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Research article

Predicting high-cost, commercially-insured people with diabetes in Texas: Characteristics, medical utilization patterns, and urban-rural comparisons

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Supplementary

Table 1. Overall health care costs during the observational period.

Overall					
Mean	1st quintile (0%–20%)	2nd quintile (20%–40%)	3rd quintile (40%–60%)	4th quintile (60%–80%)	5th quintile (80%–100%)
Total	$281.56	$881.31	$1982.85	$5110.08	$41,369.76
Inpatient	$0.00	$0.04	$0.33	$39.13	$15,973.27
Outpatient	$10.73	$87.21	$433.38	$2053.92	$12,767.02
Generalist	$180.57	$467.90	$692.04	$1020.33	$2561.97
Specialist	$90.25	$326.17	$857.12	$1996.70	$10,068.30

Table 2. Health care utilization and costs in the 12-month observational period in rural population.

	Top 20% (n = 5781)			Bottom 80% (n = 22,914)		
	Mean (%)	Median	SD	Mean (%)	Median	SD
Total medical cost	$40,716	$19,877	$71,471	$2045	$1238	$2052
Total OOP medical cost	$3880	$3482	$2873	$733	$358	$960
Inpatient						
Length of stay	3.74	0	12.48	0.01	0	0.27
Number of visits	0.62	0	1.08	0.005	0	0.07
Cost	$14,895	$0	$49,951	$18.20	$0	$283
OOP cost	$628	$0	$1479	$8	$0	$156
ED-inpatient						
Number of visits	0.28	0	0.64	0.003	0	0.05
Cost	$5265	$0	$21,992	$11	$0	$224
OOP cost	$327	$0	$1095	$6	$0	$132
Outpatient						
Number of visits	7.69	5	10.49	1.41	1	1.98
Cost	$13,738	$7287	$30,494	$804	$172	$1277
OOP cost	$1647	$1109	$1857	$289	$0	$615
ED-outpatient						
Number of visits	1.23	1	2.05	0.21	0	0.55
Cost	$3046	$823	$5874	$285	$0	$846
OOP cost	$632	$0	$1186	$132	$0	$447
Generalist visits						
Number of visits	12.01	9	12.26	4.26	4	3.56
Cost	$2323	$1420	$5111	$541	$404	$544
OOP cost	$1101	$753	$1234	$618	$407	$680
Specialist visits						
Number of visits	29.32	21	30.93	5.31	3	6.07
Cost	$9760	$4891	$23,366	$683	$286	$988
OOP cost	$1149	$757	$1341	$254	$83	$445

Note: Results were considered statistically significant at P < 0.01 given the large sample size.

Table 3. Multivariate Regression Model to identify predictors for high-cost patients in rural areas.

Variables	Odds ratio	Lower 95% CI	Upper 95% CI	*P*
Patient characteristics				
Female (vs. Male)	1.32	1.22	1.42	0.000
Commercial fully insured coverage (vs. no commercial fully insured coverage)	0.84	0.78	0.90	0.000
CCI (vs. CCI = 1)				
2 or 3	1.94	1.78	2.12	0.000
≥4	3.51	2.87	4.30	0.000
Comorbidities (vs. no such comorbidity)				
Arrhythmias	1.77	1.48	2.13	0.000
Congestive Heart Failure	1.85	1.47	2.32	0.000
Depression	2.16	1.69	2.78	0.000
Moderate or Severe Renal Disease	1.34	1.08	1.65	0.008
With ASCVD	2.24	1.99	2.51	0.000
Chronic Obstructive Pulmonary Disease	1.47	1.17	1.85	0.001
Rheumatological Disease	2.21	1.76	2.78	0.000
Mild Liver Disease	1.87	1.57	2.22	0.000
Metastatic Solid Tumor	5.17	2.79	9.59	0.000
Kidney failure (on dialysis)	25.63	7.89	83.29	0.000
Diabetes characteristics				
Pump use (vs. no pump use)	4.62	2.87	7.44	0.000

Note: Results were considered statistically significant at P< 0.01 given the large sample size.

Figure 1. Costs for different types of health care utilization by quintile.