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Are There Racial Disparities in Psychotropic Drug Use and Expenditures in a Nationally Representative Sample of Men in the United States? Evidence from the Medical Expenditure Panel Survey (MEPS)

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Abstract

This paper sought to determine whether racial disparities exist in psychotropic drug use and expenditures in a nationally representative sample of men in the US. Data was extracted from the 2000–2009 Medical Expenditure Panel Survey (MEPS), a longitudinal survey that covers the U.S. civilian noninstitutionalized population. Full Year Consolidated, Medical Conditions, and Prescribed Medicines data files were merged across 10 years of data. The sample of interest was limited to adult males 18–64, who reported their race as White, Black, Hispanic, or Asian. This study employed a pooled cross-sectional design and a two-part probit-GLM model for analyses. Minority men reported a lower probability of psychotropic drug use (Black = –4.3%, 95% Confidence Interval [CI] = –5.5, –3.0; Hispanic = –3.8%, 95% CI = –5.1, –2.6; Asian = –4.5%, 95% CI = –6.2, –2.7) compared to White men. After controlling for demographic, socioeconomic, and health status variables, there were no statistically significant race differences in drug expenditures. Consistent with previous literature, racial and ethnic disparities in the use of psychotropic drugs present problems of access to mental health care and services.

Background

A supplement to The Surgeon General's Report (1999) revealed disparities in mental health between racial and ethnic minorities and Whites across measures of access to care and diagnosis (US Department of Health and Human Services 1999). Among the findings were that African Americans were more likely to experience a mental disorder, compared to Whites, yet less likely to seek treatment (Office of Minority Health 2012; Centers for Disease Control and Prevention 2011; Agency for Healthcare Research and Quality 2010). African Americans were also more likely to use the emergency room for mental health care when seeking treatment (US Department of Health and Human Services 1999). While Hispanics displayed rates of mental illness comparable to those of Whites, Asians were less likely to receive inpatient care than Whites, and more likely to be misdiagnosed as

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“problem-free”, when seeking treatment (US Department of Health and Human Services 1999).

A study by Wells and colleagues (2005) reported that when compared to Whites, African Americans were less likely to have access to mental health care, and Hispanics were more likely to have less care than needed or delayed care. McGuire et al. (2006) indicated that Blacks have a significantly lower likelihood of any health care expenditure when compared to Whites. Blacks were more likely to have mania, psychosis, and panic disorder, and along with Hispanics, were less likely to have mental health coverage compared to Whites (McGuire et al. 2006).

Racial disparities in controlled drug prescribing for mental health have also been revealed. A study by Kuno and Rothbard (2002) uncovered disparities in schizophrenia drug prescribing patterns between African Americans and Whites. In addition, Han and Lui (2006) reported significant disparities in psychotropic drug use for mental illness between Whites, Blacks, Hispanics, and Asian-Indians. In the same study, disparities were also revealed in expenditures on prescription drugs for specified mental illnesses between racial minorities and Whites, even after adjusting for the difference in likelihood of using those prescription drugs. Recent studies examining trends in mental health care reveal little to no progress toward eliminating disparities in mental health care in primary care or psychiatric settings (Cook et al. 2007; Stockdale et al. 2008).

In 2009, psychotropic drugs were the fourth most commonly prescribed drug in the country, costing adults \$20.9 billion. Almost 18% of adults who use any prescription drug experienced psychotropic drug expenses in 2009, with an average cost of \$119 per prescription (Agency for Healthcare Research and Quality 2009). While previous research has uncovered significant mental health disparities between Whites and racial minorities, racial and ethnic disparities in terms of drug use and expenditures are under-researched, particularly among American men. Widespread research has documented that men report poorer health than women across a broad range of measures, including infant mortality, accidents, suicides, hypertension, cancer, and homicide (Williams 2003). It is also well known that African American men report poorer health measures than the rest of the US population (Williams 2003). These measures include greater age-adjusted death rates over the past decade, lower life expectancy, and greater mortality from conditions such as prostate cancer, diabetes, and cardiovascular disease (Xu et al. 2010). Given the economic burden that both mental health and racial and ethnic disparities have on society, this paper will uncover whether race is a significant predictor of drug use and expenditures, which serve as a proxy for measuring adequate access to mental health care and services. The growing national use of psychotropic drugs coupled with increasing racial and gender health disparities makes this project an important and necessary contribution to the literature. This study seeks to determine whether racial disparities exist in psychotropic drug use and expenditures in a nationally representative sample of men in the United States, 18 to 64.

Method

Data source

Demographic, medical conditions and prescribed medicines data files were merged across ten years (2000–2009) of the Medical Expenditure Panel Survey (MEPS). Since 1996, MEPS has been conducted by the Agency for Health Care Research and Quality (AHRQ) in an effort to determine the relationships between social, demographic, medical characteristics and health service utilization, including access to care and quality of care in the U.S. civilian non-institutionalized population. Each annual survey is a nationally representative subsample of households, based on the sampling frame of the prior year's National Health

Interview Survey which uses a stratified, multistate sampling design. MEPS is unique in its ability to link data on individuals and households to information on health services use. This information includes sources of payment for specific medical services, health insurance status, and details on health insurance plans. Additional information regarding MEPS has been described elsewhere (AHRQ 2009).

Study sample

The study sample was restricted to non-Hispanic White, non-Hispanic Black, Hispanic, and Asian men, age 18 to 64, for a total of 45,198. Men who did not respond to medical conditions and/or prescription drug use questions were excluded from the sample. Given the widespread use of psychotropic drugs for Alzheimer's Disease and other dementias, the 65 and over age group was excluded from the sample due to their higher propensity to seek these medications. The outcome variables of interest are likelihood of psychotropic drug use and psychotropic drug spending. The independent variable of interest is race. Covariates in our analyses were age, marital status, insurance status, education, family poverty status, physical health, and metropolitan statistical area (MSA) residence. Several mental health status indicators were controlled for in the analysis, specifically mental health component score from the SF-12 (MCS), number of mental health diagnoses, and severity of disease. With the exception of MCS, the covariates were measured categorically. The categories for age were defined as 18–24, 25–34, 35–44, 45–4, and 55–64. Marital status was measured dichotomously, with individuals categorized as being married or not married. Insurance status categories were private, public, and uninsured. Education was measured in six categories: Grade 8 or below, some high school, GED/high school completion, some college, bachelor's degree, and advanced degree. Family poverty status was categorized as poor or near poor, low income, middle income, or high income. Physical health categories were excellent, good or very good, fair, and poor. MSA was measured dichotomously as yes (residing in MSA) or no (residing outside of an MSA).

Mental health diagnoses were identified using the ICD-9 classification codes used in the medical conditions file of MEPS. A categorical indicator of diagnosis was created, where an individual was classified as having no diagnosis, 1 diagnosis, 2 diagnoses, 3 diagnoses, or 4+ diagnoses. A new measure of severity was developed using the number of inpatient hospital admissions and emergency room visits related to a psychotropic condition. Individuals with no ER or inpatient admissions were classified as having low severity mental health. Individuals with 1 inpatient admission or 1–2 ER visits related to a psychotropic condition were classified as having moderate severity mental health. An individual with 2+ inpatient admissions or 3+ ER visits related to a psychotropic condition were classified as having high severity mental health issues. Drug class categories were identified in MEPS based upon Multum Lexicon drug classifications (See table 1).

Statistical analyses

To develop descriptive statistics, Pearson chi-squared tests were used. Correlation matrices were produced to examine collinearity among the predictors; however minimal evidence was found (Tabachnick and Fidell, 2001). Two-part probit-GLM models were used for analysis. The first part of this model was estimated using a probit model to assess the association between race and the likelihood of any psychotropic drug use. In the second part of the model, differences by race in expenditures were calculated among individuals who used at least one psychotropic drug using GLM. Results from the Park test suggest that the Gaussian family be used in the GLM analysis. In both parts of the model, four heuristic models were conducted, first looking at race alone, followed by race and mental health indicators. Model 3 was run with race, demographic covariates, as well as mental health indicators. In model 4, physical health status was added. Appropriate survey weighting

techniques were applied according to MEPS survey documentation. All data were analyzed using Stata/IC 11.2..

Results

Table 2 presents data on the 45,198 men with complete demographic, medical conditions, and prescription medicine data. Sixteen percent of these men reported psychotropic drug use, with mean expenditures of \$696.1. Whites report 17.6 percent drug use, the highest among all of the racial and ethnic groups. Blacks report the highest overall mean psychotropic drug expenditure, at \$1038. Across the entire sample, the mean characteristics are age group between 45 and 54, privately insured, completed high school, high income relative to the poverty line (greater than or equal to 400 percent of the poverty line), good or very good mental health, no mental health diagnoses, low disease severity, married, a mental health component score of 50.8, and resides in a MSA.

The first analysis examines the likelihood of minority men using psychotropic drugs, compared to Whites. Significant racial disparities exist in likelihood of drug use before controlling for confounding factors. Black, Hispanic, and Asian men reported a 6, 5.8, and 9 percent lower likelihood of drug use compared to whites, respectively. After controlling for mental health diagnoses, MCS score, disease severity, age, marital status, insurance status, education, poverty, and physical health, disparities persisted. In model 4, it is shown that Black, Hispanic, and Asian men were less likely to use psychotropic drugs compared to White men by 4.3, 3.8, and 4.5 percentage points, respectively. From model 4, men who reported good or very good, fair, or poor health also had a greater likelihood of psychotropic drug use than those who reported excellent health (1.8, 6.1, and 9.6 percentage points, respectfully). Every one point increase in mental health component score was associated with a 0.2 percentage point decrease in use of psychotropic drugs (MCS range is 0–100, where 50 represents the population mean). A greater number of mental health diagnoses were associated with an increased likelihood of drug use. In addition, residence in an MSA was associated with a 1.7 percentage point lower likelihood of psychotropic drug use.

Results of the GLM regression revealed that expenditures on psychotropic drugs were not statistically significant for any racial/ethnic group, compared to Whites. In Models 1 and 2, Blacks experienced \$381 and \$345 in greater drug spending than whites, respectively. This difference is eliminated once additional covariates are added to the model. There were no significant differences in the expenditures of Hispanic and Asian men compared to White men in any of the models. Variables that were statistically significant in predicting drug expenditures were being married (\$84.5 lower expenditures), having public insurance and being uninsured (\$477.7 greater expenditures, \$139.6 lower expenditures, respectively), mental health component score (\$4.1 greater expenditures for every one point increase in score), and MSA (\$140.90 greater expenditures). As expected, mental health diagnoses were also positively correlated with expenditures, after controlling for confounding factors. Having four or more diagnoses increased expenditures by an average of \$1600.

Discussion

Summary

Racial and ethnic disparities uncovered in the use of psychotropic drugs present issues of adequate access to these drugs for men. Among individuals that indicated that they had a mental health problem and sought treatment, Blacks, Hispanic, and Asian men are significantly less likely to report using psychotropic drugs compared to Whites. These differences are most profound for Asian men (4.5 percentage points lower), followed by Black (4.3 percentage points lower), and Hispanic (3.8 percentage points) men. This is

consistent with previous mental health literature which revealed disparities between Whites and racial and ethnic minorities in mental health care access, and presents new, important evidence that this disparity persists for men.

There were no significant racial disparities in expenditures among American men who use at least one psychotropic drug, even when controlling for need, likelihood of use, and social and economic factors. The lack of disparities in drug expenditures implies that once minority men gain access to drugs, the spending in these racial and ethnic groups are comparable to that of whites. Severity of disease is also a measure created for this study that is important to control for in considering disparities in expenditures, and may have accounted for differences in spending between groups. These findings are inconsistent with previous research that indicate minorities have lower mental health drug expenditures than whites (Han and Lui 2006; McGuire et al. 2006). In those studies the authors did not examine disparities in mental health expenditures specifically by gender. The National Alliance on Mental Illness (NAMI) reported that more than six million men have at least one episode of major depression each year, illustrating the need for adequate mental healthcare access and treatment for this population (2009). The findings from this study underscore the importance of examining disparities in mental health expenditures by gender.

An interesting finding that is consistent in both parts of the model is that individuals with public insurance experienced a greater likelihood of drug use and high drug spending and uninsured individuals experienced lower likelihood of drug use and lower drug spending compared to individuals with private insurance, even after controlling for demographic and health status variables. More research should be done to determine whether those with public insurance do in fact experience greater access to psychotropic care than their counterparts, or whether overuse may be an issue.

Strengths and Limitations

In this study, only men with complete demographic, medical conditions, and prescribed medicines data were included in the analytic sample, reducing the amount missing data in the analyses. The responses of men that were omitted may vary from those who were included in the study, but it is unlikely that this small sample would change the direction of our findings. The small sample size of men across racial and ethnic groups taking psychotropic drugs in may reduce the overall power of the study. Ten years of data were pooled in order to address this limitation and make the data more robust.

Self-reporting of information is also an issue, as individuals may differ in their perception of illness, and in their experiences throughout the year. Mental and personal health, diagnosis, and prescription drug information were all collected based on what an individual reports to survey collectors. For example, if a surveyor inquires into overall perceived health status, an individual may associate this with having a bad day or physical disability, and report poor overall health, although actual indicators of health, including cardiovascular and immune function, may be okay. Nevertheless, previous research has indicated that self-reported information is a good proxy for true health status.

It is important to note that the researchers are unable to determine whether patients are not using psychotropic drugs because they were not prescribed, or whether it is the patient's conscious decision to not use drugs. It is possible that some of the differences reported, even after controlling for confounding factors, are a factor of patient preferences, culture, and/or individual beliefs. The issue of providing a sufficient amount of care and reducing the gap of disparities in care, while taking into account desire and cultural interpretation of illness can be referred to as the "Conundrum of Health Disparities" (Dilworth-Anderson et al. 2012). Gaskin et al. (2006) are among the many researchers who have indicated that disparities are

often linked to not only injustices in the healthcare delivery system, but also to differences in cultural perception (Gaskin et al. 2006). In this case, cultural perception may have resulted in thoughts of stigmatization against mental illness and reluctance in seeking care by minority populations (Gary 2005). Dilworth-Anderson and Gibson (2002) reported that normalization of symptoms as being associated with aging were more prevalent among African Americans than Whites, leading them to delay or put off seeking care for mental health issues (Dilworth-Anderson & Gibson 2002).

This study has several strengths. MEPS data represents a large nationally representative sample, which makes the results of the two-part study generalizable to the greater population. The use of a large, pooled sample is also a strength for this research. Next, this study appropriately measures mental health disparities based on actual need and confounding factors. It reveals more than just differences between populations; social injustices in access to psychotropic medications are exposed and open the door for new research related to a vulnerable population that has been shown to be under-researched (Williams 2003). Finally, this is among the first studies to comprehensively explore the issue of psychotropic drug spending specifically for men.

Directions for Future Research

The IOM suggests a comprehensive, multi-level strategy as the only way to eradicate disparities among racial/ethnic minorities. This strategy would incorporate better educational programs surrounding mental illness diagnosis and drug use for both the patient and their family. Specialized programs in predominately minority communities can inform individuals of the issues related to diagnosis and treatment of mental disorders, and facilitate better access to mental health care drugs and facilities. Health plans, Accountable Care Organizations, and healthcare providers must ensure that their patients are receiving the proper care. Finally, policy makers should also use the outcomes of this and similar research to consider addressing patient preferences and needs. This can be done through cultural competency training for providers, in order to not only ensure baseline equity in prescribing for individuals with the same diagnosis and need, but to also address what patients want and how it correlates to improving their mental health outcomes. Educational initiatives for the patient and their family around the importance of mental health care and the need to not ignore or normalize symptoms is crucial, as normalization can impact patient preferences and decisions, and lead to underutilization of needed mental health services by minority men.

The development of tiered public policy has also been suggested as an important way to eliminate mental health disparities (Miranda et al 2008). These policies would address health disparities by first targeting social disparities in sectors such as education, housing, and employment. Policies to increase the number of minorities in the health care workforce are also important in addressing provider-patient communication issues that contribute to mental health disparities. The Affordable Care Act includes provisions to do just this (Joint Center 2010). Secondly, policies designed to improve overall quality of care, particularly by making interventions appropriate for minorities, have the potential to better health outcomes, improve unmet need for care, and reduce health disparities for minority populations. Lastly, increasing the amount of research conducted to decrease disparities could better address the protective role of cultural factors, as well as help in understanding the role that environmental and social factors play on mental health among males. Learned information could lead to interventions and projects to directly benefit minority men where they need it the most.

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Table 1

Medical Expenditure Panel Survey Psychotropic Drug Class Categories

Anxiolytics, Sedatives, Hypnotics
Benzodiazepines
Barbiturates
Miscellaneous anxiolytics, sedatives, hypnotics
Antidepressants
Phenylpiperazine antidepressants
Tetracyclic antidepressants
Selective serotonin norepinephrine reuptake inhibitors
Selective serotonin-reuptake inhibitors
Tricyclic antidepressants
Monoamine Oxidase Inhibitors
Miscellaneous antidepressants
Antipsychotics
Atypical antipsychotics
Phenothiazine antipsychotics
Thioxanthenes
Psychotherapeutic combinations
Miscellaneous antipsychotic agents
Miscellaneous psychotherapeutic agents
Psychotherapeutic central nervous system stimulants

Notes: Categories developed by Cerner Multum, Inc.

Table 2
Distribution of Demographic Characteristics, Drug Use, and Expenditures of Adult Men; MEPS 2000–2009

Weighted Population (in thousands)	Total (N=45,198)	White (N=28,313)	Black (N=5,939)	Hispanic (N=8,190)	Asian (N=1,768)	P-value
	%	%	%	%	%	
Age						p<.001
18–24	11.6	11.3	11.6	13.8	10.2	
25–34	16.6	15.6	16.8	22.4	19.9	
35–44	22.3	21.7	23.8	25.5	23.0	
45–54	26.4	27.0	26.8	22.5	24.6	
55–64	23.1	24.5	20.9	15.9	22.4	
Insurance						p<.001
Private	79.6	83.8	67.0	60.9	82.2	
Public	9.6	7.5	19.1	15.4	9.3	
Uninsured	10.8	8.8	13.9	23.7	8.5	
Education						p<.001
Grade 8 or Below	5.1	3.0	5.4	20.3	4.6	
Some High School	11.0	9.0	16.2	20.3	6.5	
High School	35.8	36.3	43.4	31.4	17.6	
Some College	17.4	17.9	17.7	13.7	13.4	
Bachelors	19.7	21.6	11.9	10.1	29.5	
Advanced Degree	11.2	12.2	5.8	4.1	28.4	
Poverty Status						p<.001
Poor/Near Poor	11.7	9.2	20.7	20.8	12.5	
Low Income	10.0	8.3	14.3	18.0	9.9	
Middle Income	29.5	28.6	32.7	34.9	24.0	
High Income	48.8	53.9	32.3	26.3	53.6	
Physical Health						p<.001
Excellent	23.7	24.9	20.0	19.6	21.8	
Good/Very Good	60.4	60.7	58.1	59.9	64.4	
Fair	11.4	10.1	16.5	15.6	10.4	

Weighted Population (in thousands)	Total (N=45,198)	White (N=28,313)	Black (N=5,939)	Hispanic (N=8,190)	Asian (N=1,768)	P-value
Poor	4.5	4.3	5.2	4.8	3.3	p<.001
Mental Health Diagnoses						
None	82.2	80.9	87.0	85.9	90.8	
1 Diagnosis	13.8	14.9	10.1	10.9	7.9	
2 Diagnoses	3.1	3.4	2.4	2.5	0.9	
3 Diagnoses	0.6	0.6	0.4	0.5	0.4	P=.030
4+ Diagnoses	0.3	0.3	0.1	0.3	0.0	
Severity						
Low	99.2	99.3	98.8	99.3	99.6	
Moderate	0.6	0.6	0.8	0.6	0.4	
High	0.2	0.2	0.4	0.1	0.0	p<.001
Married	59.8	62.0	45.7	54.9	69.7	
Use drug	16.1	17.6	11.3	11.4	8.0	
Mental Health Score	50.8	50.9	50.4	50.0	51.7	p<.001
Average drug \$	696.1	661.6	1038.2	709.9	964.1	p=.027
Urban Residence	81.9	79.4	87.9	92.2	96.4	p<.001

Source: MEPS 2000–2009

Table 3

Part 1: Marginal Effect of Demographic Characteristics and Health Status Indicators on Likelihood of Drug Use among Adult Males; MEPS 2000–2009

	Model 1	Model 2	Model 3	Model 4
Race (White)				
Black	– 6.0 (.0065)**	– 3.4 (.0066)**	– 4.2 (.0064)**	– 4.3 (.0063)**
Hispanic	– 5.8 (.0058)**	– 3.8 (.0058)**	– 3.9 (.0065)**	– 3.8 (.0064)**
Asian	– 9.0 (.0082)**	– 4.6 (.0092)**	– 4.5 (.0091)**	– 4.5 (.0091)**
Age (18–24)				
25–34	---	---	– 0.2 (.0097)	– 0.7 (.0095)
35–44	---	---	1.7 (.01)	1.0 (.0098)
45–54	---	---	2.1 (.0099)*	0.9 (.0096)
55–64	---	---	3.0 (.0108)**	1.5 (.0105)
Married	---	---	0.8 (.0052)	0.7 (.0051)
Insurance (Private)				
Public	---	---	6.3 (.0108)**	5.0 (.0105)**
Uninsured	---	---	– 1.7 (.0080)*	– 2.0 (.0079)*
Education (High School)				
Grade 8 or Below	---	---	– 1.5 (.0101)	– 1.9 (.0096)*
Some High School	---	---	0.8 (.0079)	0.6 (.0078)
Some College	---	---	0.9 (.0063)	1.0 (.0063)
Bachelors	---	---	– 0.6 (.0067)	– 0.2 (.0068)
Advanced Degree	---	---	– 0.7 (.0079)	– 0.1 (.0082)
Family Income (Middle)				
Poor/Near Poor	---	---	1.0 (.0082)	0.5 (.0080)
Low Income	---	---	0.7 (.0073)	0.4 (.0072)
High Income	---	---	– 0.7 (.0051)	– 0.4 (.0051)
Physical Health (Excellent)				
Good/Very Good	---	---	---	1.8 (.0060)**
Fair	---	---	---	6.1 (.0108)**
Poor	---	---	---	9.6 (.0158)**
Mental Health Score	---	– 0.3 (.0002)**	– 0.3 (.0002)**	– 0.2 (.0002)**
Diagnoses (None)				
1 Diagnosis	---	55.2 (.0100)**	54.3 (.0116)**	53.9 (.0117)**
2 Diagnoses	---	71.5 (.0168)**	70.6 (.0177)**	70.3 (.0181)**
3 Diagnoses	---	81.1 (.0173)**	80.7 (.0184)**	80.6 (.0188)**
4+ Diagnoses	---	79.1 (.0396)**	77.0 (.0502)**	76.7 (.0519)**
Disease Severity (Low)				
Moderate Severity	---	1.3 (.0202)	1.1 (.0192)	1.0 (.0187)
High Severity	---	8.5 (.0578)	8.6 (.0596)	7.8 (.0589)

	Model 1	Model 2	Model 3	Model 4
Urban Residence	---	- 2.6 (.0057) **	- 1.8 (.0059) **	- 1.7 (.0059) **

Notes:

*
 $p < .05$,

**
 $< .01$

Standard error (SE) presented in parentheses

Source: MEPS 2000–2009

Table 4

Part 2: Drug Expenditures among Adult Males with >0 Expenditures

	Model 1	Model 2	Model 3	Model 4
Race (White)				
Black	381.4 (143.1)**	344.7 (139.1)**	140.0 (136.3)	141.1 (136.2)
Hispanic	41.4 (75.4)	45.2 (72.6)	– 70.5 (82.0)	– 73.2 (82.4)
Asian	327.7 (203.1)	207.5 (150.5)	120.5 (146.1)	111.5 (146.5)
Age (18–24)				
25–34	---	---	– 2.9 (103.5)	0.6 (102.2)
35–44	---	---	– 12.4 (84.3)	– 5.9 (83.7)
45–54	---	---	31.7 (88.8)	47.1 (87.2)
55–64	---	---	– 97.5 (81.8)	– 78.0 (79.2)
Married	---	---	– 90.4 (40.8)*	– 84.5 (41.1)*
Insurance (Private)				
Public	---	---	464.1 (83.8)**	477.7 (85.3)**
Uninsured	---	---	–146.9 (56.0)**	–139.6 (55.5)*
Education (High School)				
Grade 8 or Below	---	---	114.3 (145.9)	123.2 (145.7)
Some High School	---	---	23.9 (85.7)	29.9 (85.7)
Some College	---	---	4.3 (57.0)	1.3 (57.1)
Bachelors	---	---	– 33.5 (46.2)	– 40.0 (46.0)
Advanced Degree	---	---	63.6 (68.7)	53.5 (67.3)
Family Income (Middle)				
Poor/Near Poor	---	---	145.1 (71.3)*	156.1 (72.3)*
Low Income	---	---	92.8 (74.6)	97.9 (74.4)
High Income	---	---	– 25.5 (37.1)	– 30.1 (37.4)
Physical Health (Excellent)				
Good/Very Good	---	---	---	37.6 (56.5)
Fair	---	---	---	– 12.1 (72.2)
Poor	---	---	---	– 101.1 (76.6)
Mental Health Score	---	– 7.3 (2.0)**	– 3.4 (1.9)	– 4.1 (2.0)*
Diagnoses (None)	---			
1 Diagnosis	---	371.0 (37.8)**	367.5 (36.0)**	365.8 (36.0)**
2 Diagnoses	---	633.9 (79.0)**	597.4 (76.1)**	597.3 (76.1)**
3 Diagnoses	---	971.4 (163.9)**	899.0 (159.4)**	897.5 (158.9)**
4+ Diagnoses	---	1772.9 (394.1)**	1608.2 (378.1)**	1600.6 (376.4)**
Disease Severity (Low)				
Moderate Severity	---	263.2 (186.8)	214.0 (175.0)	212.8 (175.0)
High Severity	---	14.5 (267.5)	– 4.1 (275.2)	– 13.5 (274.3)
Urban Residence	---	108.2 (39.9)**	143.2 (40.2)**	140.9 (40.2)**

Notes:

*
 $p < .05$,

**
 $< .01$

Standard error (SE) presented in parentheses

Source: MEPS 2000–2009