

SUPPLEMENTARY MATERIALS

Prescription drug coverage satisfaction, cost-reducing behavior, and medication nonadherence among Medicare beneficiaries with type 2 diabetes

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Supplementary Table 1: Survey questions that measured the dependent variable and key factors of interest

Supplementary Table 2: Factors associated with medication nonadherence measured by a single variable among Medicare beneficiaries aged ≥ 65 years with T2D, 2016 MCBS PUF

Supplementary Table 1: Survey questions that measured the dependent variable and key factors of interest

Variable	Question and response levels based on 2016 MCBS PUF
Type 2 Diabetes	<p>Has a doctor ever told [you/(SP)] that (you/he/she) had any type of diabetes, including: sugar diabetes, high blood sugar, (borderline diabetes, pre-diabetes, or pregnancy-related diabetes/borderline diabetes, or pre-diabetes)?</p> <p>Response: yes, no, refused, don't know, inapplicable/missing</p>
Medication Nonadherence	<p>Please tell me which type of diabetes the doctor or other health professional said that [you have/(SP) has].</p> <p>Response: Type 1, Type 2, borderline, other, refused, inapplicable/missing</p> <p>[Have you/has (SP)] often, sometimes, or never... skipped doses to make the medicine last longer?</p> <p>Response: often, sometimes, never, refused, don't know, inapplicable/missing</p>
Dissatisfaction: the amount paid for medications	<p>[Have you/has (SP)] often, sometimes, or never... taken smaller doses than prescribed of a medicine to make the medicine last longer?</p> <p>Response: often, sometimes, never, refused, don't know, inapplicable/missing</p>
Dissatisfaction: the medications on formulary	<p>[Please tell me how satisfied you have been with . . .] The amount [you have/(SP) has] to pay for [your/(SP's)] prescribed medicines.</p> <p>Response: very satisfied, satisfied, dissatisfied, very dissatisfied, refused, don't know, inapplicable/missing, no experience</p> <p>[Please tell me how satisfied you have been with . . .] [Your/(SP's)] prescription drug plan's formulary or the list of drugs covered by the plan.</p> <p>Response: very satisfied, satisfied, dissatisfied, very dissatisfied, refused, don't know, inapplicable/missing, no experience</p>
Dissatisfaction: find a pharmacy that accepted medication coverage	<p>[Please tell me how satisfied you have been with . . .] The ease of finding a pharmacy which accepts your prescription drug plan.</p> <p>[EXPLAIN IF NECESSARY: By prescription drug plan, we mean any health insurance plan that provides drug coverage.]</p> <p>Response: very satisfied, satisfied, dissatisfied, very dissatisfied, refused, don't know, inapplicable/missing, no experience</p>

Ever spent less on basic
needs to save for
medications

Have you/has (SP) often, sometimes, or never...spent less money on
food, heat, or other basic needs so that (you/he/she) would have
money for medicine?

Response: often, sometimes, never, refused, don't know,
inapplicable/missing

Supplementary Table 2: Factors associated with medication nonadherence measured by a single variable among Medicare beneficiaries aged ≥ 65 years with T2D, 2016 MCBS PUF

Model/Variable	Skipped doses			Taken smaller doses		
	OR ^a	95% CI ^b	p-value	OR	95% CI	p-value
Socio-demographic Characteristics						
Age group						
65-75 years	3.67	1.81-6.66	<0.001	2.60	1.40-4.84	0.003
≥ 75 years	Ref ^c			Ref		
Sex						
Female	Ref			Ref		
Male	0.57	0.29-1.13	0.105	0.85	0.48-1.50	0.571
Race/ethnicity						
White	Ref			Ref		
Black	0.56	0.17-1.79	0.320	1.50	0.73-3.07	0.266
Hispanic	0.63	0.19-2.06	0.443	1.17	0.54-2.53	0.696
Other	0.86	0.18-4.06	0.847	1.20	0.48-3.03	0.697
Marital status						
Married	Ref			Ref		
Widowed	2.11	0.90-4.97	0.085	1.42	0.69-2.92	0.336
Divorced/separated	1.99	0.84-4.72	0.116	2.13	1.06-4.27	0.034
Never married	3.12	0.85-11.42	0.085	1.20	0.43-3.30	0.728
Education						
Less than HS	Ref			Ref		
HS or vocational	1.18	0.46-3.02	0.732	1.18	0.59-2.37	0.643
More than HS	0.81	0.29-2.23	0.678	1.04	0.48-2.25	0.912
Income						
< \$25,000	0.76	0.40-1.44	0.400	0.88	0.49-1.57	0.657
\geq \$25,000	Ref			Ref		
Residing area						
Non-metro area	0.85	0.40-1.79	0.665	1.00	0.54-1.84	0.998
Metro	Ref			Ref		
Comorbidities and Health Status						
Number of chronic conditions						
0-1	Ref			Ref		
2-3	2.36	0.70-7.88	0.162	1.78	0.83-3.83	0.137
≥ 4	1.86	0.40-8.67	0.428	1.41	0.56-3.53	0.463

ADL limitations						
No limitations	Ref			Ref		
Only IADLs limited	1.46	0.55-3.87	0.439	2.18	0.96-4.98	0.064
1-2 ADLs limited	1.01	0.49-2.09	0.979	1.55	0.82-2.95	0.178
≥ 3 ADLs limited	0.88	0.30-2.56	0.815	1.97	0.87-4.48	0.104
General health status						
Excellent/very good	Ref			Ref		
Good	1.42	0.57-3.54	0.452	1.08	0.50-2.32	0.851
Fair/poor	1.40	0.53-3.73	0.498	0.91	0.40-2.06	0.814
Drug Coverage						
Medicare advantage plan coverage						
No	Ref			Ref		
Yes	1.10	0.61-2.01	0.744	1.12	0.61-2.05	0.717
Private plan coverage						
No	Ref			Ref		
Yes	1.45	0.49-4.28	0.495	1.30	0.58-2.92	0.523
Part D plan coverage						
No	Ref			Ref		
Yes	3.51	0.28-44.76	0.330	2.62	0.45-15.37	0.283
Prescription Drug Insurance Satisfaction						
Dissatisfaction: the amount paid for medications						
No	Ref			Ref		
Yes	2.42	1.12-5.24	0.025	2.46	1.36-4.44	0.003
Dissatisfaction: the medications on formulary						
No	Ref			Ref		
Yes	1.37	0.61-3.05	0.443	2.09	1.17-3.73	0.014
Dissatisfaction: find a pharmacy that accepted medication coverage						
No	Ref			Ref		
Yes	1.25	0.30-5.23	0.760	4.21	0.82-21.64	0.085
Cost-reducing Behavior						
Ever spent less on basic needs to save for medications						
No	Ref			Ref		
Yes	2.40	1.06-5.45	0.037	1.85	0.91-3.75	0.089

^a Odds ratio

^b Confidence interval

^c Reference group