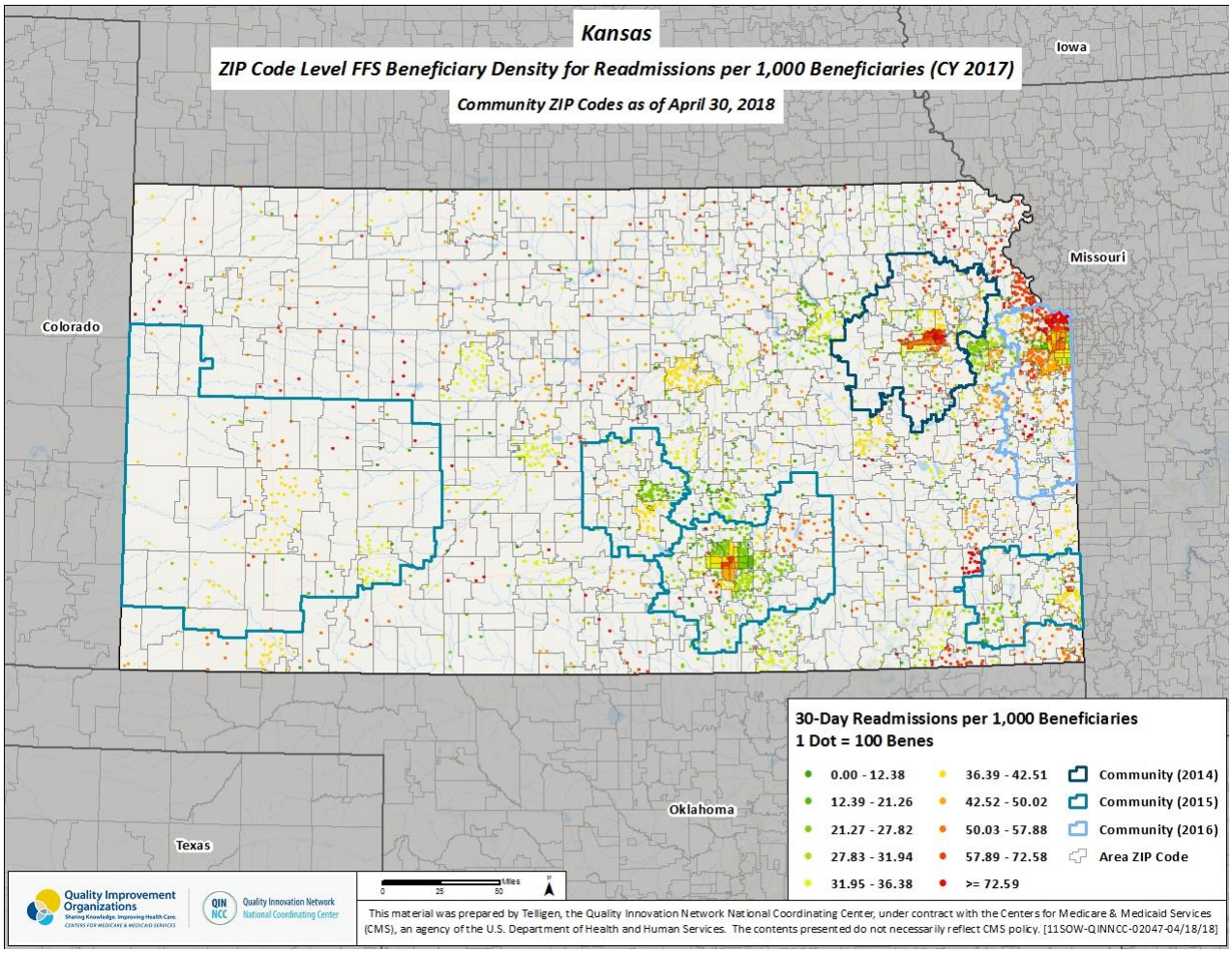
Kansas Care Coordination Quarterly Report – April 2019

Background

Communities across the Great Plains Quality Innovation Network (QIN) region are collaborating to improve care coordination and medication safety. The Great Plains QIN is the Quality Innovation Network-Quality Improvement Organization (QIN-QIO) for North Dakota, South Dakota, Nebraska and Kansas. The communities across the Great Plains QIN are diverse; however, the goals of the communities are the same. The goals are to reduce avoidable hospital admissions and readmissions, including those caused by high risk medications (HRM) related to adverse drug events (ADE), improve medication safety and increase the number of nights Medicare beneficiaries stay at home. The Kansas Foundation for Medical Care (KFMC), as a partner in the Great Plains QIN, is sharing data with the communities in Kansas.

Communities

Communities are identified based on two factors: 1) where each ZIP code's Medicare beneficiaries received most of their care and 2) where most of a hospitals' Medicare patients reside. The areas where these two factors experienced the most overlap resulted in these communities. The map below displays ZIP code level readmissions per 1,000 FFS beneficiaries for all valid ZIP codes in the state/territory. The map includes an overlay displaying all current care coordination communities.



This material was prepared by the Great Plains Quality Innovation Network, the Medicare Quality Improvement Organization for Kansas, Nebraska, North Dakota and South Dakota, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. 11SOW-GPQIN-ND-C3-46/0316 (Revised 04/19)

Data Overview and Definitions

Medicare claims data provided to the Great Plains QIN by the National Coordinating Center (NCC) was used to calculate the measures contained in this report. Readmissions are defined as "all-cause" readmissions to any hospital within 30 days of discharge. We refer to the initial hospital admission as the "index discharge" and the second return admission as the "readmission." None of the measures are risk adjusted.

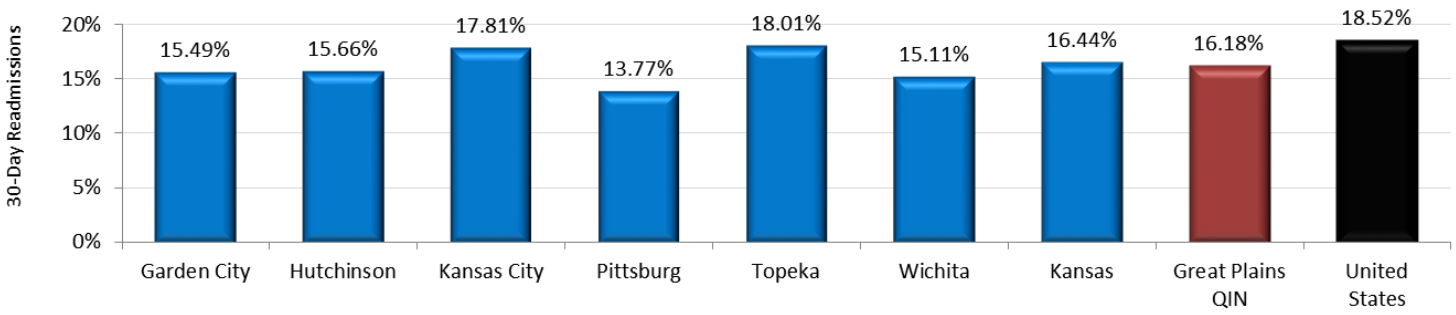
Community-level measures included are:

- **30-day Hospital Readmission Rate and Trends:** The percentage of hospital readmissions within 30 days of discharge
- **Acute Care Utilization Rate**: Hospital Admissions, 30-Day Hospital Readmissions, Emergency Department (ED) Visits (without admission), and Observation Stays per 1000 Medicare FFS Beneficiaries
- **Composite Measure of Unplanned Care:** All Admissions, ED Visits, and Observation Stays per 1000 Medicare FFS Beneficiaries; Includes separate graphs for each acute care setting.
- **Hospital Discharge Rate per Location**: Home (Community), Home Health, Hospice, and Skilled Nursing Facility
- **30-Day Hospital Readmission Rate per Discharge Location**: As Above
- **Top Five DRG Bundles for Admissions**
- **Top Five DRG Bundles for 30-Day Readmissions**
- **Potential Opportunity for Improving End-of-Life Care:** Hospital care utilization of Beneficiaries at End-of-Life
- **Admissions by Drug Class:** Hospital Admissions per 1000 Medicare FFS High Risk Beneficiaries; beneficiaries were identified as high risk if they take three of more medications of which at least one is from the three drug classes of Anticoagulants, Diabetic Agents, and Opioids
- **Readmissions by Drug Class:** 30-Day Hospital Readmissions per 1000 Medicare FFS High Risk Beneficiaries; beneficiaries were identified as high risk if they take three or more medications of which at least one is from the three drug classes of Anticoagulants, Diabetic Agents, and Opioids
- **Composite Measure of Unplanned Care by Drug Class:** All Admissions, ED Visits, and Observation Stays per 1000 Medicare FFS High Risk Medication Beneficiaries; Includes separate graphs for each acute care setting.
- **Timing of Readmission after Potential ADE Discharge**

The measures included in the Care Coordination Quarterly Report may vary from issue to issue depending on data availability and the needs of community partners.

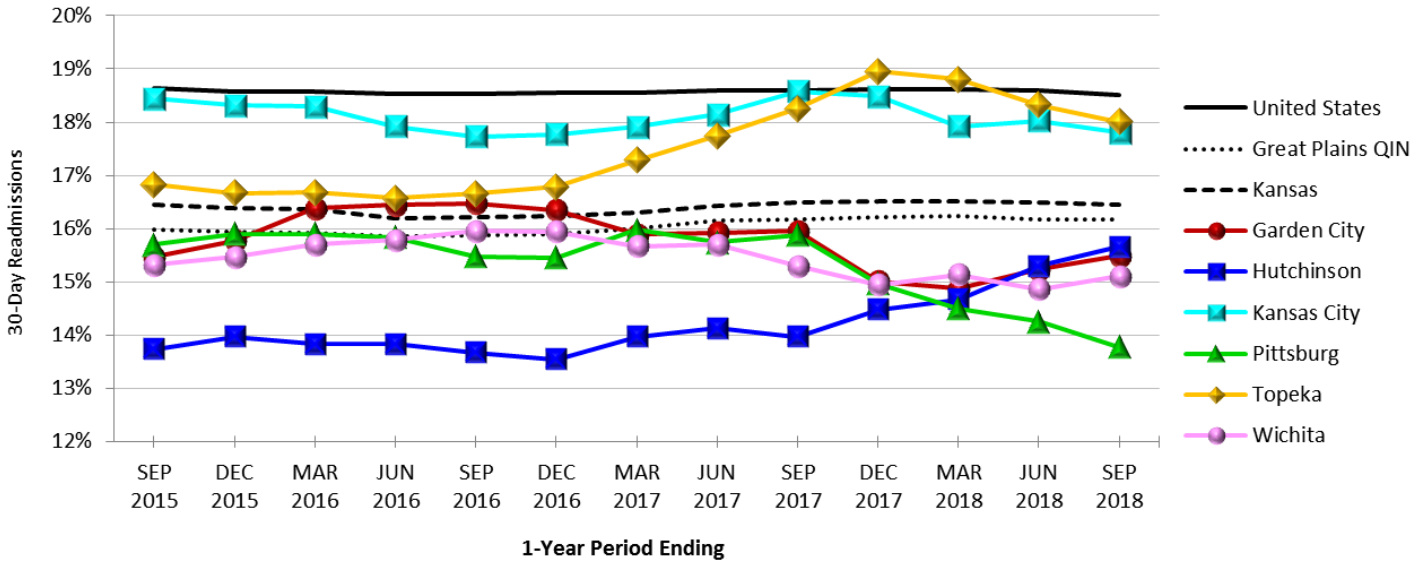
Community Data Highlights

Current Readmission Rates (# of readmissions within 30 days / # of discharges): 10/01/2017 – 09/30/2018



Community	Discharges	30-Day Readmissions	30-Day Readmission Rates
Garden City	4,003	620	15.49%
Hutchinson	3,800	595	15.66%
Kansas City	24,664	4,392	17.81%
Pittsburg	3,042	419	13.77%
Topeka	12,920	2,327	18.01%
Wichita	19,734	2,981	15.11%
Kansas	116,124	19,094	16.44%
Great Plains QIN	240,690	38,947	16.18%
United States	9,694,493	1,794,983	18.52%

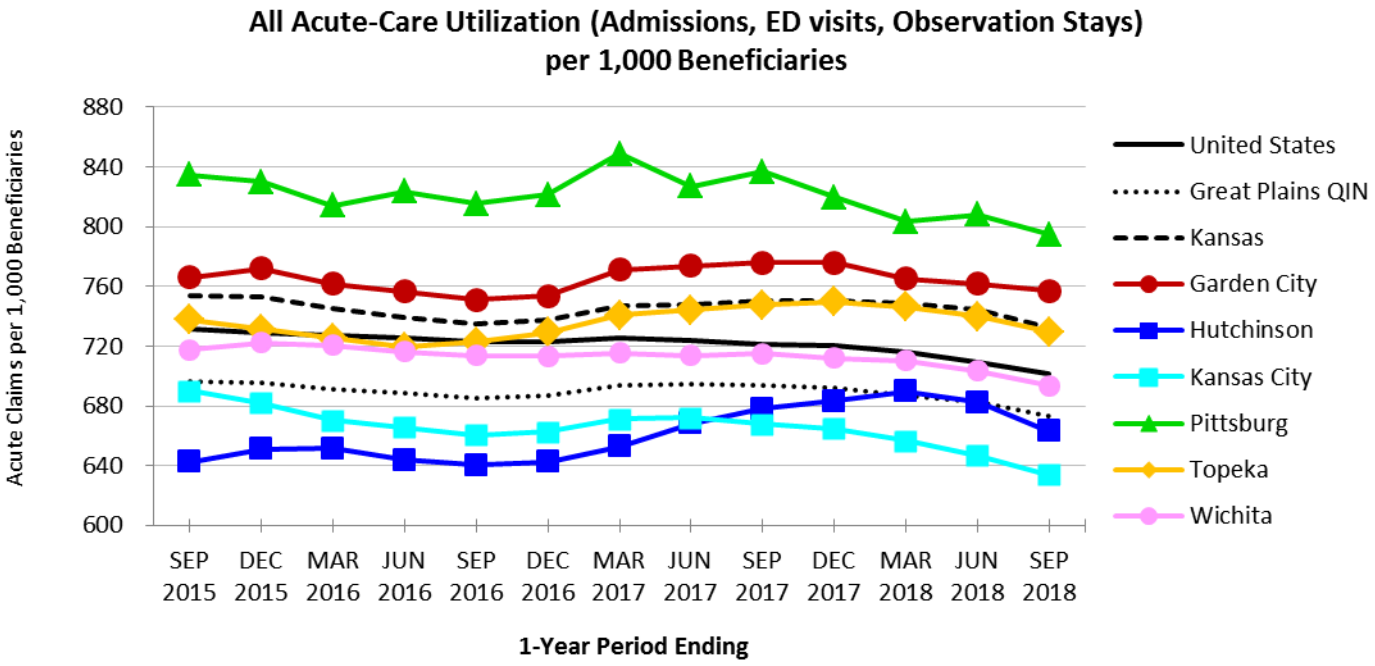
Readmission Rate Trends:

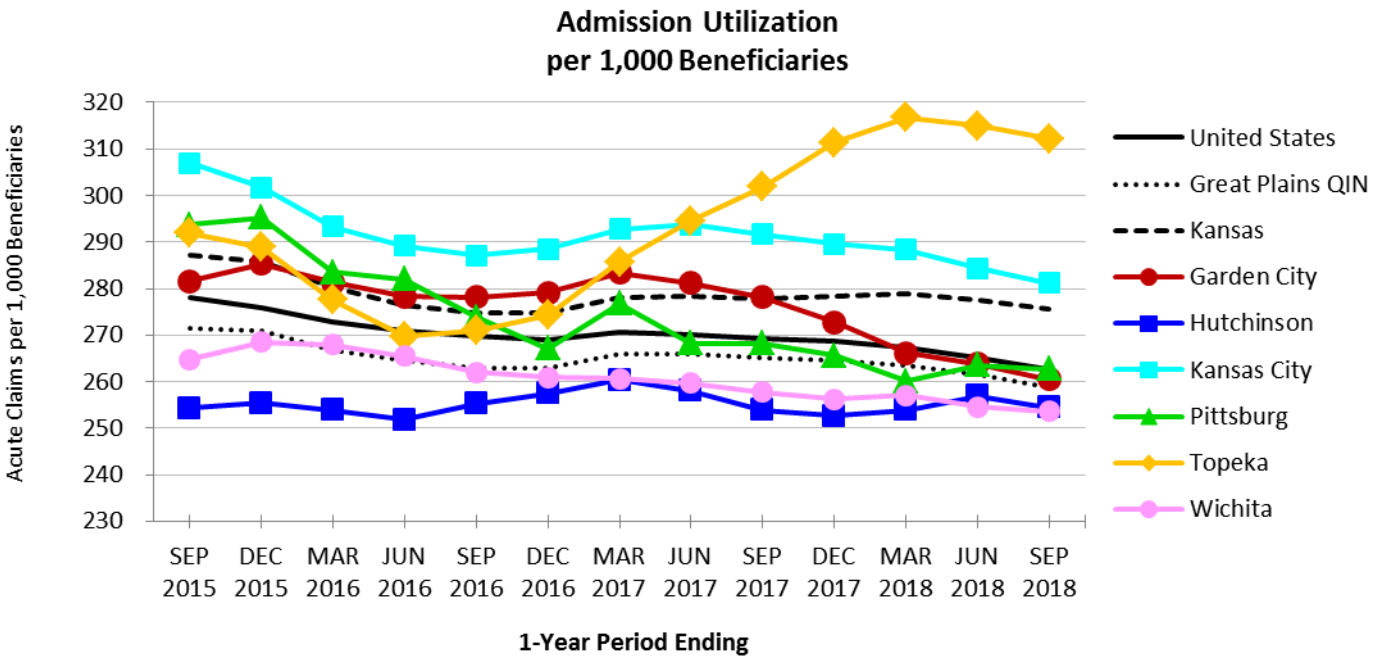


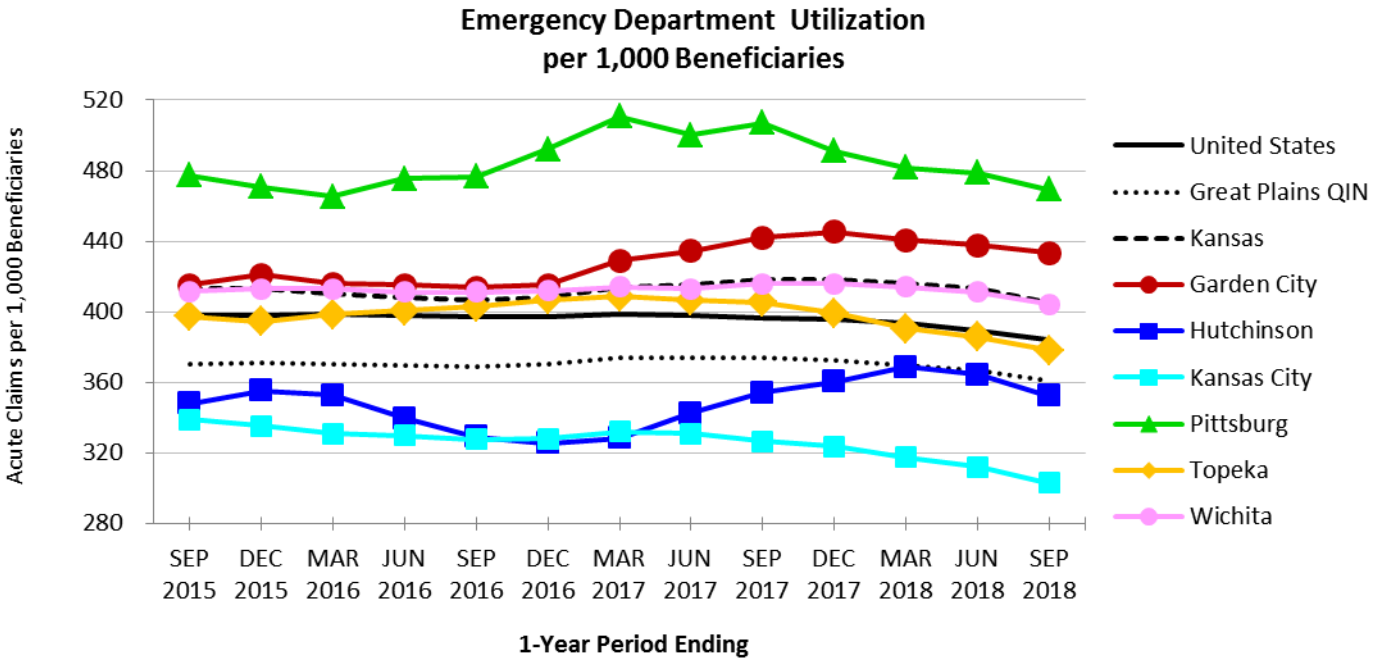
Acute Care Utilization (*per 1,000 Beneficiaries*): 10/01/2017 – 09/30/2018

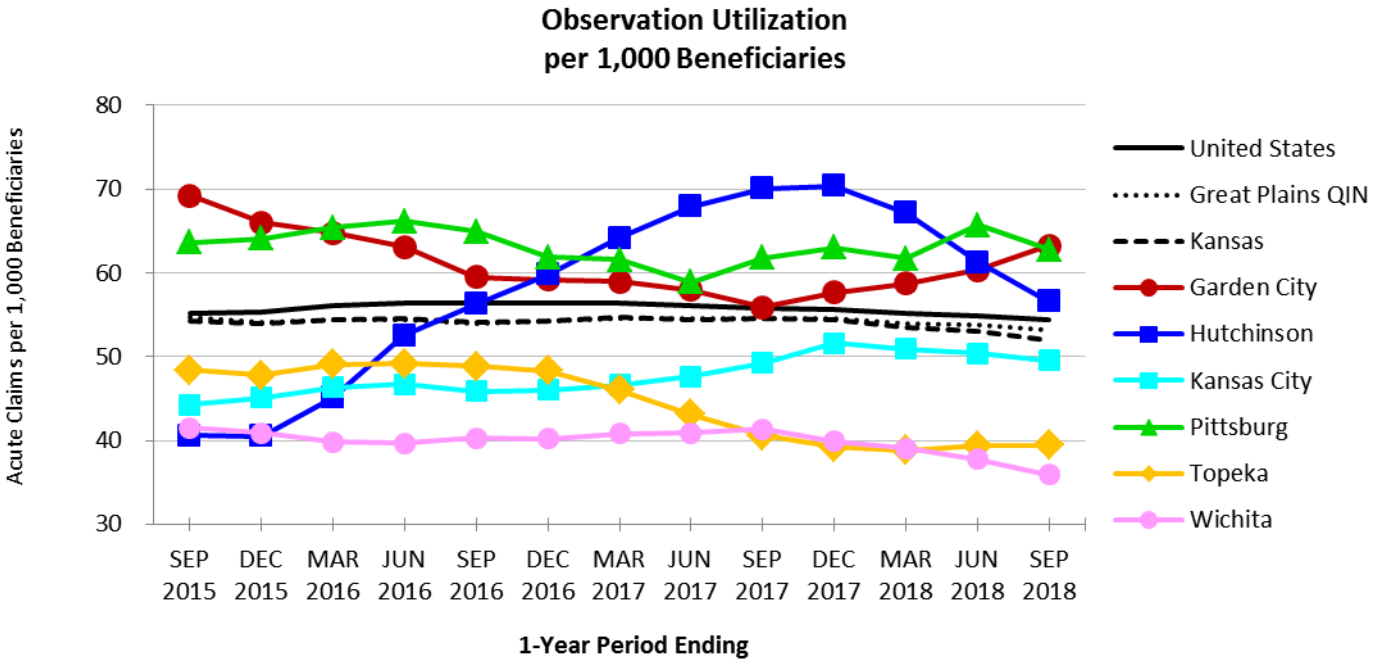
Community	Benes	Adms	Adms per 1000 Benes	30-Day Readms	30-Day Readms per 1000 Benes	ED Visits	ED Visits per 1000 Benes	Obs Stays	Obs Stays per 1000 Benes
Garden City	15,817	4,128	260.99	620	39.20	6,851	433.14	1,001	63.29
Hutchinson	15,027	3,891	258.93	595	39.60	5,360	356.69	872	58.03
Kansas City	89,649	25,243	281.58	4,392	48.99	27,248	303.94	4,499	50.18
Pittsburg	11,964	3,151	263.37	419	35.02	5,616	469.41	754	63.02
Topeka	42,319	13,248	313.05	2,327	54.99	16,028	378.74	1,676	39.60
Wichita	80,066	20,322	253.82	2,981	37.23	32,429	405.03	2,879	35.96
Kansas	432,420	119,538	276.44	19,094	44.16	175,776	406.49	22,664	52.41
Great Plains QIN	957,361	248,351	259.41	38,947	40.68	345,721	361.12	51,255	53.54
United States	38,095,369	10,004,195	262.61	1,794,983	47.12	14,635,153	384.17	2,075,218	54.47

Composite Measure of Unplanned Care: *Counts all the Admissions, ED visits and Observation stays per 1,000 beneficiaries.*

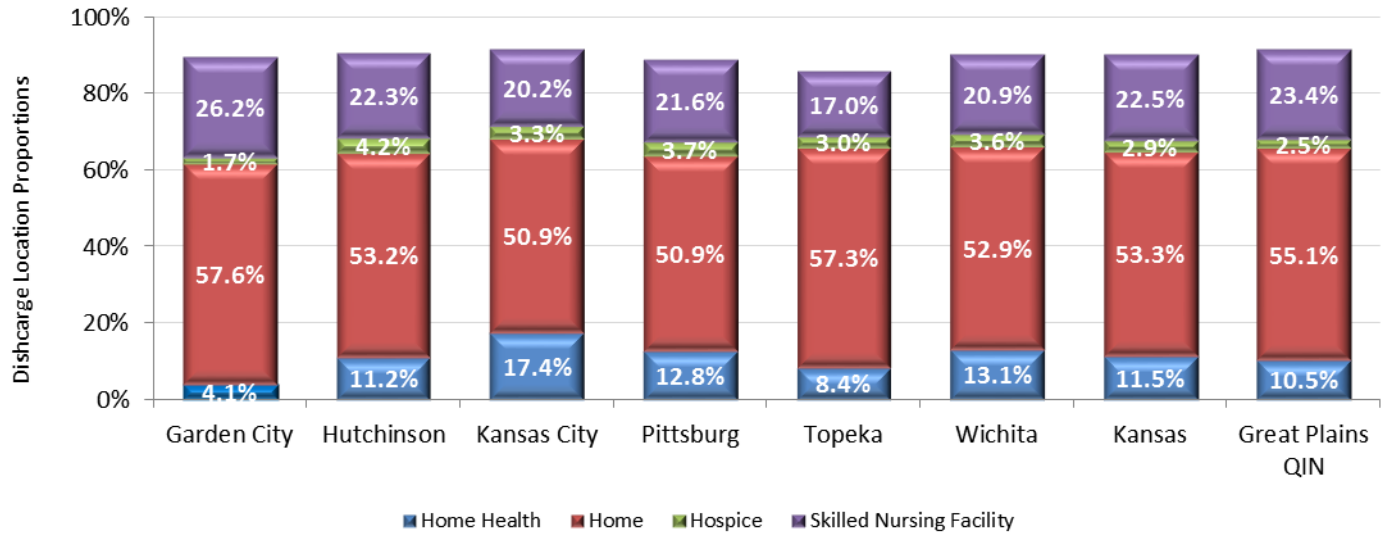



Admission Utilization
per 1,000 Beneficiaries
Acute Claims per 1,000 Beneficiaries
320
310
300
290
280
270
260
250
240
230
SEP 2015
DEC 2015
MAR 2016
JUN 2016
SEP 2016
DEC 2016
MAR 2017
JUN 2017
SEP 2017
DEC 2017
MAR 2018
JUN 2018
SEP 2018
1-Year Period Ending
United States
Great Plains QIN
Kansas
Garden City
Hutchinson
Kansas City
Pittsburg
Topeka
Wichita


Emergency Department Utilization
per 1,000 Beneficiaries
Acute Claims per 1,000 Beneficiaries
520
480
440
400
360
320
280
SEP 2015
DEC 2015
MAR 2016
JUN 2016
SEP 2016
DEC 2016
MAR 2017
JUN 2017
SEP 2017
DEC 2017
MAR 2018
JUN 2018
SEP 2018
1-Year Period Ending
United States
Great Plains QIN
Kansas
Garden City
Hutchinson
Kansas City
Pittsburg
Topeka
Wichita

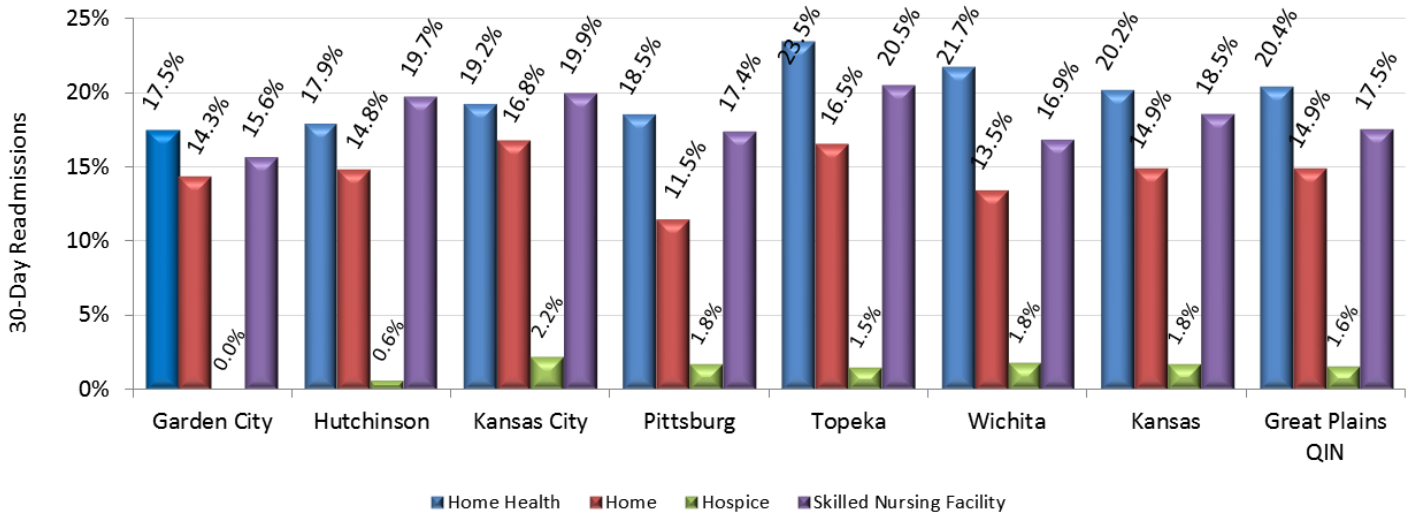


Discharge Locations: 10/01/2017 – 09/30/2018

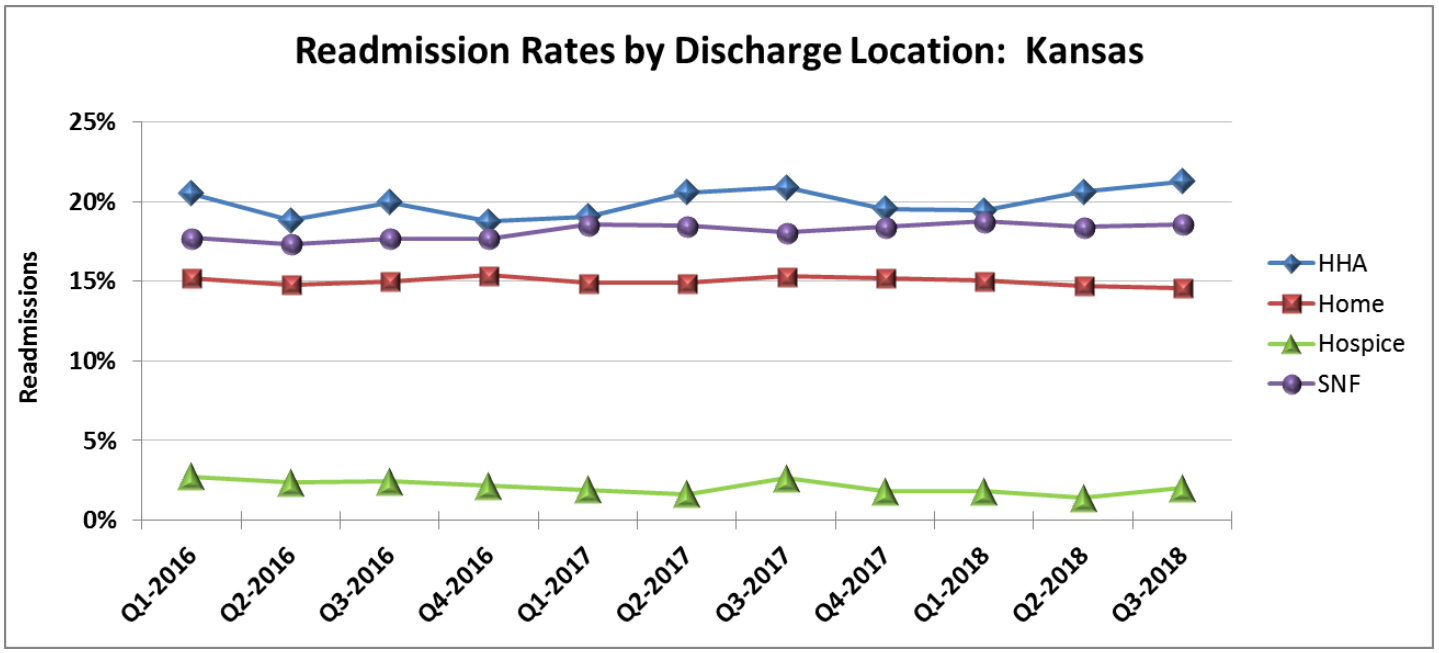


Community	All	Discharges							
		Home Health		Home		Hospice		Skilled Nursing Facility	
		# to Home Health	% to Home Health	# to Home	% to Home	# to Hospice	% to Hospice	# to SNF	% to SNF
Garden City	4,003	166	4.1%	2,304	57.6%	67	1.7%	1,048	26.2%
Hutchinson	3,800	424	11.2%	2,021	53.2%	158	4.2%	846	22.3%
Kansas City	24,664	4,284	17.4%	12,552	50.9%	811	3.3%	4,986	20.2%
Pittsburg	3,042	389	12.8%	1,547	50.9%	114	3.7%	656	21.6%
Topeka	12,920	1,086	8.4%	7,405	57.3%	394	3.0%	2,201	17.0%
Wichita	19,734	2,590	13.1%	10,430	52.9%	706	3.6%	4,118	20.9%
Kansas	116,124	13,358	11.5%	61,845	53.3%	3,351	2.9%	26,153	22.5%
Great Plains QIN	240,690	25,211	10.5%	132,697	55.1%	6,001	2.5%	56,350	23.4%

Readmission Rates among Discharge Locations: 10/01/2017 – 09/30/2018



	Home Health			Home			Hospice			Skilled Nursing Facility		
Community	**Disch**	**30-Day Readm**	**30-Day Readm Rates**	**Disch**	**30-Day Readm**	**30-Day Readm Rates**	**Disch**	**30-Day Readm**	**30-Day Readm Rates**	**Disch**	**30-Day Readm**	**30-Day Readm Rates**
Garden City	166	29	17.5%	2,304	330	14.3%	67	0	0.0%	1,048	164	15.6%
Hutchinson	424	76	17.9%	2,021	300	14.8%	158	1	0.6%	846	167	19.7%
Kansas City	4,284	823	19.2%	12,552	2,107	16.8%	811	18	2.2%	4,986	993	19.9%
Pittsburg	389	72	18.5%	1,547	178	11.5%	114	2	1.8%	656	114	17.4%
Topeka	1,086	255	23.5%	7,405	1,221	16.5%	394	6	1.5%	2,201	451	20.5%
Wichita	2,590	562	21.7%	10,430	1,403	13.5%	706	13	1.8%	4,118	694	16.9%
Kansas	13,358	2,697	20.2%	61,845	9,203	14.9%	3,351	59	1.8%	26,153	4,849	18.5%
Great Plains QIN	25,211	5,148	20.4%	132,697	19,795	14.9%	6,001	96	1.6%	56,350	9,866	17.5%



Top 5 Admission DRG Bundles: 10/01/2017 – 09/30/2018

DRGs that differ only in their level of complications are combined into "DRG Bundles". For example, DRGs 637, 638, and 639 (Diabetes with major complications, with complications, and without complications) are combined into one DRG bundle called Diabetes.

Community	DRG Bundle Description	DRG Bundle Admissions	Community Admissions	Percent of Community Admissions
Garden City	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	349	4,128	8.45%
	SEPTICEMIA OR SEVERE SEPSIS	257	4,128	6.23%
	SIMPLE PNEUMONIA & PLEURISY	215	4,128	5.21%
	HEART FAILURE & SHOCK	192	4,128	4.65%
	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	126	4,128	3.05%
Hutchinson	SEPTICEMIA OR SEVERE SEPSIS	435	3,891	11.18%
	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	336	3,891	8.64%
	SIMPLE PNEUMONIA & PLEURISY	194	3,891	4.99%
	PSYCHOSES	144	3,891	3.70%
	HEART FAILURE & SHOCK	126	3,891	3.24%
Kansas City	SEPTICEMIA OR SEVERE SEPSIS	2,068	25,243	8.19%
	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	1,499	25,243	5.94%
	HEART FAILURE & SHOCK	1,192	25,243	4.72%
	SIMPLE PNEUMONIA & PLEURISY	803	25,243	3.18%
	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS	733	25,243	2.90%
Pittsburg	SEPTICEMIA OR SEVERE SEPSIS	376	3,151	11.93%
	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	213	3,151	6.76%
	SIMPLE PNEUMONIA & PLEURISY	158	3,151	5.01%
	PSYCHOSES	117	3,151	3.71%
	HEART FAILURE & SHOCK	100	3,151	3.17%
Topeka	SEPTICEMIA OR SEVERE SEPSIS	1,461	13,248	11.03%
	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	777	13,248	5.87%
	HEART FAILURE & SHOCK	593	13,248	4.48%
	PSYCHOSES	500	13,248	3.77%
	PULMONARY EDEMA & RESPIRATORY FAILURE	480	13,248	3.62%
	SIMPLE PNEUMONIA & PLEURISY	480	13248	0.0362
Wichita	SEPTICEMIA OR SEVERE SEPSIS	2,128	20,322	10.47%
	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	1,477	20,322	7.27%
	HEART FAILURE & SHOCK	737	20,322	3.63%
	RENAL FAILURE	645	20,322	3.17%
	SIMPLE PNEUMONIA & PLEURISY	633	20,322	3.11%
Kansas	SEPTICEMIA OR SEVERE SEPSIS	10,574	119,538	8.85%
	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	8,025	119,538	6.71%
	SIMPLE PNEUMONIA & PLEURISY	5,418	119,538	4.53%
	HEART FAILURE & SHOCK	5,098	119,538	4.26%
	PSYCHOSES	3,630	119,538	3.04%
Great Plains QIN	SEPTICEMIA OR SEVERE SEPSIS	20,312	248,351	8.18%
	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	17,679	248,351	7.12%
	SIMPLE PNEUMONIA & PLEURISY	11,721	248,351	4.72%
	HEART FAILURE & SHOCK	11,071	248,351	4.46%
	PSYCHOSES	7,176	248,351	2.89%

Top 5 Readmission DRG Bundles: 10/01/2017 – 09/30/2018

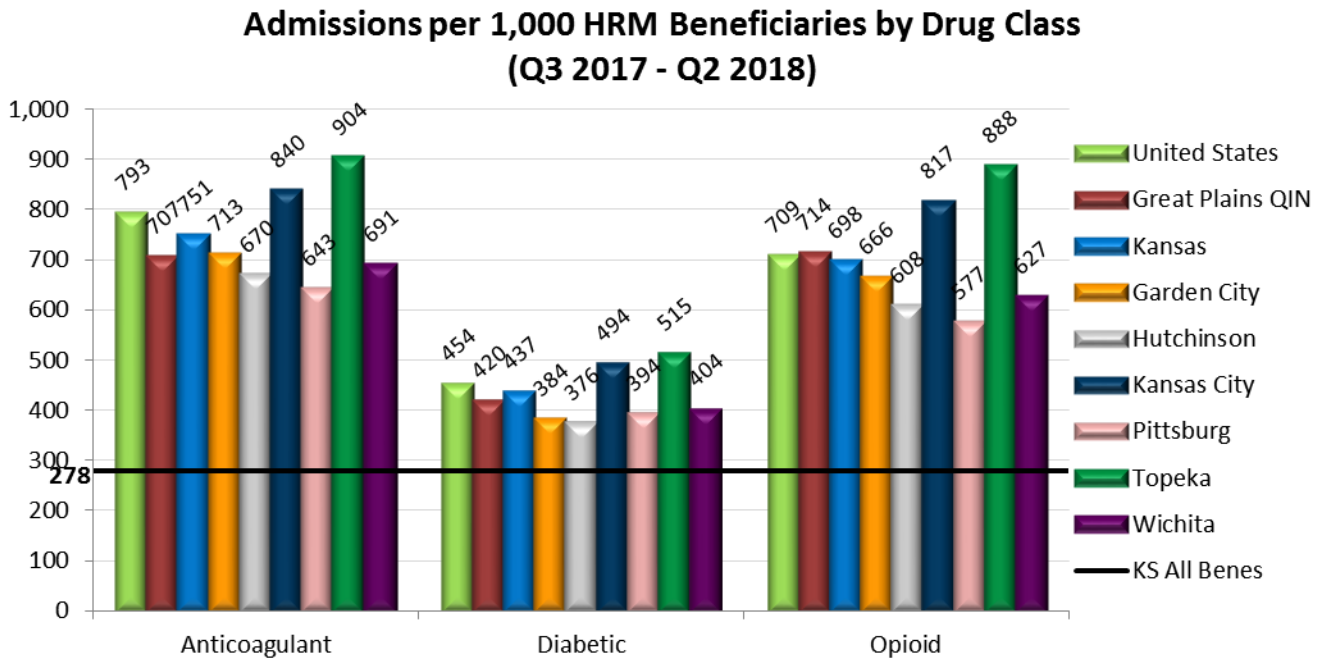
Community	DRG Bundle Description	DRG Bundle 30-Day Readmissions	Community 30-Day Readmissions	Percent of Community 30-Day Readmissions
Garden City	HEART FAILURE & SHOCK	46	620	7.42%
	SEPTICEMIA OR SEVERE SEPSIS	43	620	6.94%
	SIMPLE PNEUMONIA & PLEURISY	29	620	4.68%
	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	22	620	3.55%
	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS	21	620	3.39%
	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	21	620	3.39%
Hutchinson	SEPTICEMIA OR SEVERE SEPSIS	66	595	11.09%
	PSYCHOSES	45	595	7.56%
	SIMPLE PNEUMONIA & PLEURISY	29	595	4.87%
	HEART FAILURE & SHOCK	26	595	4.37%
	ACUTE MYOCARDIAL INFARCTION	21	595	0.0353
	PULMONARY EDEMA & RESPIRATORY FAILURE	21	595	0.0353
Kansas City	SEPTICEMIA OR SEVERE SEPSIS	353	4,392	8.04%
	HEART FAILURE & SHOCK	272	4,392	6.19%
	RENAL FAILURE	147	4,392	3.35%
	PSYCHOSES	136	4,392	3.10%
	G.I. HEMORRHAGE	122	4,392	2.78%
Pittsburg	SEPTICEMIA OR SEVERE SEPSIS	50	419	11.93%
	SIMPLE PNEUMONIA & PLEURISY	24	419	5.73%
	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	20	419	4.77%
	PSYCHOSES	19	419	4.53%
	HEART FAILURE & SHOCK	17	419	4.06%
Topeka	SEPTICEMIA OR SEVERE SEPSIS	260	2,327	11.17%
	HEART FAILURE & SHOCK	137	2,327	5.89%
	PSYCHOSES	115	2,327	4.94%
	PULMONARY EDEMA & RESPIRATORY FAILURE	108	2,327	4.64%
	SIMPLE PNEUMONIA & PLEURISY	78	2,327	3.35%
Wichita	SEPTICEMIA OR SEVERE SEPSIS	344	2,981	11.54%
	HEART FAILURE & SHOCK	159	2,981	5.33%
	PSYCHOSES	141	2,981	4.73%
	RENAL FAILURE	106	2,981	3.56%
	PULMONARY EDEMA & RESPIRATORY FAILURE	84	2,981	2.82%
Kansas	SEPTICEMIA OR SEVERE SEPSIS	1,703	19,094	8.92%
	HEART FAILURE & SHOCK	1,181	19,094	6.19%
	SIMPLE PNEUMONIA & PLEURISY	784	19,094	4.11%
	PSYCHOSES	776	19,094	4.06%
	RENAL FAILURE	597	19,094	3.13%
Great Plains QIN	SEPTICEMIA OR SEVERE SEPSIS	3,226	38,947	8.28%
	HEART FAILURE & SHOCK	2,433	38,947	6.25%
	SIMPLE PNEUMONIA & PLEURISY	1,665	38,947	4.28%
	PSYCHOSES	1,594	38,947	4.09%
	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	1,170	38,947	3.00%

Potential Opportunity for Improving End-of-Life Care: 10/01/2017 – 09/30/2018

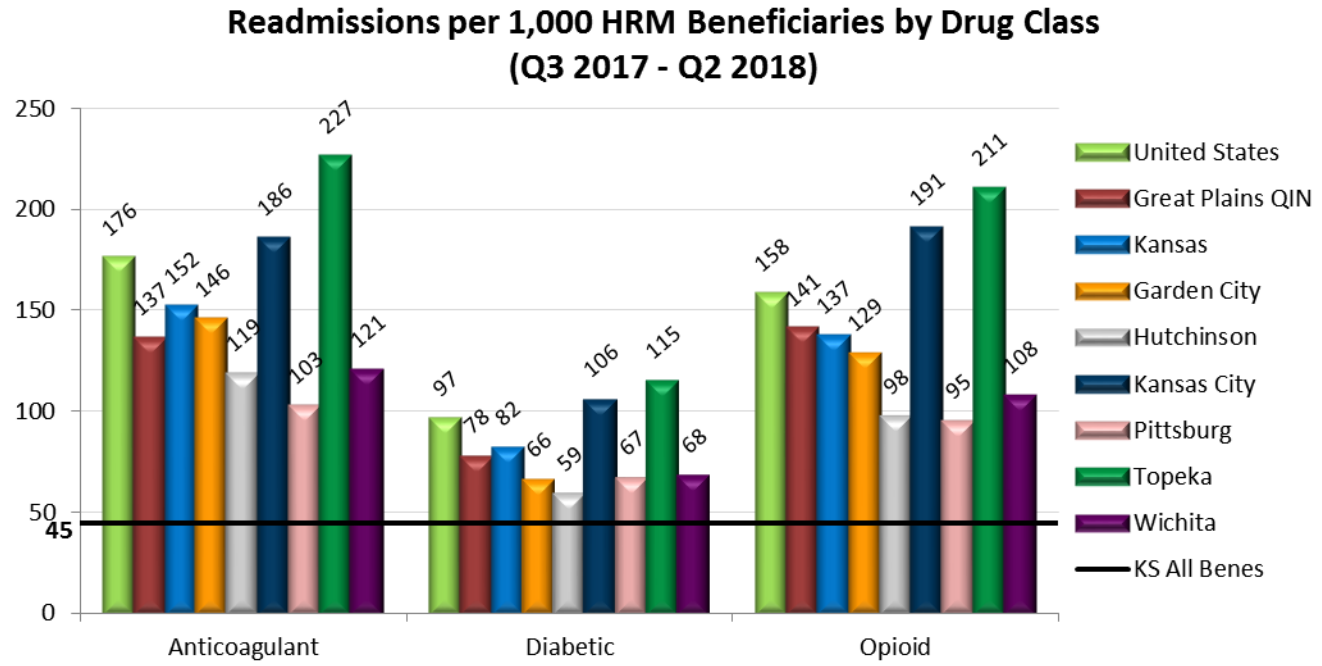
This is a proxy measure to identify opportunities for discussing an individual's preferences for end-of-life care, including where he or she would like to receive that care.

Community	Deceased Bene Total	# of Deceased Benes With at Least One 30-Day Readmission in Last Six Months of Life	% of Deceased Benes With at Least One 30-Day Readmission in Last Six Months of Life	# of Deceased Benes Who Died While Hospital Inpatient	% of Deceased Benes Who Died While Hospital Inpatient
Garden City	671	91	13.56%	114	16.99%
Hutchinson	744	99	13.31%	86	11.56%
Kansas City	4,908	545	11.10%	516	10.51%
Pittsburg	597	72	12.06%	98	16.42%
Topeka	2,111	317	15.02%	296	14.02%
Wichita	4,277	444	10.38%	536	12.53%
Kansas	22,172	2,777	12.52%	3,047	13.74%
Great Plains QIN	48,036	5,708	11.88%	6,809	14.17%

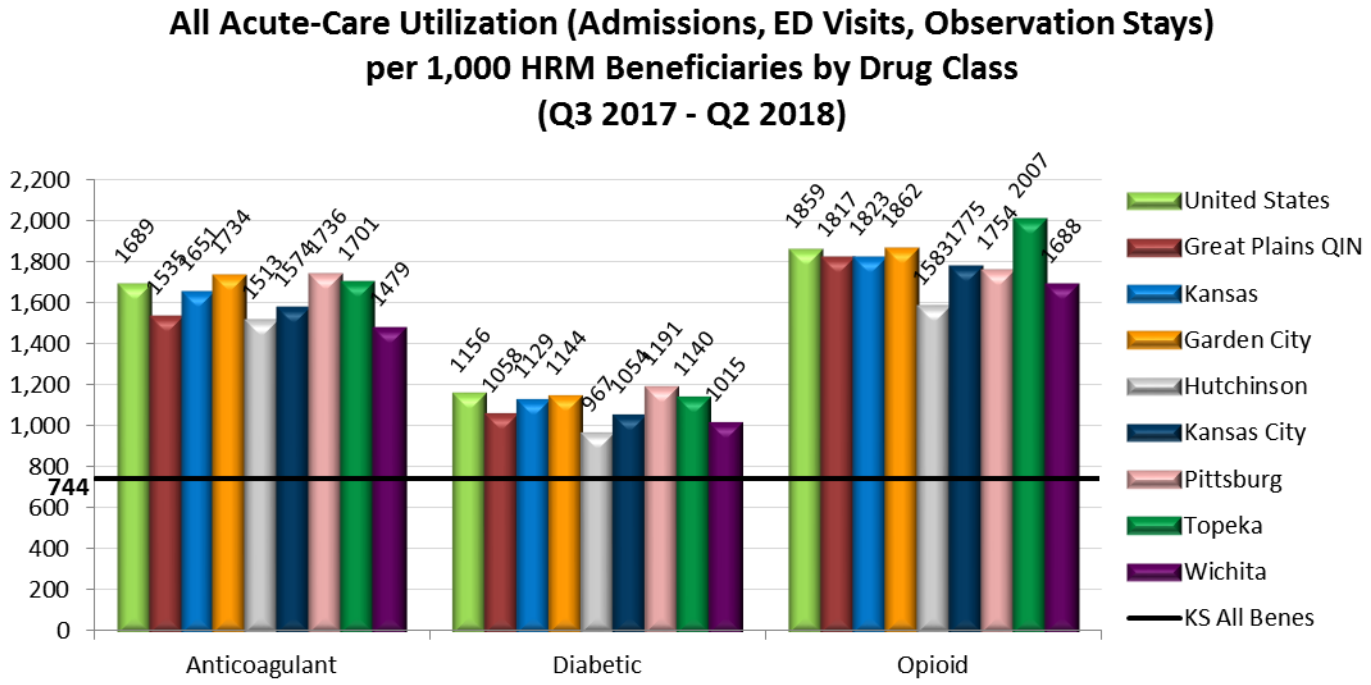
Admissions by High Risk Drug Class: *Counts the admissions per 1,000 FFS high risk medication (HRM) beneficiaries by anticoagulant, diabetic agent, and opioid drug classes and compares to overall admission rates for all Medicare FFS beneficiaries (including those with and without HRMs).*

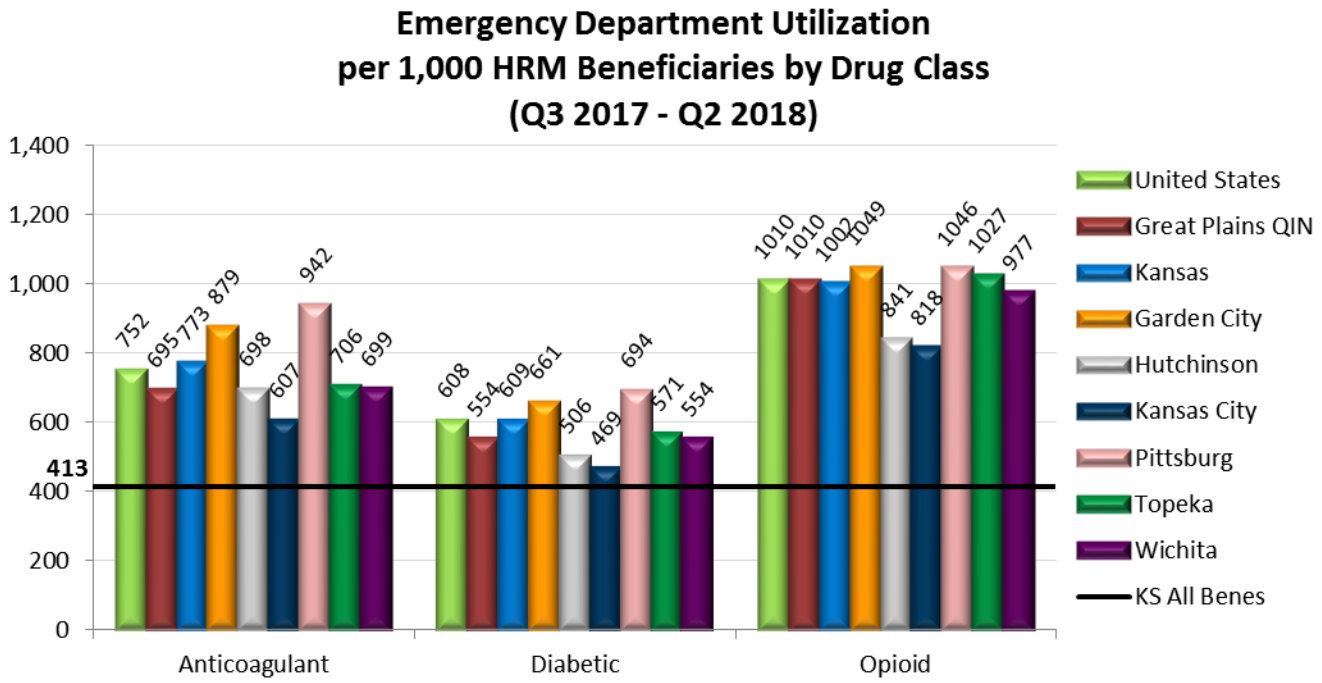


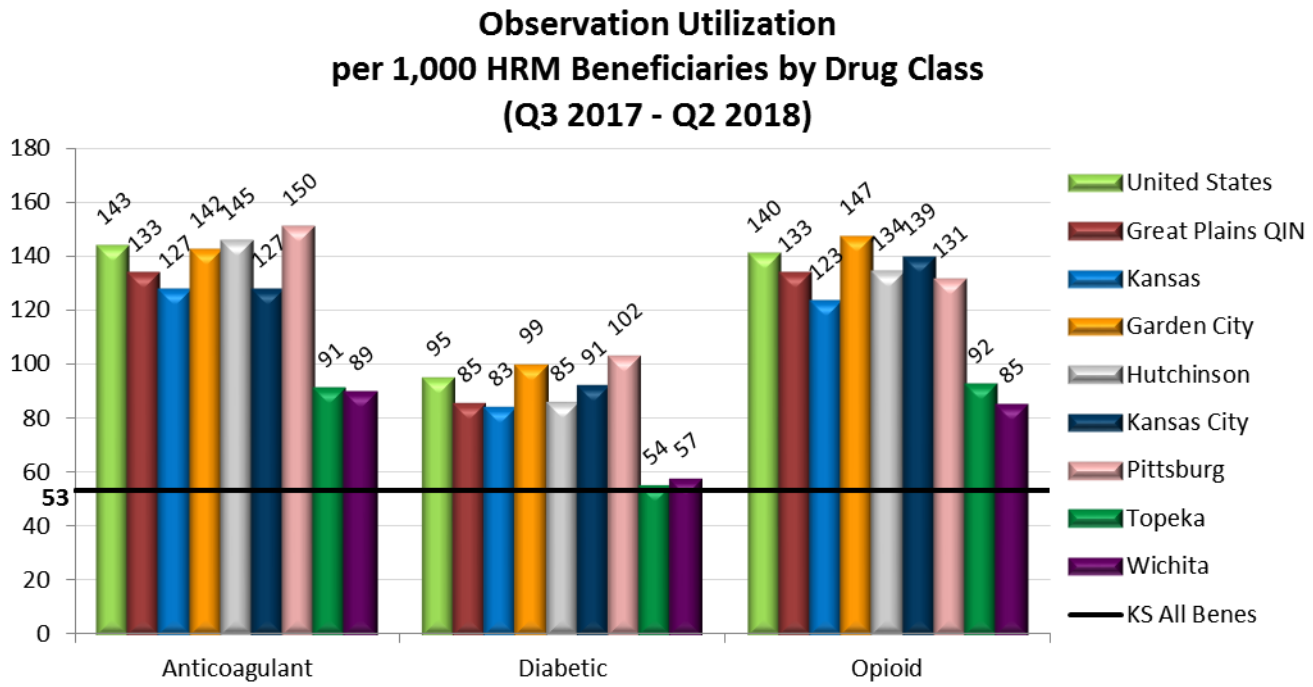
Readmissions by High Risk Drug Class: *Counts the 30-day readmissions per 1,000 FFS high risk medication (HRM) beneficiaries by anticoagulant, diabetic agent, and opioid drug classes and compares to overall 30-day readmission rates for all Medicare FFS beneficiaries (including those with and without HRMs).*



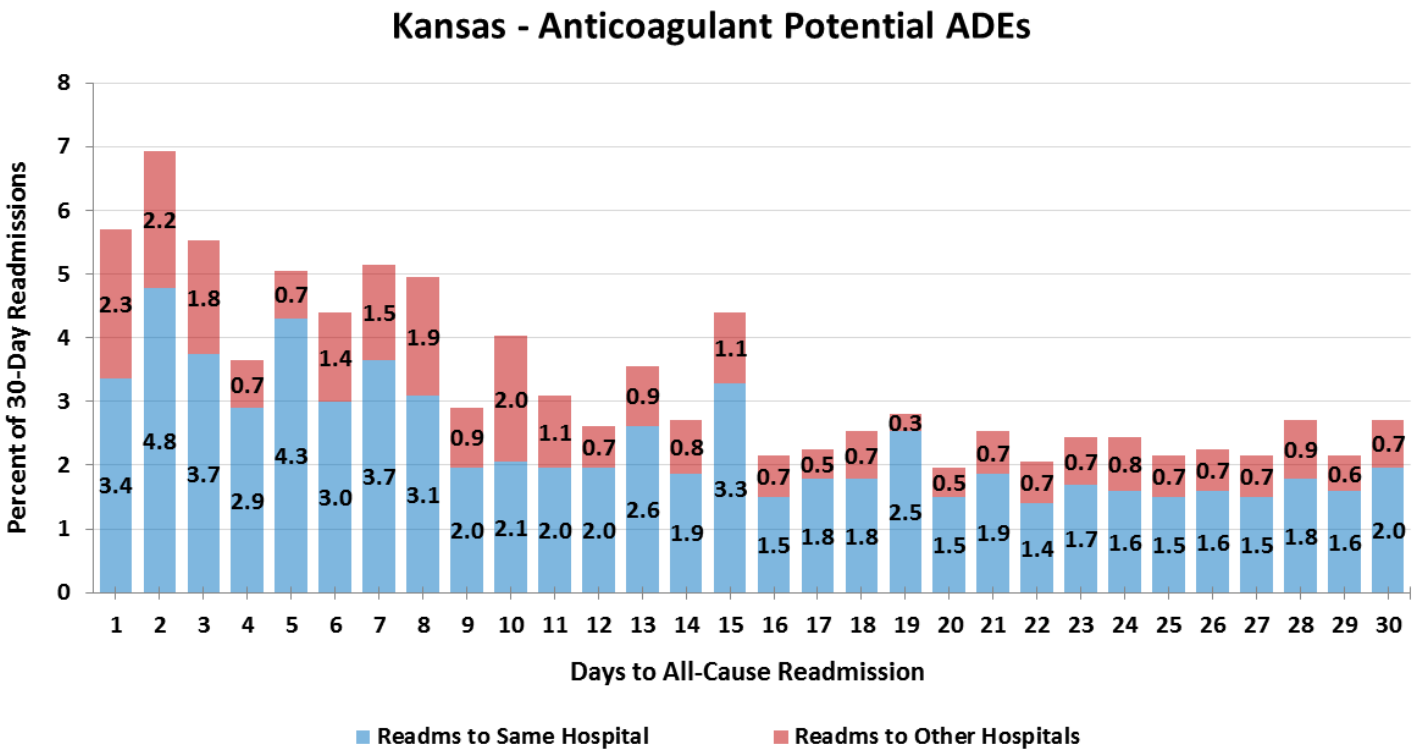
Composite Measure of Unplanned Care by Drug Class: *Counts all the Admissions, ED visits and Observation stays per 1,000 HRM beneficiaries by anticoagulant, diabetic agent, and opioid drug classes and compares to overall rates for all Medicare FFS beneficiaries (including those with and without HRMs).*

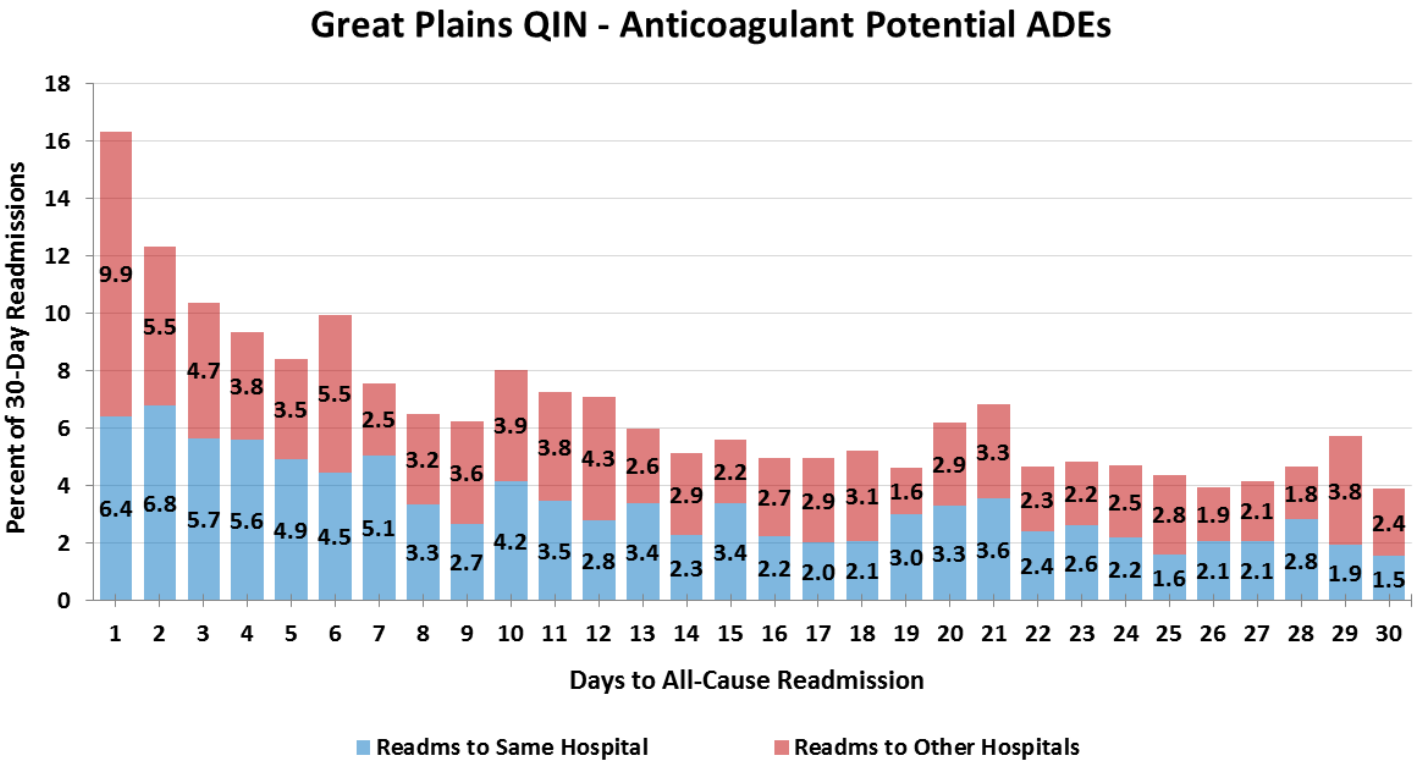




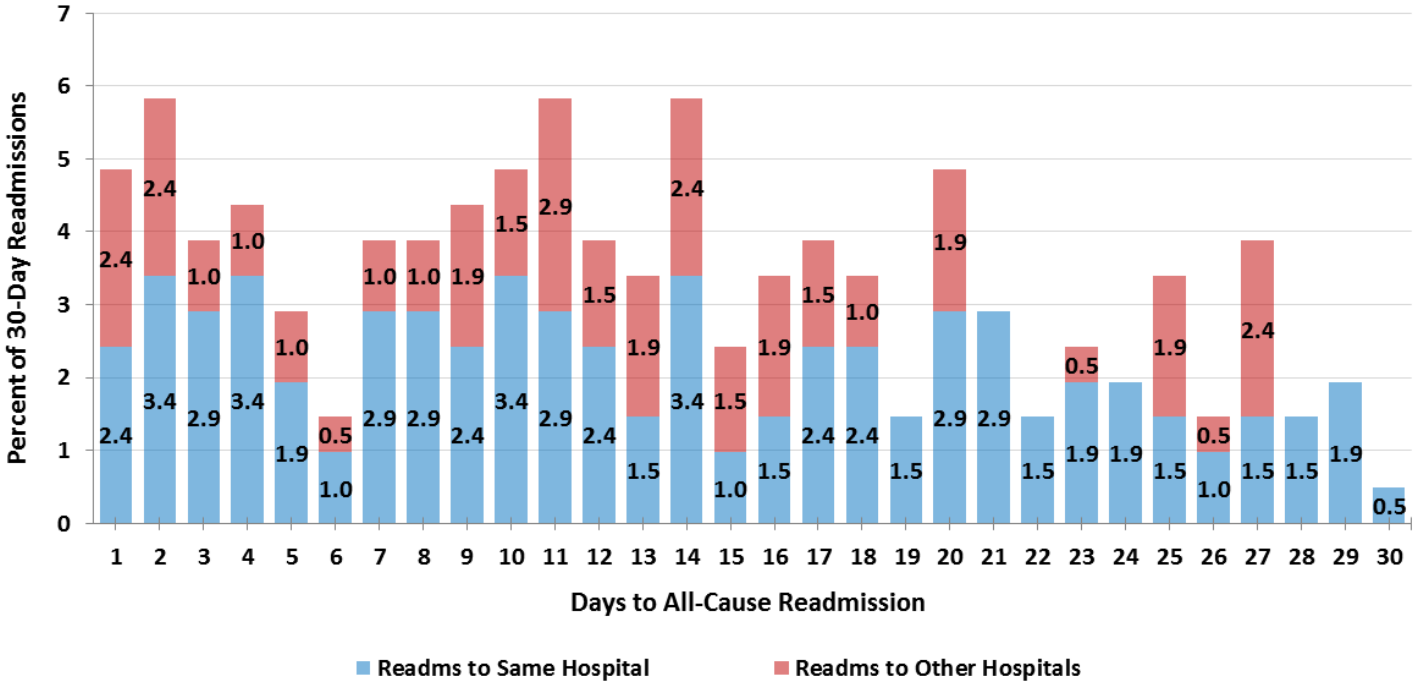

Observation Utilization
per 1,000 HRM Beneficiaries by Drug Class
(Q3 2017 - Q2 2018)
180
160
140
120
100
80
60
53
40
20
0
143
133
127
142
145
127
150
91
89
95
85
83
99
85
91
102
54
57
140
133
123
147
134
139
131
92
85
Anticoagulant
Diabetic
Opioid
United States
Great Plains QIN
Kansas
Garden City
Hutchinson
Kansas City
Pittsburg
Topeka
Wichita
KS All Benes

How many days after being discharged with a potential ADE were Medicare Beneficiaries readmitted:
10/01/2017 – 09/30/2018

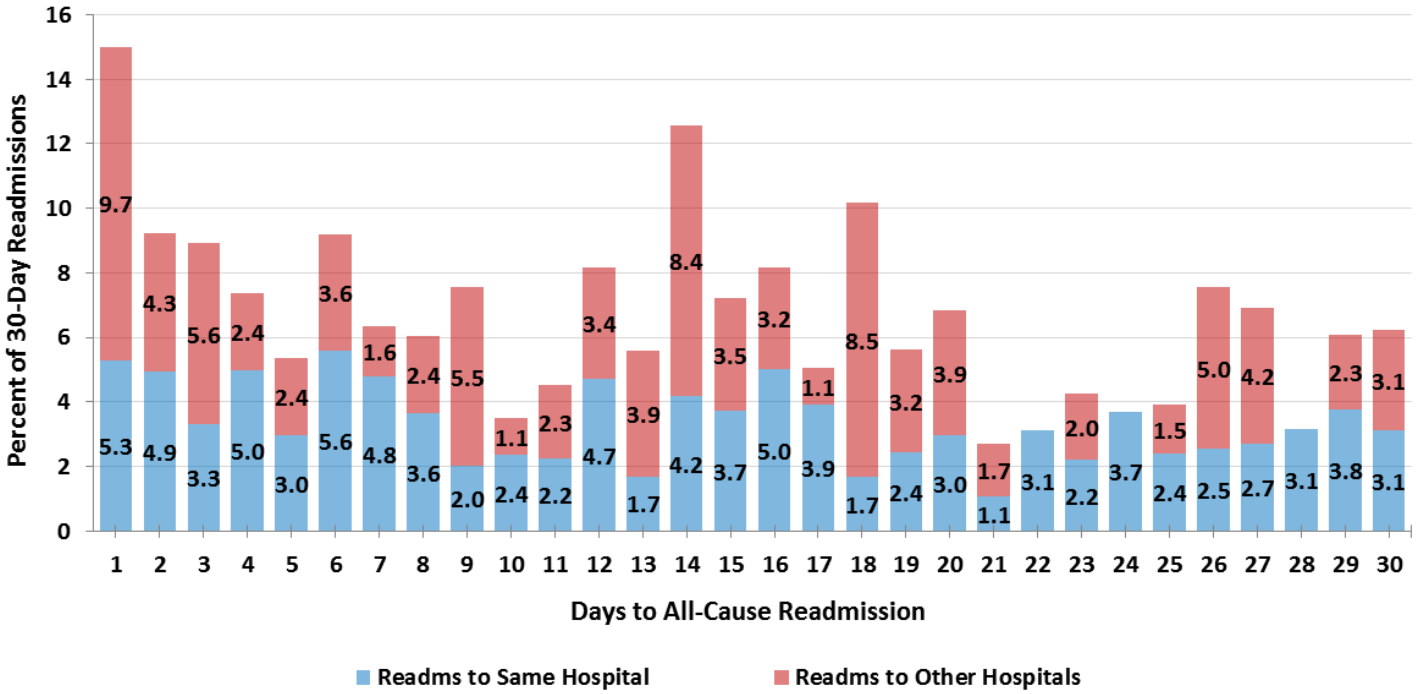




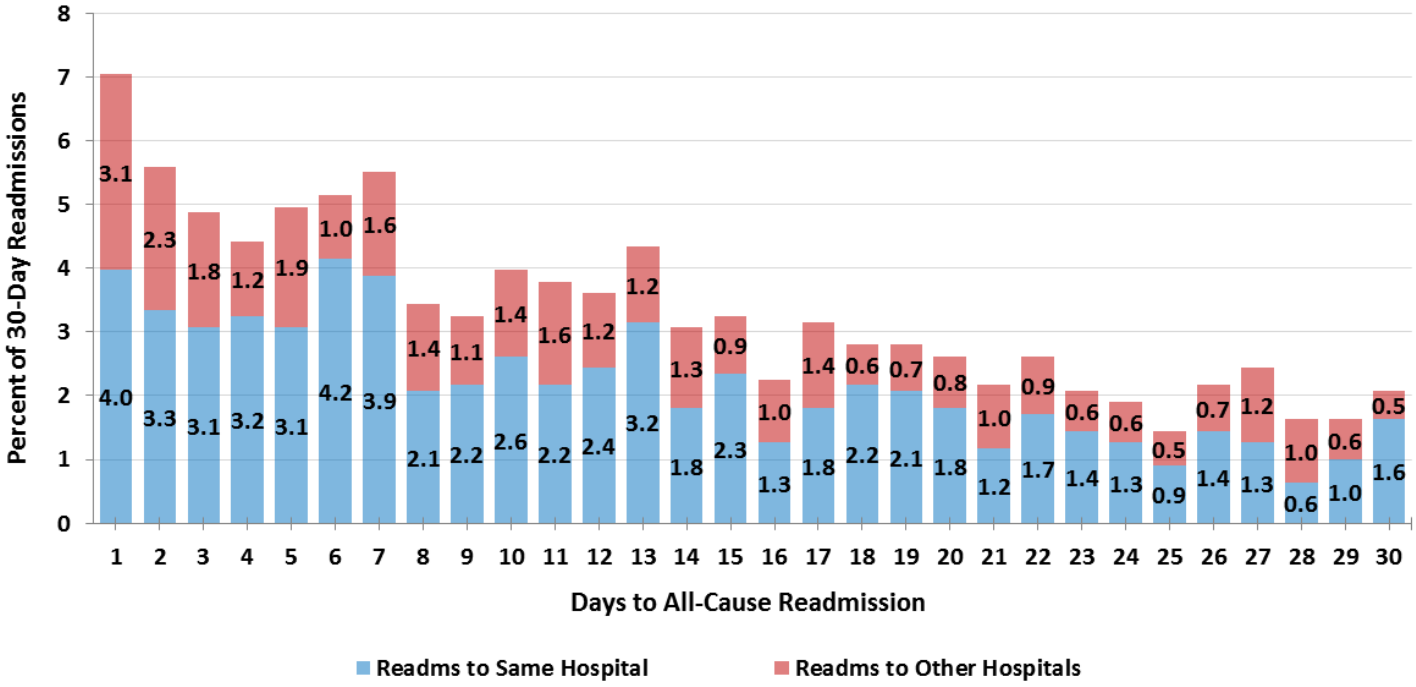
Kansas - Diabetic Agent Potential ADEs



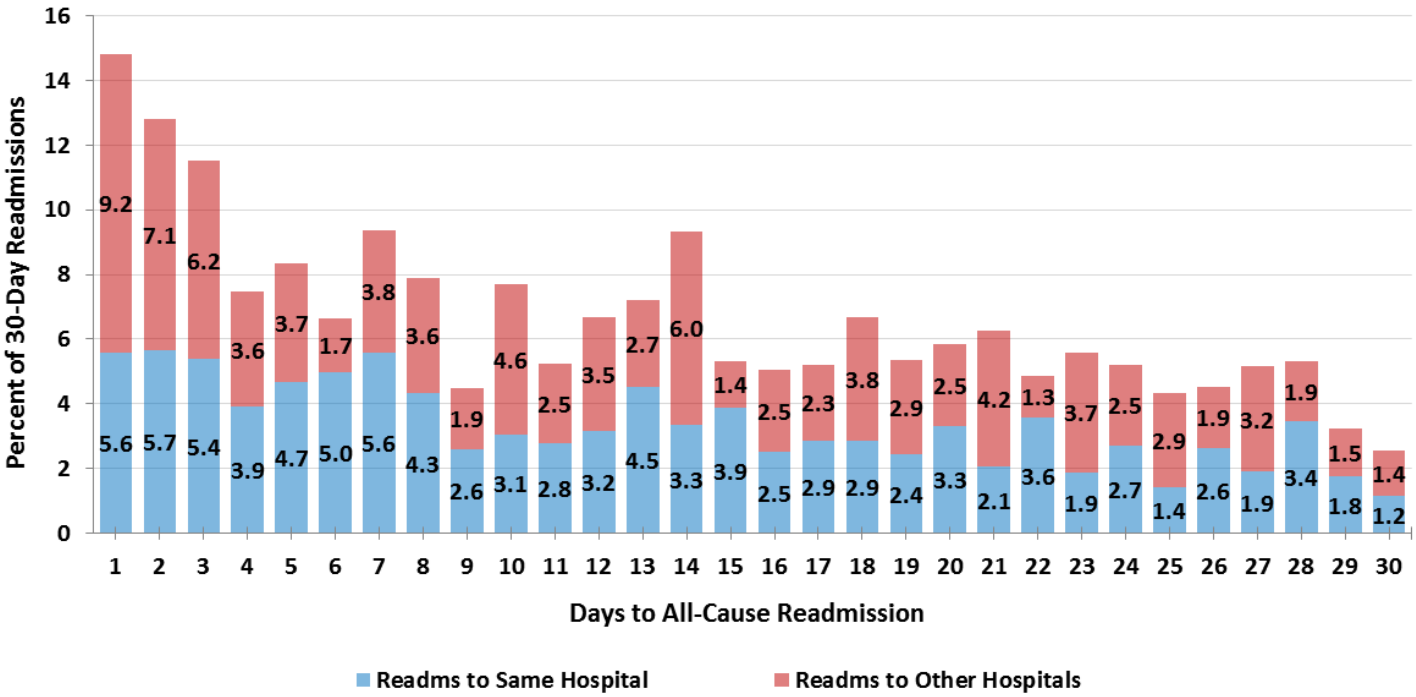
Great Plains QIN - Diabetic Agent Potential ADEs



Kansas - Opioid Potential ADEs



Great Plains QIN - Opioid Potential ADEs



For any questions on this report, please contact Beth Nech at 785.271.4120 or bnech@kfmc.org.