

Potentially Preventable Readmissions in Texas

Calendar Year 2016 Report

As Required by

Section 98.1046, Health and Safety Code

Department of State Health Services March 2018

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1. Executive Summary

Public reporting of Potentially Preventable Readmissions (PPR) for nonexempt hospitals is required by the Texas Legislature under Health and Safety Code, Chapter <u>98.1046</u> (S.B. 7, 82nd Legislature, First Called Session, 2011).

A PPR is a readmission (return hospitalization) to an acute care hospital following a prior acute care admission within a specified time interval, for a reason that is clinically related to the initial hospitalization.

PPRs are increasingly viewed as an indicator of healthcare quality, based on the expectation that PPRs could have been prevented with quality care during the initial admission, adequate post-discharge planning and followup, or improved coordination between inpatient and outpatient healthcare services.

- In 2016, slightly over five percent (5.7%) of at-risk admissions in Texas hospitals were followed by one or more PPRs.
- Approximately 78.6% of Texas hospitals (n=386) had a number of PPR chains* that was lower than or equal to the expected number and 21.4% of hospitals (n=105) had more PPR chains than expected.
- Approximately 50.9% of Texas hospitals (n=250) had a number of PPR chains that was lower than or equal to the statewide average of 5.7 PPR chains per 100 at-risk admissions.
- Approximately 49.1% of hospitals (*n*=241) had a higher number of PPR chains per 100 at-risk admissions than the statewide average.

^{*}A PPR chain is a sequence of readmissions (PPR events) that are all clinically related to the same initial hospitalization.

2. Introduction

A Potentially Preventable Readmission (PPR) is a readmission (return hospitalization) to an acute care hospital following a prior acute care admission within a specified time interval, for a reason that is clinically related to the initial hospitalization.

The Department of State Health Services (DSHS) is required by Section <u>98.1046</u>, Texas Health and Safety Code, to publicly report information on Texas hospitals regarding risk-adjusted outcome rates for PPRs. The outcome rates are determined by DSHS to be the most effective measures of quality and efficiency. In publishing the report, DSHS may not disclose the identity of a patient or health care professional.

PPRs are increasingly viewed as an indicator of healthcare quality, based on the expectation that PPRs could have been prevented with quality care during the initial admission, adequate post-discharge planning and followup, or improved coordination between inpatient and outpatient healthcare services.¹

3. Background

All initial hospital admissions are considered at risk for PPR, with the exception of transfer admissions, non-acute care admissions, and other admissions meeting the exclusion criteria listed in the 3M[™] PPR Methodology. (See <u>Appendix B: Methods</u> for a list of exclusion criteria.)

A PPR chain is a sequence of readmissions (PPR events) that are all related to the same initial hospitalization. A PPR chain may contain an initial admission and only one PPR event (the most common situation) or may contain multiple PPR events following the initial admission.

The data presented in this report are based on a 30-day readmission interval, as defined by the 3M[™] Methodology². The first PPR to occur within a 30-day readmission interval opens a PPR chain. Once a PPR chain is opened, any subsequent PPRs that are clinically related to the initial admission are considered part of the chain, even if they occur beyond the 30-day window.

Factors that may influence the occurrence of PPRs include:

- Quality of care rendered during the initial hospital stay³
- Coordination between the inpatient and outpatient healthcare teams⁴
- Quality of medical care following discharge⁵
- Underlying health conditions that were not treated during the initial hospitalization⁶
- Preventable complications that developed after discharge

Analyses were conducted using *the Texas Hospital Inpatient Discharge Research Data File, 2016* (Texas Department of State Health Services, Center for Health Statistics, Austin, Texas. September, 2017)⁷ collected by the Texas Health Care Information Collection program (THCIC) overseen by DSHS. The underlying data were collected in accordance with <u>Chapter 108,</u> <u>Health and Safety Code (HSC)</u>.

4. Results

Calculation Method Overview

In 2016, a total of 3,088,978 admission records were captured from 729 hospitals in Texas. The records went through a series of steps to cleanse the data (<u>Appendix B: Methods</u>). After data cleansing and processing, 80.5% of the total records were included in the PPR analysis, which accounted for 2,458,231 records (i.e., inpatient admissions) from 491 hospitals.

This report used the 3M[™] PPR Methodology to identify admissions at risk for PPR. The number of admissions at risk includes all initial admissions that are at risk for potentially preventable readmissions, excluding admissions meeting the criteria for exclusion as listed in the 3M PPR Methodology. Statewide and hospital-specific PPRs were identified based on a 30-day readmission interval. Statewide aggregate statistics provided in this report include the total number of PPR chains and PPR events at the state level. Hospital-specific information, including actual and risk-adjusted PPR numbers, are reported as well.

According to the 3M[™] PPR methodology, the overall PPR summary statistic is expressed as a percentage (i.e., number of occurrences per 100 events), calculated by dividing the number of PPR chains by the number of admissions at risk and multiplying by 100.

In order to enable comparisons of performance across hospitals, hospital PPR results were risk-adjusted using 3M[™] All Patient Refined Diagnosis-Related Groups (APR-DRGs), a diagnosis and procedure code classification system for inpatient services. This classification system is designed to reflect the clinical complexity and severity of each case. For each hospital, the actual-to-expected ratio was calculated as the actual number of PPR chains divided by the risk-adjusted number of PPR chains (<u>Appendix B: Methods</u>).

Results Overview

Of the 2,458,231 inpatient admissions included in the 2016 PPR analysis, 2,052,682 were classified as admissions at risk for PPR by the 3M[™] PPR methodology. Of these, a total of 117,207 PPR chains were identified, resulting in a statewide average of approximately 5.7 PPR chains per 100 atrisk admissions. Most of the 117,207 PPR chains comprised only one PPR event. However, the average number of PPR events per chain was 1.3, for a total of 150,596 PPR events.

<u>Table 1</u> shows the number and percent of hospitals grouped by actual-toexpected ratios. The categories used (e.g., "lower than expected," "about as expected," "higher than expected") follow the methodology of the Texas Medicaid PPR reports⁸. In 2016, 491 hospitals were included in the statewide PPR analysis. Approximately 78.6% of hospitals (n=386) performed about as expected or had fewer PPR chains than expected, whereas 21.4% of hospitals (n=105) had more PPR chains than expected.

Among the 491 hospitals included in the analysis, 250 (50.9%) had a number of PPR chains per 100 at-risk admissions that was lower than or equal to the statewide average of 5.7, and 241 (49.1%) had a number of PPR chains per 100 at-risk admissions that was higher than the statewide average. Seventy-five percent of hospitals had fewer than 7.6 PPR chains per 100 at-risk admissions. (See <u>Appendix A: Table A1</u> for additional details.)

Table 1: Number and Percentage of Hospitals by PPR Actual-to-Expected Ratio, Texas, 2016

Actual-to- Expected Ratio	Actual-to-Expected Ratio Interpretation	Number of Hospitals	% of Hospitals
less than 0.75	Much lower than expected	123	25.0%
0.75-0.89	Lower than expected	103	21.0%
0.90-1.10 About as expected		160	32.6%
1.11-1.25	Higher than expected	52	10.6%
more than 1.25	Much higher than expected	53	10.8%
	Total Hospitals	491	100.0%

Source: *Texas Hospital Inpatient Discharge Research Data File, 2016.* Texas Department of State Health Services, Center for Health Statistics, Austin, Texas. September, 2017.

Detailed PPR performance indicators for each hospital are presented in <u>Appendix A: Table A2</u>. In <u>Table A2</u>, hospitals with fewer than 40 admissions at risk or fewer than 5 PPR chains were masked for some statistics to protect patient confidentiality under HSC Section <u>98.1046(c)</u>.

<u>Appendix A: Figure A1</u> shows the distribution of Actual-to-Expected Ratios for Texas hospitals in 2016. As shown in <u>Figure A1</u>, over 75% of hospitals had an Actual-to-Expected Ratio less than 1.1.

5. Conclusion

The 2016 Texas Hospital Inpatient Discharge Database was used for preparing the results presented in this report. Of the 2,052,682 at-risk-admissions identified in the database, 5.7% were followed by one or more PPRs.

The current findings are comparable to those from other published reports^{3,6,8} and they suggest that PPRs continue to be prevalent. The reader should be aware that this report is cross sectional in nature, using only calendar year 2016 data. The number of PPRs and the PPR rate will vary from hospital to hospital and year by year, and the 3M[™] methodology utilized in this report accounts for differences in severity of illness, age, and other patient characteristics that have a certain amount of predictability, thus providing a certain degree of comparability between facilities. However, other characteristics affecting patient outcomes are not accounted for, such as patient motivation and environmental or social factors, such as lifestyle, diet, and exercise.⁹

The Department of State Health Services will continue to calculate PPRs for Texas hospitals each year to enable comparisons over time, using the same methodology. The reader is advised to be aware that attempting any comparison of the PPR results in this report with those based on data from other states or national databases may not be valid or correct, due to potential differences in the way data are collected, prepared, and analyzed.

List of Acronyms

Acronym	Full Name
AIDS	Acquired Immune Deficiency Syndrome
APR-DRG	All-Payer Refined - Diagnosis Related Group
CHS	Center for Health Statistics
CMS	Centers for Medicare and Medicaid Services
DSHS	Department of State Health Services
HIV	Human Immunodeficiency Virus
HSC	Health and Safety Code
MH/SA	Mental Health / Substance Abuse
PPR	Potentially Preventable Readmission
RDF	Research Data File
SOI	Severity of Illness
THCIC	Texas Health Care Information Collection

Appendix A: Tables

Table A1: PPR Performance Indicators for Texas Hospitals, 2016

Admissions at Risk	Actual PPR Chains	PPR Events	PPR Chains/ 100 At-risk Admissions	Actual-to- Expected Ratio
2,052,682	117,207	150,596	5.7	1.00

Source: *Texas Hospital Inpatient Discharge Research Data File, 2016*. Texas Department of State Health Services, Center for Health Statistics, Austin, Texas. September, 2017.

Note: Table A1 shows statewide totals and/or averages for all indicators.

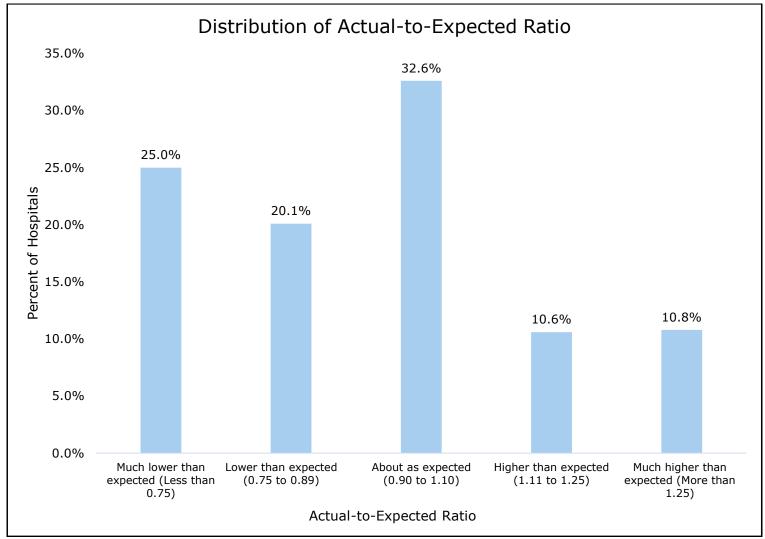


Figure A1: Distribution of PPR Actual-to-Expected Ratio for Texas Hospitals, 2016

Source: *Texas Hospital Inpatient Discharge Research Data File, 2016.* Texas Department of State Health Services, Center for Health Statistics, Austin, Texas. September, 2017.

Table A2: Hospital-Level PPR Performance Indicators and Actual-to-Expected Ratios, Texas, 2016

Notes: (a). The number of initial admissions at risk for a PPR, excluding admissions meeting the criteria for exclusions as listed in the 3M PPR Methodology. (b). Admissions with one or more return admissions that are clinically related to a prior/initial admission, where the first readmission in the chain occurs within a 30-day interval. (c). Risk-adjusted PPR chains per 100 at-risk admissions. (d). The ratio of actual PPRs to expected PPRs. To protect patient confidentiality, admissions-at-risk fewer than 40 and PPR chains fewer than 5 were masked [*lv*].

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
Anderson	Palestine, TX	Palestine Regional Medical Center	629001	3,514	234	6.29	1.01	About as expected
Andrews	Andrews, TX	Permian Regional Medical Center	187000	944	19	2.78	0.65	Much lower than expected
Angolina		CHI St Lukes Health Memorial Lufkin	129000	4,659	358	8.61	0.98	About as expected
Angelina	Lufkin, TX	Woodland Heights Medical Center	481000	4,567	251	5.67	0.97	About as expected
Atascosa	San Antonio- New Braunfels, TX	South Texas Regional Medical Center	334002	1,438	81	5.91	0.81	Lower than expected
Austin	Houston-The Woodlands- Sugar Land, TX	CHI St Joseph Health Bellville Hospital	552000	lv	lv	8.77	1.23	Higher than expected
Bailey	Not Available	Muleshoe Area Medical Center	631000	144	13	9.13	0.76	Lower than expected
Bastrop	Austin-Round Rock, TX	Seton Smithville Regional Hospital	424500	121	8	9.37	0.52	Much lower than expected
Baylor	Not Available	Seymour Hospital	546000	254	18	7.76	0.98	About as expected
Bee	Beeville, TX	CHRISTUS Spohn Hospital-Beeville	429001	1,447	75	5.84	0.78	Lower than expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Risk ^a	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
		Baylor Scott & White McLane Childrens Medical Center	537006	2,452	99	5.24	0.78	Lower than expected
	Killeen-Temple,	Cedar Crest Hospital	806002	2,490	269	8.40	1.29	Much higher than expected
Bell	TX	Metroplex Hospital	397001	4,907	301	5.97	0.96	About as expected
		Scott & White Medical Center Temple	537000	23,512	1,950	8.12	0.97	About as expected
		Seton Medical Center Harker Heights	971000	3,791	185	5.09	0.86	Lower than expected
		Baptist Emergency Hospital Hausman	101100	lv	lv	3.84	1.41	Much higher than expected
		Baptist Emergency Hospital Overlook	972810	lv	lv	3.61	1.79	Much higher than expected
		Baptist Emergency Hospital Thousand Oaks	647000	lv	lv	3.47	1.44	Much higher than expected
		Baptist Emergency Hospital Westover Hills	973000	lv	lv	3.39	1.16	Higher than expected
	San Antonio-	Baptist Emergency Hospital Zarzamora	975179	lv	lv	5.35	1.40	Much higher than expected
Bexar	New Braunfels,	Baptist Medical Center	114001	12,917	1,062	7.84	1.10	About as expected
	ТХ	CHRISTUS Santa Rosa Hospital Alamo Heights	973930	483	20	4.09	0.60	Much lower than expected
		CHRISTUS Santa Rosa Hospital-Westover Hills	339002	7,767	502	6.92	0.91	About as expected
		CHRISTUS Santa Rosa Medical Center	339001	3,392	313	9.63	0.93	About as expected
		Childrens Hospital of San Antonio	634000	4,769	153	3.62	0.91	About as expected
		Clarity Child Guidance Center	737000	1,618	185	7.83	1.37	Much higher than expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
		Cumberland Surgical Hospital	974980	lv	lv	3.97	0.13	Much lower than expected
		Foundation Surgical Hospital-San Antonio	852100	1,083	30	3.54	0.76	Lower than expected
		Methodist Ambulatory Surgery Hospital- Northwest	681001	442	10	2.75	0.85	Lower than expected
		Methodist Hospital	154000	30,940	1,524	5.05	0.94	About as expected
		Methodist Specialty & Transplant Hospital	154001	6,326	659	9.45	1.09	About as expected
		Methodist Stone Oak Hospital	874100	9,740	482	5.19	0.88	Lower than expected
		Methodist Texsan Hospital	154003	2,747	250	7.77	1.15	Higher than expected
		Metropolitan Methodist Hospital	283000	14,941	789	4.86	1.06	About as expected
		Mission Trail Baptist Hospital	081001	4,731	369	9.03	0.83	Lower than expected
		Nix Health Care System	396002	2,628	232	9.44	0.97	About as expected
		North Central Baptist Hospital	677001	15,834	481	3.54	0.79	Lower than expected
		Northeast Baptist Hospital	134001	9,252	519	6.69	0.78	Lower than expected
		Northeast Methodist Hospital	154002	5,624	500	8.60	0.91	About as expected
		South Texas Spine & Surgical Hospital	786800	996	37	4.28	0.70	Much lower than expected
		Southwest General Hospital	228001	7,888	537	6.03	1.27	Much higher than expected
		St Lukes Baptist Hospital	503001	12,145	455	3.95	0.93	About as expected
		University Hospital	158000	22,488	1,486	6.01	1.05	About as expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
Bosque	Not Available	Goodall - Witcher Hospital	070000	275	13	6.18	0.70	Much lower than expected
Bowie	Texarkana, TX-	CHRISTUS St Michael Health System	788001	9,960	603	6.78	0.91	About as expected
Dowie	AR	Wadley Regional Medical Center	144000	6,223	389	6.22	1.02	About as expected
		CHI St Lukes Health Brazosport	436000	3,499	266	6.26	1.13	Higher than expected
	Heusten The	Memorial Hermann Pearland Hospital	975138	1,747	137	7.77	0.91	About as expected
Brazoria	Houston-The Woodlands- Sugar Land, TX	Pearland Medical Center	974390	1,546	117	5.69	1.45	Much higher than expected
		Sweeny Community Hospital	178000	106	9	8.99	1.05	About as expected
		UTMB Angleton Danbury Medical Center	126000	1,640	106	4.69	1.06	About as expected
		Baylor Scott & White Hospital College Station	206100	5,362	220	5.28	0.77	Lower than expected
Brazos	College Station-Bryan,	College Station Medical Center	071000	4,193	174	4.48	0.78	Lower than expected
DI d205	тх	Physicians Centre Hospital	717500	249	8	3.54	0.96	About as expected
		St Joseph Regional Health Center	002001	9,872	641	7.00	0.97	About as expected
Brewster	Not Available	Big Bend Regional Medical Center	711900	681	21	4.06	0.53	Much lower than expected
Brown	Brownwood, TX	Brownwood Regional Medical Center	058000	2,709	122	5.34	0.86	Lower than expected
Burleson	College Station-Bryan, TX	Burleson St Joseph Health Center-Caldwell	679000	lv	lv	7.83	0.52	Much lower than expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
Burnet	Not Available	Baylor Scott & White Medical Center Marble Falls	974940	1,807	95	5.76	0.86	Lower than expected
		Seton Highland Lakes Hospital	559000	590	49	7.25	1.03	About as expected
Caldwell	Austin-Round Rock, TX	Seton Edgar B Davis Hospital	597000	383	33	8.91	0.77	Lower than expected
Calhoun	Port Lavaca, TX	Memorial Medical Center	487000	742	59	7.07	0.80	Lower than expected
		Harlingen Medical Center	788002	4,938	279	5.78	0.99	About as expected
	Brownsville- Harlingen, TX	Valley Baptist Medical Center	400000	13,551	744	5.66	0.97	About as expected
Cameron		Valley Baptist Medical Center-Brownsville	314001	10,279	597	5.36	1.17	Higher than expected
		Valley Regional Medical Center	019000	8,274	433	4.42	1.31	Much higher than expected
Camp	Not Available	East Texas Medical Center-Pittsburg	438000	621	62	7.26	1.20	Higher than expected
Cass	Not Available	Christus St Michael Hospital Atlanta	788003	440	40	11.70	0.82	Lower than expected
Castro	Not Available	Plains Memorial Hospital	260000	lv	lv	7.46	0.47	Much lower than expected
Chambara	Houston-The Woodlands-	Bayside Community Hospital	442000	85	12	6.00	2.48	Much higher than expected
Chambers	Sugar Land, TX	Winnie Community Hospital	781400	193	24	8.10	1.23	Higher than expected
Charalise	Jacksonville,	Christus Mother Frances Hospital-Jacksonville	725400	449	40	8.49	1.01	About as expected
Cherokee	ТХ	East Texas Medical Center-Jacksonville	416000	1,481	57	3.95	0.79	Lower than expected
Childress	Not Available	Childress Regional Medical Center	026000	742	21	3.60	0.75	Much lower than expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
Clay	Wichita Falls, TX	Clay County Memorial Hospital	193000	72	14	7.21	2.15	Much higher than expected
Cochran	Not Available	Cochran Memorial Hospital	159000	lv	lv	7.94	0.00	Much lower than expected
Coleman	Not Available	Coleman County Medical Center	049000	433	49	6.31	1.66	Much higher than expected
		Baylor Emergency Medical Center at Murphy	973550	lv	lv	4.29	2.10	Much higher than expected
		Baylor Scott & White Medical Center Centennial	806300	3,006	124	5.07	0.80	Lower than expected
		Baylor Scott & White Medical Center McKinney	971900	6,907	317	4.51	0.95	About as expected
		Baylor Scott & White Medical Center-Frisco	787400	5,843	55	1.71	0.73	Much lower than expected
		Baylor Scott & White Medical Center-Plano	814001	4,259	335	8.59	0.91	About as expected
		Bush Renner	549001	6,611	287	4.57	0.87	Lower than expected
Collin	Dallas-Fort Worth- Arlington, TX	Childrens Medical Center Plano	143001	1,691	70	5.16	0.78	Lower than expected
	Anington, TA	Columbia Medical Center- McKinney	246000	7,330	547	6.52	1.19	Higher than expected
		Eminent Medical Center	975168	lv	lv	3.20	0.00	Much lower than expected
		Heart Hospital Baylor Plano	844000	3,403	286	9.52	0.86	Lower than expected
		Medical Center-Plano	214000	13,836	711	5.54	0.88	Lower than expected
		Medical City Frisco	975139	348	15	5.03	0.62	Much lower than expected
		Methodist McKinney Hospital	937000	768	24	3.57	0.58	Much lower than expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
		Star Medical Center	973390	144	5	4.60	0.71	Much lower than expected
		Texas Health Center- Diagnostics & Surgery Plano	815300	lv	lv	3.97	0.11	Much lower than expected
		Texas Health Presbyterian Hospital Allen	724200	3,032	125	4.43	0.90	About as expected
		Texas Health Presbyterian Hospital-Plano	664000	14,382	506	3.81	0.89	Lower than expected
Collingsworth	Not Available	Collingsworth General Hospital	195000	101	14	6.00	1.81	Much higher than expected
	Not Available	Columbus Community Hospital	014000	985	37	4.79	0.66	Much lower than expected
Colorado		Rice Medical Center	560000	213	11	5.93	0.46	Much lower than expected
		Weimar Medical Center	974480	74	7	9.16	0.75	Lower than expected
	San Antonio-	Baptist Emergency Hospital Schertz	973120	lv	lv	3.68	0.44	Much lower than expected
Comal	New Braunfels, TX	CHRISTUS Santa Rosa Hospital New Braunfels	863300	3,207	222	7.45	0.88	Lower than expected
		Resolute Health	973850	3,404	209	5.15	0.97	About as expected
Comanche	Not Available	Comanche County Medical Center	495001	286	32	8.72	1.09	About as expected
Concho	Not Available	Concho County Hospital	202000	lv	lv	5.83	1.19	Higher than expected
Cooke		Muenster Memorial Hospital	365000	lv	lv	5.51	0.00	Much lower than expected
COOKE	Gainesville, TX	North Texas Medical Center	298000	1,106	37	3.93	0.91	About as expected
Coryell	Killeen-Temple, TX	Coryell Memorial Hospital	346000	333	26	6.43	0.80	Lower than expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains ^b	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
Crane	Not Available	Crane Memorial Hospital	467000	lv	lv	7.93	0.85	Lower than expected
Crosby	Lubbock, TX	Crosbyton Clinic Hospital	176000	99	10	8.33	1.44	Much higher than expected
Culberson	Not Available	Culberson Hospital	139000	lv	lv	5.41	1.08	About as expected
		Baylor Heart & Vascular Center	784400	1,487	110	8.54	0.81	Lower than expected
		Baylor Medical Center at Uptown	008001	1,147	20	3.41	0.40	Much lower than expected
	Dallas-Fort	Baylor Scott & White Medical Center Sunnyvale	919000	3,682	197	6.03	0.89	Lower than expected
		Baylor Scott & White Medical Center White Rock	511000	5,623	305	5.35	1.00	About as expected
		Baylor Scott & White Medical Center-Garland	027000	4,126	370	9.77	0.92	About as expected
		Baylor Scott & White Medical Center-Irving	300000	8,038	482	5.70	1.06	About as expected
Dallas	Worth- Arlington, TX	Baylor Surgical Hospital at Las Colinas	799500	743	18	3.15	0.84	Lower than expected
		Baylor University Medical Center	331000	24,657	1,399	6.24	0.94	About as expected
		Childrens Medical Center- Dallas	143000	8,642	513	6.52	1.20	Higher than expected
		Crescent Medical Center Lancaster	973180	296	17	7.30	0.75	Much lower than expected
		Dallas Medical Center	449000	3,313	212	6.18	1.34	Much higher than expected
		Dallas Regional Medical Center	315003	4,024	305	7.73	1.05	About as expected
		First Baptist Medical Center	975129	235	17	5.78	0.84	Lower than expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Risk ^a	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
		HealthSouth Rehab Hospital Dallas	680001	207	6	8.55	0.31	Much lower than expected
		Las Colinas Medical Center	814000	4,836	152	3.24	0.99	About as expected
		Medical City Dallas Hospital	340000	19,273	815	4.89	0.85	Lower than expected
		Methodist Charlton Medical Center	142000	8,259	500	6.25	1.05	About as expected
		Methodist Dallas Medical Center	255000	11,648	522	5.23	0.92	About as expected
		Methodist Hospital for Surgery	750000	1,959	66	5.09	0.52	Much lower than expected
		Methodist Richardson Medical Center	549000	686	68	8.88	0.98	About as expected
		North Central Surgical Center	860600	1,209	29	2.85	0.73	Much lower than expected
		Our Childrens House	975010	184	7	6.54	0.43	Much lower than expected
		Parkland Memorial Hospital	474000	33,738	1,153	3.71	1.04	About as expected
		Pine Creek Medical Center	818200	1,185	31	3.39	0.96	About as expected
		Texas Health Hospital	974800	241	10	6.24	0.44	Much lower than expected
		Texas Health Presbyterian Hospital Dallas	431000	20,432	850	4.99	0.76	Lower than expected
		Texas Institute for Surgery-Texas Health Presbyterian-Dallas	813100	371	6	3.37	0.24	Much lower than expected
		Texas Scottish Rite Hospital for Children	054000	320	6	3.25	0.90	About as expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Risk ^a	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
		UT Southwestern University Hospital-St Paul	448001	12,097	1,055	8.25	1.05	About as expected
		UT Southwestern University Hospital-Zale Lipshy	653001	3,269	211	7.24	0.93	About as expected
		Walnut Hill Medical Center	973750	1,281	142	9.51	1.13	Higher than expected
Dawson	Lamesa, TX	Medical Arts Hospital	341000	392	11	3.20	1.02	About as expected
DeWitt	Not Available	Cuero Regional Hospital	074000	675	44	6.10	0.87	Lower than expected
Deaf Smith	Hereford, TX	Hereford Regional Medical Center	420000	254	7	6.84	0.23	Much lower than expected
		Baylor Emergency Medical Center at Aubrey	873200	lv	lv	3.78	2.26	Much higher than expected
		Baylor Medical Center Trophy Club	805100	777	37	4.18	1.04	About as expected
		Baylor Scott & White Medical Center Carrollton	042000	4,141	217	6.29	0.78	Lower than expected
	Dallas-Fort	Denton Regional Medical Center	336001	5,637	504	8.40	1.04	About as expected
Denton	Worth-	Medical Center-Lewisville	394000	5,724	288	4.77	1.02	About as expected
	Arlington, TX	Plano Surgical Hospital	974920	163	6	5.01	0.64	Much lower than expected
		Texas Health Presbyterian Hospital Flower Mound	943000	5,901	136	3.34	0.59	Much lower than expected
		Texas Health Presbyterian Hospital-Denton	820800	8,855	393	4.46	0.99	About as expected
		The Heart Hospital Baylor Denton	208100	385	36	7.95	1.04	About as expected
Dimmit	Not Available	Dimmit Regional Hospital	156000	346	17	3.93	1.72	Much higher than expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains ^b	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
Eastland	Not Available	Eastland Memorial Hospital	222000	356	34	10.70	0.90	About as expected
		Medical Center Hospital	181000	10,816	631	6.26	0.88	Lower than expected
Ector	Odessa, TX	Odessa Regional Medical Center	425000	6,234	192	3.22	0.99	About as expected
		Odessa Regional Medical Center South Campus	974830	lv	lv	2.06	0.00	Much lower than expected
		Del Sol Medical Center	319000	13,973	883	5.49	1.16	Higher than expected
		El Paso Childrens Hospital	969700	2,069	74	4.39	0.89	Lower than expected
		El Paso Specialty Hospital	728200	594	19	2.99	1.05	About as expected
		Foundation Surgical Hospital of El Paso	801300	667	17	4.06	0.68	Much lower than expected
El Paso	El Paso, TX	Las Palmas Medical Center	180000	9,760	544	5.12	1.06	About as expected
		The Hospitals of Providence East Campus	865000	10,372	637	5.13	1.19	Higher than expected
		The Hospitals of Providence Memorial Campus	130000	15,064	656	4.42	0.98	About as expected
		The Hospitals of Providence Sierra Campus	266000	8,287	561	6.20	1.01	About as expected
		University Medical Center of El Paso	263000	13,144	641	4.82	0.93	About as expected
Ellis	Dallas-Fort Worth-	Baylor Scott & White Medical Center Waxahachie	285000	5,009	316	6.13	0.99	About as expected
	Arlington, TX	Ennis Regional Medical Center	714500	584	33	7.55	0.72	Much lower than expected

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Erath	Stephenville, TX	Texas Health Harris Methodist Hospital- Stephenville	256000	1,760	107	4.95	0.93	About as expected
Falls	Waco, TX	Falls Community Hospital & Clinic	517000	294	21	8.00	0.77	Lower than expected
Fannin	Not Available	TMC Bonham Hospital	106001	369	29	9.35	1.03	About as expected
Fayette	Not Available	St Marks Medical Center	823400	1,048	46	6.19	0.64	Much lower than expected
Fisher	Not Available	Fisher County Hospital District	355000	lv	lv	7.48	0.68	Much lower than expected
Floyd	Not Available	WJ Mangold Memorial Hospital	010000	209	11	6.52	0.44	Much lower than expected
		Emerus Hospital	916000	lv	lv	4.59	0.00	Much lower than expected
		Hospital for Surgical Excellence of Oakbend Medical Center	230002	lv	lv	2.90	0.00	Much lower than expected
		Houston Methodist Sugar Land Hospital	823000	15,516	927	5.41	1.24	Higher than expected
	Lloueton The	Memorial Hermann Katy Hospital	534001	9,770	479	4.93	0.99	About as expected
Fort Bend	Houston-The Woodlands- Sugar Land, TX	Memorial Hermann Sugar Land	609001	6,449	333	4.47	1.15	Higher than expected
	Sugar Lanu, TX	Memorial Hermann Surgical Hospital First Colony	790500	333	6	2.94	0.77	Lower than expected
		Oakbend Medical Center	230000	2,388	285	10.20	1.22	Higher than expected
		Oakbend Medical Center (Southwest Freeway)	230001	3,122	70	2.02	1.26	Much higher than expected
		St Lukes Sugar Land Hospital	869700	3,917	230	5.30	1.18	Higher than expected

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Freestone	Not Available	East Texas Medical Center-Fairfield	401000	259	28	9.94	0.95	About as expected
Frie	Frio Not Available	Frio Regional Hospital	441000	210	11	5.26	1.23	Higher than expected
FIIO	NOL AVAIIADIE	Nix Community General Hospital	973150	lv	lv	6.53	4.02	Much higher than expected
Gaines	Not Available	Memorial Hospital	113000	1,015	15	1.85	0.60	Much lower than expected
		League City Campus Hospital	975140	805	30	2.76	1.09	About as expected
Calvester	Houston-The	Mainland Medical Center	793000	5,142	579	9.17	1.29	 Much higher than expected Much higher than expected About as expected
Galveston	Woodlands- Sugar Land, TX	Shriners Hospital for Children-Galveston	247000	lv	lv	0.68	2.46	
		UT Medical Branch Hospital	000102	21,623	1,141	4.88	1.02	About as expected
Gillespie	Fredericksburg, TX	Hill Country Memorial Hospital	219000	2,323	74	5.43	0.58	Much lower than expected
Gonzales	Not Available	Memorial Hospital	103000	575	25	3.52	0.99	About as expected
Gray	Pampa, TX	Pampa Regional Medical Center	832900	2,001	142	7.24	0.83	Lower than expected
		Baylor Scott & White Surgical Hospital at Sherman	974910	467	8	3.39	0.46	Much lower than expected
Grayson	Sherman- Denison, TX	Texoma Medical Center	847000	11,693	978	8.01	1.12	Higher than expected
		Wilson N Jones Regional Medical Center	297000	3,328	261	7.53	1.30	Much higher than expected
Gregg	Longview, TX	Allegiance Specialty Hospital-Kilgore	031001	231	23	12.30	0.84	Lower than expected

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		CHRISTUS Good Shepherd Medical Center- Longview	029000	11,482	807	6.46	1.09	About as expected
		Longview Regional Medical Center	525000	8,324	441	5.33	0.99	About as expected
Grimes	Not Available	CHI St Joseph Health Grimes Hospital	728800	58	8	9.00	1.54	Much higher than expected
Guadalupe	San Antonio- New Braunfels, TX	Guadalupe Regional Medical Center	155000	3,596	188	4.79	1.03	About as expected
Hale	Plainview, TX	Covenant Hospital- Plainview	146000	1,623	85	5.03	0.84	Lower than expected
Hamilton	Not Available	Hamilton General Hospital	640000	594	41	8.23	0.62	Much lower than expected
Hansford	Not Available	Hansford County Hospital	395000	lv	lv	7.68	0.00	Much lower than expected
Hardeman	Not Available	Chillicothe Hospital	523000	lv	lv	7.79	1.57	Much higher than expected
пагиеттап	NOL AVAIIADIE	Hardeman County Memorial Hospital	102000	lv	lv	8.78	0.69	Much lower than expected
		AD Hospital East	975130	lv	lv	4.84	0.86	Lower than expected
		Altus Baytown Hospital	973860	180	8	3.29	1.65	Much higher than expected
l la mia	Houston-The	Bay Area Regional Medical Center	973960	3,975	382	8.01	1.22	Higher than expected
	Woodlands- Sugar Land, TX	Bayshore Medical Center	349001	11,634	669	5.39	1.15	Higher than expected
		Bellaire Surgical Hospital	975131	446	10	4.00	0.94	About as expected
		CHI St Lukes Health Baylor College of Medicine Medical Center	118000	16,780	1,653	9.53	1.09	About as expected

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		CHI St Lukes Health Pinecroft Hospital	975181	lv	lv	2.21	0.00	Much lower than expected
		CHI St Lukes Health Springwoods Village	975122	lv	lv	5.37	0.00	Much lower than expected
		Clear Lake Regional Medical Center	212000	18,618	1,001	5.20	1.00	About as expected
		Cypress Creek Hospital	744001	2,895	211	8.77	0.74	Much lower than expected
		Cypress Fairbanks Medical Center	606000	10,049	307	3.06	1.01	About as expected
		East Houston Regional Medical Center	458001	6,472	367	4.95	1.36	Much higher than expected
		Emerus Community Hospital	973600	lv	lv	2.91	0.63	Much lower than expected
		First Nobilis Hospital	974450	lv	lv	3.81	0.27	Much lower than expected
		First Texas Hospital	975166	lv	lv	7.07	0.93	About as expected
		Harris Health System Ben Taub Hospital	459000	17,966	988	5.19	0.99	About as expected
		Harris Health System Lyndon B Johnson Hospital	384000	10,332	585	5.13	1.13	Higher than expected
		HealthBridge Childrens Hospital-Houston	712500	lv	lv	10.60	0.30	Much lower than expected
		Houston Hospital for Specialized Surgery	758000	lv	lv	3.92	0.00	Much lower than expected
		Houston Methodist Hospital	124000	25,538	2,447	8.87	1.16	Higher than expected
		Houston Methodist San Jacinto Hospital	405000	9,904	761	6.98	1.11	Higher than expected
		Houston Methodist St Catherine Hospital	973620	lv	lv	13.80	0.51	Much lower than expected

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		Houston Methodist St John Hospital	973640	4,278	319	7.17	0.91	About as expected
		Houston Methodist West Hospital	800010	10,481	528	5.18	1.08	About as expected
		Houston Methodist Willowbrook Hospital	724700	16,234	998	5.53	1.09	About as expected
		Houston Northwest Medical Center	229000	16,360	827	4.54	1.16	Higher than expected
		Houston Physicians Hospital	822001	576	20	3.15	0.86	Lower than expected
		Memorial Hermann Greater Heights Hospital	172000	10,364	752	6.27	1.29	Much higher than expected
		Memorial Hermann Hospital	347000	31,733	1,908	5.37	1.08	About as expected
		Memorial Hermann Memorial City Medical Center	302000	19,468	958	5.07	1.05	About as expected
		Memorial Hermann Northeast	847100	10,251	811	6.85	1.20	Higher than expected
		Memorial Hermann Orthopedic and Spine Hospital	974820	1,549	56	3.93	1.08	About as expected
		Memorial Hermann Southeast Hospital	119000	12,299	966	6.92	1.20	Higher than expected
		Memorial Hermann Southwest Hospital	407000	15,598	956	5.58	1.23	Higher than expected
		Memorial Hermann Specialty Hospital Kingwood	813800	lv	lv	2.24	0.96	About as expected
		North Cypress Medical Center	843200	6,824	615	8.76	1.06	About as expected
		Park Plaza Hospital	390000	2,323	222	8.74	1.03	About as expected

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		Providence Hospital of North Houston	975152	lv	lv	4.18	0.16	Much lower than expected
		Red Oak Hospital	970160	lv	lv	1.71	0.00	Much lower than expected
		Shriners Hospitals for Children	526000	lv	lv	2.59	0.41	Much lower than expected
		St Joseph Medical Center	838600	13,356	586	4.38	1.16	Higher than expected
		St Joseph Medical Center- Heights	973100	538	77	9.79	1.39	Much higher than expected
		St Lukes Hospital at the Vintage	740000	4,065	215	4.60	1.16	Higher than expected
		St Lukes Patients Medical Center	846100	2,479	164	8.39	0.70	Much lower than expected
		Surgery Specialty Hospitals of America- Southeast Houston	694100	lv	lv	2.83	3.63	Much higher than expected
		TOPS Surgical Specialty Hospital	674000	632	9	2.99	0.46	Much lower than expected
		Texas Childrens Hospital	117000	12,577	767	6.43	1.11	Higher than expected
		Texas Childrens Hospital West Campus	117002	2,986	138	5.58	0.86	Lower than expected
		Texas Childrens Hospital- Pavilion for Women	117100	10,440	112	0.73	1.17	Higher than expected
		Texas Orthopedic Hospital	792000	3,158	72	3.78	0.55	Much lower than expected
		Tomball Regional Medical Center	076000	7,371	493	6.71	1.04	About as expected
		UT MD Anderson Cancer Center	000105	4,236	222	6.97	0.55	Much lower than expected

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		United Memorial Medical Center	030000	732	90	7.96	1.55	Much higher than expected
		University General Hospital	840200	1,072	112	8.68	1.10	About as expected
		Victory Medical Center Houston	945500	834	22	3.83	0.86	Lower than expected
		West Houston Medical Center	337001	11,430	652	5.04	1.23	Higher than expected
		Westside Surgical Hospital	101300	lv	lv	3.58	0.19	Much lower than expected
		Womans Hospital-Texas	007000	21,931	245	0.88	1.12	Higher than expected
Harrison	Marshall, TX	CHRISTUS Good Shepherd Medical Center- Marshall	020000	2,885	224	5.95	1.37	Much higher than expected
Hartley	Not Available	Coon Memorial Hospital & Home	262000	373	21	3.09	1.65	Much higher than expected
Haskell	Not Available	Haskell Memorial Hospital	572000	103	6	6.67	0.69	Much lower than expected
Hays	Austin-Round	Central Texas Medical Center	556000	3,400	200	5.27	1.16	Higher than expected
Tiays	Rock, TX	Seton Medical Center Hays	921000	6,133	375	6.33	0.92	About as expected
Hemphill	Not Available	Hemphill County Hospital	457000	79	6	6.77	1.58	Much higher than expected
Henderson	Athens, TX	East Texas Medical Center-Athens	374000	4,544	242	5.30	0.92	About as expected
		Cornerstone Regional Hospital	830000	612	17	2.88	0.69	Much lower than expected
Hidalgo	McAllen- Edinburg- Mission TX	Doctors Hospital- Renaissance	797100	14,660	1,338	8.22	1.17	Higher than expected
	Mission, TX	Edinburg Regional Medical Center	140002	5,722	306	5.03	1.17	Higher than expected

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		Knapp Medical Center	480000	7,318	416	5.38	1.32	Much higher than expected
		McAllen Heart Hospital	802003	2,232	253	10.20	1.31	Much higher than expected
		McAllen Medical Center	802001	11,157	1,107	7.20	2.18	Much higher than expected
		Mission Regional Medical Center	370000	8,049	420	4.57	1.25	Higher than expected
		Rio Grande Regional Hospital	601000	12,768	722	5.23	1.18	Higher than expected
		Womens Hospital- Renaissance	797101	15,222	84	0.68	0.86	Lower than expected
Hill	Not Available	Hill Regional Hospital	383000	878	40	6.30	0.65	Much lower than expected
Hockley	Levelland, TX	Covenant Hospital- Levelland	307000	701	14	4.56	0.31	Much lower than expected
Hood	Dallas-Fort Worth- Arlington, TX	Lake Granbury Medical Center	424000	2,753	139	5.75	0.81	Lower than expected
Hopkins	Sulphur	Christus Mother Frances Hospital Sulphur Springs	975159	1,189	51	4.59	0.74	Much lower than expected
поркінз	Springs, TX	Hopkins County Memorial Hospital	280000	1,536	59	4.71	1.04	About as expected
Houston	Not Available	Houston County Medical Center	974710	474	15	5.57	0.29	Much lower than expected
Houston	n Not Available	Timberlands Hospital	975180	lv	lv	5.35	0.31	Much lower than expected
Howard	Big Spring, TX	Scenic Mountain Medical Center	221000	1,968	140	6.23	0.96	About as expected
Hunt	Dallas-Fort Worth- Arlington, TX	Hunt Regional Medical Center Greenville	085000	4,040	252	6.29	0.96	About as expected

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Hutchinson	Borger, TX	Golden Plains Community Hospital	654000	882	29	3.21	1.01	About as expected
Jack	Not Available	Faith Community Hospital	046000	124	6	4.28	0.82	Lower than expected
Jackson	Not Available	Jackson County Hospital	017000	lv	lv	6.81	1.15	Higher than expected
Jasper	Not Available	CHRISTUS Southeast Texas - Jasper Memorial	038001	1,057	59	5.99	0.92	About as expected
		Baptist Hospitals of Southeast Texas	389000	13,197	952	6.13	1.07	About as expected
		CHRISTUS Southeast Texas - St Elizabeth	444001	12,385	782	6.26	1.02	About as expected
Jefferson	Beaumont-Port Arthur, TX	CHRISTUS Southeast Texas -St Mary	299001	lv	lv	3.37	0.39	Much lower than expected
		Medical Center of Southeast Texas Victory Campus	975111	136	7	3.79	0.84	Lower than expected
		Medical Center-Southeast Texas	464002	7,612	465	5.68	1.12	Higher than expected
Jim Wells	Alice, TX	CHRISTUS Spohn Hospital Alice	689401	2,308	183	7.04	0.96	About as expected
Johnson	Dallas-Fort Worth- Arlington, TX	Texas Health Harris Methodist Hospital Cleburne	323000	2,596	154	6.39	0.75	Lower than expected
		Anson General Hospital	016000	252	26	9.82	0.67	Much lower than expected
Jones	Abilene, TX	Hamlin Memorial Hospital	305000	lv	lv	8.64	0.80	Lower than expected
		Stamford Memorial Hospital	043000	68	11	7.71	1.76	Much higher than expected
Karnes	Not Available	Otto Kaiser Memorial Hospital	357000	162	11	8.61	0.90	About as expected

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Kaufman	Dallas-Fort Worth- Arlington, TX	Texas Health Presbyterian Hospital-Kaufman	303000	1,012	76	6.78	0.84	Lower than expected
Kerr	Kerrville, TX	Peterson Regional Medical Center	406000	3,770	222	7.69	0.75	Lower than expected
Kimble	Not Available	Kimble Hospital	205000	64	7	9.64	0.84	Lower than expected
Kleberg	Kingsville, TX	CHRISTUS Spohn Hospital-Kleberg	216001	2,245	159	6.72	1.00	About as expected
Knox	Not Available	Knox County Hospital	568000	lv	lv	6.71	0.46	Much lower than expected
Lamb	Not Available	Lamb Healthcare Center	217000	287	5	3.22	0.36	Much lower than expected
Lampasas	Killeen-Temple, TX	Rollins Brooks Community Hospital	397000	310	20	8.13	0.76	Lower than expected
Lavaca	Not Available	Lavaca Medical Center	527000	330	26	8.04	0.80	Lower than expected
		Yoakum Community Hospital	023000	572	45	7.06	1.04	About as expected
Liberty	Houston-The Woodlands- Sugar Land, TX	Cleveland Emergency Hospital	975112	lv	lv	3.52	0.98	About as expected
		Liberty Dayton Regional Medical Center	089001	108	11	8.48	1.16	Higher than expected
Limestone	Not Available	Limestone Medical Center	052000	207	13	7.90	0.72	Much lower than expected
		Parkview Regional Hospital	505000	369	18	9.72	0.60	Much lower than expected
Llano	Not Available	Baylor Scott & White Medical Center Llano	476000	154	19	9.34	1.03	About as expected
Lubbock	Lubbock, TX	Covenant Childrens Hospital	686000	1,273	42	4.46	0.77	Lower than expected

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		Covenant Medical Center	465000	11,763	761	10.10	0.62	Much lower than expected
		Covenant Medical Center- Lakeside	109000	4,754	62	1.56	0.69	Much lower than expected
		Grace Medical Center	013001	984	18	4.09	0.38	Much lower than expected
		Lubbock Heart Hospital	801500	2,357	145	7.41	0.69	Much lower than expected
		University Medical Center	145000	15,139	803	5.49	0.95	About as expected
Lynn	Lubbock, TX	Lynn County Hospital District	192000	lv	lv	9.55	0.32	Much lower than expected
Madison	Not Available	CHI St Joseph Health Madison Hospital	041000	85	7	10.30	0.59	Much lower than expected
Martin	Midland, TX	Martin County Hospital District	388000	68	7	7.48	2.03	Much higher than expected
Matagorda	Bay City, TX	Matagorda Regional Medical Center	006000	2,121	123	5.19	1.33	Much higher than expected
		Palacios Community Medical Center	574001	lv	lv	8.34	0.49	Much lower than expected
Maverick	Eagle Pass, TX	Fort Duncan Regional Medical Center	547001	3,914	191	4.80	1.08	About as expected
McCulloch	Not Available	Heart of Texas Healthcare System	362000	119	12	9.19	0.92	About as expected
McLennan	Waco, TX	Baylor Scott & White Medical Center Hillcrest	506001	4,092	223	5.25	0.94	About as expected
		Providence Health Center	040000	13,649	886	7.50	0.78	Lower than expected
Medina	San Antonio- New Braunfels, TX	Medina Regional Hospital	427000	523	24	4.45	0.84	Lower than expected
Midland	Midland, TX	Midland Memorial Hospital	452000	10,628	530	5.33	0.91	About as expected
Milam	Not Available	Little River Healthcare	369000	172	15	7.66	0.90	About as expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Risk ^a	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
		Little River Healthcare - Cameron Hospital	973740	lv	lv	6.30	0.69	Much lower than expected
Mitchell	Not Available	Mitchell County Hospital	075000	235	15	8.62	1.08	About as expected
Montague	Not Available	Nocona General Hospital	348000	343	27	8.58	0.83	Lower than expected
		Apollo Hospital	973440	98	5	6.57	1.31	Much higher than expected
		Conroe Regional Medical Center	508001	10,973	870	6.62	1.13	Higher than expected
	Houston-The Woodlands- Sugar Land, TX	Kingwood Medical Center	675000	14,309	956	5.69	1.24	Higher than expected
Montgomery		Memorial Hermann The Woodlands Hospital	615000	17,625	866	4.28	1.19	Higher than expected
		St Lukes Lakeside Hospital	923000	649	29	4.02	0.94	About as expected
		St Lukes The Woodlands Hospital	793100	9,594	533	5.55	1.03	About as expected
		Woodlands Specialty Hospital	974150	144	7	5.49	0.77	Lower than expected
Moore	Dumas, TX	Memorial Hospital	199000	807	18	2.31	1.01	About as expected
Nacadashaa	Nacogdoches,	Nacogdoches Medical Center	392000	3,326	231	6.46	1.04	About as expected
Nacogdoches	ТХ	Nacogdoches Memorial Hospital	478000	3,681	237	5.55	1.25	Much higher than expected
Navarro	Corsicana, TX	Navarro Regional Hospital	141000	2,394	138	5.73	1.06	About as expected
Nolan	Sweetwater, TX	Rolling Plains Memorial Hospital	471000	905	39	4.56	1.01	About as expected
Nueces	Corpus Christi,	CHRISTUS Spohn Hospital Corpus Christi	398000	3,104	229	7.85	0.86	Lower than expected
NUECES	ТХ	CHRISTUS Spohn Hospital Corpus Christi-Shoreline	398001	11,376	1,090	9.47	1.00	About as expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains ^ь	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
		CHRISTUS Spohn Hospital Corpus Christi-South	398002	6,772	190	3.42	0.77	Lower than expected
		Corpus Christi Medical Center-Bay Area	703000	9,999	177	2.10	0.87	Lower than expected
		Corpus Christi Medical Center-Doctors Regional	703002	4,397	297	8.70	0.76	Lower than expected
		Corpus Christi Medical Center-Heart Hospital	703003	1,063	86	9.42	0.89	Lower than expected
		Driscoll Childrens Hospital	488000	2,255	121	5.73	1.26	Much higher than expected
		South Texas Surgical Hospital	931000	742	15	3.42	0.69	Much lower than expected
Ochiltree	Not Available	Ochiltree General Hospital	098000	506	18	2.91	0.98	About as expected
Palo Pinto	Mineral Wells, TX	Palo Pinto General Hospital	034000	1,331	74	5.12	0.79	Lower than expected
Panola	Not Available	East Texas Medical Center-Carthage	484000	445	31	8.07	0.99	About as expected
Parker	Dallas-Fort Worth- Arlington, TX	Weatherford Regional Medical Center	844800	3,617	202	5.45	0.87	Lower than expected
Parmer	Not Available	Parmer Medical Center	200000	103	6	6.47	0.58	Much lower than expected
		Iraan General Hospital	258000	lv	lv	4.05	0.91	About as expected
Pecos	Not Available	Pecos County Memorial Hospital	356000	636	36	5.31	1.09	About as expected
Polk	Not Available	CHI St Lukes Health - Memorial Livingston	466000	1,629	72	4.55	1.21	Higher than expected
Potter	Amarillo, TX	Baptist St Anthonys Hospital	001000	16,733	1,070	6.71	0.93	About as expected
		Northwest Texas Hospital	318000	14,739	1,067	6.07	1.10	About as expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Risk ^a	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
		Physicians Surgical Hospital-Panhandle Campus	852901	825	38	3.28	1.17	Higher than expected
		Physicians Surgical Hospital-Quail Creek	852900	1,054	31	3.13	1.02	About as expected
Randall	Amarillo, TX	Northwest Texas Surgery Center	714000	lv	lv	2.92	0.98	About as expected
Reagan	Not Available	Reagan Memorial Hospital	343000	lv	lv	6.33	2.64	Much higher than expected
Reeves	Pecos, TX	Reeves County Hospital	367000	668	27	3.50	1.01	About as expected
Refugio	Not Available	Refugio County Memorial Hospital District	368000	lv	lv	8.44	0.87	Lower than expected
		Baylor Emergency Medical Center at Rockwall	973610	lv	lv	3.22	0.39	Much lower than expected
Rockwall	Dallas-Fort Worth- Arlington, TX	Baylor Scott & White Medical Center Lake Pointe	625000	6,022	272	4.19	1.04	About as expected
		Texas Health Presbyterian Hospital-Rockwall	859900	3,659	129	4.88	0.64	Much lower than expected
Duppele	Not Available	Ballinger Memorial Hospital District	234000	lv	lv	9.56	0.88	Lower than expected
Runnels	NOL AVAIIADIE	North Runnels Hospital	151000	lv	lv	6.43	0.68	Much lower than expected
Rusk	Longview, TX	East Texas Medical Center Henderson	248000	1,290	90	4.89	1.45	Much higher than expected
Sabine	Not Available	Sabine County Hospital	522000	181	20	6.64	2.08	Much higher than expected
San Augustine	Not Available	CHI St Lukes Health Memorial San Augustine	072000	148	14	9.22	1.15	Higher than expected
San Patricio	Corpus Christi, TX	Care Regional Medical Center	239001	553	34	9.73	0.54	Much lower than expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
Schleicher	Not Available	Schleicher County Medical Center	136000	lv	lv	7.72	2.16	Much higher than expected
Scurry	Snyder, TX	Cogdell Memorial Hospital	439000	590	28	4.19	0.84	Lower than expected
		Christus Mother Frances Hospital Tyler	286000	19,763	1,274	6.99	0.89	Lower than expected
		East Texas Medical Center	410000	15,878	1,360	8.33	1.02	About as expected
Smith	Tyler, TX	East Texas Medical Center Specialty Hospital	777000	lv	lv	13.10	0.33	Much lower than expected
		Texas Spine & Joint Hospital	790200	2,007	55	4.18	0.75	Much lower than expected
		UT Health Center-Tyler	000112	1,159	91	9.47	0.72	Much lower than expected
Somervell	Dallas-Fort Worth- Arlington, TX	Glen Rose Medical Center	059000	287	12	8.27	0.41	Much lower than expected
Starr	Rio Grande City, TX	Starr County Memorial Hospital	393000	1,065	74	4.87	1.73	Much higher than expected
Stephens	Not Available	Stephens Memorial Hospital	430000	148	9	8.77	0.62	Much lower than expected
Stonewall	Not Available	Stonewall Memorial Hospital	666000	lv	lv	10.90	0.61	Much lower than expected
Sutton	Not Available	Lillian M Hudspeth Memorial Hospital	147000	lv	lv	7.13	0.36	Much lower than expected
Swisher	Not Available	Swisher Memorial Hospital	273000	114	8	7.55	0.59	Much lower than expected
	Dellas Fait	Baylor Emergency Medical Center	972420	lv	lv	4.22	0.00	Much lower than expected
Tarrant	Dallas-Fort Worth-	Baylor Emergency Medical Center	973920	lv	lv	3.13	0.58	Much lower than expected
	Arlington, TX	Baylor Emergency Medical Center	974220	lv	lv	3.46	3.20	Much higher than expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
		Baylor Emergency Medical Center at Keller	973540	lv	lv	4.30	3.40	Much higher than expected
		Baylor Orthopedic and Spine Hospital - Arlington	936000	1,374	40	3.29	0.90	About as expected
		Baylor Scott & White All Saints Medical Center- Fort Worth	363000	16,291	661	4.18	0.99	About as expected
		Baylor Scott & White Medical Center-Grapevine	513000	10,744	511	5.12	0.86	Lower than expected
		Baylor Surgical Hospital- Fort Worth	804500	1,447	30	3.09	0.53	Much lower than expected
		Cook Childrens Medical Center	332000	6,962	301	5.82	0.80	Lower than expected
		Cook Childrens Northeast Hospital	850200	lv	lv	2.53	0.00	Much lower than expected
		Forest Park Medical Center at Fort Worth	974230	lv	lv	5.65	0.00	Much lower than expected
		John Peter Smith Hospital	409000	13,267	518	5.44	0.74	Much lower than expected
		Medical Center-Arlington	502000	13,922	585	4.21	1.05	About as expected
		Medical City Alliance	974490	2,318	88	3.53	1.11	Higher than expected
		Methodist Mansfield Medical Center	842800	7,510	318	4.75	0.88	Lower than expected
		Methodist Southlake Hospital	975153	lv	lv	4.26	0.85	Lower than expected
		North Hills Hospital	437000	3,971	377	8.74	1.05	About as expected
		Parkway Surgical and Cardiovascular Hospital	973840	358	13	5.28	0.42	Much lower than expected
		Plaza Medical Center-Fort Worth	477000	5,940	611	9.62	1.00	About as expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Risk ^a	PPR Chains ^ь	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
		Saint Camillus Medical Center	975154	lv	lv	4.76	1.89	Much higher than expected
		Texas General Hospital	115100	360	22	7.51	0.89	Lower than expected
		Texas Health Arlington Memorial Hospital	422000	9,155	569	6.03	1.09	About as expected
		Texas Health Harris Methodist HEB	182000	8,853	403	5.66	0.73	Much lower than expected
		Texas Health Harris Methodist Hospital Alliance	972900	5,185	216	3.84	0.90	About as expected
		Texas Health Harris Methodist Hospital Azle	469000	733	59	8.69	0.75	Much lower than expected
		Texas Health Harris Methodist Hospital Southlake	812800	lv	lv	3.61	0.07	Much lower than expected
		Texas Health Harris Methodist Hospital-Fort Worth	235000	22,904	1,445	6.81	0.86	Lower than expected
		Texas Health Harris Methodist Hospital- Southwest Fort Worth	627000	12,270	423	4.50	0.74	Much lower than expected
		Texas Health Heart & Vascular Hospital	730001	763	74	10.10	0.84	Lower than expected
		Texas Health Hospital Clearfork	975167	504	11	3.59	0.52	Much lower than expected
		Texas Health Huguley Hospital	047000	6,745	403	6.59	0.93	About as expected
		USMD Hospital Fort Worth	861400	187	5	3.28	0.36	Much lower than expected
		USMD Hospital-Arlington	799001	1,446	77	5.16	0.87	Lower than expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
Taylor	Abilene, TX	Abilene Regional Medical Center	091001	5,841	251	4.79	0.89	Lower than expected
Taylor	Ablienc, TX	Hendrick Medical Center	500000	12,732	894	7.65	0.83	Lower than expected
Terry	Not Available	Brownfield Regional Medical Center	078000	617	31	5.21	0.90	About as expected
Throckmorton	Not Available	Throckmorton County Memorial Hospital	428000	lv	lv	7.07	1.86	Much higher than expected
Titus	Mount Pleasant, TX	Titus Regional Medical Center	137000	3,313	138	4.62	0.87	Lower than expected
Tom Croon	San Angelo, TX	San Angelo Community Medical Center	056000	4,405	259	4.60	1.04	About as expected
Tom Green		Shannon West Texas Memorial Hospital	168000	9,771	647	6.90	0.88	Lower than expected
		Arise Austin Medical Center	973290	813	14	4.53	0.38	Much lower than expected
		Baylor Scott & White Medical Center Lakeway	975165	757	68	7.48	1.20	Higher than expected
		Dell Childrens Medical Center	852000	7,575	381	4.82	1.10	About as expected
- .	Austin-Round	HealthSouth Rehabilitation Hospital of Austin	970800	154	13	11.20	0.68	Much lower than expected
Travis	Rock, TX	Heart Hospital-Austin	829000	2,569	226	9.81	0.79	Lower than expected
		Lakeway Regional Medical Center	970200	1,402	83	7.07	0.89	Lower than expected
		North Austin Medical Center	829900	20,389	741	3.60	0.96	About as expected
		Northwest Hills Surgical Hospital	794000	409	13	4.63	0.71	Much lower than expected
		Seton Medical Center	497000	19,616	890	4.70	0.93	About as expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains ^b	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
		Seton Northwest Hospital	797600	5,385	219	4.52	0.75	Much lower than expected
		Seton Southwest Hospital	797500	1,465	20	1.15	1.10	About as expected
		St Davids Hospital	035000	15,341	634	4.60	0.88	Lower than expected
		St Davids South Austin Hospital	602000	12,673	847	6.81	1.01	About as expected
		University Medical Center-Brackenridge	335000	8,704	584	7.89	0.73	Much lower than expected
		Westlake Medical Center	822800	815	33	3.83	1.00	About as expected
Trinity	Huntsville, TX	East Texas Medical Center-Trinity	287000	lv	lv	6.67	1.05	About as expected
Tyler	Not Available	Tyler County Hospital	569000	301	30	10.80	0.83	Lower than expected
Linton	Not Available	McCamey Hospital	240000	lv	lv	6.62	1.17	Higher than expected
Upton		Rankin County Hospital District	290000	lv	lv	6.82	0.88	Lower than expected
Uvalde	Uvalde, TX	Uvalde Memorial Hospital	063000	1,331	47	3.68	0.73	Much lower than expected
Val Verde	Del Rio, TX	Val Verde Regional Medical Center	462000	2,513	105	4.04	0.93	About as expected
Van Zandt	Not Available	Texas General Hospital Van Zandt Regional Medical Center	974380	lv	lv	5.68	0.55	Much lower than expected
		Citizens Medical Center	064000	6,042	429	6.50	0.97	About as expected
Victoria	Victoria, TX	DeTar Hospital-Navarro	453000	5,813	515	7.18	0.98	About as expected
		DeTar Hospital-North	453001	2,147	31	1.35	1.00	About as expected
Walker	Huntsville, TX	Huntsville Memorial Hospital	061000	3,695	295	6.38	1.11	Higher than expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Riskª	PPR Chains ^b	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
Ward	Not Available	Ward Memorial Hospital	468000	136	11	9.77	0.61	Much lower than expected
Washington	Brenham, TX	Baylor Scott & White Hospital-Brenham	066000	1,175	52	5.04	0.81	Lower than expected
Webb	Larada TV	Doctors Hospital-Laredo	301000	7,684	294	4.37	0.95	About as expected
WEDD	Laredo, TX	Laredo Medical Center	207001	12,944	516	4.23	1.06	About as expected
Wharton	El Campo, TX	El Campo Memorial Hospital	426000	293	19	10.20	0.48	Much lower than expected
Wheeler	Not Available	Parkview Hospital	116000	lv	lv	6.66	2.30	Much higher than expected
Wileelei	Not Available	Shamrock General Hospital	571000	lv	lv	6.80	0.99	About as expected
		Electra Memorial Hospital	490000	171	15	9.22	1.05	About as expected
Wichita	Wichita Falls, TX	Kell West Regional Hospital	681400	748	32	5.44	0.84	Lower than expected
		United Regional Health Care System	417000	12,610	828	7.54	0.86	Lower than expected
Wilbarger	Vernon, TX	Wilbarger General Hospital	084000	209	16	9.03	0.81	Lower than expected
		Baylor Scott & White Emergency Hospital Cedar Park	101200	lv	lv	4.08	0.00	Much lower than expected
Williamaan	Austin-Round	Baylor Scott & White Medical Center Round Rock	852600	5,274	368	8.01	0.81	Lower than expected
Williamson	Rock, TX	Baylor Scott & White Medical Center Taylor	044000	203	26	10.10	0.98	About as expected
		Cedar Park Regional Medical Center	858300	4,718	217	4.72	0.85	Lower than expected
		Round Rock Medical Center	608000	7,622	376	5.15	0.90	About as expected

Hospital County	Metropolitan/ Micropolitan Statistical Area (MSA)	Hospital Name	THCIC ID	Admissions At Risk ^a	PPR Chains⁵	Risk Adjusted PPR Rate ^c	Actual- to- Expected Ratio ^d	Actual-to- Expected Ratio Interpretation
		Seton Medical Center Williamson	861700	5,858	448	7.39	1.04	About as expected
		St Davids Georgetown Hospital	835700	4,191	161	4.29	0.83	Lower than expected
		St Davids Surgical Hospital	975169	lv	lv	4.83	0.00	Much lower than expected
Wilson	San Antonio- New Braunfels, TX	Connally Memorial Medical Center	433000	699	54	8.05	0.78	Lower than expected
Winkler	Not Available	Winkler County Memorial Hospital	062000	lv	lv	7.30	0.37	Much lower than expected
Wise	Dallas-Fort Worth- Arlington, TX	Wise Health System (Medical Center Drive)	254001	3,150	151	6.19	0.70	Much lower than expected
Wood	Not Available	Christus Mother Frances Hospital Winnsboro	446001	298	19	8.42	0.76	Lower than expected
wood	NOT AVAIIADIE	East Texas Medical Center-Quitman	411000	574	54	10.70	0.96	About as expected
Yoakum	Not Available	Yoakum County Hospital	485000	618	12	2.74	0.78	Lower than expected
Young	Not Available	Graham Regional Medical Center	094000	380	27	8.01	0.83	Lower than expected
		Hamilton Hospital	294000	307	26	6.23	0.93	About as expected

Source: *Texas Hospital Inpatient Discharge Research Data File, 2016.* Texas Department of State Health Services, Center for Health Statistics, Austin, Texas. September, 2017.

Appendix B: Methods

B.1 Data

The data source for this report is the *Texas Hospital Inpatient Discharge Research Data File, 2016* (Texas Department of State Health Services, Center for Health Statistics, Austin, Texas. September, 2017). The data elements used in this analysis include patient date of birth, admission and discharge dates, diagnoses and procedures, sources and types of admissions, length of stay, and patient discharge status.

B.2 Identifying Admissions at Risk and PPRs

Admissions at risk and PPRs were identified using the 3M[™] Core Grouping Software package. Admissions with missing or invalid identifying information were excluded prior to data analysis, because the 3M[™] Core Grouping Software package requires these elements in order to process records. During data processing, the 3M[™] software systematically excludes certain admissions from consideration as either admissions at risk or PPRs, due to their clinical complexity, likelihood of extensive follow-up care, or difficulty in determining whether admissions were clinically related. Records with data problems, such as mismatched birth dates or admission and discharge dates out of order are also excluded. Examples of admissions excluded by the 3M[™] Core Grouping Software are:

- Admissions considered non-events, including admissions to hospital based hospice, long-term care, hospital based skilled nursing facilities, and admissions to acute-care hospitals for sub- or non-acute care conditions including hospital based rehabilitation;
- All other non-acute care admissions;
- Same-day transfers to an acute care hospital for non-acute care (e.g., hospice care);

- Pediatric admissions with certain diagnosis codes, such as seizures, poisoning, and certain infections;
- Admissions with chemotherapy or radiotherapy procedure codes, connective tissue disorders, coagulation/platelet disorders, or major/metastatic malignancy/advanced cancer diagnoses;
- Admissions with leukemia and lymphoma diagnoses;
- Admissions with a diagnosis of end stage chronic kidney disease; and
- Admissions with a discharge status of "left against medical advice or discontinued care," because the intended care could not be completed.

Admissions that were transferred to another hospital for acute care could be considered PPRs, but are excluded from consideration as admissions at risk because the patient's subsequent care was no longer under the control of the transferring hospital. Finally, admissions with a discharge status of "expired" are eligible to be PPRs, but are excluded from consideration as admissions at risk, because deceased patients cannot be readmitted.

B.3 PPR Methodology

Calculation of PPRs, including adjustment for case mix, was conducted following logic recommended by 3M[™]. In calculating PPR statistics, PPR chains rather than individual readmissions were used as the numerator. The number of PPR chains was defined as the number of initial admissions that were followed by one or more clinically related readmissions (PPR events) for the same patient, with the first clinically related readmission occurring within a 30-day window and subsequent clinically related readmissions occurring at any time. The number of admissions at risk was defined as the total number of acute-care inpatient hospital admissions, not counting PPRs and excluded admissions, such as those listed in the methods section above. Admissions at risk were used as the denominator.

As per the 3M[™] PPR methodology, the PPR summary statistic is expressed as a percentage (i.e., occurrences per 100 events) and is calculated by dividing the actual number of PPR chains by the number of admissions at risk and multiplying by 100. For example, if in a given year, 100 non-excluded admissions occurred in a certain hospital and five (5) were followed by one or more non-excluded clinically-related readmissions within a 30-day interval, then at 30-day readmission interval, the number of PPR chains per 100 at-risk admissions for the hospital would be $(5/100) \times 100 = 5.0$.

B.4 Expected Hospital PPR Chains

In addition to actual PPR chains, expected PPR chains for each hospital were calculated. These are estimates of how many PPR chains a hospital could be expected to have, taking into account its particular case mix (a combination of APR-DRG, severity of illness [SOI], patient age groups, and mental health/substance abuse [MH/SA] comorbidity). Expected PPR chains were calculated using indirect standardization, based on the experience of Texas hospitals as a whole. First, a state norm was calculated for each APR-DRG and severity of illness category by summing the number of PPR chains in each category at the state level and dividing by the statewide sum of admissions at risk within the same category. Adjustment factors were then calculated for each MH/SA and age group as the ratio of actual to expected PPR chains in each group, based on the previously calculated APR-DRG and severity of illness norms. Next, for each hospital, the number of admissions at risk occurring within each APR-DRG and severity of illness category was multiplied by the corresponding state norm and an adjustment factor based on the number of admissions at risk occurring within each age group and MH/SA category. Finally, the number of expected PPR chains within each hospital was calculated by summing PPR chains across all APR-DRGs and severity of illness levels. The risk-adjusted PPR summary statistic for each hospital was calculated by dividing this sum by the number of admissions at risk in each hospital and multiplying by 100.

B.5 Actual-to-Expected Ratio

To enable comparisons among hospitals, a PPR performance ratio was calculated for each hospital as the ratio of actual to expected PPR chains.

The Actual-to-Expected (A/E) ratio was calculated for each hospital as the actual hospital PPR chains divided by the expected hospital PPR chains.

The A/E ratio compares the actual number of PPR chains against the expected number of PPR chains in each hospital. Hospitals with an A/E ratio less than 1.0 had a number of PPR chains that was lower than expected based on their case mix, whereas hospitals with an A/E ratio greater than 1.0 had a number of PPR chains that was higher than expected, given their particular mix of cases.

Appendix C: Definitions

Actual-to-expected (A/E) Ratio — The ratio of actual to expected PPR chains. The expected PPR chains were derived from base APR-DRG, severity of illness, patient age, and the presence or absence of a major mental health or substance abuse diagnosis.

Admissions at risk — All initial admissions that are at risk for potentially preventable readmissions, excluding admissions meeting the criteria for exclusion as listed in the 3M PPR Methodology.

APR-DRG — A 3M[™] All Patient Refined Diagnosis Related Group classification system that classifies patients according to reason for admission, severity of illness (4 levels), and patient characteristics. The APR-DRG classification system is designed for use with all types of patients, and is formatted as, for example, 000-0, where the first three digits indicate the base Diagnosis Related Group (DRG) and the fourth digit indicates the severity of illness.

Case mix — A mix of patients treated during the reporting time period. The mix considers patient age groups, severity of illness, and mental health status/substance abuse as defined by $3M^{\text{TM}}$.

Clinically related — A requirement that the underlying reason for admission or readmission be related to the care rendered or diagnosis identified during a prior hospital admission.

Hospital readmission — A return hospitalization to an acute care hospital that occurs shortly after a discharge from another or same hospital. Readmission is most often measured within specific number of days (seven, 15 or 30 days), and may be a result of problems inadequately addressed in the prior hospitalization.

Mental health status – A $3M^{\text{TM}}$ calculated variable which contains major mental health and/or substance abuse diagnoses codes as defined by $3M^{\text{TM}}$ (2011).

Norm – Standard or average level of performance.

Potentially preventable readmission — A return admission that occurs within a readmission interval, and is clinically related to a prior admission. The readmission may be for the same or a related condition. If the readmission was planned (e.g., major metastatic cancer), unavoidable (e.g. HIV/AIDS), involves patient compliance issues (e.g. left without medical advice), or was clearly unrelated (e.g., hip fracture after heart attack), the readmission is not considered to be a PPR.

Readmission interval — The maximum number of days allowed between the discharge date of an initial inpatient admission and the admission date of next inpatient admission.

Severity of Illness (SOI) — The extent of physiologic or functional deterioration of an organ system. The levels of severity are: 1 - Minor, 2 - Moderate, 3 - Major and 4 - Extreme.

Appendix D: References

- 1. Jencks SF. Defragmenting care. *Annals of Internal Medicine*. 2010;153(11):757-758.
- 2. 3M[™] Health Information Systems, Potentially Preventable Readmissions Classification System: Definitions Manual (Wallingford CT: 3M Health Information Systems, October 2011).
- 3. Halfon P, Eggli Y, van Melle G, Chevalier J, Wasserfallen J, Burnand B. Measuring potentially avoidable hospital readmissions. *Journal of Clinical Epidemiology*. 2002;55(6):573-587.
- Kripalani S, LeFevre F, Phillips CO, Williams MV, Basaviah P, Baker DW. Deficits in communication and information transfer between hospitalbased and primary care physicians: implications for patient safety and continuity of care. *Journal of the American Medical Association*. 2007;297(8):831-841.
- 5. <u>Preventing hospital readmission: A \$25 billion opportunity. The Network</u> <u>for Excellence in Health Innovation (NEHI).</u> Published 2008. Last accessed February 15, 2018.
- Halfon P, Eggli Y, Pêtre-Rohrbach I, Meylan D, Marazzi A, Burnand B. Validation of the potentially avoidable hospital readmission rate as a routine indicator of the quality of hospital care. *Medical Care*. 2006;44(11):972-981.
- <u>Texas Hospital Inpatient Discharge Research Data File, 2016. Texas</u> <u>Department of State Health Services, Center for Health Statistics, Austin,</u> <u>Texas. September, 2017</u>. Last accessed February 15, 2018.
- 8. <u>Texas Health and Human Services Commission, Potentially Preventable</u> <u>Readmissions in Texas Medicaid and CHIP Programs, State Fiscal Year</u> <u>2013, Public Report</u>.
- 9. Martin LR, Williams LW, Haskard KB, DiMatteo MR. The challenge of patient adherence. *Therapeutics and Clinical Risk Management*. 2005;1(3):189-199.