

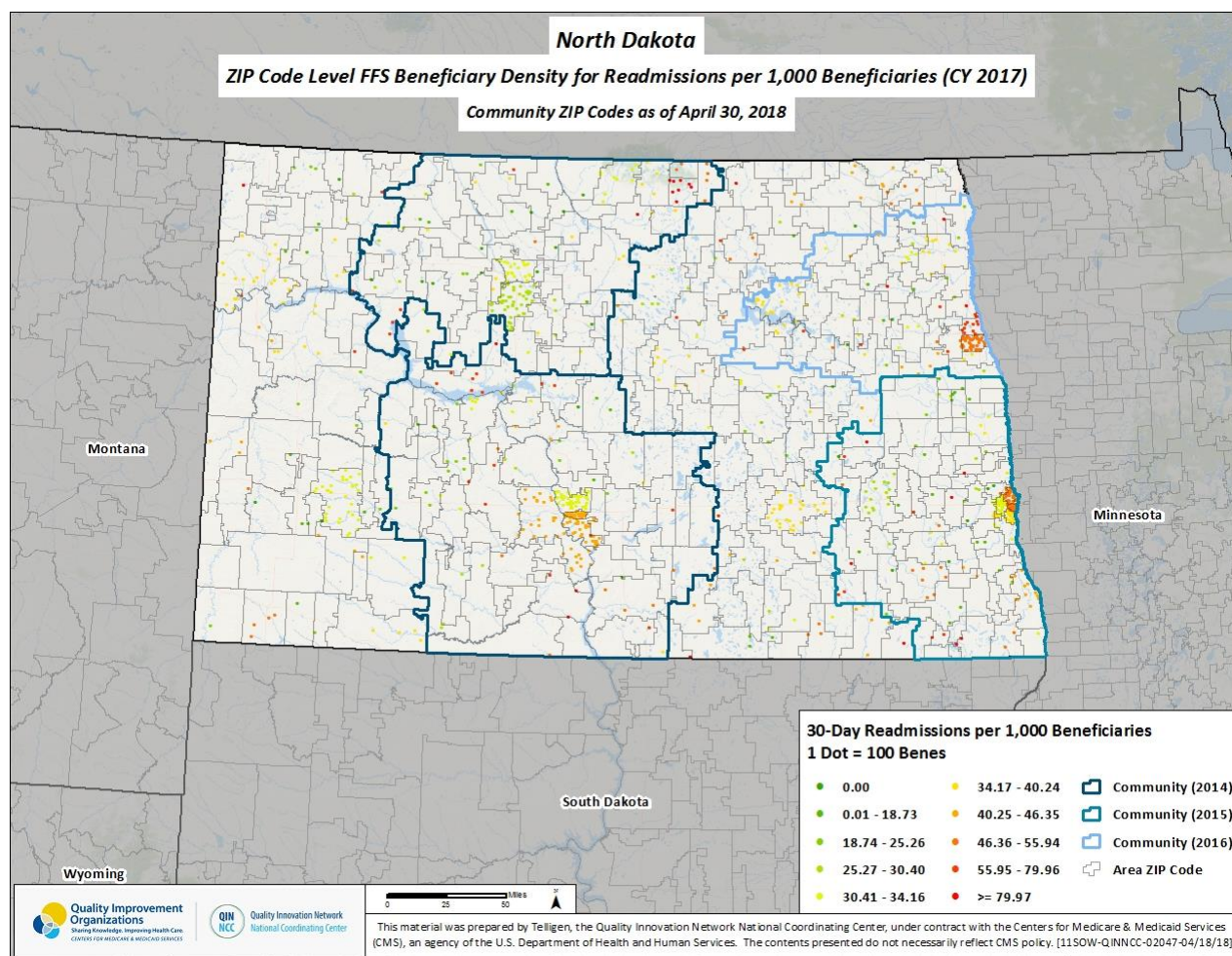
North Dakota Care Coordination Quarterly Report – April 2019

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. Quality Health Associates of North Dakota (QHA), as a partner in the Great Plains QIN, is sharing data with the communities in North Dakota.

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 hospital's 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.

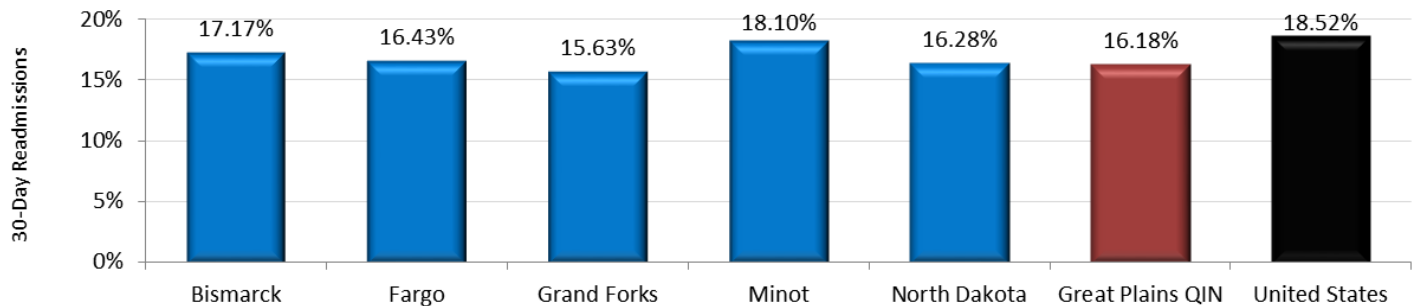
Community-level measures included are:

- **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 or 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.

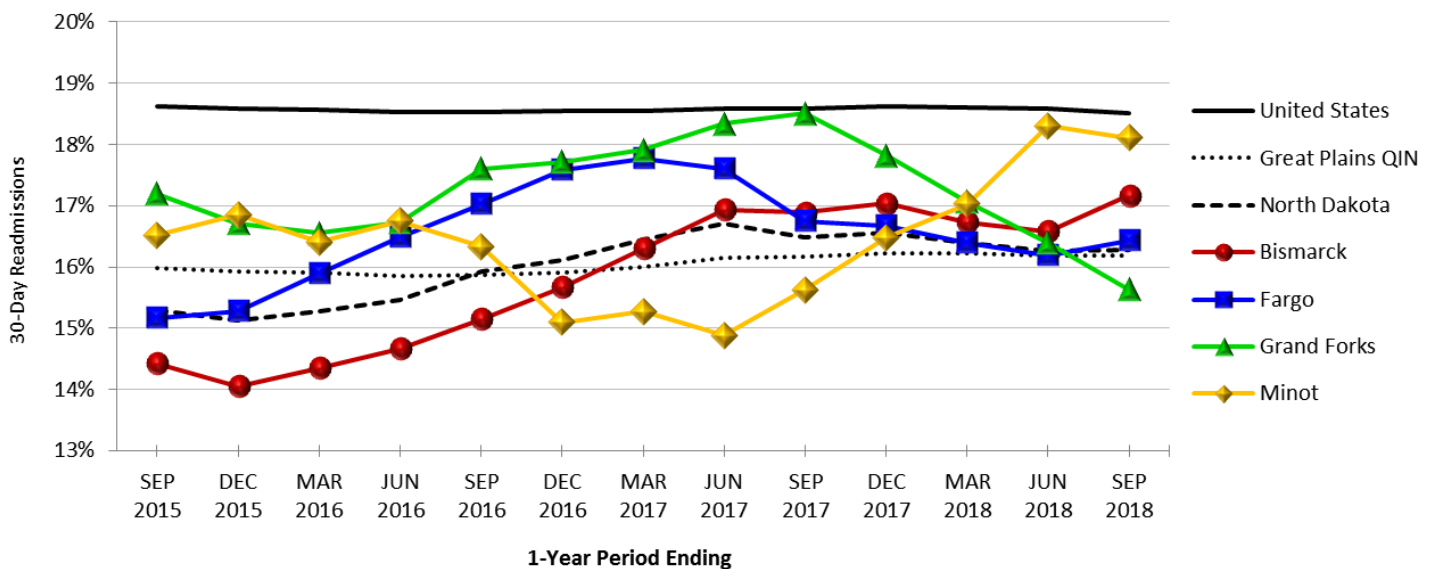
Community Data Highlights

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
Bismarck	5,411	929	17.17%
Fargo	6,280	1,032	16.43%
Grand Forks	3,512	549	15.63%
Minot	3,215	582	18.10%
North Dakota	23,599	3,843	16.28%
Great Plains QIN	240,690	38,947	16.18%
United States	9,694,493	1,794,983	18.52%

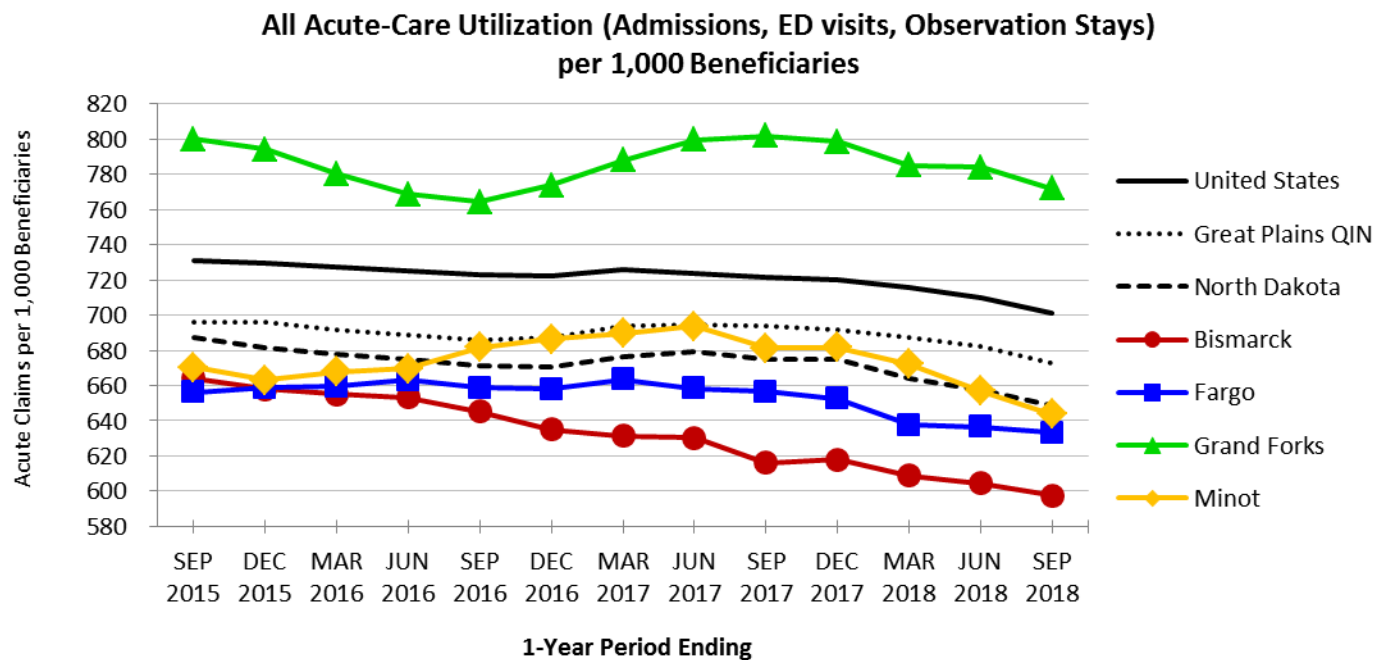
Readmission Rate Trends:



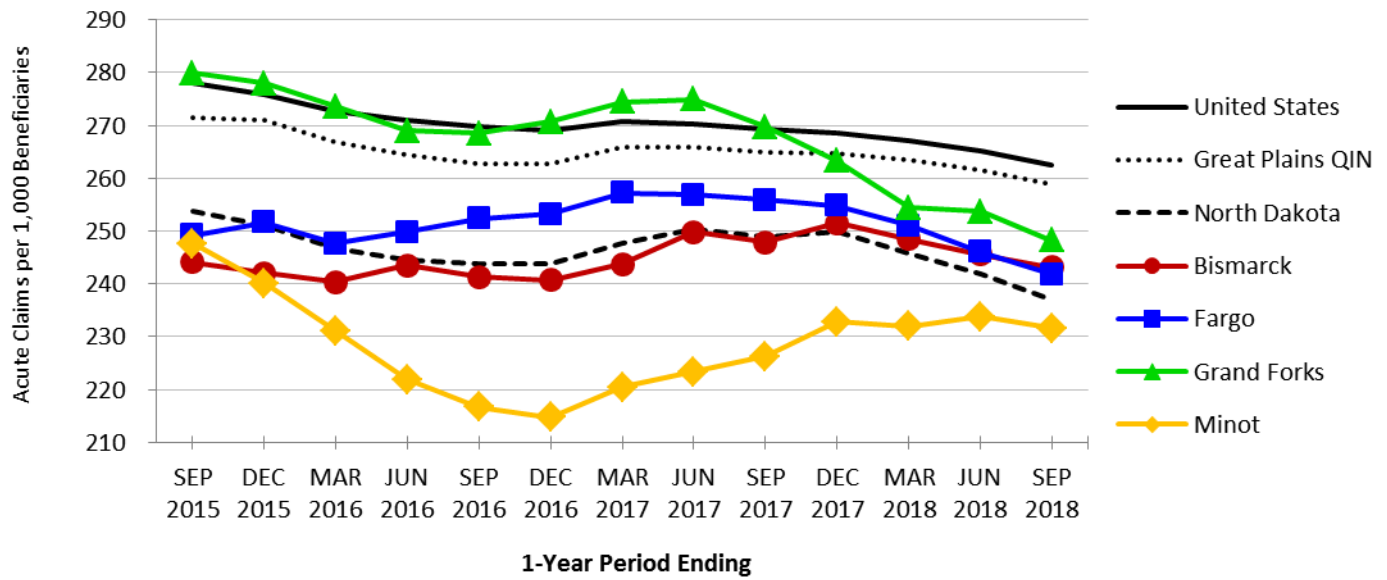
Acute Care Utilization (per 1,000 Beneficiaries): 10/01/2017 - 09/30/2018

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
Bismarck	23,146	5,629	243.20	929	40.14	6,862	296.47	1,344	58.07
Fargo	26,849	6,503	242.21	1,032	38.44	9,235	343.96	1,236	46.04
Grand Forks	14,593	3,630	248.75	549	37.62	6,554	449.12	1,134	77.71
Minot	14,620	3,403	232.76	582	39.81	5,238	358.28	852	58.28
North Dakota	103,475	24,557	237.32	3,843	37.14	36,668	354.37	6,067	58.63
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

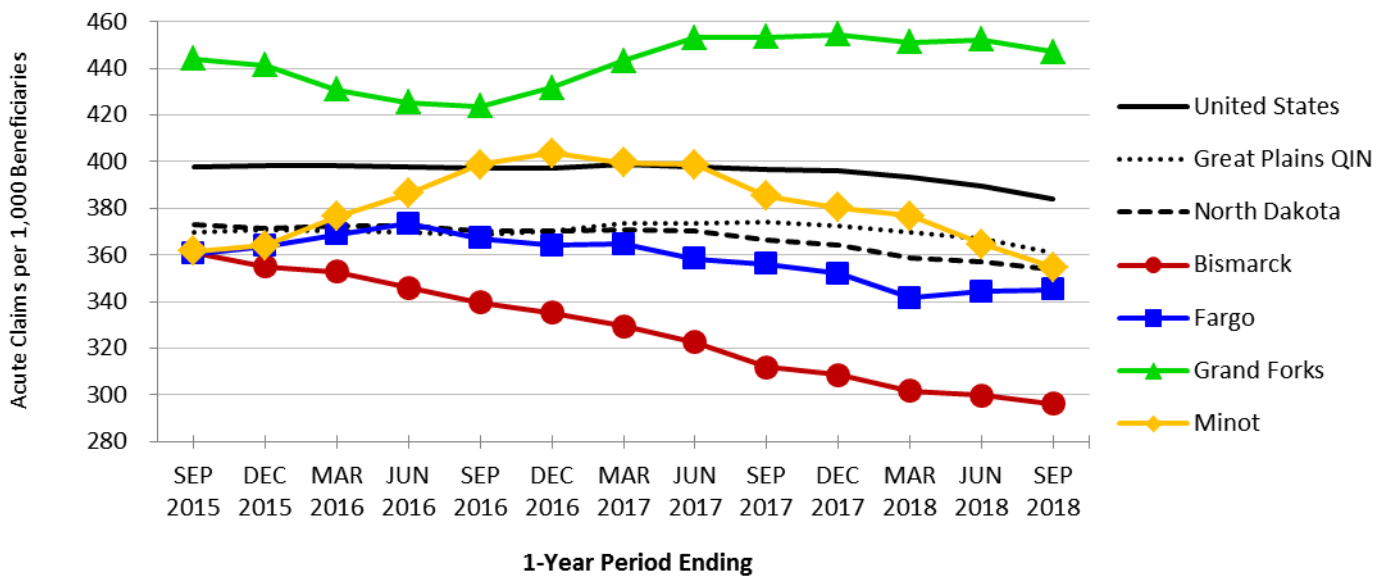
Composite Measure of Unplanned Care: Counts all the Admissions, ED visits and Observation stays per 1,000 beneficiaries.

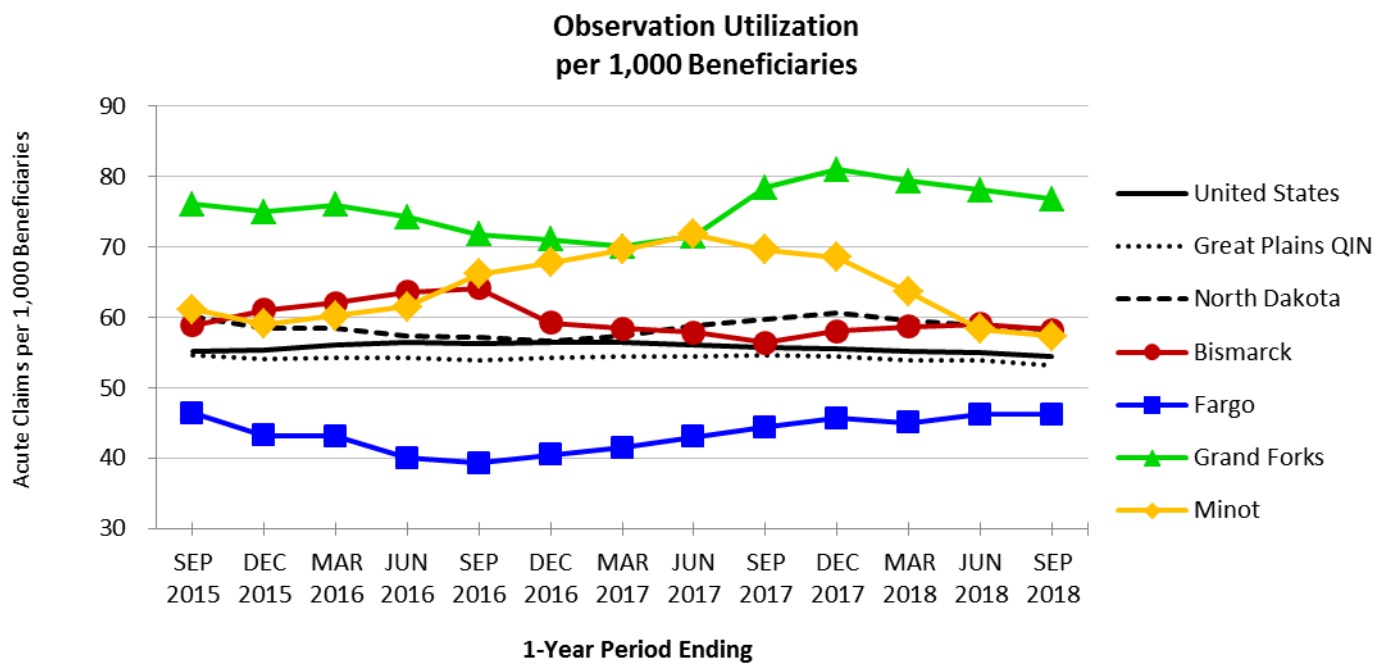


Admission Utilization per 1,000 Beneficiaries

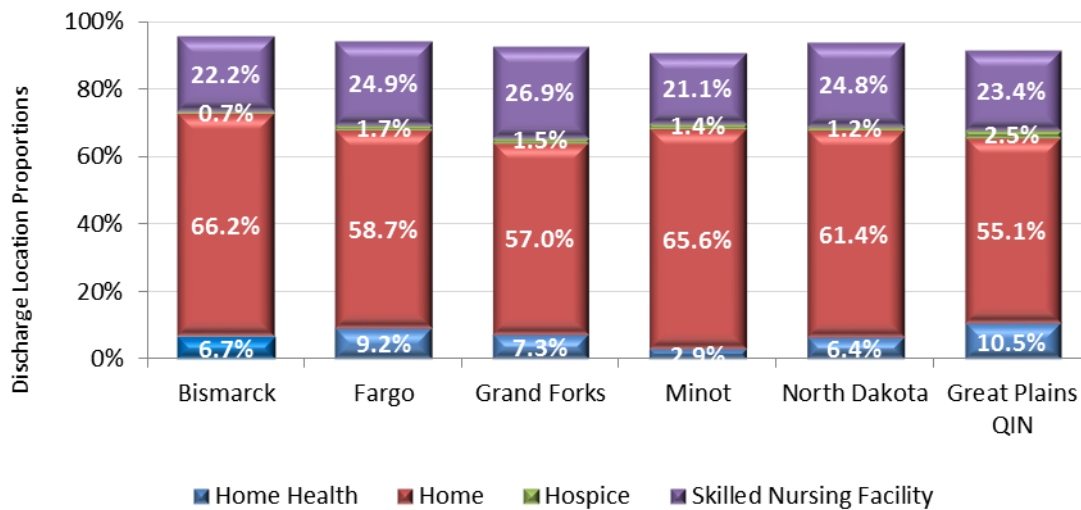


Emergency Department Utilization per 1,000 Beneficiaries



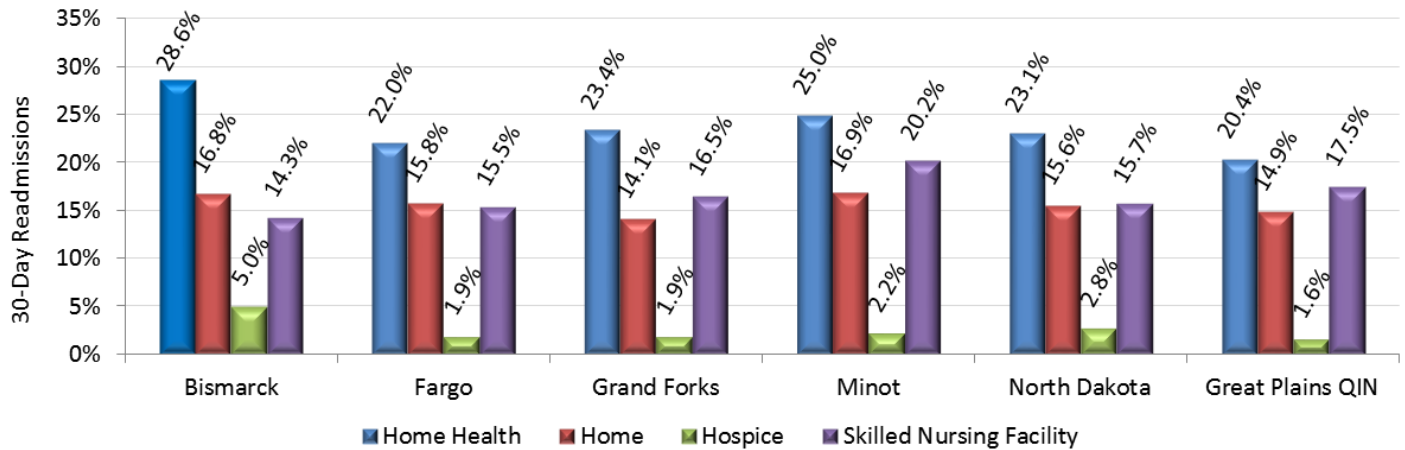


Discharge Locations: 10/01/2017 - 09/30/2018

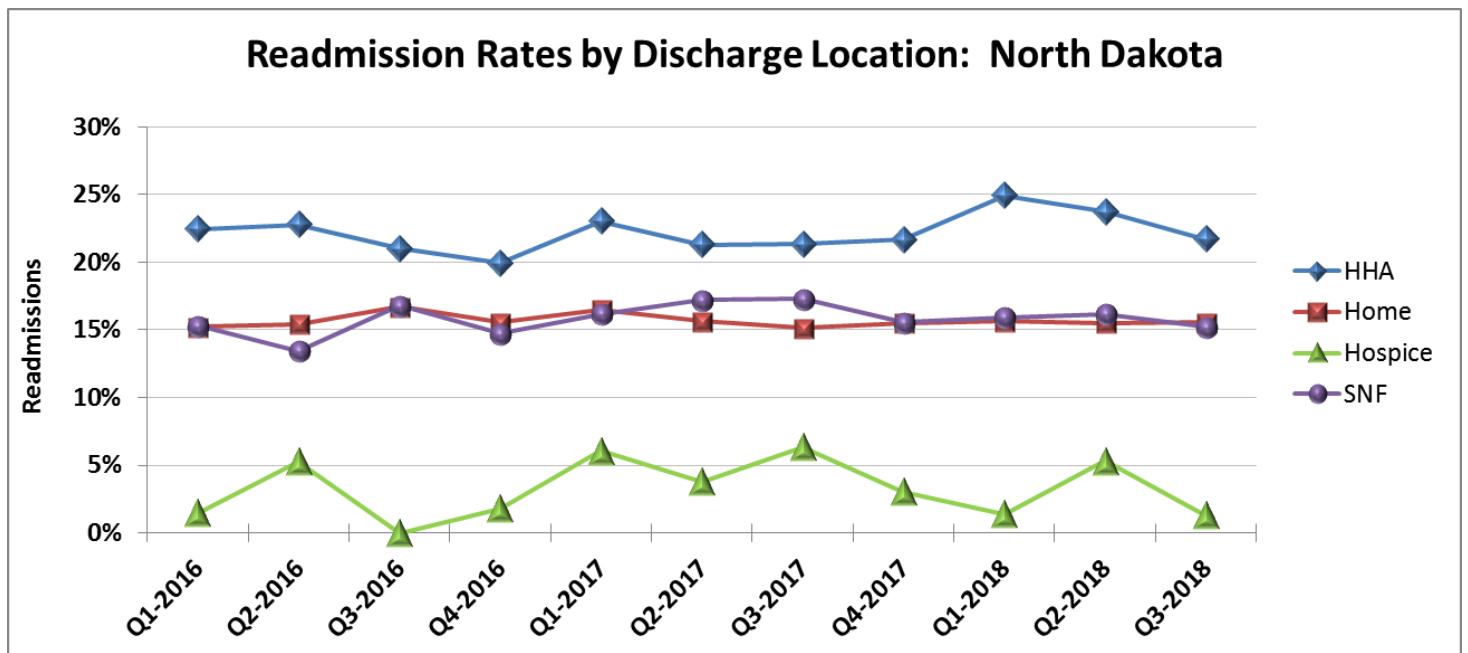


	Discharges								
	All	Home Health		Home		Hospice		Skilled Nursing Facility	
Community		# to Home Health	% to Home Health	# to Home	% to Home	# to Hospice	% to Hospice	# to SNF	% to SNF
Bismarck	5,411	360	6.7%	3,583	66.2%	40	0.7%	1,203	22.2%
Fargo	6,280	576	9.2%	3,687	58.7%	104	1.7%	1,566	24.9%
Grand Forks	3,512	256	7.3%	2,002	57.0%	52	1.5%	946	26.9%
Minot	3,215	92	2.9%	2,110	65.6%	45	1.4%	678	21.1%
North Dakota	23,599	1,521	6.4%	14,497	61.4%	290	1.2%	5,864	24.8%
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



Community	Home Health			Home			Hospice			Skilled Nursing Facility		
	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
Bismarck	360	103	28.6%	3,583	601	16.8%	40	2	5.0%	1,203	172	14.3%
Fargo	576	127	22.0%	3,687	582	15.8%	104	2	1.9%	1,566	242	15.5%
Grand Forks	256	60	23.4%	2,002	283	14.1%	52	1	1.9%	946	156	16.5%
Minot	92	23	25.0%	2,110	356	16.9%	45	1	2.2%	678	137	20.2%
North Dakota	1,521	352	23.1%	14,497	2,255	15.6%	290	8	2.8%	5,864	923	15.7%
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
Bismarck	SEPTICEMIA OR SEVERE SEPSIS	469	5,629	8.33%
	HEART FAILURE & SHOCK	356	5,629	6.32%
	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	257	5,629	4.57%
	SIMPLE PNEUMONIA & PLEURISY	251	5,629	4.46%
	RENAL FAILURE	148	5,629	2.63%
Fargo	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	472	6,503	7.26%
	SEPTICEMIA OR SEVERE SEPSIS	379	6,503	5.83%
	HEART FAILURE & SHOCK	321	6,503	4.94%
	SIMPLE PNEUMONIA & PLEURISY	304	6,503	4.67%
	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	227	6,503	3.49%
Grand Forks	SEPTICEMIA OR SEVERE SEPSIS	361	3,630	9.94%
	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	204	3,630	5.62%
	SIMPLE PNEUMONIA & PLEURISY	199	3,630	5.48%
	HEART FAILURE & SHOCK	188	3,630	5.18%
	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	114	3,630	3.14%
Minot	SEPTICEMIA OR SEVERE SEPSIS	259	3,403	7.61%
	SIMPLE PNEUMONIA & PLEURISY	240	3,403	7.05%
	HEART FAILURE & SHOCK	188	3,403	5.52%
	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	159	3,403	4.67%
	PULMONARY EDEMA & RESPIRATORY FAILURE	106	3,403	3.11%
North Dakota	SEPTICEMIA OR SEVERE SEPSIS	1,719	24,557	7.00%
	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY	1,423	24,557	5.79%
	SIMPLE PNEUMONIA & PLEURISY	1,384	24,557	5.64%
	HEART FAILURE & SHOCK	1,336	24,557	5.44%
	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	705	24,557	2.87%
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
Bismarck	HEART FAILURE & SHOCK	87	929	9.36%
	SEPTICEMIA OR SEVERE SEPSIS	67	929	7.21%
	SIMPLE PNEUMONIA & PLEURISY	43	929	4.63%
	RENAL FAILURE	36	929	3.88%
	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	30	929	3.23%
Fargo	HEART FAILURE & SHOCK	67	1,032	6.49%
	SEPTICEMIA OR SEVERE SEPSIS	56	1,032	5.43%
	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	55	1,032	5.33%
	ACUTE MYOCARDIAL INFARCTION	48	1,032	4.65%
	PSYCHOSES	44	1,032	4.26%
Grand Forks	SEPTICEMIA OR SEVERE SEPSIS	53	549	9.65%
	HEART FAILURE & SHOCK	30	549	5.46%
	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	26	549	4.74%
	SIMPLE PNEUMONIA & PLEURISY	25	549	4.55%
	PULMONARY EDEMA & RESPIRATORY FAILURE	15	549	2.73%
Minot	HEART FAILURE & SHOCK	45	582	7.73%
	SEPTICEMIA OR SEVERE SEPSIS	43	582	7.39%
	SIMPLE PNEUMONIA & PLEURISY	41	582	7.04%
	PULMONARY EDEMA & RESPIRATORY FAILURE	21	582	3.61%
	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	18	582	3.09%
North Dakota	HEART FAILURE & SHOCK	288	3,843	7.49%
	SEPTICEMIA OR SEVERE SEPSIS	256	3,843	6.66%
	SIMPLE PNEUMONIA & PLEURISY	198	3,843	5.15%
	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	157	3,843	4.09%
	ACUTE MYOCARDIAL INFARCTION	109	3,843	2.84%
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%

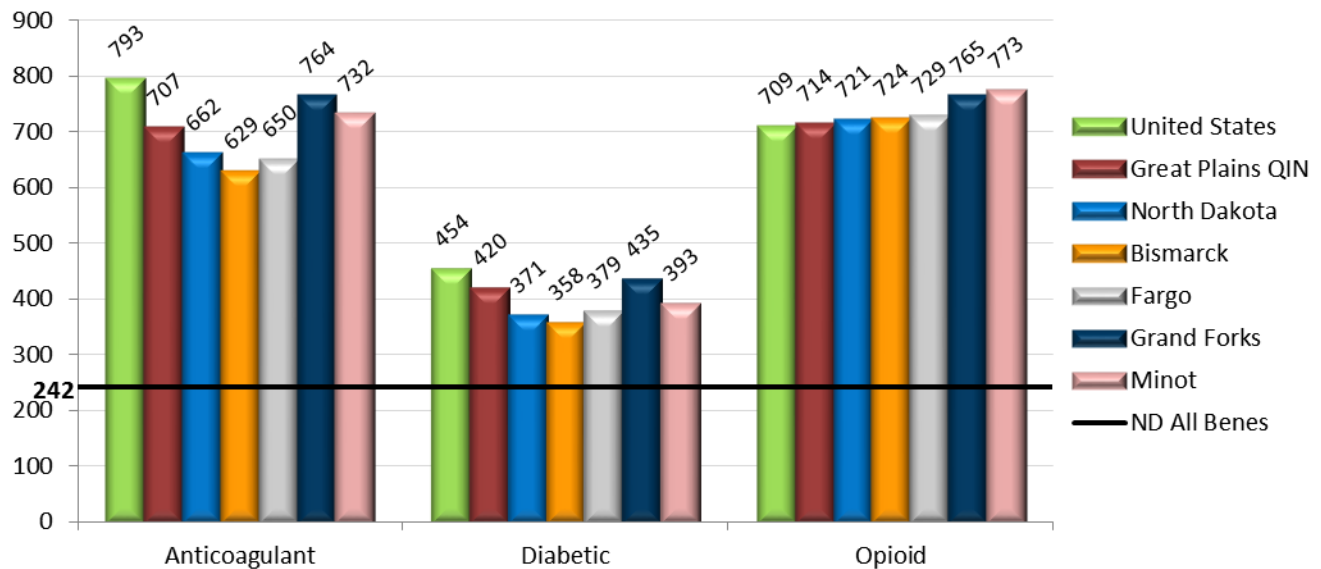
Potential Opportunity for Improving End-of-Life Care: 10/01/2017 - 09/30/2018

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
Bismarck	1,173	130	11.08%	198	16.88%
Fargo	1,311	125	9.53%	186	14.19%
Grand Forks	718	82	11.42%	102	14.21%
Minot	736	101	13.72%	163	22.15%
North Dakota	5,255	566	10.77%	837	15.93%
Great Plains QIN	48,036	5,708	11.88%	6,809	14.17%

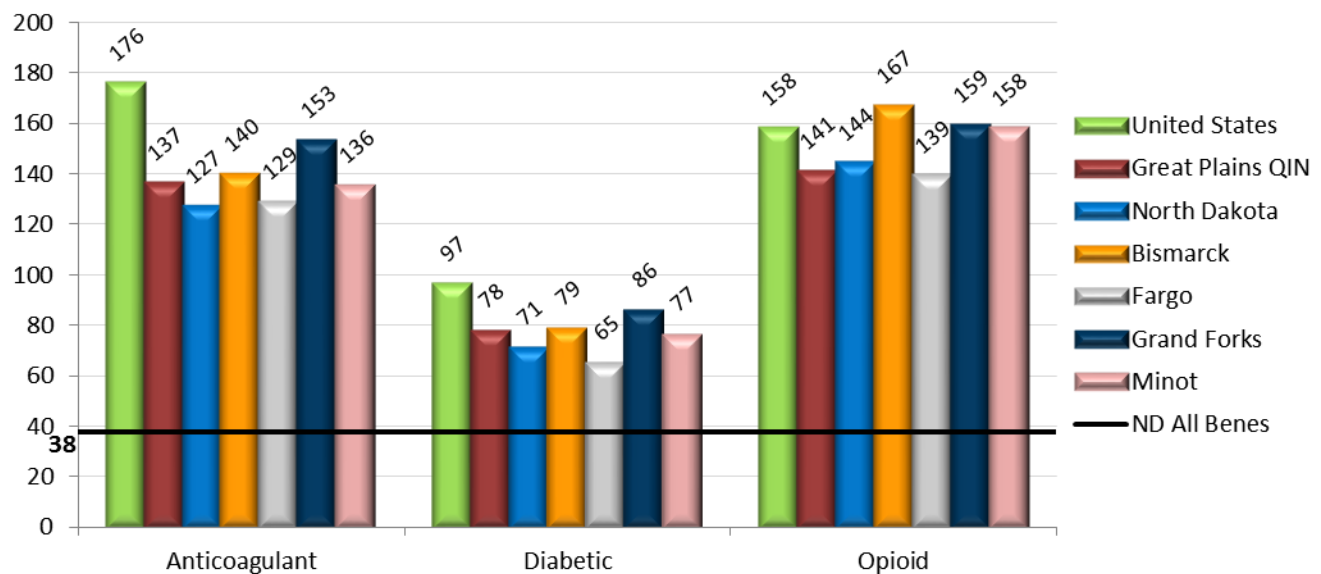
Admissions by High Risk Drug Class: Counts the admissions per 1,000 FFS high risk medication (HRM) beneficiaries by anticoagulant, diabetic agent, and opioid drug classes and compares to overall admission rates for all Medicare FFS beneficiaries (including those with and without HRMs).

**Admissions per 1,000 HRM Beneficiaries by Drug Class
(Q3 2017 - Q2 2018)**



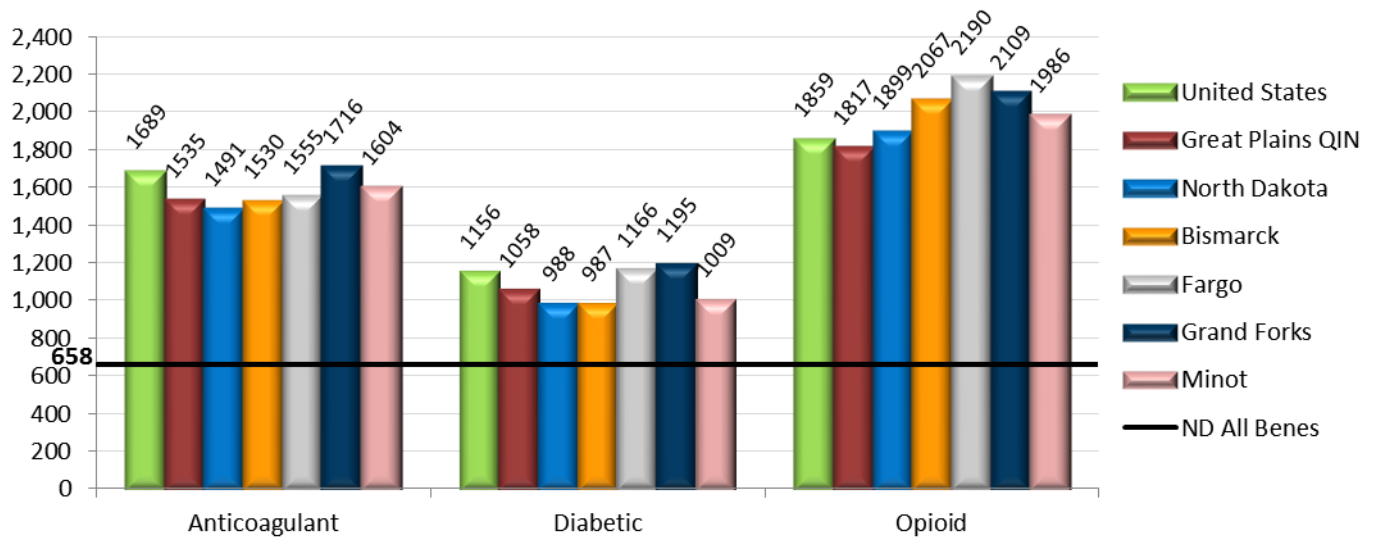
Readmissions by High Risk Drug Class: Counts the 30-day readmissions per 1,000 FFS high risk medication (HRM) beneficiaries by anticoagulant, diabetic agent, and opioid drug classes and compares to overall 30-day readmission rates for all Medicare FFS beneficiaries (including those with and without HRMs).

**Readmissions per 1,000 HRM Beneficiaries by Drug Class
(Q3 2017 - Q2 2018)**

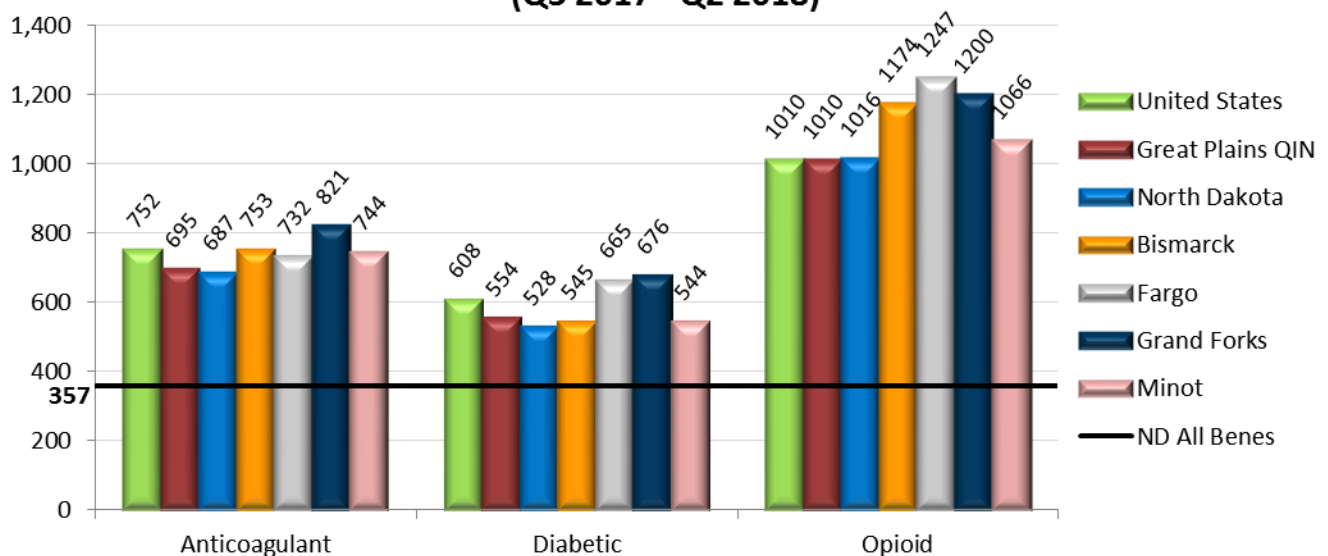


Composite Measure of Unplanned Care by Drug Class: *Counts all the Admissions, ED visits and Observation stays per 1,000 HRM beneficiaries by anticoagulant, diabetic agent, and opioid drug classes and compares to overall rates for all Medicare FFS beneficiaries (including those with and without HRMs).*

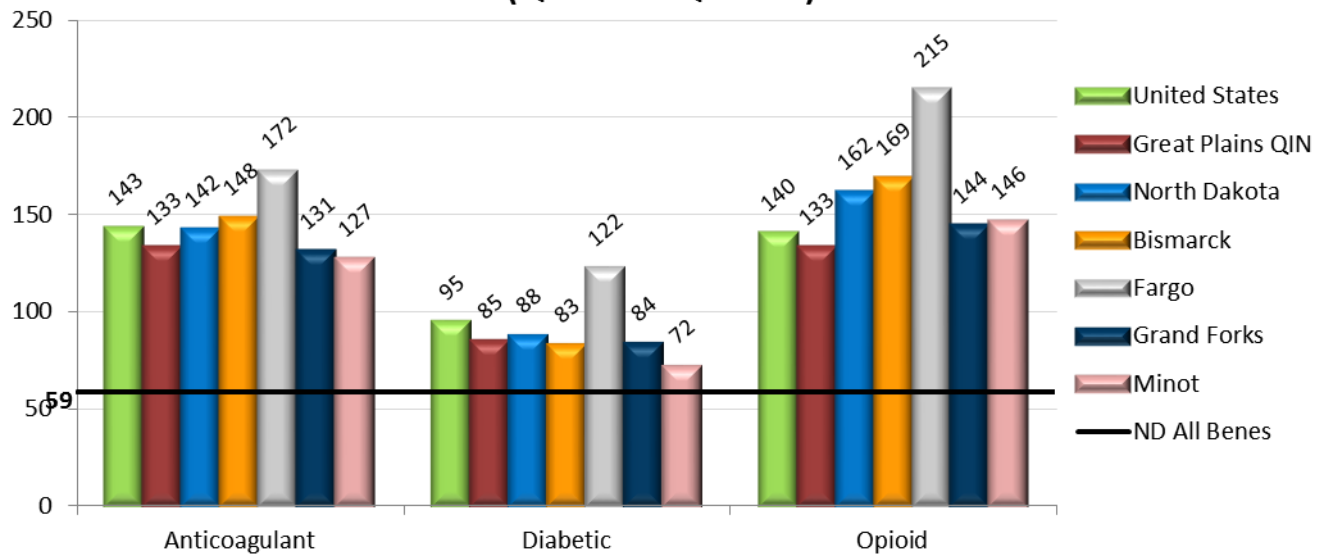
All Acute-Care Utilization (Admissions, ED Visits, Observation Stays) per 1,000 HRM Beneficiaries by Drug Class (Q3 2017 - Q2 2018)



Emergency Department Utilization per 1,000 HRM Beneficiaries by Drug Class (Q3 2017 - Q2 2018)

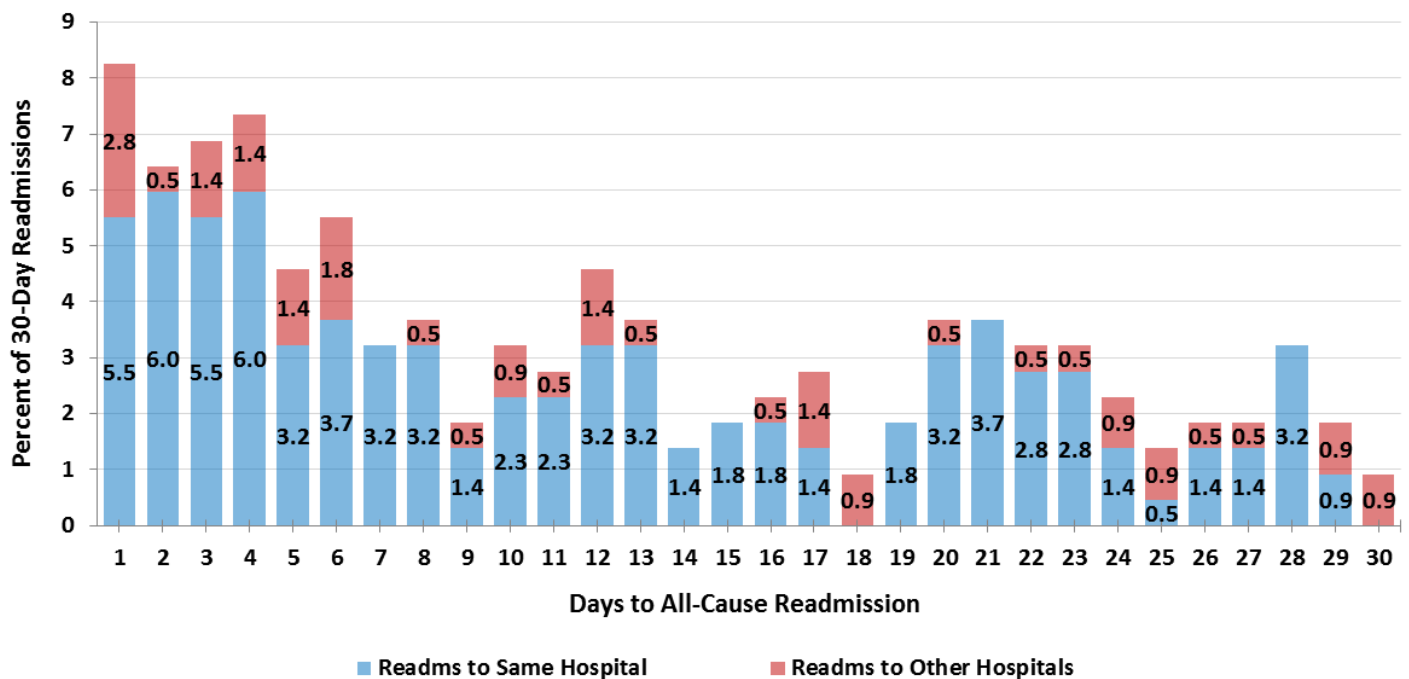


Observation Utilization per 1,000 HRM Beneficiaries by Drug Class (Q3 2017 - Q2 2018)

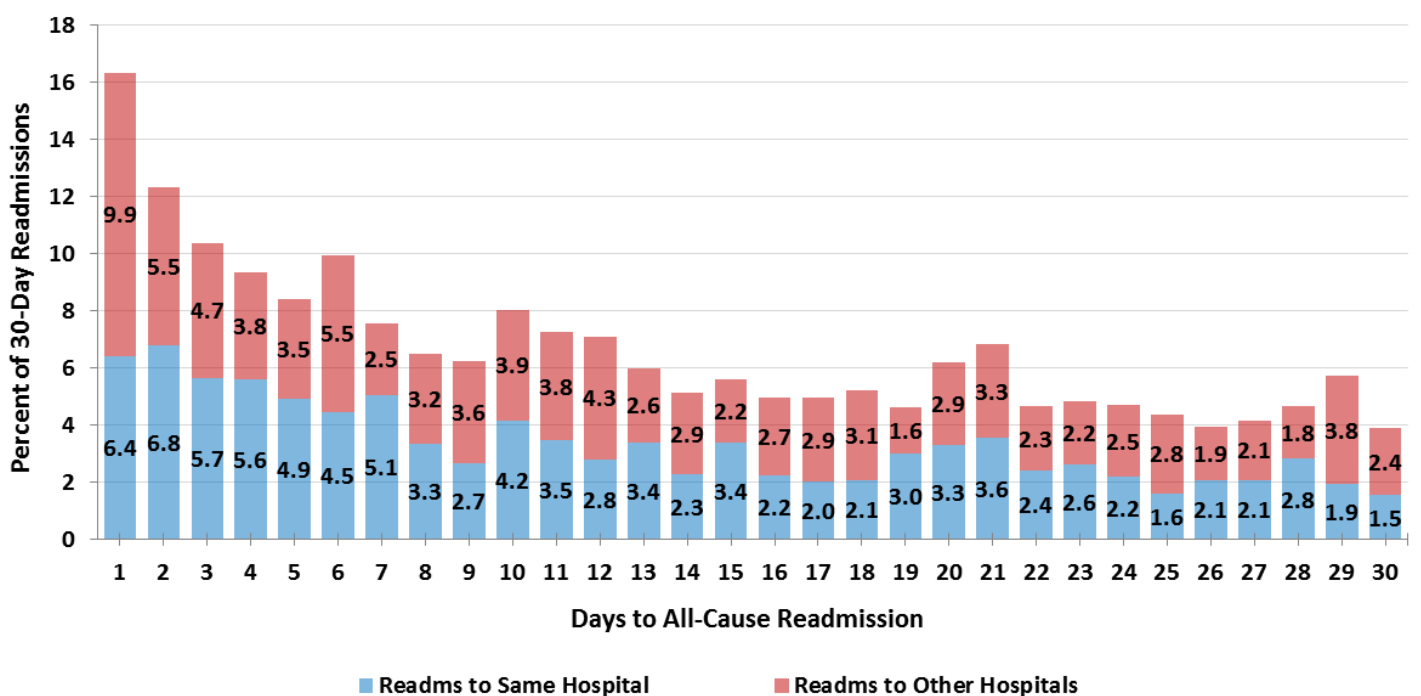


How many days after being discharged with a potential ADE were Medicare Beneficiaries readmitted:
10/01/2017 - 09/30/2018

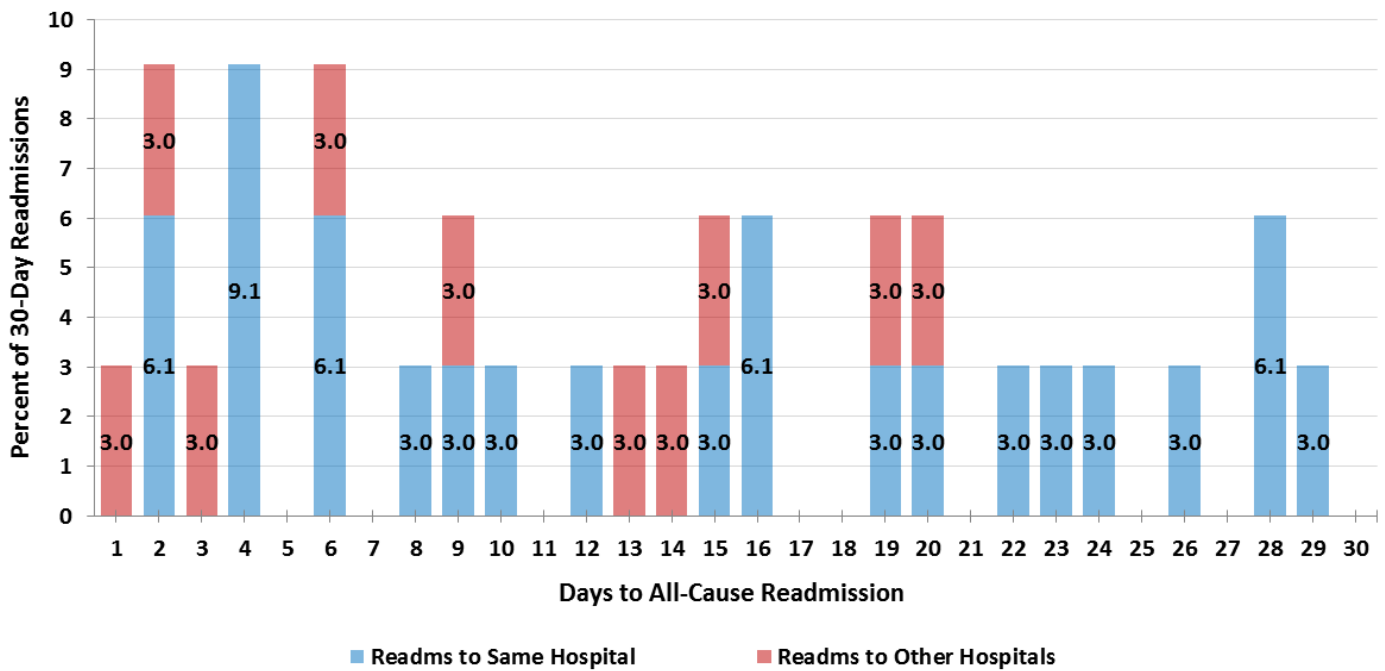
North Dakota - Anticoagulant Potential ADEs



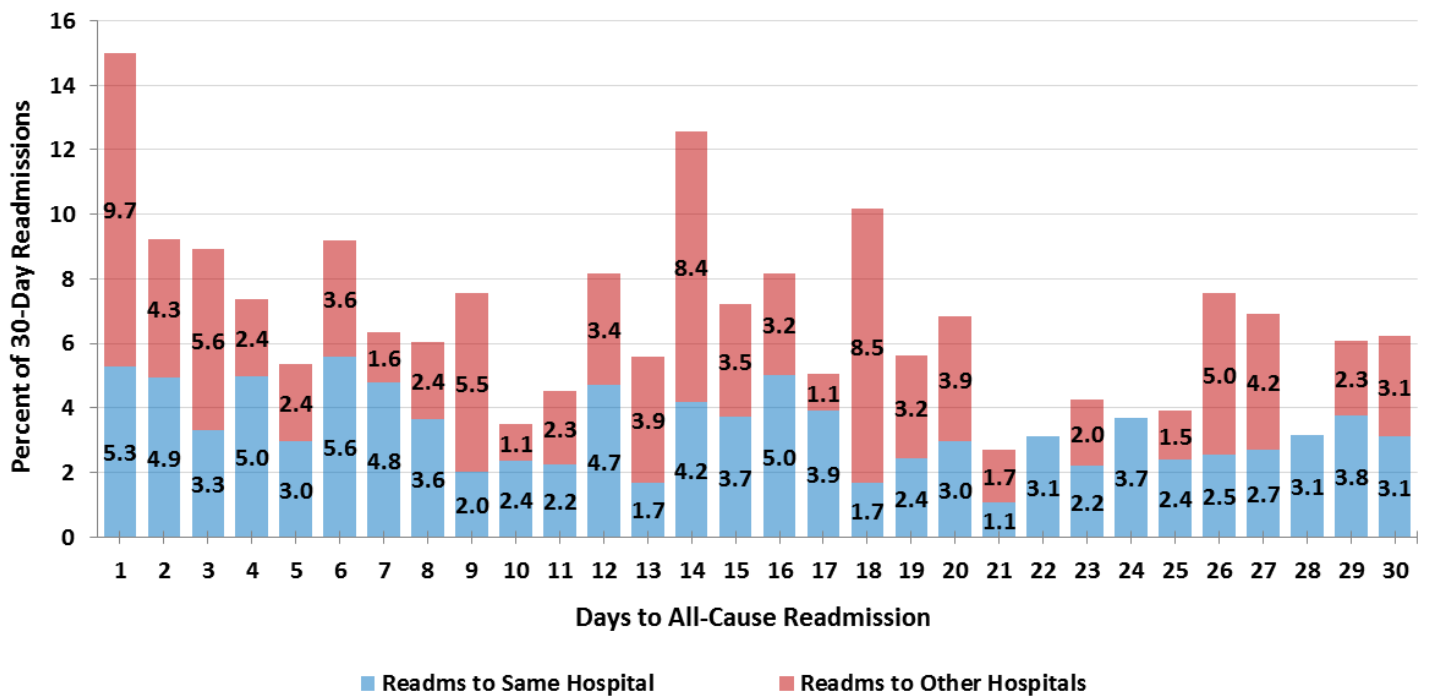
Great Plains QIN - Anticoagulant Potential ADEs



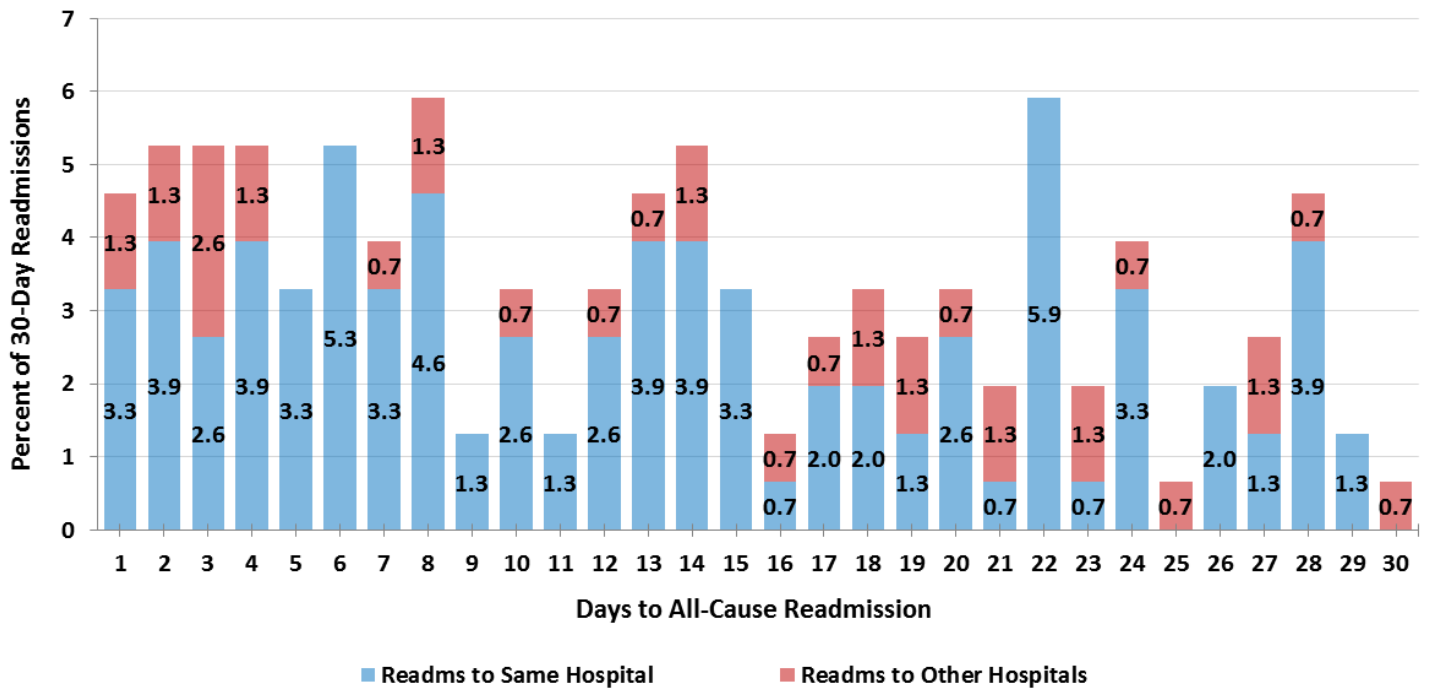
North Dakota - Diabetic Agent Potential ADEs



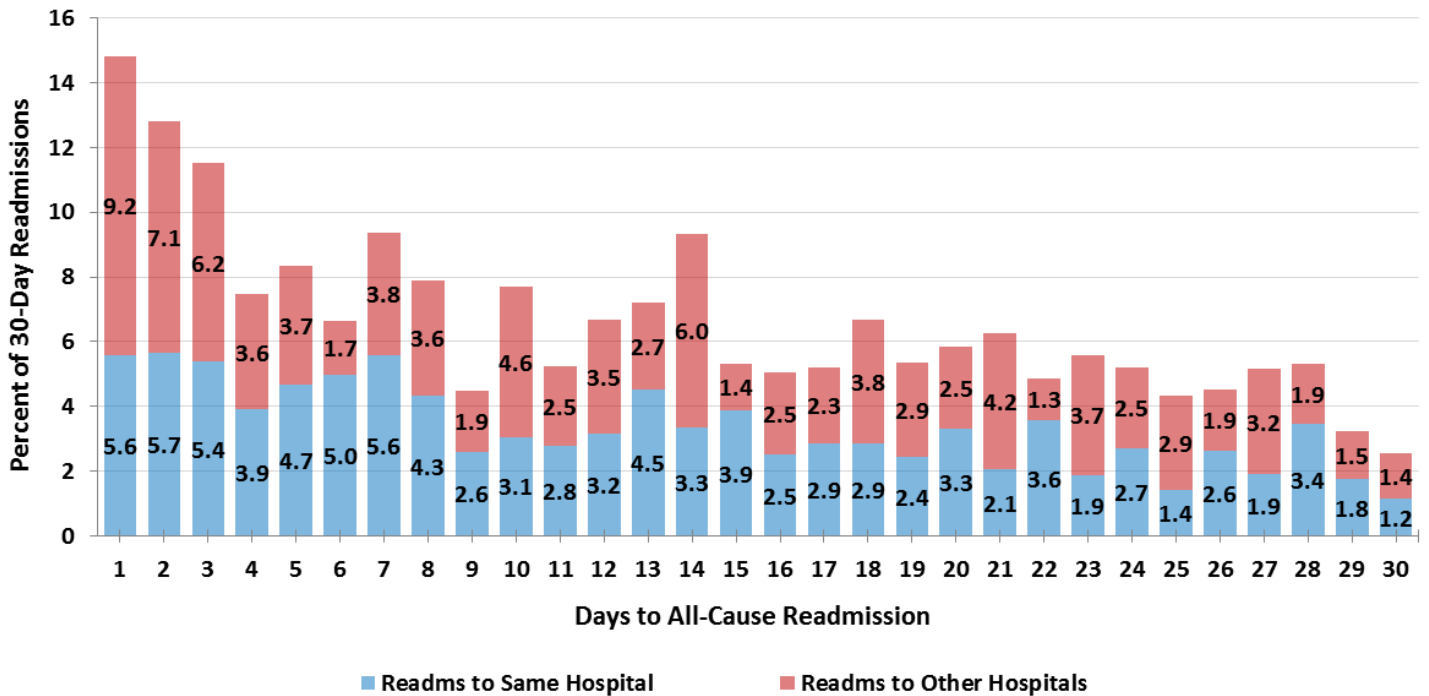
Great Plains QIN - Diabetic Agent Potential ADEs



North Dakota - Opioid Potential ADEs



Great Plains QIN - Opioid Potential ADEs



For any questions on this report, please contact Lorrie Lendvoy at QHA, Lorrie.Lendvoy@area-a.hcgis.org or 701-989-6220.