



America's Health Insurance Plans

Site Map Contact Us AHIP Site

Search

members provide health
benefits to more than
0 million Americans

AHIP Home

AHIP Center for Policy and Research

Ideas, research and policy solutions from America's Health Insurance Plans

Research by Topic
Research by Date
About the Center
Employment
Email Updates

up to Topic

Select Topic Go



12.11.2009

Working Paper: Comparisons of Utilization in Two Large Multi-State Medicare Advantage HMOs and Medicare Fee-for-Service in the Same Service Areas ([Full Report](#); [Slide](#))

This report is the second in a series of working papers comparing patterns of care among patients with Medicare Advantage (MA) coverage and in Medicare's traditional fee-for-service (FFS) program. The comparisons presented in this report are based on data from two large, multi-state MA HMO plans and Medicare's FFS 5 percent sample claims files in the same operating areas. The utilization measures include hospital admissions and days, re-admissions, "potentially avoidable" admissions, as well as outpatient, emergency room (ER), and office visits.

01.26.2010

[Update A Survey of Health Care Claims Receipt and Processing Times, 2009](#)

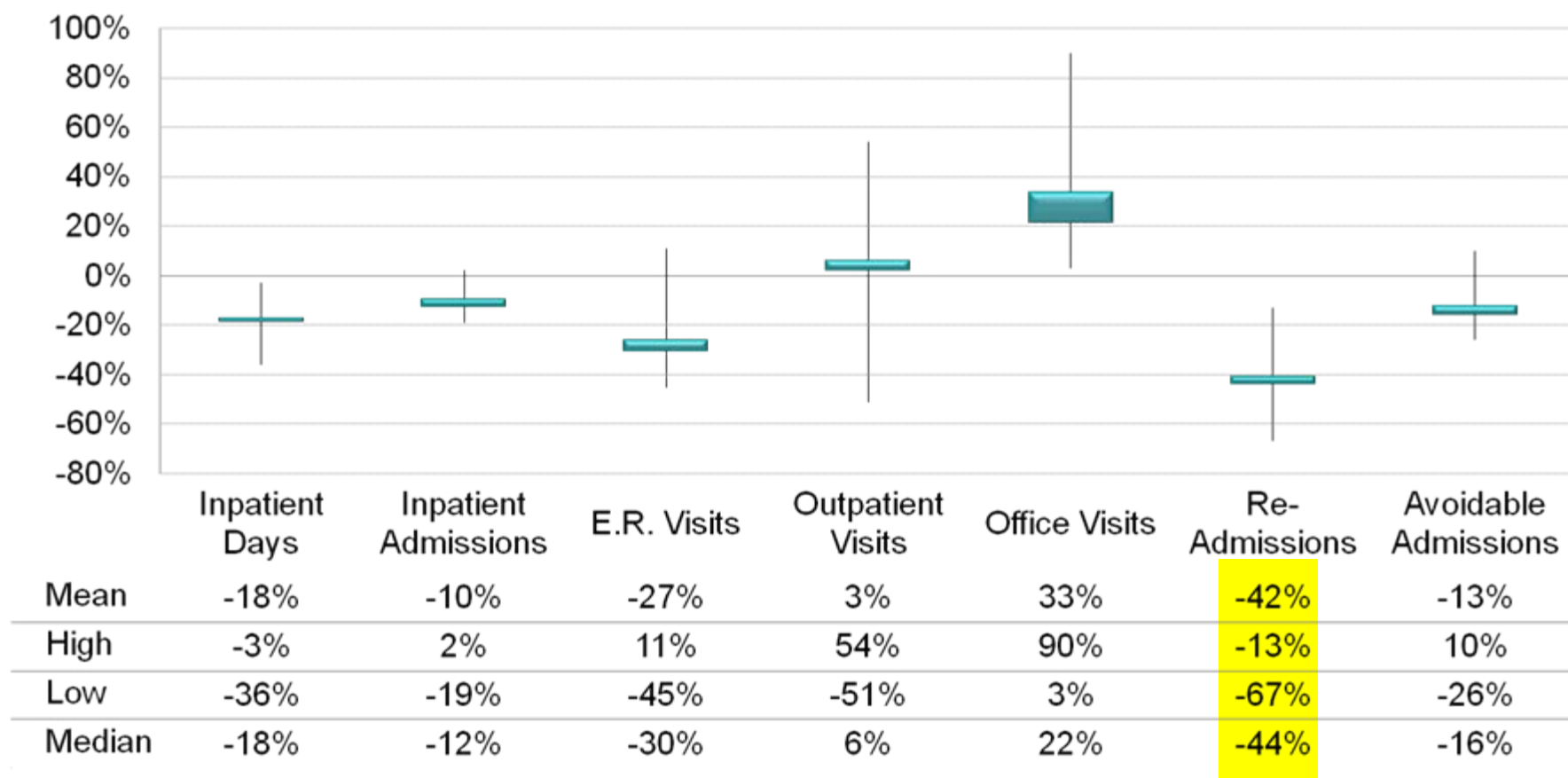
AHIP's periodic survey of claims receipt and payment timing, updating the most recent previous report published in May 2006.

Policy News and Resources

- Health spending grew by 4.4%; private premiums grew 3.1%; administrative costs fell to 11.7% of premiums in 2008. [Health Affairs article](#), [CMS data](#). - January 5, 2010
- [New EBRI report](#) on coverage of non-elderly – 45.7 million uninsured. - September 21, 2009
- Employer premiums grew by about 4% in 2009, according to an [updated survey](#) from the Kaiser Family Foundation/HRET. - September 15, 2009
- CMS reports [lowest rate of overall growth in national health spending since 1998](#). - January

Study 1: “8 Company”-- MA (HMO) Plan Data and FFS 5% File in Same Local Areas

Eight-Company Results: Percentage Difference in Utilization Rates, MA Rate vs. FFS Rate (per risk score value)



Source: AHIP based on the Medicare 5 percent sample files for hospital and physician claims and data from eight regional Medicare Advantage HMO plans in 2005-2006. Revised September 2009.

Study 1 -- 8 MA Plans vs. FFS (5%), Compared Individually in the Same Counties

- HMO enrollees only (MA)
- 2005 and 2006 data (pooled)
- 12 month enrollees, age 65-89
- “CMS-Style” Risk Scores from age, sex, 70 HCCs, serious diagnoses, primary and secondary diagnoses, inpatient, outpatient, office
- No Medicaid in FFS
- FFS 5% sample file coding logics given to plans
- 13 “potentially avoidable” admissions logic from AHRQ
- Readmissions per enrollee, by DRG in same quarter

Study 1: Eight Company/FFS Severe Diagnosis Rates and Risk Scores

Average Rates of Illness Diagnoses (HCC Groups) and Overall Risk Scores – Medicare FFS and Eight Medicare Advantage HMO Plans						
Average HCC Markers per Beneficiary Record, 2005 and 2006 (pooled)	All HCCs	Cancers (HCCs 7-10)	Diabetes (HCCs 15-19)	Heart Disease (HCCs 79- 83,92,104-105)	Kidney and Renal Disease (HCCs 130- 132)	Average Overall Computed Risk Score *
National						
FFS Including Medicaid	1.74	0.16	0.34	0.58	0.06	1.13
FFS Medicaid	2.78	0.14	0.59	0.87	0.11	1.61
FFS Without Medicaid	1.62	0.16	0.31	0.54	0.05	1.08
Company 1 Area						
MA Plan	1.47	0.10	0.36	0.46	0.06	1.03
Local FFS (w/o Medicaid)	1.64	0.14	0.31	0.54	0.06	1.09
Company 2 Area						
MA Plan	1.36	0.13	0.28	0.40	0.05	0.99
Local FFS (w/o Medicaid)	1.41	0.16	0.25	0.46	0.05	1.00
Company 3 Area						
MA Plan	1.61	0.15	0.37	0.54	0.06	1.11
Local FFS (w/o Medicaid)	1.77	0.19	0.32	0.59	0.06	1.16

Study 1: Eight-Company/FFS Severe Diagnosis Rates and Risk Scores (continued)

Average Rates of Illness Diagnoses (HCC Groups) and Overall Risk Scores – Medicare FFS and Eight Medicare Advantage HMO Plans						
Average HCC Markers per Beneficiary Record, 2005 and 2006 (pooled)	All HCCs	Cancers (HCCs 7-10)	Diabetes (HCCs 15-19)	Heart Disease (HCCs 79-83,92,104-105)	Kidney and Renal Disease (HCCs 130-132)	Average Overall Computed Risk Score *
Company 4 Area						
MA Plan	2.08	0.19	0.39	0.72	0.08	1.29
Local FFS (w/o Medicaid)	1.97	0.17	0.36	0.70	0.07	1.25
Company 5 Area						
MA Plan	1.35	0.14	0.23	0.44	0.06	1.00
Local FFS (w/o Medicaid)	1.30	0.14	0.23	0.41	0.05	0.96
Company 6 Area						
MA Plan	1.62	0.20	0.33	0.50	0.07	1.12
Local FFS (w/o Medicaid)	1.76	0.19	0.32	0.58	0.06	1.16
Company 7 Area						
MA Plan	1.74	0.19	0.36	0.55	0.07	1.13
Local FFS (w/o Medicaid)	1.79	0.17	0.36	0.59	0.06	1.16
Company 8 Area						
MA Plan	1.62	0.18	0.36	0.56	0.06	1.08
Local FFS (w/o Medicaid)	1.82	0.17	0.35	0.59	0.06	1.18

Age/Sex Risk Factor Values

Sex, Age	Risk Factor Value
Female, Age 65-69	0.307
Female, Age 70-74	0.384
Female, Age 75-79	0.483
Female, Age 80-84	0.572
Female, Age 85-89	0.665
Male, Age 65-69	0.346
Male, Age 70-74	0.453
Male, Age 75-79	0.577
Male, Age 80-84	0.657
Male, Age 85-89	0.79

Source: Age/Sex risk factor values are from the 2005 MA Ratebook compiled by the Centers for Medicare and Medicaid Services (CMS).

Disease Group Factors (15 of 70 HCCs)

HCC	Description	Risk Factor Value
HCC1	HIV/AIDS	0.685
HCC2	Septicemia/Shock	0.89
HCC5	Opportunistic Infections	0.652
HCC7	Metastatic Cancer and Acute Leukemia	1.464
HCC8	Lung, Upper Digestive Tract, and Other Severe Cancers	1.464
HCC9	Lymphatic, Head and Neck, Brain, and Other Major Cancers	0.69
HCC10	Breast, Prostate, Colorectal and Other Cancers and Tumors	0.233
HCC15	Diabetes with Renal or Peripheral Circulatory Manifestation	0.764
HCC16	Diabetes with Neurologic or Other Specified Manifestation	0.552
HCC17	Diabetes with Acute Complications	0.391
HCC18	Diabetes with Ophthalmologic or Unspecified Manifestation	0.343
HCC19	Diabetes without Complication	0.2
HCC21	Protein-Calorie Malnutrition	0.922
HCC25	End-Stage Liver Disease	0.9
HCC26	Cirrhosis of Liver	0.516

Study 2: Preliminary MA vs. FFS Based on AHRQ (HCUP) Admissions, 2006



	Inpatient Days	Same Quarter Re- Admissions (Same DRG, Any Hospital)	13 Potentially Avoidable Admissions
MA Rate vs. FFS Rate (per risk score value)			
California – All Hospitals (acute care admissions)			
All Patients	-30%	-15%	-6%
Diabetes Patients	-35%	-21%	-10%
Heart Disease Patients	-30%	-14%	-5%
Nevada – All Hospitals (acute care admissions)			
All Patients	-23%	-33%	-6%
Diabetes Patients	-25%	-32%	-3%
Heart Disease Patients	-21%	-36%	-7%

Study 2: Selected Regions: California

Comparisons of Risk-Adjusted Utilization Rates



Data for 2006	Number of Records (Patients with at Least One Admission)		Percentage Difference in Utilization Rates Per Risk Score Value* (MA versus FFS)		
	MA	FFS	Inpatient Days	Same Quarter Re-Admissions (Same DRG, Any Hospital)	Potentially Avoidable Admissions
California Regions					
Golden Empire	10,994	23,531	-13%	-17%	-13%
West Bay	6,052	12,280	-31%	-6%	-10%
North Bay	12,967	22,646	-27%	-21%	3%
East Bay	14,020	23,486	-20%	-14%	-14%
North San Joaquin	5,904	20,386	-17%	-27%	3%
Santa Clara	10,075	17,823	-24%	-14%	1%
Central	6,183	26,079	-32%	-34%	-33%
Santa Barbara Ventura	3,358	12,957	-21%	-26%	-10%
Los Angeles County	51,085	98,874	-39%	-14%	0%
Inland Counties	23,490	33,390	-29%	-6%	-8%
Orange County	15,107	31,148	-33%	1%	8%
San Diego/Imperial	20,357	28,121	-27%	-22%	1%

Source: California data from the Health Cost and Utilization Project (HCUP) compiled by the Agency for Healthcare Research and Quality (AHRQ). For this table, re-admissions were counted in each region where multiple admissions occurred in different regions in the same quarter. *Risk scores for FFS and MA enrollees based on age/sex and HCC relative cost values used in Medicare risk adjustment for beneficiaries living in the community, but do not include disease interactive factors, or factors related to disability or institutional status

APR
28

Private Health Plans in Medicare: What is the Record?



41:56

53:59

PAUSE

email

share

get link

get code

MENU

Location: The Heritage Foundation's Lehrman Auditorium

Congress will soon face some big decisions on how best to improve Medicare's

Event Details

DATE **Tuesday
2009**

TIME **12:00PM**

Review this Ev

While this event has
have archived its co
discussion in our a

Listen

This event is re



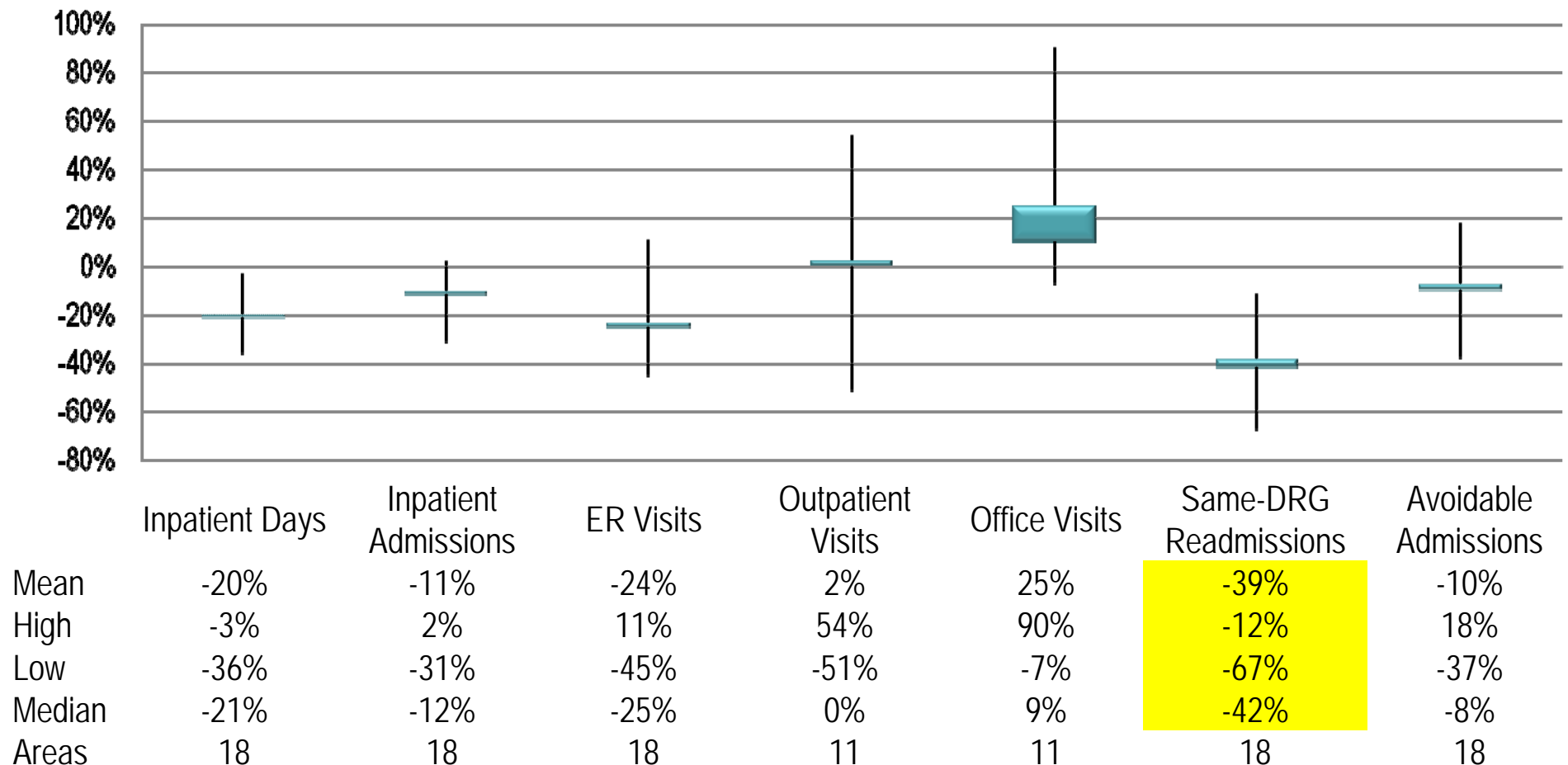
Entitlement
Leadership
Campaign

Study 3: Add Two Large For- Profit MA/HMO Plans

- Still no Medicaid in FFS
- Company 9 (3 Areas) Limit on Dx Codes to 6 per Claim
 - So FFS adjusted to 6 Dx per claim also
- Company 10 (7 Areas) No HCC data for AIDS Mental/Behavioral Health or Substance Abuse; No Inpatient data for certain DRGs; no Outpatient data provided through certain BH/SA Benefits.
 - Adjusted FFS likewise, did not attempt to compare Outpatient or Office Visits

Study 3: Added Two Large Multi-State For Profit MA HMO Plans (Total Plan/Areas = 18)

10-Company Results: Percentage Difference in Utilization Rates, MA Rate vs. FFS Rate (per risk score value)



Study 4: AHRQ/HCUP State Hospital Discharge Data



- A Handful of States Have Person IDs
 - H-CUP: CA, NV, WA, AZ, NC, HI, AR
 - State Purchase: PA, TX (with IRB)
- Data Quality a Real Issue
 - Coding MA vs. Medicare FFS
 - Bad Person IDs
 - Missing Hospitals/Admits in Some States?
- Confounding Factors
 - Snowbird, RV people
 - People Who Aren't Admitted in the First Place Not in Data
 - Composition Effects (Where the Enrollees Live In State)
 - Hospital Referral Regions/Transfers Among Regions

Study 4: Percentage Difference in Risk-Adjusted Utilization Rates, Persons with Admissions, Medicare Advantage vs. FFS



	Inpatient Admissions	Inpatient Days	Same Quarter, Any DRG Readmissions*	Same Quarter, Same DRG Readmissions*	13 Potentially Avoidable Admissions
MA Rate vs. FFS Rate (Patients with an at Least One Admission, Per Risk Score** Value)					
California (2006)	-6%	-30%	-24%	-20%	-8%
California (2007)	-6%	-28%	-24%	-20%	-8%
Nevada (2006)	-2%	-24%	-23%	-29%	-9%
Nevada (2007)	2%	-17%	-21%	-21%	-8%
Washington (2006)	0%	-7%	-20%	-15%	-9%
Texas (2007)	2%	-5%	-17%	-11%	-10%
North Carolina (2007)	1%	4%	-16%	-20%	-6%
Pennsylvania (2007)	3%	4%	0%	-3%	4%
Hawaii (2007)	-1%	-7%	-3%	-13%	1%
Arkansas (2007)	-1%	-12%	-34%	-40%	-19%
Arizona (2007)	2%	-1%	4%	8%	6%

Source: AHIP, based on analysis of state hospital discharge public use datasets with encrypted "person" identifiers, provided by AHRQ's H-CUP project (CA, NV, WA, HI, NC, AR, AZ) and by states directly (PA, TX). <http://www.ahipresearch.org/pdfs/9State-Readmits.pdf>

Note: Excludes patients with an admission listing an out-of-state address.

*Excludes transfer cases.

** Risk scores for FFS and MA enrollees based on age/sex and HCC relative cost values used in Medicare risk adjustment for beneficiaries living in the community, but do not include disease interactive factors, or factors related to disability or institutional status. Person-based risk scores are based on inpatient hospital diagnoses for all admissions, but do not include diagnosis information from other health care services, such as hospital outpatient or physician office visits.

Study 4: Same Quarter, Any DRG Readmission Rates (Per Admission)



	Unadjusted		With DRG-Based Risk Adjustment Based on Readmission Probability*	
	FFS	MA	FFS	MA
California (2006)	20.2%	16.3%	19.8%	16.7%
California (2007)	20.4%	17.0%	20.0%	17.4%
Nevada (2006)	19.2%	15.1%	18.6%	15.7%
Nevada (2007)	18.1%	14.1%	17.4%	14.6%
Washington (2006)	15.4%	12.2%	15.2%	12.5%
Texas (2007)	20.5%	16.7%	20.1%	17.1%
North Carolina (2007)	16.3%	13.6%	16.2%	13.8%
Pennsylvania (2007)	20.1%	19.5%	19.9%	19.7%
Hawaii (2007)	14.9%	14.6%	14.8%	14.7%
Arkansas (2007)	24.3%	16.1%	23.4%	16.7%
Arizona (2007)	14.4%	14.7%	14.3%	14.8%

Source: AHIP Center for Policy and Research based on state discharge data (H-CUP) compiled by the Agency for Healthcare Research and Quality (AHRQ) and the states of Texas and Pennsylvania. <http://www.ahipresearch.org/pdfs/9State-Readmits.pdf>

Note: Excludes transfer cases. Persons with out-of-state admissions were excluded. The shadings represent our subjective assessment of the reliability of the MA vs. FFS comparisons based on issues with the underlying datasets. In general, we believe the comparisons for California are highly reliable, and the data from Arizona, Arkansas, and Pennsylvania are not very reliable.

*Risk measured based on an index of the likelihood of admissions for DRGs that are associated with higher or lower than average rates of readmissions (any DRG), using the 2006-2007 FFS five percent sample file as a benchmark (DRG version 24).

Study 4: Preliminary Assessment of Issues and Concerns with State Hospital Discharge Datasets for MA vs. FFS Comparisons



State	CA	NV	WA	TX	NC	PA	HI	AR	AZ
Year(s) Analyzed	2006-7	2006-7	2006	2007	2007	2007	2007	2007	2007
A. Person ID Does Not Identify Same Person			*						
B. Same Person Might Have Multiple Person IDs									X
C. Snowbirds and Out-of-State Residents/Patients		X				X	X	X	X
D. Possible Missing Data					X	X			
E. Identification of MA Enrollees		X	X		X	X	X	X	
F. Unusual Risk Scores/ Diagnosis Codes									X
G. Sub-state Composition of Enrollment						X			X
H. Relative Small Number or Share of MA Enrollees				X	X		X	X	
I. Cannot Exclude Long-Term Hospitals (Psych., Rehab)							X	X	
Overall Confidence in the State Comparisons of MA and FFS	High	Medium	Medium	Medium	Some	Some	Not Much	Not Much	Not Much

Source: Based on analysis of state hospital discharge public use datasets with encrypted "person" identifiers, provided by AHRQ's H-CUP project (CA, NV, WA, HI, NC, AR, AZ) and by states directly (PA, TX), and FFS 5 percent claims samples in those states. <http://www.ahipresearch.org/pdfs/9State-Readmits.pdf>

Notes: Excludes patients with admissions listed as having out-of-state addresses.

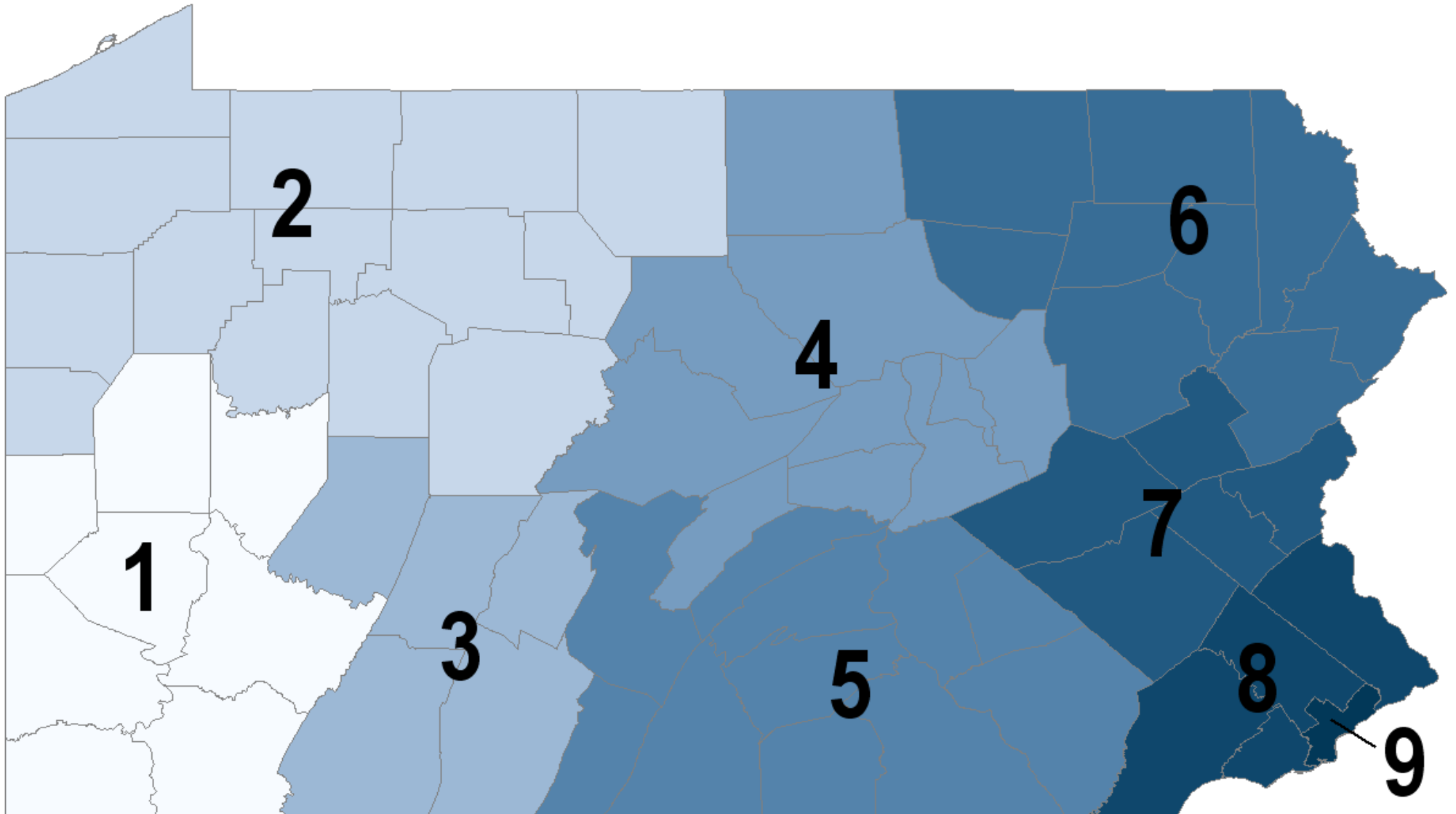
Study 4: Example of Data Checking: Tests for Validity of Multiple Admission Codes

	CA	NV	WA	TX	HI	NC	PA	AR	AZ
Year Analyzed	2006	2006	2006	2007	2007	2007	2007	2007	2007
Percentages of Patients with Certain Numbers of Admissions									
1 Admission									
FFS 5% Sample	64.3%	61.8%	67.2%	59.5%	69.4%	63.7%	60.0%	58.5%	63.6%
FFS H-CUP	64.7%	67.1%	70.6%	63.7%	71.5%	69.3%	62.1%	59.0%	76.3%
Percentage Difference	1%	9%	5%	7%	3%	9%	4%	1%	20%
2 Admissions									
FFS 5% Sample	20.9%	21.9%	20.8%	22.4%	20.5%	21.4%	22.4%	23.7%	21.4%
FFS H-CUP	21.0%	20.0%	19.1%	21.5%	18.4%	19.3%	22.0%	22.9%	15.9%
Percentage Difference	0%	-9%	-8%	-4%	-10%	-10%	-2%	-3%	-26%
3 Admissions									
FFS 5% Sample	7.9%	8.0%	7.1%	9.1%	5.4%	8.1%	9.2%	8.7%	7.8%
FFS H-CUP	7.7%	7.3%	6.3%	8.1%	6.1%	6.7%	8.6%	9.1%	4.7%
Percentage Difference	-3%	-9%	-12%	-11%	13%	-18%	-6%	4%	-39%
Overall Confidence in the Validity of the Person IDs	High	Medium	Medium	Medium	Medium	Medium	Medium	High	Not Much

Source: Based on analysis of state hospital discharge public use datasets with encrypted "person" identifiers, provided by AHRQ's H-CUP project (CA, NV, WA, HI, NC, AR, AZ) and by states directly (PA, TX), and FFS 5 percent claims samples in those states.

Notes: Excludes patients with admissions listed as having out-of-state addresses.

*2007 data from Washington (not used) had incorrect Person IDs and was returned to ARHO



Study 4: Sub-state Geographic Composition, PA 2007



	FFS		MA	
	Admissions	Readmissions	Admissions	Readmissions
Pennsylvania Hospital Regions				
1 Pittsburgh Area	68,334	15,779	64,642	13,004
2 Erie and Northwest	31,694	6,184	7,824	1,393
3 South Central	13,041	2,569	7,996	1,375
4 North Central	17,775	3,079	6,230	1,005
5 Harrisburg/Lancaster	56,935	10,005	5,538	971
6 Scranton and Poconos	33,613	6,113	2,790	396
7 Allentown and E Central	45,042	8,697	6,198	1,122
8 Philly Suburbs	57,517	11,905	33,697	6,465
9 Philadelphia City	32,259	7,290	30,209	6,432
Total (Statewide)	356,210	81,621	165,124	32,163

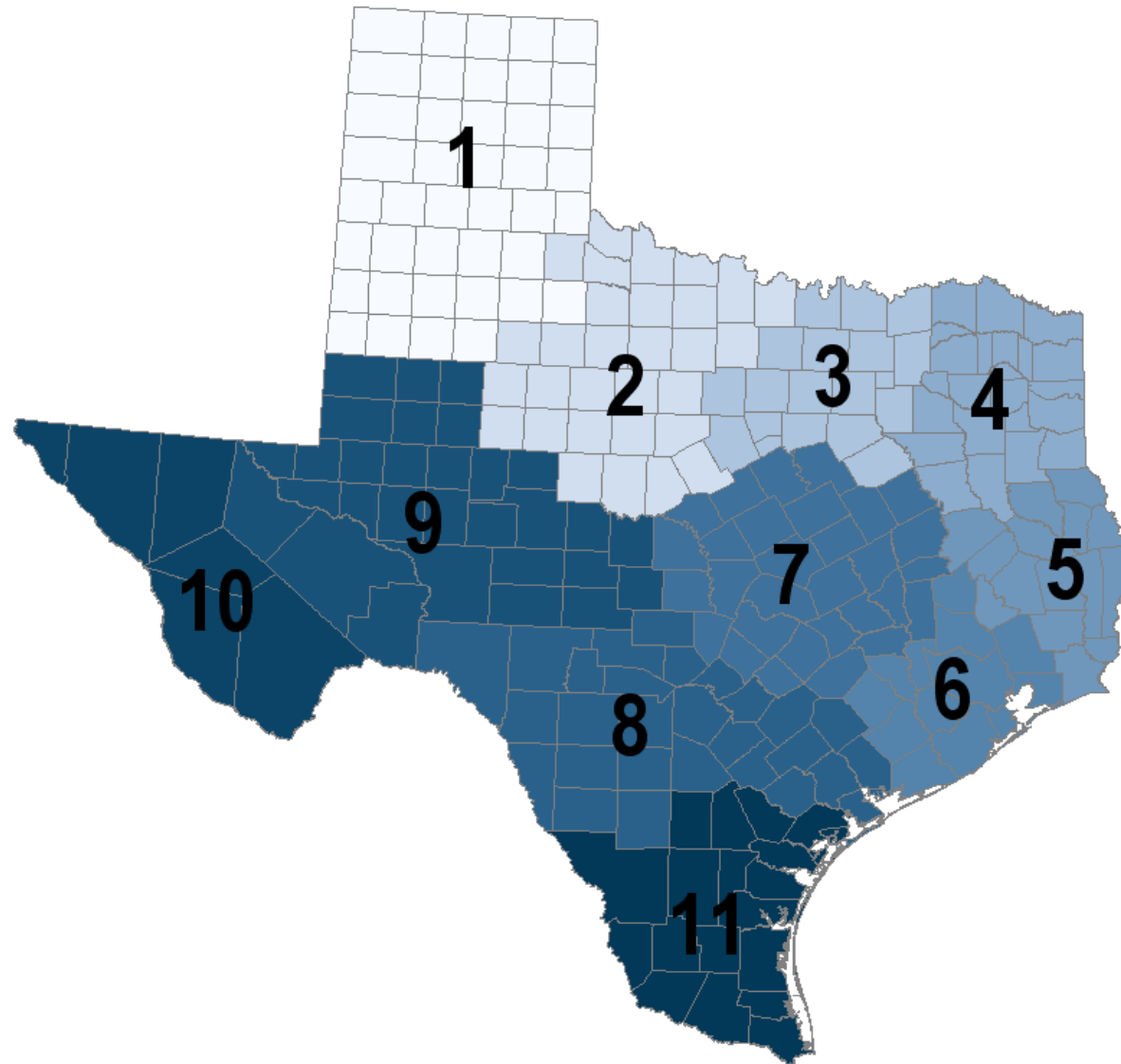
Source: AHIP estimates, based on state hospital discharge datasets provided by the state of Pennsylvania.

Study 4: Sub-state Geographic Composition, Local Comparisons



Readmission Rate (per admission, unadjusted)			
	FFS	MA	Percentage Difference
1 Pittsburgh Area	23.1%	20.1%	-13%
2 Erie and Northwest	19.5%	17.8%	-9%
3 South Central	19.7%	17.2%	-13%
4 North Central	17.3%	16.1%	-8%
5 Harrisburg/Lancaster/York	17.6%	17.5%	0%
6 Scranton and Poconos	18.2%	14.2%	-22%
7 Allentown and East Central	19.3%	18.1%	-6%
8 Philly Suburbs	20.7%	19.2%	-7%
9 Philadelphia City	22.6%	21.3%	-6%
Total (Statewide)	20.1%	19.5%	-3%

Source: AHIP estimates, based on state hospital discharge datasets provided by the state of Pennsylvania.



Study 4: Readmission Rates by Region, Texas 2007



Admissions and Same Quarter Readmissions and Rates (Any DRG), by Sub-State Region, Texas 2007

Texas Hospital Regions	FFS	MA	Percentage Difference
1 Amarillo Area	20.1%	16.8%	-16%
2 North Central	20.6%	17.7%	-14%
3 Dallas Area	19.9%	17.0%	-15%
4 Northeast	19.6%	14.7%	-25%
5 Southeast	21.1%	15.3%	-28%
6 Houston Area	21.4%	17.0%	-21%
7 Austin/ E. Central	19.9%	15.5%	-22%
8 San Antonio/ S. Central	21.2%	17.0%	-20%
9 Midland-Odessa Area	19.0%	16.1%	-15%
10 El Paso Area	19.7%	16.9%	-15%
11 S. Rio Grande Valley	21.4%	15.5%	-28%
Total (Statewide)*	20.5%	16.7%	-19%

Source: AHIP Center for Policy and Research. Estimates based on state hospital discharge datasets provided by the state of Texas.

Note: Persons with out-of-state addresses are excluded from the state discharge data. For simplicity, readmissions were allocated to the hospital region of the admission flagged as a readmission, and same quarter readmissions were flagged based on their sequence in the data file. Thus the sum of readmissions in the regions equals the reported state total.

*A small number of admissions and readmissions had missing location information (434 FFS admissions and 102 FFS readmissions; 62 MA admissions and 11 MA readmissions). These observations were included in the statewide total.

Study 4: Various Measurements of Readmission Rates, Texas 2007



	Readmissions in the Same Quarter (Any DRG)	Readmissions From Discharge Date (Any DRG)		
		30-Days	60-Days	90-Days
Per Enrollee (with CMS-style Risk Adjustment)				
FFS (state discharge data)	5.8%	5.3%	7.0%	8.1%
MA (state discharge data)	4.5%	4.0%	5.4%	6.1%
MA vs. FFS	-23%	-24%	-24%	-24%
Per Person with an Admission (with risk adjustment based on DRGs)				
FFS (state discharge data)	33.2%	30.1%	40.2%	46.1%
MA (state discharge data)	25.0%	22.2%	29.8%	34.0%
MA vs. FFS	-25%	-26%	-26%	-26%
Per Admission (unadjusted)				
FFS (state discharge data)	20.5%	19.0%	25.4%	29.1%
MA (state discharge data)	16.7%	15.0%	20.2%	23.1%
MA vs. FFS	-19%	-21%	-20%	-21%
Per Admission (with risk adjustment based on DRGs)				
FFS (state discharge data)	20.1%	18.6%	24.8%	28.5%
MA (state discharge data)	17.1%	15.4%	20.6%	23.6%
MA vs. FFS	-15%	-17%	-17%	-17%

Source: AHIP estimates based on state hospital discharge data provided by the state of Texas.

New “Readmissions Innovations” Report



- Phone interviews with medical directors and other clinical staff in 24 AHIP member companies
- Total of 40 programs addressing preventable hospital admissions, readmissions, and ER visits.
- Available today at www.ahipresearch.org.



Innovations in Reducing Preventable Hospital Admissions, Readmissions, and Emergency Room Use



June 2010

*An Update on Health Plan
Initiatives to Address National
Health Care Priorities*

“Readmissions Innovations” Report

- Types of Programs to Address Preventable Admissions/Readmissions, ER Use
 - Hospital-to-Home Transition Programs
 - Phone-Based and In-Person Case Management for High-Risk Patients
 - House Calls
 - ER Initiatives
 - New Payment & Care Delivery Models (e.g., Medical Home, bundled payment)

Key Themes Emerging from the Interviews

- Primary care is in crisis; revitalizing primary care based on the team approach.
- Effective care is about personal connections.
- Medication-related challenges have created major new roles for pharmacists.

Study 5: AHIP/ MedAssurant Collaboration

