

Calibration & discrimination results

The discriminative ability of the case-mix adjustment model is good, with a c-statistic that is very similar to that of other 30-day readmission measures.¹⁻⁴ The model calibration is also good, with a close match between observed and predicted numbers of readmissions.

RISK MODEL DISCRIMINATION STATISTICS

The c-statistic for our case-mix adjustment model, when applied to the MAX dataset, was 0.69.

RISK MODEL CALIBRATION STATISTICS

When we stratified records by age categories, the p-value for the chi-square goodness-of-fit test was not significant (p = .86)

Table 10 – Chi-Square Goodness-of-Fit Test for All-Condition Readmissions: Age

Age Group	Number of Index Admissions	Predicted Cases of Readmission		Observed Cases of Readmission	
		n	(%)	n	(%)
0 years	188,656	10,850	(5.8%)	10,918	(5.8%)
1-4 years	99,732	5,346	(5.4%)	5,374	(5.4%)
5-7 years	30,289	1,473	(4.9%)	1,480	(4.9%)
8-11 years	28,272	1,640	(5.8%)	1,647	(5.8%)
12-17 years	48,486	3,105	(6.4%)	3,122	(6.4%)

This table displays chi-square goodness-of-fit test for all-condition readmissions by age group.

When we stratified records by categories of the number of body systems affected by chronic conditions, the p-value for the chi-square goodness-of-fit test also was not significant (p = .63).

Table 11 – Chi-Square Goodness-of-Fit Test for All-Condition Readmissions: CCI Count

CCI Count	Number of Index Admissions	Predicted Cases of Readmissions		Observed Cases of Readmissions	
		n	(%)	n	(%)
0 or 1 body systems	340,142	15,851	(4.7%)	15,967	(4.7%)
2 body systems	35,802	3,740	(10.4%)	3,749	(10.7%)
3 body systems	13,022	1,807	(13.9%)	1,809	(13.9%)
4+ body systems	6,469	1,016	(15.7%)	1,016	(15.7%)

This table displays chi-square goodness-of-fit test for all-condition readmissions by CCI count.

Figure 1 – Chi-Square Goodness-of-Fit Test for All-Condition Readmissions: Age

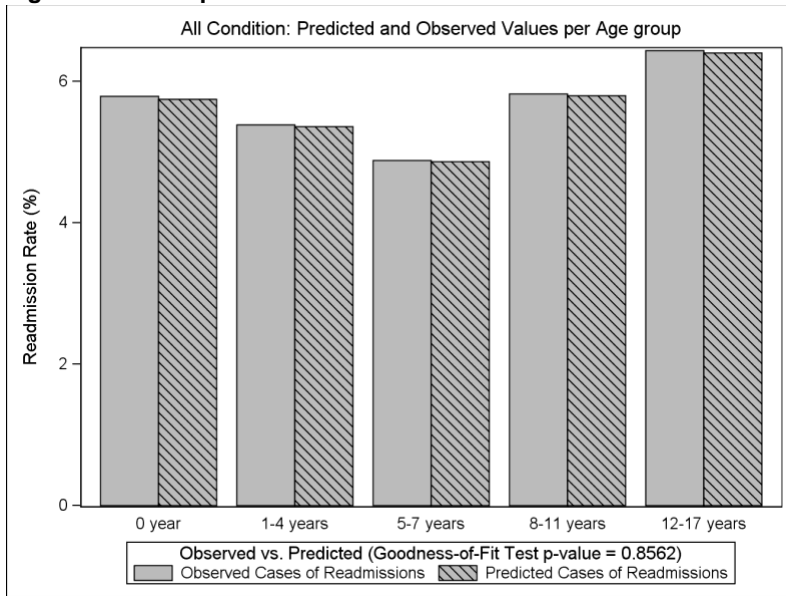


Figure 2 – Chi-Square Goodness-of-Fit Test for All-Condition Readmissions: CCI Count

