

SUPPLEMENTAL DIGITAL CONTENT 2

Sensitivity analyses examining US region and specific chronic conditions as potential risk factors

Supplemental Digital Content 2a:
Population characteristics and prevalence of study outcomes by characteristic --
US region and specific chronic conditions

Characteristic	Characteristics of community-dwelling Medicare beneficiaries in 2016				Prevalence of study outcomes, by US region and specific chronic condition							
	Under 65 y		65 y and over		Any cost-related nonadherence		Spent less on other basic needs		Any cost reduction strategy			
	N	Weighted % (95% CI)	N	Weighted % (95% CI)	Under 65 y	65 y and over	Under 65 y	65 y and over	Under 65 y	65 y and over		
					Weighted % (95% CI)	Weighted % (95% CI)	Weighted % (95% CI)	Weighted % (95% CI)	Weighted % (95% CI)	Weighted % (95% CI)		
US region												
Northeast	358	18.0 (14.0-21.9)	1815	18.5 (14.6-22.3)	26.8 (20.3-33.3)	11.3 (9.6-13.0)	11.9 (6.5-17.2)	4.2 (3.2-5.1)	36.8 (29.3-44.4)	37.7 (34.7-40.7)		
Midwest	501	21.1 (17.3-25.0)	2601	22.1 (18.5-25.8)	36.6 (32.1-41.2)	16.1 (13.5-18.6)	18.3 (13.2-23.4)	4.2 (3.1-5.3)	50.4 (45.5-55.3)	47.1 (43.2-51.0)		
South	945	41.4 (36.3-46.4)	3894	37.1 (32.5-41.8)	37.3 (33.6-41.0)	16.3 (14.6-18.0)	23.2 (19.7-26.6)	5.8 (4.8-6.8)	53.3 (48.6-58.0)	49.6 (46.4-52.7)		
West	315	18.1 (13.2-23.1)	2005	21.5 (16.2-26.8)	33.6 (26.3-40.8)	12.0 (10.5-13.4)	18.9 (13.4-24.4)	3.5 (2.4-4.6)	42.1 (33.5-50.8)	36.7 (33.3-40.1)		
Specific chronic conditions												
Alzheimer's/dementia	13	0.8 (0.3-1.4)	266	1.9 (1.6-2.1)	42.4 (7.3-77.4)	11.0 (6.7-15.2)	30.1 (0.0-63.3)	6.7 (2.4-11.0)	43.4 (9.0-77.9)	40.9 (34.9-47.0)		
Arthritis	870	49.5 (46.3-52.7)	5097	46.9 (45.5-48.3)	43.4 (39.7-47.1)	17.9 (16.5-19.3)	25.9 (22.4-29.3)	6.2 (5.3-7.0)	54.1 (49.7-58.6)	48.5 (46.3-50.7)		
Cancer	232	13.1 (11.2-15.0)	2126	18.6 (17.7-19.6)	39.8 (32.3-47.4)	15.5 (13.7-17.2)	22.8 (15.4-30.1)	4.8 (3.6-5.9)	49.9 (41.6-58.2)	46.9 (43.6-50.1)		
Cardiac	636	35.8 (32.9-38.6)	4544	39.4 (38.2-40.6)	35.9 (31.8-39.9)	16.0 (14.6-17.4)	18.3 (15.0-21.7)	5.7 (4.8-6.6)	53.8 (48.7-58.8)	48.5 (46.4-50.7)		
Diabetes	663	37.1 (34.8-39.4)	3361	32.2 (30.8-33.5)	37.1 (33.0-41.3)	18.7 (17.0-20.4)	23.3 (18.4-28.2)	7.4 (6.1-8.8)	52.6 (47.1-58.2)	48.8 (46.5-51.0)		
Hypertension	1077	58.5 (55.8-61.1)	7175	65.3 (64.0-66.6)	35.2 (32.0-38.4)	16.0 (14.9-17.2)	21.3 (18.3-24.4)	5.7 (5.0-6.5)	49.9 (45.6-54.2)	46.2 (44.1-48.3)		
Neurological	204	11.2 (9.2-13.2)	395	3.6 (3.2-3.9)	30.6 (23.4-37.9)	18.7 (13.6-23.7)	19.3 (12.8-25.9)	8.3 (5.3-11.3)	59.7 (50.8-68.6)	48.1 (42.4-53.9)		
Psychiatric/depression	1381	61.9 (59.0-64.9)	2334	22.4 (21.3-23.4)	39.3 (35.8-42.8)	21.4 (19.1-23.6)	21.8 (18.9-24.6)	8.5 (7.1-10.0)	51.0 (47.1-54.8)	51.8 (48.9-54.7)		
Pulmonary	639	32.5 (29.6-35.4)	2001	18.5 (17.5-19.5)	41.9 (37.3-46.6)	22.3 (19.8-24.8)	23.2 (18.7-27.8)	9.0 (7.4-10.6)	50.5 (45.5-55.5)	49.0 (46.4-51.5)		
Stroke	228	13.2 (11.2-15.2)	1131	9.3 (8.7-9.9)	32.7 (24.7-40.7)	18.0 (15.3-20.6)	20.8 (14.0-27.5)	6.3 (4.2-8.3)	55.5 (46.0-64.9)	46.1 (42.0-50.1)		

Supplemental Digital Content 2b:
Sensitivity analyses examining US region and specific chronic conditions
as potential risk factors for cost-related nonadherence

Characteristic	Any cost-related nonadherence	
	Under 65 y	65 y and over
	OR (95% CI)	OR (95% CI)
Age, y		
≤54	1.00	
55-64	0.73 (0.56-0.94)	
65-74		1.00
75-84		0.60 (0.51-0.71)
≥85		0.38 (0.30-0.48)
Sex		
Male	1.00	1.00
Female	1.44 (1.10-1.87)	1.14 (0.97-1.33)
Household income, \$		
< \$15K	0.80 (0.44-1.43)	1.04 (0.80-1.37)
\$15k to \$25k	1.01 (0.59-1.73)	1.46 (1.22-1.75)
\$25k to \$50k	0.88 (0.48-1.62)	1.36 (1.17-1.59)
> \$50K	1.00	1.00
Education		
No high school diploma	1.43 (0.72-2.87)	0.98 (0.80-1.21)
High school diploma	1.01 (0.59-1.73)	0.84 (0.68-1.04)
Some college	1.19 (0.66-2.15)	1.01 (0.83-1.22)
Bachelors and above	1.00	1.00
Race		
White	1.00 (0.00-0.00)	1.00
African American	1.30 (0.87-1.95)	1.27 (0.95-1.71)
All Other	1.43 (0.91-2.25)	0.98 (0.72-1.34)
Hispanic ethnicity		
Not Hispanic	1.00	1.00
Hispanic	0.52 (0.32-0.83)	0.89 (0.65-1.21)
US region		
Northeast	1.00	1.00
Midwest	1.24 (0.82-1.88)	1.45 (1.13-1.86)
South	1.31 (0.91-1.88)	1.39 (1.11-1.76)
West	1.14 (0.69-1.88)	1.17 (0.92-1.49)
General health status		
Excellent, very good, or good	1.00	1.00
Fair or poor	1.30 (0.99-1.72)	1.43 (1.20-1.71)
No. of limitations in ADLs*		
Zero	1.00	1.00
1 to 2	1.20 (0.85-1.68)	1.47 (1.24-1.74)
3 to 6	1.43 (0.99-2.07)	1.89 (1.53-2.33)
Specific chronic conditions (reference is not reporting diagnosis)		
Alzheimer's/dementia	1.02 (0.24-4.37)	0.60 (0.39-0.92)
Arthritis	1.72 (1.29-2.29)	1.33 (1.14-1.56)
Cancer	1.31 (0.91-1.89)	1.04 (0.88-1.22)
Cardiac	1.00 (0.76-1.34)	1.00 (0.87-1.15)
Diabetes	1.12 (0.88-1.44)	1.35 (1.16-1.58)
Hypertension	0.93 (0.69-1.26)	1.17 (1.00-1.38)
Neurological	0.76 (0.49-1.17)	0.92 (0.62-1.35)
Psychiatric/depression	1.60 (1.19-2.17)	1.39 (1.16-1.66)
Pulmonary	1.36 (1.05-1.78)	1.59 (1.33-1.89)
Stroke	0.86 (0.57-1.31)	1.01 (0.85-1.20)
Drug Coverage		
Part D with Low Income Subsidy	1.00	1.00
Medicare Advantage with Part D	2.18 (1.38-3.44)	1.17 (0.87-1.57)
Traditional Medicare with Part D	2.76 (1.60-4.75)	1.57 (1.18-2.10)
Other drug supplement plan	0.80 (0.44-1.44)	0.78 (0.54-1.11)
No drug coverage	1.75 (1.03-2.97)	1.15 (0.77-1.73)

Supplemental Digital Content 2c:
Sensitivity analyses examining US region and specific chronic conditions
as potential risk factors for spending less on other basic needs

Characteristic	Spent less on other basic needs	
	Under 65 y	65 y and over
	OR (95% CI)	OR (95% CI)
Age, y		
≤54	1.00	
55-64	0.88 (0.64-1.20)	
65-74		1.00
75-84		0.65 (0.51-0.83)
≥85		0.29 (0.20-0.41)
Sex		
Male	1.00	1.00
Female	1.32 (0.94-1.87)	1.23 (0.96-1.59)
Household income, \$		
< \$15K	1.37 (0.76-2.48)	1.71 (1.03-2.84)
\$15k to \$25k	1.50 (0.80-2.81)	2.68 (1.83-3.94)
\$25k to \$50k	1.25 (0.72-2.18)	1.79 (1.18-2.71)
> \$50K	1.00	1.00
Education		
No high school diploma	0.77 (0.38-1.54)	1.39 (0.88-2.20)
High school diploma	0.84 (0.45-1.57)	1.48 (0.97-2.26)
Some college	0.90 (0.46-1.75)	1.23 (0.84-1.81)
Bachelors and above	1.00	1.00
Race		
White	1.00	1.00
African American	1.66 (1.04-2.66)	1.64 (1.18-2.28)
All Other	1.79 (1.04-3.06)	1.66 (1.11-2.50)
Hispanic ethnicity		
Not Hispanic	1.00	1.00
Hispanic	0.78 (0.41-1.47)	0.75 (0.43-1.32)
US region		
Northeast	1.00	1.00
Midwest	1.44 (0.79-2.61)	0.88 (0.59-1.29)
South	1.93 (1.08-3.45)	1.13 (0.81-1.58)
West	1.37 (0.70-2.68)	0.86 (0.55-1.33)
General health status		
Excellent, very good, or good	1.00	1.00
Fair or poor	1.51 (1.04-2.20)	1.61 (1.22-2.14)
No. of limitations in ADLs*		
Zero	1.00	1.00
1 to 2	1.32 (0.94-1.84)	2.24 (1.61-3.12)
3 to 6	2.21 (1.45-3.37)	2.78 (1.80-4.30)
Specific chronic conditions (reference is not reporting diagnosis)		
Alzheimer's/dementia	1.67 (0.38-7.41)	1.11 (0.56-2.19)
Arthritis	1.66 (1.20-2.28)	1.13 (0.88-1.45)
Cancer	1.37 (0.82-2.29)	0.97 (0.73-1.29)
Cardiac	0.66 (0.47-0.92)	0.97 (0.78-1.20)
Diabetes	1.33 (0.88-1.99)	1.52 (1.12-2.06)
Hypertension	1.23 (0.84-1.78)	1.39 (1.00-1.93)
Neurological	0.84 (0.50-1.41)	1.16 (0.73-1.84)
Psychiatric/depression	1.44 (1.03-2.01)	1.43 (1.10-1.85)
Pulmonary	1.25 (0.89-1.74)	1.67 (1.34-2.10)
Stroke	1.00 (0.63-1.60)	0.71 (0.50-1.01)
Drug Coverage		
Part D with Low Income Subsidy	1.00	1.00
Medicare Advantage with Part D	1.81 (1.05-3.12)	0.88 (0.59-1.29)
Traditional Medicare with Part D	2.62 (1.48-4.63)	0.78 (0.50-1.20)
Other drug supplement plan	0.94 (0.48-1.84)	0.53 (0.30-0.94)
No drug coverage	1.96 (0.99-3.87)	0.63 (0.35-1.14)

Supplemental Digital Content 2d:
Sensitivity analyses examining US region and specific chronic conditions
as potential risk factors for using cost reduction strategies

Characteristic	Any cost reduction strategy	
	Under 65 y	65 y and over
	OR (95% CI)	OR (95% CI)
Age, y		
≤54	1.00	
55-64	1.09 (0.83-1.44)	
65-74		1.00
75-84		0.78 (0.69-0.87)
≥85		0.53 (0.46-0.60)
Sex		
Male	1.00	1.00
Female	1.34 (1.04-1.72)	1.02 (0.93-1.12)
Household income, \$		
< \$15K	0.69 (0.41-1.15)	0.90 (0.74-1.08)
\$15k to \$25k	0.95 (0.56-1.62)	0.98 (0.84-1.13)
\$25k to \$50k	0.68 (0.39-1.16)	1.04 (0.91-1.18)
> \$50K	1.00	1.00
Education		
No high school diploma	0.70 (0.41-1.21)	0.78 (0.65-0.92)
High school diploma	0.73 (0.44-1.21)	0.89 (0.76-1.04)
Some college	0.83 (0.51-1.33)	0.93 (0.79-1.09)
Bachelors and above	1.00	1.00
Race		
White	1.00	1.00
African American	0.63 (0.44-0.90)	0.62 (0.49-0.77)
All Other	0.96 (0.62-1.49)	0.75 (0.59-0.97)
Hispanic ethnicity		
Not Hispanic	1.00	1.00
Hispanic	0.49 (0.32-0.76)	0.67 (0.50-0.89)
US region		
Northeast	1.00	1.00
Midwest	1.52 (1.00-2.31)	1.41 (1.15-1.73)
South	1.85 (1.25-2.73)	1.73 (1.44-2.07)
West	1.13 (0.71-1.81)	1.02 (0.84-1.23)
General health status		
Excellent, very good, or good	1.00	1.00
Fair or poor	1.07 (0.84-1.35)	0.99 (0.88-1.13)
No. of limitations in ADLs*		
Zero	1.00	1.00
1 to 2	1.05 (0.82-1.34)	1.16 (1.01-1.32)
3 to 6	1.21 (0.87-1.67)	1.43 (1.19-1.71)
Specific chronic conditions (reference is not reporting diagnosis)		
Alzheimer's/dementia	0.49 (0.15-1.62)	0.93 (0.69-1.26)
Arthritis	1.23 (0.95-1.59)	1.28 (1.16-1.42)
Cancer	1.03 (0.67-1.58)	1.08 (0.94-1.24)
Cardiac	1.31 (0.97-1.78)	1.24 (1.12-1.36)
Diabetes	1.23 (0.94-1.61)	1.29 (1.16-1.43)
Hypertension	1.07 (0.79-1.47)	1.18 (1.05-1.32)
Neurological	1.45 (0.95-2.21)	0.99 (0.77-1.28)
Psychiatric/depression	1.30 (0.99-1.70)	1.37 (1.20-1.56)
Pulmonary	0.91 (0.71-1.17)	1.15 (1.03-1.28)
Stroke	1.08 (0.71-1.64)	0.98 (0.83-1.15)
Drug Coverage		
Part D with Low Income Subsidy	1.00	1.00
Medicare Advantage with Part D	2.89 (1.74-4.79)	1.57 (1.26-1.96)
Traditional Medicare with Part D	3.52 (1.94-6.37)	2.10 (1.73-2.56)
Other drug supplement plan	0.93 (0.52-1.67)	1.35 (1.06-1.71)
No drug coverage	1.07 (0.59-1.94)	1.21 (0.93-1.58)