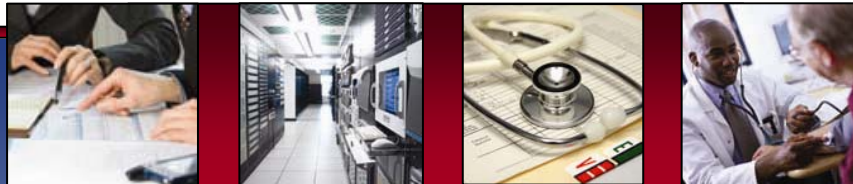




MEDASSURANTTM

Measuring and Benchmarking Hospital Re-Admission Rates for Quality Improvement

Second National Medicare Readmissions Summit
Cary Sennett, MD, PhD





Presentation Outline & Goals

- The Problem of Readmission in the Medicare (Advantage) Population
- Analysis and Insight from a National Dataset
- Summary

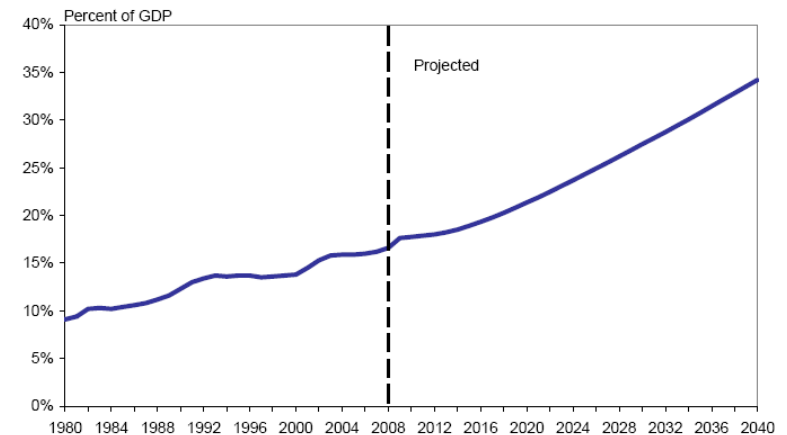


The Problem of Re-Admission in the Medicare Population

Although some rehospitalizations clearly are intentional, the number and cost of unplanned readmissions reflect serious problems with quality of care, and add enormous additional cost to a cost-pressured health care system.

- More than half of FFS Medicare patients hospitalized are rehospitalized within a year
- Almost 20% are rehospitalized within 30 days
- The cost of unplanned rehospitalizations in 2004 was \$17.4 billion

National Health Expenditures as a Share of GDP, 1980-2040



Source: CEA calculations.

Statistics from Jencks SF, Williams MV, and Coleman EA. Rehospitalizations among Patients in the Medicare Fee-for-Service Program. NEJM 2009; 360: 1418-28.



Special Issues in Medicare Advantage

Richer-benefit Medicare Advantage (MA) plans are under scrutiny. But MA plans have opportunities to address the problem of rehospitalization that do not exist in FFS Medicare.

- Opportunities for care coordination exist that are absent in FFS Medicare
- The organization of networks permits contracting with higher quality providers
- Capitation creates incentives for MA plans to manage rehospitalization





Study Objective

The study utilized a unique registry, which has the ability to answer questions of fundamental importance to policy-makers at a critical time for the Medicare program. MedAssurant, as a research partner to AHIP, has begun an evaluation of hospital re-admission in the Medicare Advantage population, to use its nationally representative dataset to answer the following questions:

- How do rates of re-admission among MA plans compare to previously published rates in Medicare FFS?
- How have those rates trended over time?
- How robust are these findings?

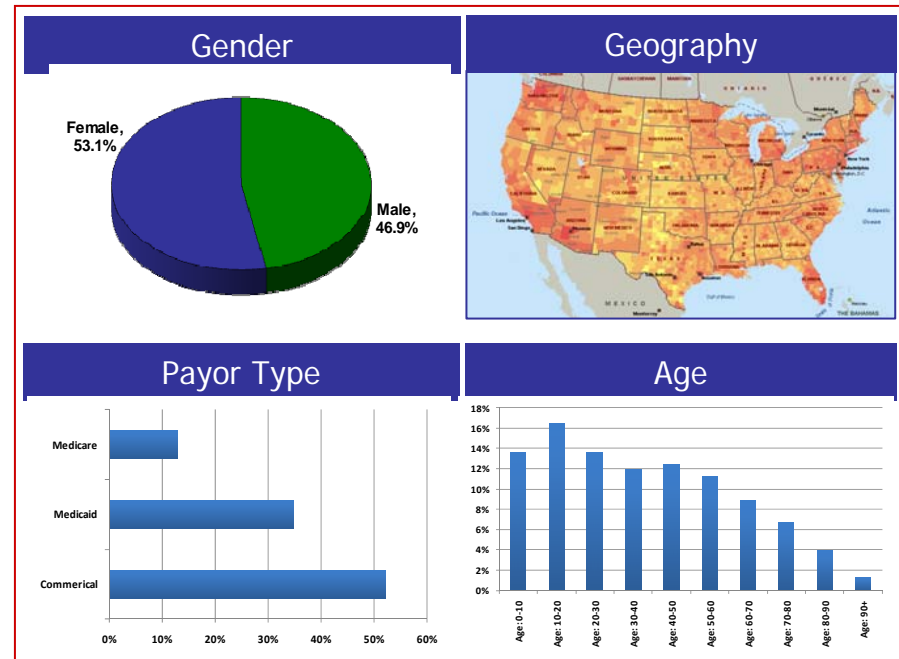


The MORE² Registry™

MedAssurant's MORE² Registry™ is a clinically rich dataset that has been used to drive improvements and intelligence within MedAssurant's analytic products and services. It is the source of data for this study.

Key features of the registry:

- De-identified, longitudinal, patient-level data on approximately 50 million insured Americans
- Extensive, integrated, clinically-enriched, administrative data
- Data on Medicare Advantage, commercial, and Medicaid enrollees
- Broad geographic coverage





Characteristics of the Population

For the analyses that follow, we extracted data on more than 2.4 million de-identified Medicare Advantage patients from the registry. Our analysis included enrollees in all 50 states (and Puerto Rico, Guam, and the Virgin Islands), in a manner that reflects the distribution of Medicare enrollees generally.





Characteristics of the Population

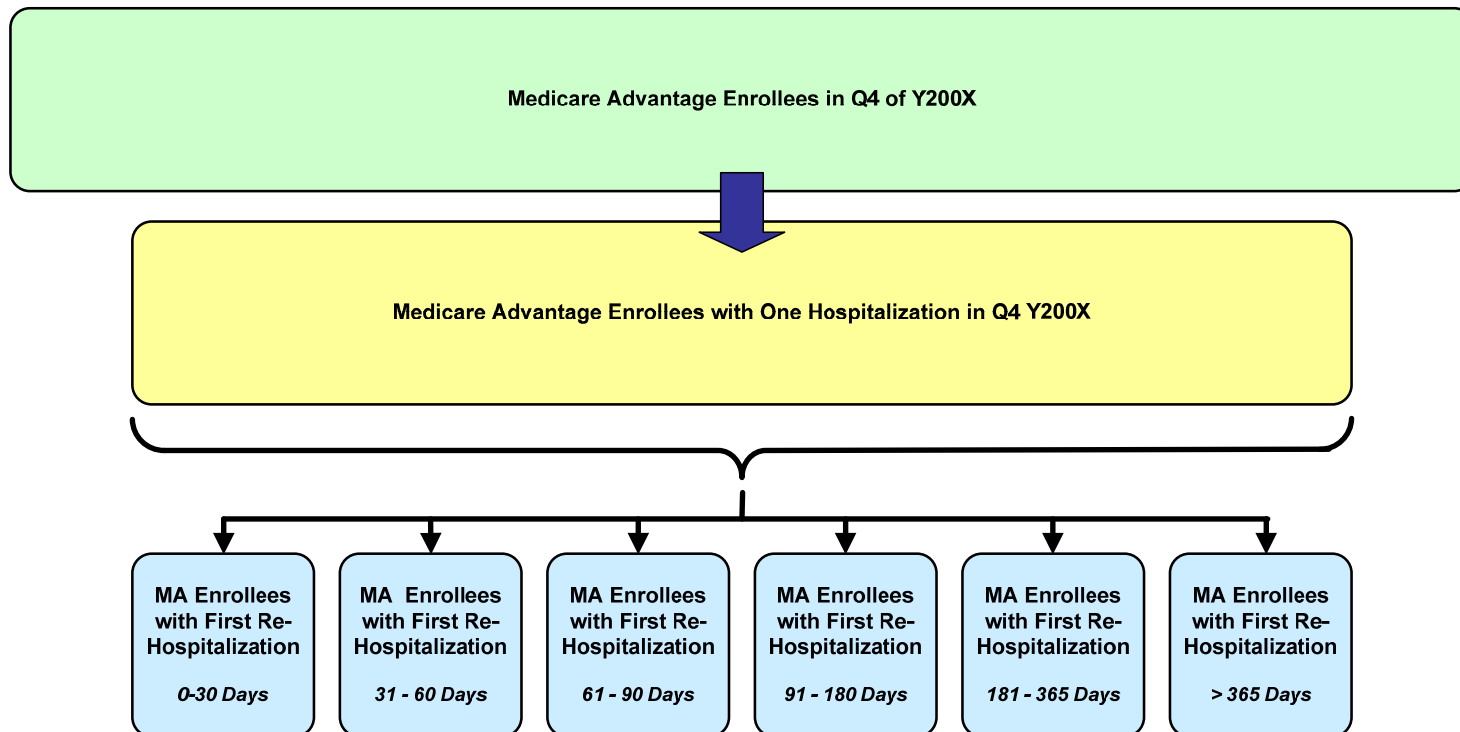
Below are the basic characteristics of the pooled Medicare Advantage enrollees in the MedAssurant MORE² Registry™ for the years 2006-2008:

		2006		2007		2008	
		Frequency	%	Frequency	%	Frequency	%
Age	<55	73,765	5.6	98,920	5.3	132,010	5.5
	55-64	94,970	7.2	127,667	6.8	162,093	6.7
	65-69	234,751	17.8	418,890	22.3	621,419	25.7
	70-74	301,163	22.9	422,232	22.4	514,692	21.3
	75-79	251,982	19.2	342,917	18.2	416,918	17.3
	80-84	188,860	14.4	253,938	13.5	310,426	12.9
	85-89	110,768	8.4	144,784	7.7	175,950	7.3
	> 89	59,548	4.5	73,516	3.9	82,928	3.4
Sex	Female	738,153	56.1	1,062,514	56.4	1,377,815	57.0
	Male	577,655	43.9	820,360	43.6	1,038,643	43.0
Region	West	140,588	10.7	186,299	9.9	261,155	10.8
	Midwest	290,743	22.1	518,324	27.5	749,358	31.0
	South	711,456	54.1	831,178	44.1	954,225	39.5
	Northeast	147,924	11.2	325,879	17.3	436,813	18.1
	Other	25,097	1.9	21,194	1.1	14,907	0.6
Total Enrollment		1,315,808	100	1,882,874	100	2,416,458	100



Methodology

To maximize the comparability of our results to those previously published (by Jencks *et al*), we identified hospitalizations in the fourth quarter of a year (2006, 2007, and 2008), and then looked for rehospitalization at different intervals within the following twelve months.

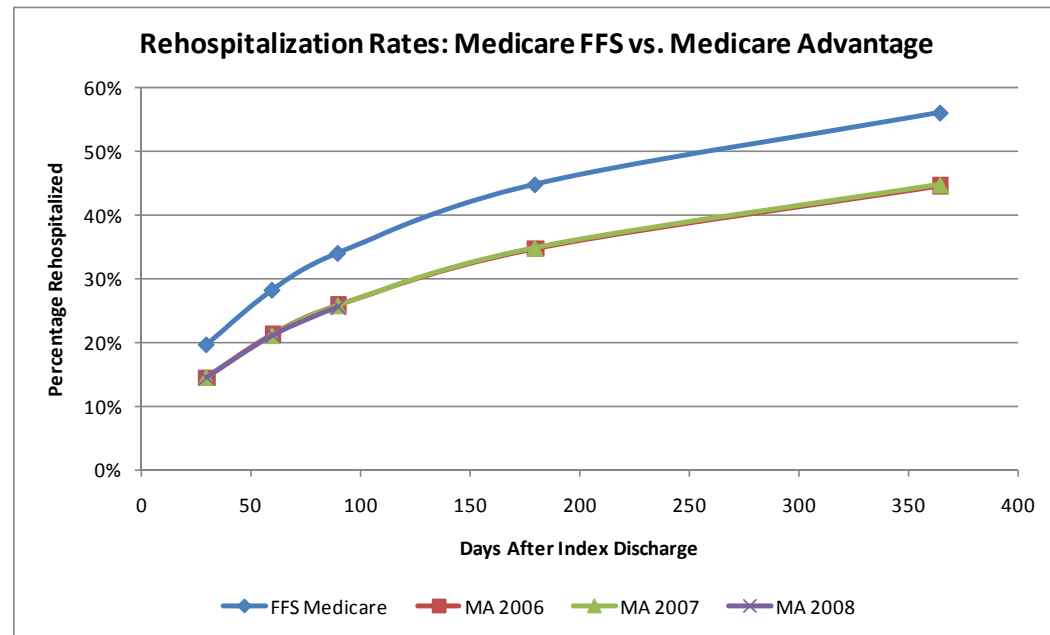




Rehospitalization Rates for MA Population—Results of the Study

At all times the rehospitalization rates for the Medicare Advantage population were found to be consistently and significantly lower than rates for the Medicare FFS population.

Rehospitalization rates in Medicare Advantage were remarkably stable between 2006 and 2008. In all years, and over all intervals, those rates were significantly ($p < .001$) less than the Medicare FFS rate. At 30 days, rehospitalization rates for Medicare Advantage (14.5%) were approximately 26% lower than rates for FFS (19.6%)¹.

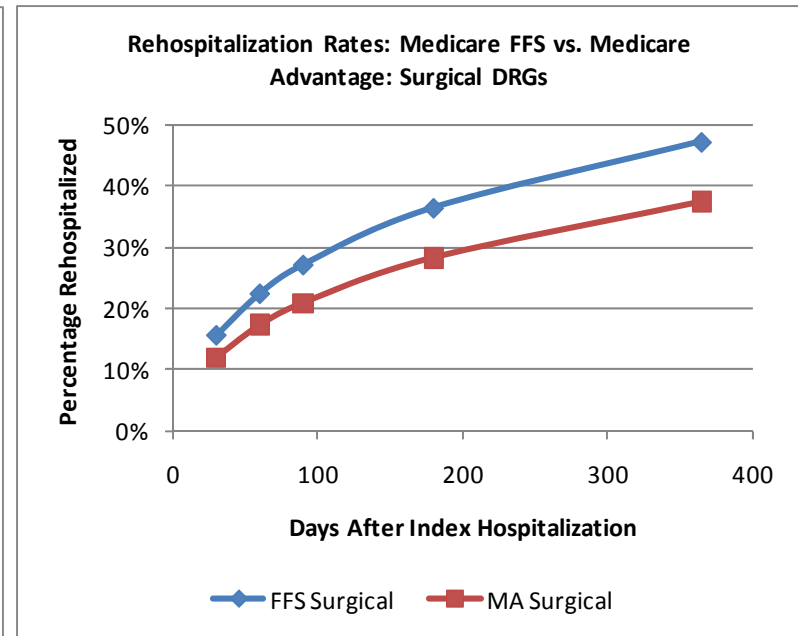
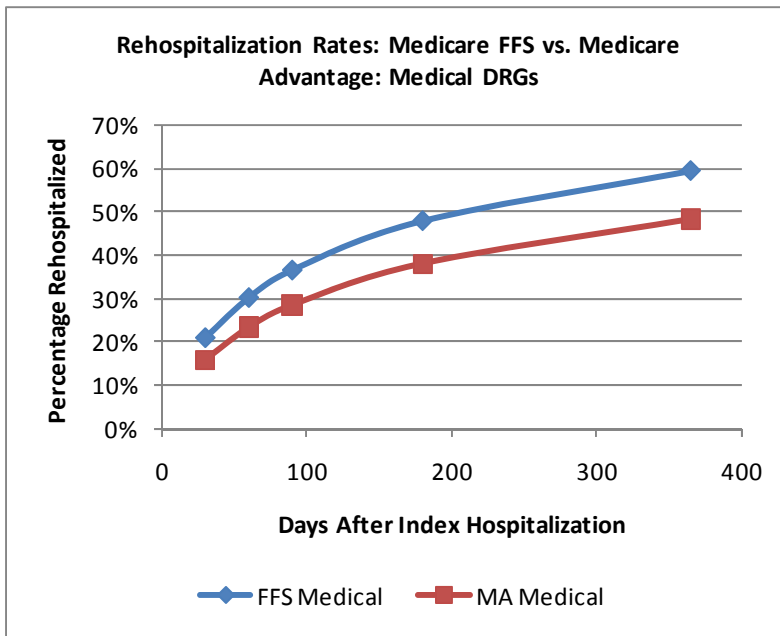


¹Jencks SF, Williams MV, and Coleman EA. Rehospitalizations among Patients in the Medicare Fee-for-Service Program. NEJM 2009; 360: 1418-28.



Rehospitalization Rates for Medical and Surgical DRGs

The significantly lower rate of rehospitalization among all MA patients was seen for hospitalizations both for medical DRGs and surgical DRGs.

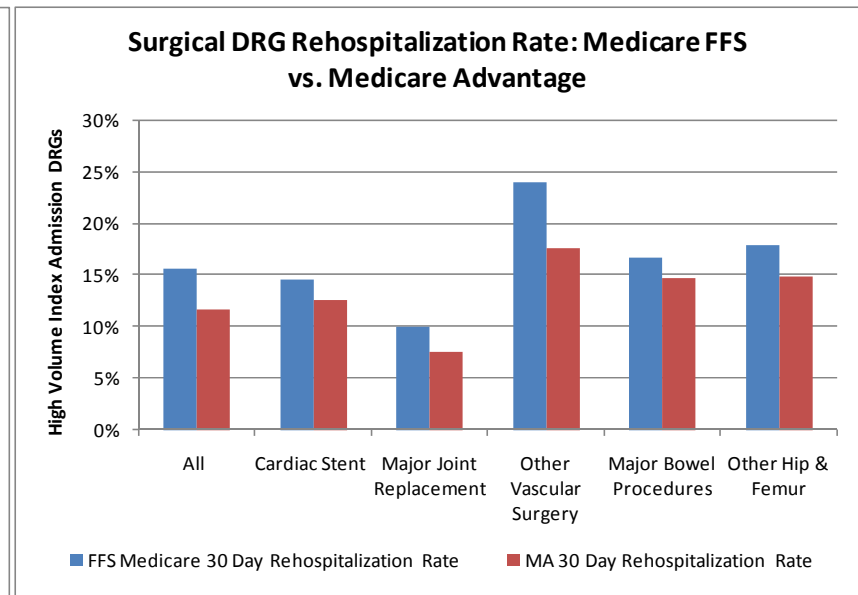
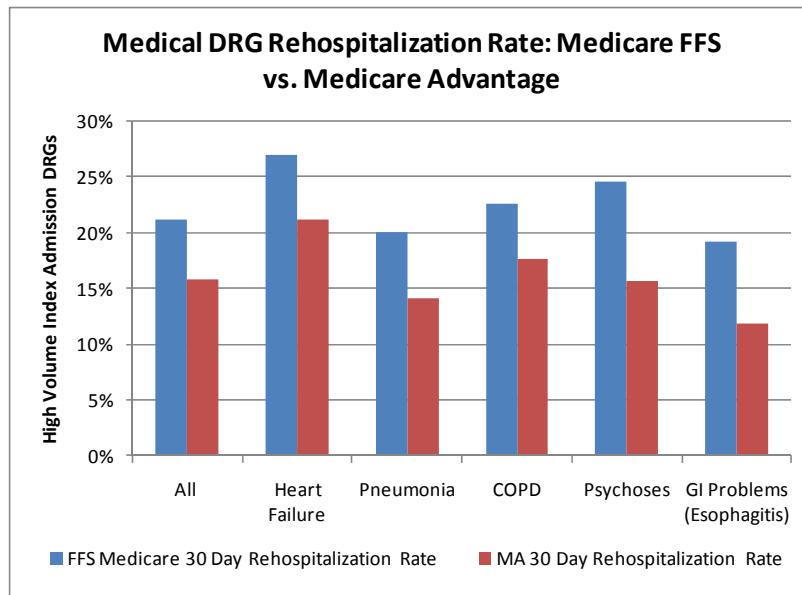


FFS Rates from Jencks SF, Williams MV, and Coleman EA. Rehospitalizations among Patients in the Medicare Fee-for-Service Program. NEJM 2009; 360: 1418-28.



Analysis of High Volume DRGs

Analysis of those DRGs that accounted for the largest number of rehospitalizations again revealed consistently lower rates in the MA population than in the FFS Medicare population.



FFS Rates from Jencks SF, Williams MV, and Coleman EA. Rehospitalizations among Patients in the Medicare Fee-for-Service Program. NEJM 2009; 360: 1418-28.



Regional Variation

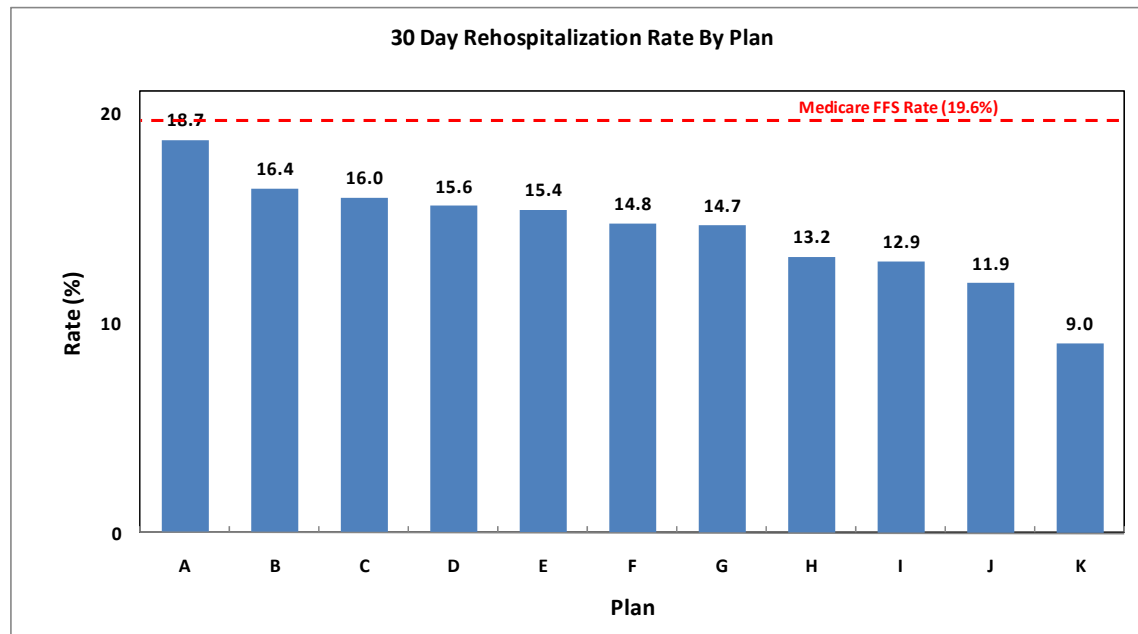
Although there was variation in rates of rehospitalization across census regions, rates were significantly below the FFS benchmark of 19.6% in all regions.

Year to Year Rate of Rehospitalization Comparison by Region			
	2006	2007	2008
West	13.5%	13.3%	12.2%
Midwest	14.7%	14.1%	14.2%
South	14.8%	14.8%	15.1%
Northeast	14.4%	14.9%	14.8%



Variation in Rehospitalization Rates Across MA Plans

There was significant variation in 30 day rehospitalization rates across a sampling of Medicare Advantage plans. Nevertheless, the rehospitalization rate seen within each plan was below the reported FFS rate of 19.6%*.



* Deeper analysis into individual plans provides insights into these variances.



Additional Work

In partnership with AHIP, MedAssurant used a related methodology to evaluate MA and FFS rates over the years 2006-2008. This method used the total number of readmissions in a year divided by the total number of admissions. Medicare FFS data came from the Medicare 5% Sample.

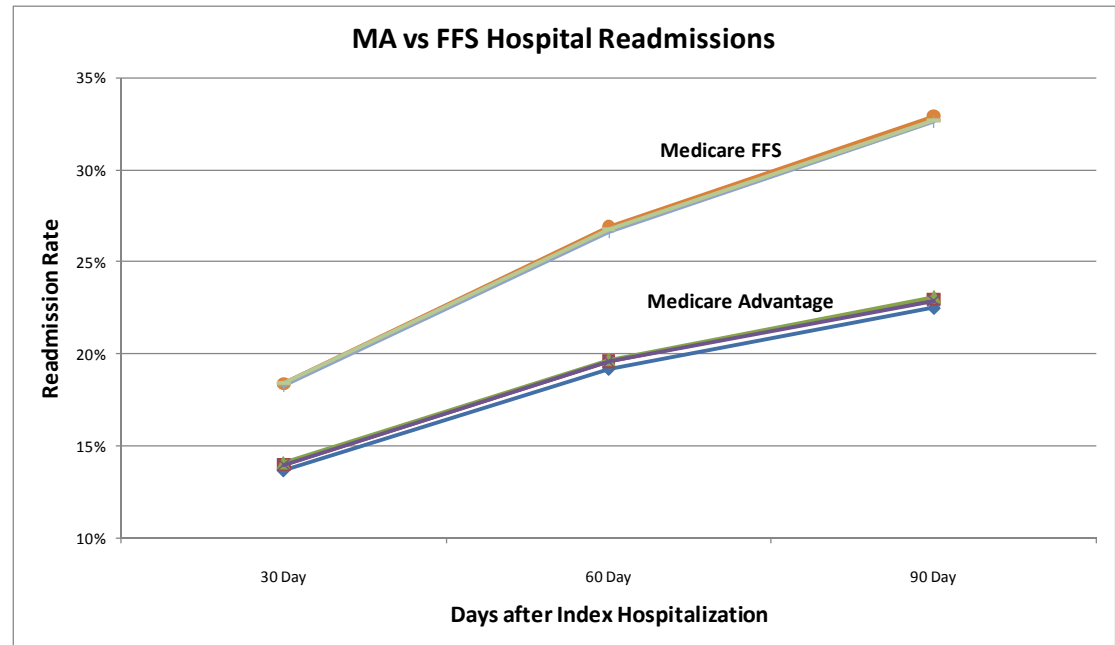
	MA (MedAssurant)		FFS (CMS 5% Sample)		
		Frequency	%	Frequency	%
Age	<55	304,695	5.4	525,336	10.6
	55-64	384,730	6.9	389,763	7.9
	65-69	1,275,060	22.7	1,193,549	24.1
	70-74	1,238,087	22	932,903	18.9
	75-79	1,011,817	18	785,289	15.9
	80-84	753,224	13.4	599,569	12.1
	85-89	431,502	7.7	337,797	6.8
	>89	215,992	3.8	181,433	3.7
Sex	Female	3,178,482	56.6	2,732,605	55.3
	Male	2,436,658	43.4	2,213,034	44.7
Region	West	588,042	10.5	804,276	16.3
	Midwest	1,558,425	27.8	1,193,816	24.1
	South	2,496,859	44.5	1,908,985	38.4
	Northeast	910,616	16.2	932,960	18.9
	Other	61,198	1.1	113,602	2.3
Total Enrollment	5,615,140	100	4,945,639	100	



Results of Additional Work: MA vs. FFS Readmission Rates

Analysis of these composite datasets, using slightly different definitions for rehospitalization, revealed strikingly similar findings.

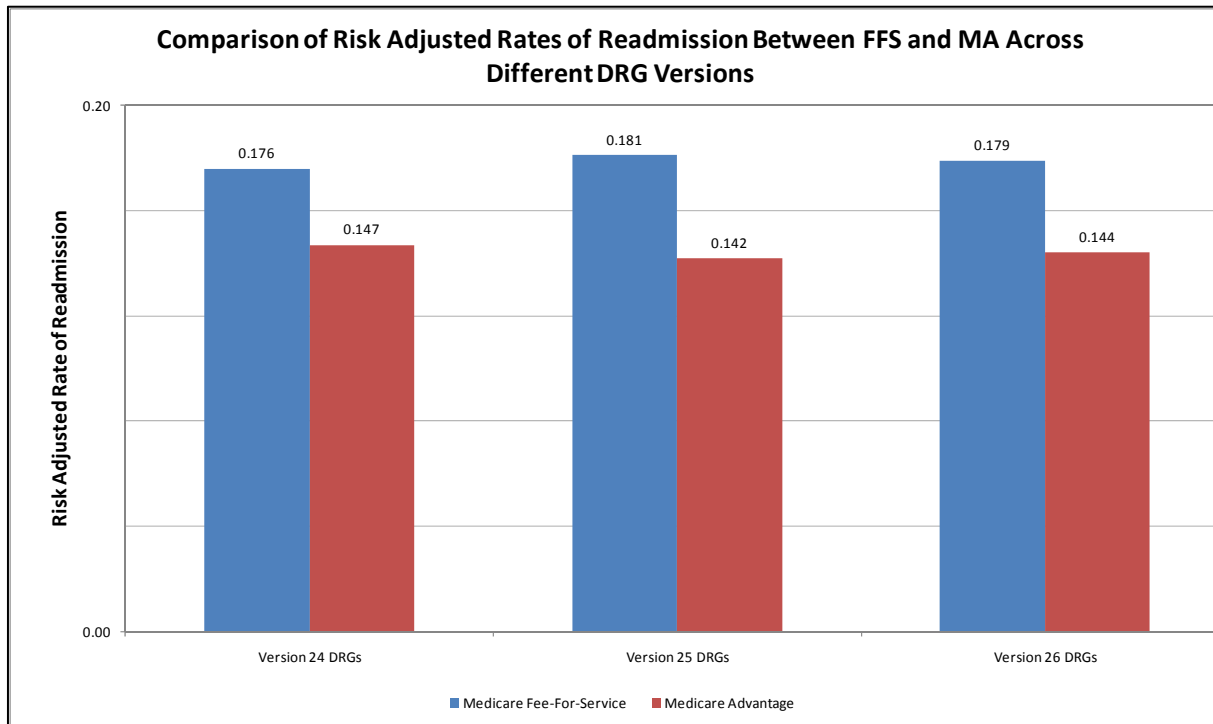
Rehospitalization rates in both Medicare Advantage and FFS Medicare were stable between 2006 and 2008. In all years, and over all intervals, MA rates were significantly ($p < .001$) less than Medicare FFS rates. At 30 days, rehospitalization rates for Medicare Advantage (14.0%) were approximately 24% lower than rates for FFS (18.4%).





Risk Adjustment

An index of probabilities was created to determine the extent to which each DRG was associated with same-quarter readmissions from FFS. This index was then compared to the distribution of MA admissions against this base. Using the disparity between these two distributions, a proportional adjustment to the readmission rates could be computed.





Summary

- Analysis of millions of Medicare Advantage members demonstrated that rates of rehospitalization for the Medicare Advantage population were significantly and consistently lower than rehospitalization rates for the Medicare FFS population.
- This finding is very robust, consistently seen over time, for both medical and surgical hospitalizations, for those DRGs that most frequently lead to rehospitalization, across all census regions, and after risk-adjustment.
- Although there appears to be variation in rates of rehospitalization across MA plans, rates for all plans evaluated were lower than those reported for Medicare FFS.
- MA plans may have introduced programs that have had a positive impact on the quality of care for Medicare patients with hospital stays.
- More complete understanding of our findings will require further study.



MEDASSURANTTM

4321 Collington Road, Suite 500
Bowie, MD 20716

Telephone: 301-809-4000
Facsimile: 301-809-4040

