2)	21.2 ( 1.8)		
Yes	520 (12.8)	20.7 ( 1.7)		

<b>ARF:Persistent Poverty</b>			1.8%	<0.001
No	3771 (92.6)	21.1 ( 1.8)		
Yes	302 ( 7.4)	21.8 ( 1.9)		
<b>NCHS Urban-Rural Code</b>			6.9%	<0.001
Large central metro	676 (16.6)	21.8 ( 1.9)		
Large fringe metro	624 (15.3)	21.7 ( 1.6)		
Medium metro	639 (15.7)	20.6 ( 1.6)		
Small metro	423 (10.4)	20.5 ( 1.6)		
Micropolitan	785 (19.3)	20.8 ( 1.8)		
Rural	926 (22.7)	20.7 ( 1.8)		

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**Access to Care**

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<b>NHs/100k</b>			2.9%	<0.001
Q: 1	1351 (33.2)	21.2 ( 1.8)		
Q: 2	862 (21.2)	20.9 ( 1.7)		
Q: 3	762 (18.7)	20.8 ( 1.7)		
Q: 4	560 (13.7)	20.5 ( 1.7)		
Q: 5	524 (12.9)	19.9 ( 1.6)		
<b>ARF:GPs/100k</b>			6.9%	<0.001
Q: 1	725 (17.8)	21.6 ( 1.9)		
Q: 2	879 (21.6)	21.2 ( 1.8)		
Q: 3	958 (23.5)	21.0 ( 1.7)		
Q: 4	811 (19.9)	20.5 ( 1.6)		
Q: 5	700 (17.2)	20.1 ( 1.5)		
<b>ARF:NonGPs/100k</b>			1.5%	<0.001
Q: 1	503 (12.3)	20.1 ( 1.6)		
Q: 2	514 (12.6)	20.5 ( 1.6)		
Q: 3	614 (15.1)	20.8 ( 1.7)		
Q: 4	812 (19.9)	20.7 ( 1.6)		
Q: 5	1630 (40.0)	21.2 ( 1.8)		
<b>ARF:Specialists/100k</b>			2.8%	<0.001
Q: 1	503 (12.3)	20.0 ( 1.5)		
Q: 2	525 (12.9)	20.4 ( 1.6)		
Q: 3	590 (14.5)	20.7 ( 1.8)		
Q: 4	814 (20.0)	20.7 ( 1.6)		
Q: 5	1641 (40.3)	21.2 ( 1.8)		
<b>ARF:Cardiologists/100k</b>			2.5%	<0.001
Q: 1	1345 (33.0)	20.3 ( 1.7)		
Q: 2	0 ( 0.0)	. ( .)		
Q: 3	286 ( 7.0)	20.6 ( 1.7)		
Q: 4	886 (21.8)	20.9 ( 1.7)		
Q: 5	1556 (38.2)	21.2 ( 1.8)		

<b>ARF: GPs/Specialist</b>			7.7%	<0.001
Q: 1	1642 (40.3)	21.4 ( 1.7)		
Q: 2	763 (18.7)	20.5 ( 1.7)		
Q: 3	625 (15.3)	20.3 ( 1.7)		
Q: 4	532 (13.1)	20.3 ( 1.6)		
Q: 5	511 (12.5)	20.0 ( 1.5)		
<b>AHA: Beds/100k</b>			0.9%	<0.001
Q: 1	584 (14.3)	20.6 ( 1.7)		
Q: 2	813 (20.0)	20.7 ( 1.5)		
Q: 3	980 (24.1)	20.8 ( 1.8)		
Q: 4	952 (23.4)	21.2 ( 1.9)		
Q: 5	744 (18.3)	21.0 ( 1.8)		

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**Nursing Home Quality**

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<b>NH: Vaccine Score</b>			1.6%	<0.001
Q: 1	1006 (24.7)	21.4 ( 1.8)		
Q: 2	881 (21.6)	20.8 ( 1.7)		
Q: 3	751 (18.4)	20.8 ( 1.8)		
Q: 4	549 (13.5)	20.7 ( 1.7)		
Q: 5	459 (11.3)	20.4 ( 1.5)		
<b>NH:Overall Rating</b>			1.3%	<0.001
Q: 1	683 (16.8)	21.0 ( 1.7)		
Q: 2	1326 (32.6)	21.0 ( 1.8)		
Q: 3	683 (16.8)	21.1 ( 1.8)		
Q: 4	747 (18.3)	20.7 ( 1.7)		
Q: 5	579 (14.2)	20.5 ( 1.8)		
<b>% HR LS pressure sores</b>			11.7%	<0.001
Q: 1	570 (14.0)	19.8 ( 1.4)		
Q: 2	680 (16.7)	20.3 ( 1.5)		
Q: 3	849 (20.8)	20.6 ( 1.6)		
Q: 4	966 (23.7)	21.0 ( 1.6)		
Q: 5	937 (23.0)	21.9 ( 1.9)		
<b>% LS flu vaccine</b>			0.9%	0.001
Q: 1	779 (19.1)	21.3 ( 1.7)		
Q: 2	713 (17.5)	21.1 ( 1.7)		
Q: 3	466 (11.4)	21.1 ( 1.8)		
Q: 4	385 ( 9.5)	20.7 ( 1.9)		
Q: 5	306 ( 7.5)	20.6 ( 1.6)		
<b>% LS depressed or anxious</b>			5.1%	<0.001
Q: 1	937 (23.0)	21.3 ( 1.7)		
Q: 2	936 (23.0)	21.1 ( 1.8)		
Q: 3	851 (20.9)	21.0 ( 1.8)		
Q: 4	695 (17.1)	20.6 ( 1.6)		
Q: 5	594 (14.6)	20.0 ( 1.6)		

<b>% LS with UTI</b>			-0.1%	0.049
Q: 1	717 (17.6)	21.1 ( 2.1)		
Q: 2	963 (23.6)	21.1 ( 1.8)		
Q: 3	931 (22.9)	20.8 ( 1.7)		
Q: 4	795 (19.5)	20.7 ( 1.5)		
Q: 5	608 (14.9)	20.9 ( 1.7)		
<b>% LS pne vaccine</b>			1.1%	<0.001
Q: 1	764 (18.8)	21.3 ( 1.8)		
Q: 2	738 (18.1)	21.1 ( 1.7)		
Q: 3	582 (14.3)	20.9 ( 1.7)		
Q: 4	414 (10.2)	20.7 ( 1.9)		
Q: 5	310 ( 7.6)	20.6 ( 1.6)		
<b>% LS physically restrained</b>			1.5%	<0.001
Q: 1	593 (14.6)	20.3 ( 1.6)		
Q: 2	791 (19.4)	20.7 ( 1.8)		
Q: 3	960 (23.6)	21.2 ( 1.9)		
Q: 4	868 (21.3)	21.1 ( 1.7)		
Q: 5	802 (19.7)	20.9 ( 1.6)		
<b>% LS need for help has increased</b>			1.1%	<0.001
Q: 1	926 (22.7)	20.9 ( 1.8)		
Q: 2	969 (23.8)	21.4 ( 1.9)		
Q: 3	745 (18.3)	20.6 ( 1.6)		
Q: 4	780 (19.2)	20.5 ( 1.5)		
Q: 5	592 (14.5)	21.0 ( 1.8)		
<b>% LR LS pressure sores</b>			1.2%	<0.001
Q: 1	507 (12.4)	20.6 ( 1.7)		
Q: 2	779 (19.1)	20.8 ( 1.6)		
Q: 3	1156 (28.4)	21.0 ( 1.7)		
Q: 4	861 (21.1)	21.3 ( 1.9)		
Q: 5	635 (15.6)	20.4 ( 1.6)		
<b>% SS flu vaccine</b>			1.2%	<0.001
Q: 1	868 (21.3)	21.3 ( 1.8)		
Q: 2	828 (20.3)	20.9 ( 1.7)		
Q: 3	734 (18.0)	21.0 ( 1.8)		
Q: 4	612 (15.0)	20.8 ( 1.8)		
Q: 5	339 ( 8.3)	20.3 ( 1.5)		
<b>% SS pne vaccine</b>			0.6%	0.011
Q: 1	779 (19.1)	21.3 ( 1.8)		
Q: 2	854 (21.0)	21.0 ( 1.7)		
Q: 3	759 (18.6)	21.0 ( 1.8)		
Q: 4	598 (14.7)	20.8 ( 1.7)		
Q: 5	416 (10.2)	20.4 ( 1.5)		