

Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

Table 1. Associations between Star Ratings and 2011 First-Time Enrollment in Medicare Advantage and Prescription Drug Plans, Separate Models for Star Rating Itself and Rating Relative to Other Plans in Choice Set^a

	Marginal Effect, % (95% CI)	
	1-Star Increase in Rating	Highest Star Rating Available in Choice Set
All beneficiaries	10.6 (10.5 to 10.7)	10.4 (10.3 to 10.5)
Age group, y		
<64	6.8 (6.6 to 7.0)	6.4 (6.1 to 6.6)
64-65	13.6 (13.5 to 13.7)	13.9 (13.7 to 14.0)
66-70	10.1 (10.0 to 10.3)	9.5 (9.3 to 9.8)
≥71	8.4 (8.1 to 8.5)	7.5 (7.2 to 7.7)
Sex		
Male	10.4 (10.3 to 10.6)	10.3 (10.1 to 10.4)
Female	10.8 (10.7 to 10.9)	10.5 (10.4 to 10.7)
Race/ethnicity ^b		
White	11.6 (11.5 to 11.7)	10.9 (10.7 to 11.0)
Black	6.2 (5.9 to 6.4)	6.3 (5.9 to 6.6)
Hispanic	11.6 (11.4 to 11.9)	12.5 (12.2 to 12.9)
Other	7.4 (7.1 to 7.7)	9.7 (9.2 to 10.1)
Deemed eligible for low-income subsidy		
No	11.3 (11.2 to 11.4)	11.0 (10.8 to 11.1)
Yes	6.5 (6.3 to 6.8)	6.8 (6.5 to 7.1)
Residence		
Urban	10.9 (10.7 to 10.9)	10.7 (10.5 to 10.8)
Rural	8.8 (8.6 to 9.0)	7.9 (7.7 to 8.2)
Census region		
Northeast	10.9 (10.7 to 11.1)	8.3 (8.0 to 8.5)
South	11.9 (11.7 to 12.0)	11.0 (10.8 to 11.1)
Midwest	5.8 (5.6 to 6.0)	5.5 (5.2 to 5.8)
West	10.5 (10.4 to 10.7)	13.9 (13.7 to 14.2)

^a Enrollment data are from CMS Integrated Data Repository as of April 19, 2012. Data for December 2010 sponsoring organizations' market share are from the Integrated Data Repository as of June 15, 2012.

^b "Other" included beneficiaries with race/ethnicity coded as Asian/Pacific Islander, American Indian/Alaska Native, other, or unknown.

eTable 2. Associations between Star Ratings and 2011 Enrollment when Switching Medicare Advantage and Prescription Drug Plans, Separate Models for Star Rating Itself and Rating Relative to Prior Plan^a

	Marginal Effect, % (95% CI)		
	Absolute Rating	Relative Rating	
	1-Star Increase in Rating	Star Rating ≥ Prior Plan	Star Rating > Prior Plan
All beneficiaries	8.0 (7.8 to 8.1)	9.7 (9.4 to 9.8)	1.1 (0.8 to 1.3)
Age group, y			
<66	6.2 (5.8 to 6.5)	7.6 (7.1 to 8.0)	0.4 (-0.2 to 0.8)
66-70	8.4 (8.0 to 8.6)	9.8 (9.3 to 10.0)	1.5 (1.0 to 1.8)
71-76 Years	7.9 (7.6 to 8.2)	9.8 (9.3 to 10.0)	0.9 (0.4 to 1.3)
≥77	8.8 (8.4 to 9.1)	10.8 (10.3 to 11.1)	1.4 (0.9 to 1.8)
Sex			
Male	7.8 (7.5 to 8.0)	9.5 (9.1 to 9.7)	0.8 (0.4 to 1.1)
Female	8.2 (7.9 to 8.4)	9.8 (9.4 to 10.0)	1.4 (1.0 to 1.6)
Race/ethnicity ^b			
White	9.7 (9.5 to 9.9)	12.8 (12.6 to 13.1)	1.8 (1.5 to 2.1)
Black	3.9 (3.4 to 4.4)	5.0 (4.4 to 5.6)	-0.5 (-1.2 to 0.1)
Hispanic	5.7 (5.2 to 6.2)	2.3 (1.6 to 2.9)	1.1 (0.5 to 1.7)
Other	0.1 (-0.7 to 0.9)	0.6 (-0.4 to 1.5)	-5.0 (-6.1 to -4.1)
HCC score ^c			
<1	8.1 (7.9 to 8.3)	9.9 (9.6 to 10.1)	1.0 (0.7 to 1.2)
1-2	7.7 (7.3 to 8.0)	8.9 (8.4 to 9.30)	1.4 (0.9 to 1.9)
>2	7.6 (7.0 to 8.1)	9.0 (8.3 to 9.7)	1.6 (0.7 to 2.3)
Deemed eligible for low-income subsidy			
No	8.3 (8. to 8.4)	9.9 (9.6 to 10.1)	1.3 (1.0 to 1.5)
Yes	5.8 (5.3 to 6.3)	7.7 (7.1 to 8.2)	-0.1 (-2.2 to -0.9)
Residence			
Urban	8.2 (7.9 to 8.3)	9.8 (9.5 to 10.0)	1.3 (1.0 to 1.5)
Rural	5.8 (5.4 to 6.2)	7.0 (6.4 to 7.4)	-1.5 (-2.2 to -0.9)
Census region			
Northeast	12.3 (12.0 to 12.6)	16.5 (16.1 to 16.8)	0.7 (0.2 to 1.2)
South	8.5 (8.2 to 8.6)	8.9 (8.5 to 9.2)	3.8 (3.4 to 4.1)
Midwest	-3.8 (-4.3 to -3.4)	-4.7 (-5.3 to -4.2)	-10.5 (-11.2 to -10.0)
West	6.0 (5.7 to 6.3)	8.5 (8.0 to 8.8)	1.4 (1.0 to 1.8)

^a Enrollment data are from CMS Integrated Data Repository as of April 19, 2012. Data for December 2010 sponsoring organizations' market share are from the Integrated Data Repository as of June 15, 2012.

^b "Other" included beneficiaries with race/ethnicity coded as Asian/Pacific Islander, American Indian/Alaska Native, other, or unknown.

^c Scores are 2010 Part C community or new enrollee scores (as appropriate). Scores were calculated using age, gender, low income status, and 1 year of claims data. The average scores is 1; higher scores correspond to higher predicted health care costs.

eTable 3. Associations between Star Ratings and 2011 First-Time Enrollment in Medicare Advantage and Prescription Drug Plans, Excluding Zero-Enrollee Plans from Choice Sets^a

	Marginal Effect, % (95% CI)	
	1-Star Increase in Rating	Highest Star Rating Available in Choice Set
All beneficiaries	8.8 (8.7 to 9.0)	2.2 (2.1 to 2.4)
Age group, y		
<64	4.6 (4.3 to 4.9)	2.8 (2.4 to 3.1)
64-65	11.8 (11.6 to 12.0)	2.3 (2.0 to 2.5)
66-70 Years	8.5 (8.3 to 8.8)	2.0 (1.6 to 2.3)
≥71	6.8 (6.4 to 7.1)	1.9 (1.5 to 2.3)
Sex		
Male	8.5 (8.3 to 8.7)	2.5 (2.2 to 2.7)
Female	9.2 (9.0 to 9.4)	2.0 (1.8 to 2.3)
Race/ethnicity ^b		
White	11.0 (10.8 to 11.1)	0.5 (0.3 to 0.7)
Black	4.1 (3.7 to 4.6)	2.8 (2.3 to 3.3)
Hispanic	7.0 (6.5 to 7.4)	6.2 (5.7 to 6.8)
Other	0.7 (0.2 to 1.3)	10.3 (9.6 to 11.0)
Deemed eligible for low-income subsidy		
No	9.7 (9.5 to 9.9)	2.0 (1.8 to 2.1)
Yes	3.4 (3.0 to 3.8)	4.2 (3.7 to 4.7)
Residence		
Urban	9.0 (8.9 to 9.2)	2.3 (2.1 to 2.4)
Rural	7.1 (6.8 to 7.5)	2.1 (1.7 to 2.5)
Census region		
Northeast	12.0 (11.7 to 12.4)	-1.7 (-2.1 to -1.4)
South	8.9 (8.7 to 9.2)	3.2 (2.9 to 3.4)
Midwest	4.1 (3.8 to 4.5)	2.4 (2.0 to 2.8)
West	8.2 (8.0 to 8.5)	4.0 (3.6 to 4.3)

^a Enrollment data are from CMS Integrated Data Repository as of April 19, 2012. Data for December 2010 sponsoring organizations' market share are from the Integrated Data Repository as of June 15, 2012.

^b "Other" included beneficiaries with race/ethnicity coded as Asian/Pacific Islander, American Indian/Alaska Native, other, or unknown.

eTable 4. Associations between Star Ratings and 2011 Enrollment when Switching Medicare Advantage and Prescription Drug Plans, Excluding Zero-Enrollee Plans from Choice Sets^a

	Marginal Effect, % (95% CI)	
	1-Star Increase in Rating	Star Rating \geq Prior Plan
All beneficiaries	4.3 (4.1 to 4.6)	5.8 (5.6 to 6.2)
Age group, y		
<66	3.5 (3.0 to 4.0)	4.5 (4.0 to 5.2)
66-70	4.8 (4.5 to 5.2)	5.5 (5.1 to 6.0)
71-76	3.9 (3.5 to 4.4)	6.3 (5.8 to 6.8)
≥ 77	4.5 (4.1 to 5.0)	6.7 (6.2 to 7.3)
Sex		
Male	4.1 (3.7 to 4.4)	5.9 (5.5 to 6.3)
Female	4.5 (4.2 to 4.8)	5.8 (5.5 to 6.2)
Race/ethnicity ^b		
White	4.7 (4.4 to 4.9)	8.6 (8.2 to 8.9)
Black	1.8 (1.1 to 2.4)	3.2 (2.4 to 4.0)
Hispanic	6.6 (5.9 to 7.2)	-2.8 (-3.6 to -2.0)
Other	-1.8 (-3.0 to -0.7)	1.7 (0.5 to 3.0)
HCC score ^c		
<1	4.3 (4.0 to 4.6)	6.1 (5.9 to 6.5)
1-2	4.4 (4.0 to 4.9)	5.0 (4.5 to 5.6)
>2	4.1 (3.3 to 4.9)	5.5 (4.6 to 6.5)
Deemed eligible for low-income subsidy		
No	4.6 (4.4 to 4.9)	5.8 (5.6 to 6.2)
Yes	2.0 (1.3 to 2.7)	5.9 (5.2 to 6.8)
Residence		
Urban	4.4 (4.1 to 4.6)	5.9 (5.7 to 6.3)
Rural	3.1 (2.5 to 3.6)	4.4 (3.8 to 5.2)
Census region		
Northeast	3.2 (2.7 to 3.7)	14.2 (13.6 to 14.8)
South	5.8 (5.5 to 6.2)	3.7 (3.3 to 4.2)
Midwest	-1.8 (-2.3 to -1.3)	-3.3 (-3.9 to -2.6)
West	4.7 (4.3 to 5.1)	3.9 (3.4 to 4.5)

^a Enrollment data are from CMS Integrated Data Repository as of April 19, 2012. Data for December 2010 sponsoring organizations' market share are from the Integrated Data Repository as of June 15, 2012.

^b "Other" included beneficiaries with race/ethnicity coded as Asian/Pacific Islander, American Indian/Alaska Native, other, or unknown.

^c Scores are 2010 Part C community or new enrollee scores (as appropriate). Scores were calculated using age, gender, low income status, and 1 year of claims data. The average scores is 1; higher scores correspond to higher predicted health care costs.

eTable 5. Associations between Star Ratings and 2011 First-Time Enrollment in Medicare Advantage and Prescription Drug Plans, Controlling for Number of Plans Available in Choice Set^a

	Marginal Effect, % (95% CI)	
	1-Star Increase in Rating	Highest Star Rating Available in Choice Set
All beneficiaries	10.0 (9.8 to 10.2)	2.1 (1.9 to 2.3)
Age group, y		
<64	5.9 (5.6 to 6.2)	2.8 (2.4 to 3.1)
64-65	12.9 (12.7 to 13.1)	2.1 (1.8 to 2.3)
66-70 Years	9.7 (9.4 to 10.0)	1.8 (1.4 to 2.1)
≥71	7.9 (7.6 to 8.2)	1.8 (1.4 to 2.2)
Sex		
Male	9.6 (9.4 to 9.9)	2.3 (2.1 to 2.6)
Female	10.3 (10.1 to 10.5)	1.9 (1.7 to 2.1)
Race/ethnicity ^b		
White	12.2 (12.0 to 12.4)	0.4 (0.1 to 0.6)
Black	5.5 (5.1 to 5.9)	2.5 (2.0 to 3.0)
Hispanic	7.5 (7.1 to 7.9)	6.1 (5.6 to 6.7)
Other	1.9 (1.3 to 2.4)	9.9 (9.2 to 10.6)
Deemed eligible for low-income subsidy		
No	10.8 (10.6 to 11.0)	1.8 (1.6 to 2.0)
Yes	4.8 (4.3 to 5.2)	3.9 (3.3 to 4.4)
Residence		
Urban	10.2 (10.0 to 10.4)	2.1 (1.9 to 2.2)
Rural	8.4 (8.0 to 8.7)	2.7 (2.2 to 3.1)
Census region		
Northeast	12.2 (11.9 to 12.5)	-1.3 (-1.6 to -0.9)
South	10.4 (10.2 to 10.7)	2.3 (2.0 to 2.6)
Midwest	6.1 (5.7 to 6.4)	2.0 (1.6 to 2.4)
West	9.2 (8.9 to 9.5)	5.0 (4.6 to 5.4)
No. of plans available in choice set		
Quartile 1: Mean 6.8 Plans to Range (2 to 9)	9.7 (9.3 to 10.0)	0.7 (0.3 to 1.0)
Quartile 2: Mean 11.9 Plans to Range (10 to 14)	6.8 (6.4 to 7.1)	4.8 (4.5 to 5.2)
Quartile 3: Mean 18.8 Plans to Range (15 to 22)	8.4 (8.1 to 8.6)	0.7 (0.4 to 1.0)
Quartile 4: Mean 31.8 Plans to Range (23-48)	12.3 (12.0 to 12.5)	2.4 (2.1 to 2.7)

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^b "Other" included beneficiaries with race/ethnicity coded as Asian/Pacific Islander, American Indian/Alaska Native, other, or unknown.

eTable 6. Associations between Star Ratings and 2011 Enrollment when Switching Medicare Advantage and Prescription Drug Plans, Controlling for Number of Plans Available in Choice Set^a

	Marginal Effect, % (95% CI)	
	1-Star Increase in Rating	Star Rating ≥ Prior Plan
All beneficiaries	5.2 (4.9 to 5.4)	5.2 (4.9 to 5.5)
Age group, y		
<66	4.4 (3.9 to 4.8)	3.9 (3.3 to 4.5)
66-70	5.7 (5.3 to 6.0)	4.9 (4.4 to 5.3)
71-76	4.9 (4.4 to 5.3)	5.6 (5.0 to 6.0)
≥77	5.4 (4.9 to 5.8)	6.1 (5.6 to 6.6)
Sex		
Male	5.0 (4.6 to 5.3)	5.2 (4.8 to 5.6)
Female	5.4 (5.0 to 5.7)	5.2 (4.8 to 5.5)
Race/ethnicity ^b		
White	5.6 (5.3 to 5.9)	7.6 (7.3 to 8.0)
Black	2.3 (1.6 to 2.9)	2.8 (2.0 to 3.6)
Hispanic	7.3 (6.6 to 7.9)	-2.6 (-3.3 to -1.8)
Other	-0.6 (-1.7 to 0.5)	1.5 (0.3 to 2.7)
HCC score ^c		
<1	5.2 (4.9 to 5.5)	5.4 (5.0 to 5.7)
1-2	5.2 (4.7 to 5.7)	4.6 (4.0 to 5.1)
>2	4.9 (4.1 to 5.6)	5.1 (4.1 to 5.9)
Deemed eligible for low-income subsidy		
No	5.5 (5.2 to 5.7)	5.3 (4.9 to 5.5)
Yes	3.1 (2.4 to 3 to 7)	4.8 (4.0 to 5.5)
Residence		
Urban	5.2 (4.9 to 5.4)	5.4 (5.1 to 5.7)
Rural	5.5 (4.8 to 6.1)	1.0 (0.2 to 1.8)
Census region		
Northeast	4.6 (4.0 to 5.1)	12.4 (11.8 to 12.9)
South	6.5 (6.2 to 6.8)	2.9 (2.4 to 3.2)
Midwest	-0.9 (-1.4 to -0.3)	-4.5 (-5.3 to -3.9)
West	5.2 (4.8 to 5.7)	5.5 (4.8 to 6.0)
No. of plans available in choice set		
Quartile 1: Mean 6.4 Plans, Range (2 to 9)	0.4 (-0.2 to 0.8)	10.3 (9.7 to 10.9)
Quartile 2: Mean 12.1 Plans, Range (10 to 15)	4.2 (3.8 to 4.6)	10.1 (9.6 to 10.5)
Quartile 3: Mean 19.1 Plans, Range (16 to 22)	7.0 (6.6 to 7.4)	-2.6 (-3.1 to -2.1)
Quartile 4: Mean 33.4 Plans, Range (23 to 47)	5.4 (4.9 to 5.8)	6.7 (6.2 to 7.3)

^a Enrollment data are from CMS Integrated Data Repository as of April 19, 2012. Data for December 2010 sponsoring organizations' market share are from the Integrated Data Repository as of June 15, 2012.

^b "Other" included beneficiaries with race/ethnicity coded as Asian/Pacific Islander, American Indian/Alaska Native, other, or unknown.

^c Scores are 2010 Part C community or new enrollee scores (as appropriate). Scores were calculated using age, gender, low income status, and 1 year of claims data. The average scores is 1; higher scores correspond to higher predicted health care costs.

Table 7. Associations between Star Ratings and 2011 First-Time Enrollment in Medicare Advantage and Prescription Drug Plans, Among Non-Low Income Beneficiaries Only^a

	Marginal Effect, % (95% CI)	
	1-Star Increase in Rating	Highest Star Rating Available in Choice Set
All beneficiaries	10.5 (10.3 to 10.6)	1.6 (1.4 to 1.8)
Age group, y		
<64	5.7 (5.3 to 6.0)	2.6 (2.2 to 3.0)
64-65	13.2 (13.0 to 13.4)	1.6 (1.3 to 1.8)
66-70 Years	10.1 (9.8 to 10.4)	1.2 (0.9 to 1.6)
≥71	8.1 (7.7 to 8.4)	1.2 (0.8 to 1.6)
Sex		
Male	10.2 (10.0 to 10.4)	1.8 (1.5 to 2.0)
Female	10.7 (10.5 to 10.9)	1.4 (1.2 to 1.6)
Race/ethnicity ^b		
White	12.4 (12.2 to 12.6)	-0.02 (-0.2 to 0.2)
Black	5.2 (4.7 to 5.7)	3.2 (2.6 to 3.8)
Hispanic	8.4 (8.0 to 8.9)	5.2 (4.5 to 5.8)
Other	2.2 (1.6 to 2.8)	9.8 (9.0 to 10.5)
Residence		
Urban	10.7 (10.5 to 10.8)	1.6 (1.4 to 1.8)
Rural	8.5 (8.1 to 8.8)	1.8 (1.4 to 2.1)
Census region		
Northeast	12.8 (12.5 to 13.2)	-1.5 (-1.9 to -1.1)
South	11.1 (10.9 to 11.4)	1.9 (1.6 to 2.2)
Midwest	5.9 (5.5 to 6.2)	1.7 (1.3 to 2.1)
West	9.5 (9.2 to 9.8)	3.6 (3.2 to 4.0)

^a Enrollment data are from CMS Integrated Data Repository as of April 19, 2012. Data for December 2010 sponsoring organizations' market share are from the Integrated Data Repository as of June 15, 2012.

^b "Other" included beneficiaries with race/ethnicity coded as Asian/Pacific Islander, American Indian/Alaska Native, other, or unknown.

eTable 8. Associations between Star Ratings and 2011 Enrollment when Switching Medicare Advantage and Prescription Drug Plans, Among Non-Low Income Beneficiaries Only^a

	Marginal Effect, % (95% CI)	
	1-Star Increase in Rating	Star Rating ≥ Prior Plan
All beneficiaries	4.5 (4.2 to 4.7)	6.8 (6.4 to 7.0)
Age group, y		
<66	3.8 (3.3 to 4.4)	5.3 (4.6 to 5.9)
66-70	5.0 (4.6 to 5.4)	6.4 (5.9 to 6.8)
71-76	4.0 (3.5 to 4.4)	7.3 (6.8 to 7.8)
≥77	4.5 (4.1 to 4.9)	7.5 (6.9 to 8.0)
Sex		
Male	4.3 (4.0 to 4.6)	6.8 (6.3 to 7.1)
Female	4.6 (4.2 to 4.8)	6.7 (6.3 to 7.1)
Race/ethnicity ^b		
White	4.8 (4.5 to 5.0)	9.0 (8.7 to 9.3)
Black	2.9 (2.1 to 3.6)	3.6 (2.8 to 4.5)
Hispanic	6.3 (5.6 to 7.0)	-1.2 (-2.0 to -0.3)
Other	-1.7 (-2.9 to -0.6)	2.4 (1.1 to 3.7)
HCC score ^c		
<1	4.4 (4.1 to 4.7)	7.1 (6.7 to 7.4)
1-2	4.7 (4.2 to 5.2)	5.7 (5.1 to 6.3)
>2	4.0 (3.2 to 4.8)	6.6 (5.6 to 7.6)
Residence		
Urban	4.5 (4.3 to 4.8)	6.9 (6.5 to 7.1)
Rural	3.1 (2.5 to 3.7)	5.0 (4.3 to 5.8)
Census region		
Northeast	3.2 (2.6 to 3.8)	14.8 (14.1 to 15.4)
South	5.7 (5.4 to 6.1)	5.3 (4.8 to 5.6)
Midwest	-1.5 (-2.0 to -1.0)	-2.9 (-3.6 to -2.3)
West	5.3 (4.9 to 5.7)	4.4 (3.8 to 4.9)

^a Enrollment data are from CMS Integrated Data Repository as of April 19, 2012. Data for December 2010 sponsoring organizations' market share are from the Integrated Data Repository as of June 15, 2012.

^b "Other" included beneficiaries with race/ethnicity coded as Asian/Pacific Islander, American Indian/Alaska Native, other, or unknown.

^c Scores are 2010 Part C community or new enrollee scores (as appropriate). Scores were calculated using age, gender, low income status, and 1 year of claims data. The average scores is 1; higher scores correspond to higher predicted health care costs.

eTable 9. Associations between Star Ratings and 2011 First-Time Enrollment in Medicare Advantage and Prescription Drug Plans, Including Interactions between Rating Variables and Coverage-Type, Premiums, and Estimated Out-of-Pocket Costs^a

	Marginal Effect, % (95% CI)	
	1-Star Increase in Rating	Highest Star Rating Available in Choice Set
All beneficiaries	10.5 (10.3 to 10.7)	2.0 (1.9 to 2.3)
Age group, y		
<64	6.0 (5.6 to 6.3)	2.9 (2.5 to 3.2)
64-65	13.6 (13.4 to 13.8)	2.0 (1.7 to 2.2)
66-70 Years	10.2 (9.9 to 10.5)	1.8 (1.4 to 2.1)
≥71	8.4 (8.1 to 8.8)	1.8 (1.4 to 2.2)
Sex		
Male	10.2 (9.9 to 10.4)	2.3 (2.0 to 2.5)
Female	10.8 (10.6 to 11.0)	1.9 (1.6 to 2.1)
Race/ethnicity ^b		
White	12.3 (12.0 to 12.4)	0.8 (0.6 to 1.0)
Black	5.3 (4.8 to 5.8)	3.2 (2.7 to 3.7)
Hispanic	10.2 (9.7 to 10.6)	4.1 (3.6 to 4.6)
Other	3.6 (3.1 to 4.1)	8.4 (7.7 to 9.0)
Deemed eligible for low-income subsidy		
No	11.3 (11.1 to 11.5)	1.8 (1.6 to 2.0)
Yes	5.1 (4.6 to 5.5)	3.9 (3.4 to 4.4)
Residence		
Urban	10.7 (10.5 to 10.9)	2.0 (1.8 to 2.3)
Rural	8.6 (8.2 to 9.0)	2.3 (1.9 to 2.7)
Census region		
Northeast	13.1 (12.7 to 13.4)	0.02 (-0.4 to 0.4)
South	11.3 (11.0 to 11.6)	2.0 (1.7 to 2.3)
Midwest	3.9 (3.5 to 4.2)	2.8 (2.3 to 3.2)
West	9.9 (9.6 to 10.2)	3.7 (3.3 to 4.1)

^a Enrollment data are from CMS Integrated Data Repository as of April 19, 2012.

Data for December 2010 sponsoring organizations' market share are from the Integrated Data Repository as of June 15, 2012.

^b "Other" included beneficiaries with race/ethnicity coded as Asian/Pacific Islander, American Indian/Alaska Native, other, or unknown.

eTable 10. Associations between Star Ratings and 2011 Enrollment when Switching Medicare Advantage and Prescription Drug Plans, Including Interactions between Rating Variables and Coverage-Type, Premiums, and Estimated Out-of-Pocket Costs^a

	Marginal Effect, % (95% CI)	
	1-Star Increase in Rating	Star Rating ≥ Prior Plan
All beneficiaries	2.8 (2.6 to 3.1)	5.9 (5.5 to 6.0)
Age group, y		
<66	2.1 (1.6 to 2.6)	4.4 (3.7 to 4.9)
66-70	3.3 (3.0 to 3.7)	5.5 (4.9 to 5.8)
71-76	2.5 (2.1 to 2.9)	6.3 (5.7 to 6.7)
≥77	3.0 (2.6 to 3.4)	6.9 (6.3 to 7.3)
Sex		
Male	2.6 (2.3 to 3.0)	5.9 (5.4 to 6.2)
Female	3.0 (2.7 to 3.3)	5.8 (5.4 to 6.1)
Race/ethnicity ^b		
White	2.9 (2.7 to 3.2)	8.3 (7.9 to 8.6)
Black	0.6 (0.1 to 1.3)	3.7 (2.9 to 4.4)
Hispanic	5.6 (5.0 to 6.2)	-2.4 (-3.2 to -1.6)
Other	-1.1 (-2.0 to -0.2)	2.0 (0.8 to 3.1)
HCC score ^c		
<1	2.8 (2.5 to 3.1)	6.1 (5.7 to 6.4)
1-2	3.0 (2.6 to 3.4)	5.1 (4.4 to 5.5)
>2	2.7 (2.0 to 3.4)	5.4 (4.4 to 6.2)
Deemed eligible for low-income subsidy		
No	3.1 (2.8 to 3.4)	6.0 (5.6 to 6.2)
Yes	1.1 (0.5 to 1.7)	5.1 (4.2 to 5.7)
Residence		
Urban	2.9 (2.7 to 3.2)	5.8 (5.4 to 6.0)
Rural	2.0 (1.4 to 2.5)	7.4 (6.5 to 8.0)
Census region		
Northeast	2.0 (1.6 to 2.6)	12.0 (11.4 to 12.4)
South	4.7 (4.4 to 5.1)	5.6 (5.1 to 6.0)
Midwest	-2.7 (-3.1 to -2.2)	-4.7 (-5.4 to -4.1)
West	2.3 (1.9 to 2.8)	3.6 (2.9 to 4.0)

^a Enrollment data are from CMS Integrated Data Repository as of April 19, 2012. Data for December 2010 sponsoring organizations' market share are from the Integrated Data Repository as of June 15, 2012.

^b "Other" included beneficiaries with race/ethnicity coded as Asian/Pacific Islander, American Indian/Alaska Native, other, or unknown.

^c Scores are 2010 Part C community or new enrollee scores (as appropriate). Scores were calculated using age, gender, low income status, and 1 year of claims data. The average scores is 1; higher scores correspond to higher predicted health care costs.

eTable 11: Coefficient Estimates for Interaction Terms between Star Ratings and Beneficiary Characteristics for 2011 First-Time Enrollments in Medicare Advantage and Prescription Drug Plans^a

	Coefficient (95% CI)	
	1-Star Increase in Rating	Highest Star Rating Available in Choice Set
Age group, y		
<64	-0.45 (-0.48 to -0.43)	0.02 (-0.01 to 0.04)
64-65	Ref	Ref
66-70	-0.21 (-0.23 to -0.19)	-0.03 (-0.05 to -0.002)
≥71	-0.32 (-0.34 to -0.30)	-0.03 (-0.06 to -0.01)
Sex		
Male	Ref	Ref
Female	0.04 (0.03 to 0.06)	-0.02 (-0.04 to -0.01)
Race/ethnicity^b		
White	Ref	Ref
Black	-0.44 (-0.47 to -0.41)	0.13 (0.10 to 0.16)
Hispanic	-0.24 (-0.27 to -0.21)	0.31 (0.28 to 0.34)
Other	-0.62 (-0.65 to -0.59)	0.52 (0.48 to 0.56)
Deemed eligible for low-income subsidy		
No	Ref	Ref
Yes	-0.38 (-0.41 to -0.35)	0.11 (0.08 to 0.14)
Residence		
Urban	Ref	Ref
Rural	-0.11 (-0.13 to -0.09)	0.02 (-0.01 to 0.04)
Census region		
Northeast	Ref	Ref
South	-0.12 (-0.15 to -0.10)	0.24 (0.21 to 0.27)
Midwest	-0.48 (-0.51 to -0.45)	0.22 (0.19 to 0.25)
West	-0.24 (-0.26 to -0.21)	0.34 (0.31 to 0.37)

^a Enrollment data are from CMS Integrated Data Repository as of April 19, 2012. Data for December 2010 sponsoring organizations' market share are from the Integrated Data Repository as of June 15, 2012.

^b "Other" included beneficiaries with race/ethnicity coded as Asian/Pacific Islander, American Indian/Alaska Native, other, or unknown.

eTable 12. Coefficient Estimates for Interaction Terms between Star Ratings and Beneficiary Characteristics for 2011 Enrollments when Switching Medicare Advantage and Prescription Drug Plans^a

	Coefficient (95% CI)	
	1-Star Increase in Rating	Star Rating ≥ Prior Plan
Age group, y		
<66	-0.08 (-0.12 to -0.05)	-0.06 (-0.11 to -0.02)
66-70	Ref	Ref
71-76	-0.05 (-0.09 to -0.02)	0.05 (0.01 to 0.09)
≥77	-0.02 (-0.05 to 0.02)	0.08 (0.04 to 0.12)
Sex		
Male	Ref	Ref
Female	0.03 (0.002 to 0.05)	-0.01 (-0.04 to 0.02)
Race/ethnicity ^b		
White	Ref	Ref
Black	-0.19 (-0.23 to -0.15)	-0.35 (-0.39 to -0.30)
Hispanic	0.10 (0.06 to 0.15)	-0.69 (-0.74 to -0.64)
Other	-0.39 (-0.45 to -0.32)	-0.42 (-0.49 to -0.35)
HCC score ^c		
<1	Ref	Ref
1-2	0.004 (-0.03 to 0.04)	-0.07 (-0.11 to -0.03)
>2	-0.02 (-0.06 to 0.03)	-0.05 (-0.10 to 0.01)
Deemed eligible for low-income subsidy		
No	Ref	Ref
Yes	-0.16 (-0.20 to -0.12)	-.01 (-0.06 to 0.04)
Residence		
Urban	Ref	Ref
Rural	-0.07 (-0.11 to -0.04)	-0.12 (-0.17 to -0.08)
Census region		
Northeast	Ref	Ref
South	0.19 (0.15 to 0.23)	-0.56 (-0.60 to -0.52)
Midwest	-0.32 (-0.37 to -0.28)	-1.04 (-1.09 to -0.99)
West	0.11 (0.07 to 0.15)	-0.62 (-0.67 to -0.57)

^a Enrollment data are from CMS Integrated Data Repository as of April 19, 2012.

Data for December 2010 sponsoring organizations' market share are from the Integrated Data Repository as of June 15, 2012.

^b "Other" included beneficiaries with race/ethnicity coded as Asian/Pacific Islander, American Indian/Alaska Native, other, or unknown.

^c Scores are 2010 Part C community or new enrollee scores (as appropriate). Scores were calculated using age, gender, low income status, and 1 year of claims data. The average scores is 1; higher scores correspond to higher predicted health care costs.