Gender, Health, and Physician Visits Among Adults in the United States

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Few studies have examined how health system, financial, social structure, or health characteristics affect the use of health services differentially by gender. Rather, the majority of studies on health behaviors assume that gender represents a set of individual differences. One notable exception is a small set of reports on the use of services by female veterans.[1–3] Recently, a study found gender differences in the contributions of employment, having children, and socioeconomic factors to health care access, with access measured by whether the individual had a usual source of care and health insurance coverage.[4]

Of particular concern is whether there are gender differences in the likelihood of visiting a physician by disease or disorder.[5,6] In addition, individuals who have a constellation of chronic diseases, such as diabetes and hypertension, undoubtedly are more likely to visit a physician than persons who have less severe health conditions. Yet it is also plausible that service use differs not only according to gender, but by both gender and health status. Using a nationally representative data set, we examined determinants of gender differences in physician visits by employing different levels of control for health status.

METHODS

Data were extracted from the Medical Expenditure Panel Survey (MEPS), a nationally representative survey.[7] Descriptions and details of the MEPS can be found elsewhere.[8,9] Persons younger than 18 years were excluded from our analyses. To obtain national-level estimates and take into consideration the complex sampling design of MEPS, person weights, primary sampling units, and strata used by MEPS were controlled for in the estimation. The gender distribution of the sample was approximately equal (52% of the respondents were women).

The dependent variable was the probability of having had at least one office-based physician visit in 1996. Independent variables were demographic characteristics, health conditions, nonfinancial barriers to use of services, and financial barriers to use of services (Table 1). Multivariate logistic regressions were performed by gender. We estimated 3 models for men and 3 counterparts for women. Model 1 did not include any health measure. Model 2 included number of medical conditions, a crude measure of

TABLE 1—Descriptive Statistics, Medical Expenditure Panel Survey Sample

	Total (n = 15 107)	Men (n = 7003, 47.82% of Total)	Women(n = 8104, 52.17% of Total)
Demographic characteristics, %			
Age, y			
18–25	12.75	12.91	12.61
26–49	52.35	54.13	50.71
50–64	18.37	18.40	18.33
≥ 65	16.54	14.55	18.35
Race			
White	83.38	84.07	82.75
Black	11.77	10.94	12.52
Other	4.85	4.99	4.73
Ethnicity			
Hispanic	9.82	10.49	9.21
Non-Hispanic	90.18	89.51	90.79
Marital status			
Not married	42.77	39.83	45.46
Married	57.23	60.17	54.54
Education			
< High school	22.49	23.08	21.94
High school graduate	48.50	46.17	50.63
College graduate	29.01	30.74	27.42
Employment status			
Not employed	29.61	21.96	36.61
Self-employed	9.29	12.41	6.42
Employed	55.45	59.89	51.39
Full-/part-time student	5.65	5.74	5.58
Geographic location			
Non-MSA	19.68	19.56	19.78
MSA	80.32	80.44	80.22
Northeast	19.73	19.48	19.96
Midwest	23.17	23.04	23.28
South	35.16	34.85	35.43
West	21.95	22.63	21.32
No. health conditions, mean	3.38	2.70	4.00
Nonfinancial barriers to care, %			
Work hours			
< 40/wk	51.69	37.66	64.37
≥ 40/wk	48.31	62.34	35.63
Have usual source of care			
No	20.81	25.83	16.21
Yes	79.19	74.17	83.79
Transportation to care			
Automobile	93.72	95.35	92.39
Public transportation	3.83	2.52	4.89
Walk or other	2.46	2.13	2.72
Usual physician has off-hour service			
No	55.89	55.25	56.40
Yes	44.11	44.75	43.60
Waiting time in physician's office			
≤ 30 min	83.14	84.48	82.09
> 30 min	16.86	15.52	17.91
Have children			
No	57.89	59.36	56.54
Yes	42.11	40.64	43.46

Continued

health. Model 3 included dummy variables representing each condition but not the number of conditions. A dummy variable was used for each condition, based on more than 200 clinically meaningful mutually exclusive categories in the Clinical Classification Software developed by the Agency for Healthcare Research and Quality (Rockville, Md). Parameter estimates from the equations for male and female samples were compared to establish whether there were any significant differences in the coefficient of each independent variable.

RESULTS

According to MEPS data, approximately 31% of adults in the United States did not have any office-based physician visit in 1996. About 59.6% of men and 76.8% of women had at least one visit. Descriptive statistics are reported in Table 1. All proportions and means in the table are population-level estimates with the complex sampling design of MEPS controlled for. Table 2 presents the multivariate logistic regression results.

Our results showed that some factors were significant in the models for both men and women, whereas other factors were significant only for one or the other. The number of factors significantly associated with the odds of having visited a doctor decreased as the control for health status became more detailed. Women were more affected by financial barriers than men. In particular, women who had lower incomes were consistently less likely than others to have visited a physician. In contrast, men were affected more than women by nonfinancial barriers. For example, waiting times of 30 minutes or longer in a physician's office sharply reduced the likelihood of a man's having visited a doctor.

CONCLUSIONS

We examined determinants of and differences in use of physicians' services by men and women and evaluated whether there were differences in use of services by both disease or disorder and gender. Specifically, we addressed the ability of nonfinancial, financial, demographic, and health characteristics to explain differences in women's and

TABLE 1—*Continued*

Financial barriers to care			
Income, %			
> $20 000	45.88	52.87	39.48
$9001–$20 000	24.78	23.34	26.10
≤ $9000	29.34	23.80	34.41
Receive AFDC, %			
No	98.71	99.80	97.70
Yes	1.29	0.20	2.30
Receive food stamps			
No	93.28	94.71	91.97
Yes	6.72	5.29	8.03
Have insurance, %			
No	12.79	15.00	10.77
Yes	87.21	85.00	89.23
Length of time insured, mean, mo	9.89	9.63	10.13
No paid doctor visits, %	68.87	66.68	70.84
Have paid doctor visits, %	31.13	33.32	29.1

Note. MSA = metropolitan statistical area; AFDC = Aid to Families with Dependent Children.
[a]Specific condition list (dummy variables) available from the authors.

TABLE 2—Results of Multivariate Analyses: Odds Ratios for Having Had 1 or More Office-Based Physician Visits in 1996

	Model 1		Model 2		Model 3	
	Men	Women	Men	Women	Men	Women
Nonfinancial barriers to care						
Work hours ≥ 40/wk (ref, < 40 h/wk)	**0.917**	**0.852***	1.001	0.958	1.072	0.945
Waiting time >30 min (ref, ≤ 30 min)	**0.852***	**1.063**	**0.701*****	**0.956**	**0.696*****	**0.951**
Financial barriers to care						
Income (ref, > $20 000)						
$9001–$20 000	**0.981**	**0.757*****	**0.972**	**0.774*****	**0.937**	**0.800****
≤ $9000	**0.973**	**0.753*****	**0.979**	**0.769****	**0.972**	**0.766****
Receive food stamps (ref, no food stamps)	0.990	1.186	**0.756***	**0.813**	0.811	0.784
Have paid doctor visits (ref, no paid doctor visits)	**1.146***	**1.146**	1.102	1.058	1.124	1.090
Demographic characteristics						
Age, y (ref, 18–25)						
26–49	**1.236**	**0.698****	1.082	1.015	1.049	1.159
50–64	**1.801*****	**0.611*****	**1.343***	**0.772***	1.200	0.998
≥ 65	**2.960*****	**0.782****	**1.570****	**0.796***	1.093	0.957
Race "other" (ref, White)	**0.817**	**0.717****	1.023	1.037	1.101	0.970
Education (ref, < high school)						
High school graduate	**1.148***	**0.904**	**1.331*****	**1.016**	**1.383*****	**1.122**
College graduate	**1.272****	**1.093**	**1.325****	**1.054**	1.354**	1.224*
Employment status (ref, not employed)						
Employed	**0.603*****	**0.787****	0.711**	0.821*	**0.729****	**0.925**
Full-/part-time student	**0.916**	**0.511*****	**1.053**	**0.546*****	**1.149**	**0.667***
Geographic location						
MSA (ref, non-MSA)	**1.141***	**1.179**	1.087	1.162	1.043	1.098
Midwest (ref, Northeast)	1.030	0.917	0.818*	0.730***	**0.853**	**0.745****
West (ref, Northeast)	1.006	0.891	0.774**	0.609***	**0.865**	**0.621*****
No. health conditions	…	…	2.078***	1.948***	…	…

Note. ref = reference category; MSA = metropolitan statistical area. Bold type indicates significant gender differences. Except for number of health conditions, only the independent variables for which there were significant gender differences in at least 1 of the 3 models are shown. Model 1 did not include any health measure. Model 2 included number of medical conditions, a crude measure of health. Model 3 included dummy variables representing each condition (specific condition list available from the authors) but not the number of conditions.
*Significant at 90% level.
**Significant at 95% level.
***Significant at 99% level.

men's use of physicians' services. We found that women were more affected than men by financial barriers. Thus, when nonfinancial barriers and health status are controlled for, poorer women appear to be at risk for underutilization of physicians' services. In contrast, men were more likely than women to be influenced by nonfinancial barriers, such as long waiting time. Also, we found that specifications of health status could change our interpretation of gender differences in the probability of use of physicians' services. Further research should analyze gender differences in other dimensions of service utilization and access, including the intensity of use of physicians' services and the likelihood of hospitalization, as well as gender differences in satisfaction with medical care and perceptions of accessibility. ■

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Contributors

K.T. Xu contributed to conceptualization, analyses, and writing of the manuscript. T.F. Borders helped to interpret the results and write the manuscript.

Human Participant Protection

No protocol approval was needed for this study.

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