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The Relationship between Perceived Discrimination and Patient Experiences with Health Care

Robert Weech-Maldonado, Ph.D.

University of Alabama at Birmingham Department of Health Services Administration 1675
University Boulevard, 520 Webb Birmingham, AL 35294 Phone: (205) 996-5838 Fax: (205)
975-6608 rweech@uab.edu

Allyson Hall, PhD

University of Florida Department of Health Services Research, Management, and Policy PO Box
100195 Gainesville, FL 32610 Phone: (352) 273-5129 Fax: (352) 273- 6075 hallag@phhp.ufl.edu

Thomas Bryant, MSW

Duval County Health Department Jacksonville, Florida 900 University Boulevard North, Suite 604
Jacksonville, FL 32211 Phone: 904 253 2263 Thomas_Bryant@doh.state.fl.us

Kevin Ahmaad Jenkins, MA

University of Florida Department of Health Services Research, Management, and Policy PO Box
100195 Gainesville, FL 32610 Phone: (352) 392-6444 Fax: (352) 273- 6075 kjenkins@aa.ufl.edu

Marc N. Elliott, Ph.D.

RAND 1776 Main St., PO Box 2138 Santa Monica, CA 90407 Phone: (310) 393-0411 x7931 Fax:
(310) 451-7006 elliot@rand.org

Abstract

Background—Prior studies have shown that racial/ethnic minorities have lower Consumer Assessments of Healthcare Providers and Systems (CAHPS®) scores. Perceived discrimination may mediate the relationship between race/ethnicity and patient experiences with care.

Objective—To examine the relationship between perceived discrimination based on race/ethnicity and Medicaid insurance and CAHPS® reports and ratings of care.

Methods—The study analyzed 2007 survey data from 1,509 Florida Medicaid beneficiaries. CAHPS® reports (getting needed care, timeliness of care, communication with doctor, and health plan customer service) and ratings (personal doctor, specialist care, overall health care, and health plan) of care were the primary outcome variables. Patient perceptions of discrimination based on their race/ethnicity and having Medicaid insurance were the primary independent variables. Regression analysis modeled the effect of perceptions of discrimination on CAHPS® reports and ratings controlling for age, gender, education, self-rated health status, race/ethnicity, **survey language, and fee-for-service enrollment**. Standard errors were corrected for correlation within plans.

Results—Medicaid beneficiaries reporting discrimination based on race/ethnicity had lower CAHPS® scores, ranging from 15 points lower (on a 0–100 scale) for getting needed care to 6

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points lower for specialist rating, compared to those who never experienced discrimination. Similar results were obtained for perceived discrimination based on Medicaid insurance.

Conclusions—Perceptions of discrimination based on race/ethnicity and Medicaid insurance are prevalent and are associated with substantially lower CAHPS® reports and ratings of care. Practices must develop and implement strategies to reduce perceived discrimination among patients.

Keywords

Discrimination; CAHPS®; race/ethnicity; Medicaid

Patient experience with care is an important dimension of health care quality, and has been shown to predict subsequent health care utilization. For example, higher ratings of care have been found to be associated with lower emergency room use,¹ while lower satisfaction has been related to a reduced likelihood of compliance with medical regimens among diabetics.² Prior research has documented the existence of significant racial and ethnic disparities in satisfaction and experiences with care.^{3–8} Studies using the National Consumer Assessments of Healthcare Providers and Systems (CAHPS®) Benchmarking Database have shown that racial/ethnic minorities have worse reports of care than Whites in commercial, Medicare, and Medicaid managed care.^{3–7, 9, 10}

One potential mechanism that may explain the racial/ethnic differences in patient experiences with care is perceived discrimination.^{11–13} According to the Institute of Medicine, discrimination is differential treatment based on race, ethnicity, gender or other individual attribute such as health insurance.¹⁴ As such, discrimination gives leverage for or against an individual based on that individual's association with a specific group or class.^{13, 15, 16} There is strong evidence that consumers of medical care can experience or perceive discrimination due to one's health status, insurance status, socioeconomic status, foreign-born status, language spoken at home, or race or ethnicity.^{11–21} These negative interactions with the health care system may result in worse patient experiences with care.¹¹ The CAHPS reports and ratings of care can provide key insights into the overall quality of care and have been found to be associated with clinical outcomes of care.²²

Understanding how discrimination can affect patient experiences is critical to reducing health care disparities and ensuring high quality and culturally competent care. Ngo-Metzger and colleagues present a conceptual framework for obtaining the patient's perspective on culturally competent care.¹⁷ In this framework, healthcare is experienced by the patient in the context of interactions with providers and other staff within the healthcare system. The framework classifies these interactions into 6 domains which include: patient-provider communication, respect for patient preferences/shared decision-making, experiences leading to trust or distrust, health literacy strategies, access to language services, and experiences of discrimination. The authors argue that there needs to be increased attention to the consequences of discrimination on patient outcomes including satisfaction and experiences with care.

There are a number of studies that examine the relationship between perceived discrimination based on race and patient's experience with health care.^{23, 24} An analysis of determinants of satisfaction among cardiac patients showed that African-Americans were more likely to perceive racism and report mistrust of the medical care system, leading to less satisfaction with their health care.¹⁸ Another study among diabetics showed that reported experiences of discrimination and racism were associated with reports of problems with medical care.²⁵ A study of low-income African Americans found that perceived racism had both a significant, inverse direct effect on satisfaction, as well as a significant indirect effect

on satisfaction mediated by cultural mistrust and trust in provider.²⁶ Finally, a more recent examination of the California Health Interview survey found that patients' perceptions of discrimination based on race/ethnicity were associated with lower ratings of health care.¹³ Furthermore, perceptions of discrimination fully explained lower ratings of care among African-Americans.

To our knowledge there are very few studies that examine the prevalence of insurance-based discrimination and its impact on perceptions of care or other outcomes of care. One study of women in Oregon who received prenatal care found that those with lower socioeconomic status were more likely to report insurance-based discrimination. In this study, insurance-based discrimination was associated with fewer breast feeding support actions among these women.²⁴

A specific focus on race/ethnic and insurance discrimination within a Medicaid population is necessary. Medicaid is a large program that enrolls about 60 million Americans²⁷ and provides health insurance coverage for about 27 percent of all African-Americans.²⁸ Those on Medicaid are particularly vulnerable to experience or report insurance-based discrimination and/or racial/ethnic discrimination. For example, in the study of women described above, reports of insurance-based discrimination was three times more likely among Medicaid beneficiaries.²⁴ Furthermore, Medicaid enrollees appear to be likely to report lower ratings and reports of care compared to commercial enrollees, perhaps because of insurance-related discrimination. In one study, commercial health plan enrollees compared to Medicaid beneficiaries rated their plans higher for 4 out of 6 composite measures of health care experiences.²⁹

This study extends the literature by examining the impact of perceived discrimination based on race/ethnicity and insurance status on CAHPS® reports and ratings of care among Florida Medicaid beneficiaries. Florida is a large state with substantial enrollment in its Medicaid program and a large proportion of racial/ethnic minorities. In 2007, there were about 1.6 million enrollees under age 65 in Florida Medicaid, representing about 11 percent of the nonelderly population. Of that number, about 20 percent were Black or African-American and 12 percent were Hispanic.³⁰

CAHPS measures often average 70–90 points on a 0–100 scale and apparently small differences on that scale may correspond to substantial differences in perceptions of care, as reflected in subsequent disenrollment.³¹ For example, an increase of 5.8 points on the getting needed care composite (on a 0 to 100 scale) has been associated with halving the rates of voluntary disenrollment from Medicare plans.^{31, 32} We expect a similar or larger effect of perceived discrimination on CAHPS® measures.

METHODS

Data

This is a cross-sectional study that analyzes data from a telephone survey of adult Florida Medicaid beneficiaries, fielded between September and December 2007. The survey is fielded annually at this time on behalf of the Florida Medicaid agency. The survey included the CAHPS® Health Plan Survey 4.0, as well as two additional items assessing patient experiences with discrimination.

The random sample stratified by plan was drawn from Medicaid administrative data of recipients enrolled in fee-for service and primary care case management, 21 years and older, and who had been in Medicaid for at least 6 consecutive months. Sampled beneficiaries were surveyed by telephone by trained interviewers from the University of Florida Survey

Research Center. In order to maximize response, each telephone number was called up to 25 times, at different times of day, including both weekend and weekday attempts. If a number was disconnected, an additional attempt was made to locate a working phone number via internet searches. The target sample size of 300 completes by plan was based on CAHPS guidelines to ensure adequate plan-level reliability.³³ Of those enrollees contacted, 57 percent completed the survey for a total of 1,877 respondents. The respondents included 384 beneficiaries in fee-for-service and 1,493 beneficiaries in four provider service organizations (PSOs). The final analytic sample was limited to 1,509 respondents (80%) who had a personal doctor, since the CAHPS® reports and ratings of care pertain to experiences with personal doctor.

Variables

The dependent variables consisted of the CAHPS reports and ratings of care. Reports of care capture specific experiences with care in terms of what did or did not happen from the consumer's **perspective over the past 6 months**. There were 10 items (reports) measuring four domains of health plan performance: getting needed care, timeliness of care, communication with doctor, and health plan customer service (see Appendix 1). All items within the four domains were administered using a four-point response scale (never, sometimes, usually, always). The items were transformed linearly to a 0 to 100 scaled (with a high score representing more favorable perceptions of care), and were then averaged within each composite. Ratings are personal evaluations of providers and services. As such they reflect both personal experiences as well as the standards used in evaluating care. Four global ratings were asked using a 0 (worst possible) to 10 (best possible) scale. The global ratings were also transformed linearly to a 0 to 100 scale.

Measures of patient experiences with discrimination are the primary independent variables. Patient experiences with discrimination, based on race/ethnicity and having Medicaid insurance, are assessed by two questions which asked: 1) In the last 6 months, how often have you been treated unfairly at this doctor's office because of your race or ethnicity?; and 2) In the last 6 months, how often have you been treated unfairly at this doctor's office because of the type of health insurance you have or because you don't have health insurance? These items are part of the Equitable Treatment domain of the CAHPS Cultural Competence Item Set.³⁴ Response options were never, sometimes, usually, and always. Each was dichotomized as any discrimination (sometime, usually, or always) vs. no discrimination (never).

An additional set of variables known to be related to systematic differences in CAHPS survey responses but not under the control of the plan or provider are used as case-mix adjusters: gender, age, education, and health status.³⁵ Gender is a dichotomous variable: male, female. Age is a categorical variable consisting of six levels: 21–24, 25–34, 35–44, 45–54, 55–64, and 65 or older. Education is a categorical variable with five levels: 8th grade or less; some high school; high school graduate; some college or 2-year degree; and 4-year college graduate or more. Self-rated health is a categorical variable measuring perceived overall health: excellent, very good, good, fair, and poor. Finally, race/ethnicity (White, Hispanic, Black, Other), survey language (Spanish and English), and fee-for-service enrollment (1=FFS; 0= not FFS) were included as control variables.

Analysis

Logistic regressions were used to model the effect of patient demographics (age, gender, education, and race/ethnicity) on the probability of perceived discrimination based on: 1) race/ethnicity, and 2) insurance. Following standard practice for CAHPS data (e.g. Landon et al. 2004),³⁶ linear regression (here in the form of generalized linear models) were used to

model the effect of patient perceptions of discrimination on CAHPS reports and ratings of care controlling for age, gender, education, self-rated health, race/ethnicity, language survey, and FFS.³⁷ Two separate models were run for each CAHPS outcome measure: 1) perceived discrimination based on race/ethnicity only plus covariates; and 2) perceived discrimination based on Medicaid insurance plus covariates. Standard errors for all regressions were adjusted for correlation within health plans using the Huber/White correction in SAS Proc GenMod.³⁸

RESULTS

Tables 1 and 2 present descriptive statistics for the dependent and independent variables. Mean CAHPS scores ranged from 72 for getting needed care to 89 for specialist rating. While 14% of respondents perceived discrimination based on Medicaid insurance, 9% perceived discrimination based on race/ethnicity, and 6% reported both types of discrimination. Approximately 75% of respondents were less than 65 years old, 43% had less than high school education, 69% were female, 65% were Black or Hispanic, 24% completed a Spanish survey, **and 21% were enrolled in FFS**. Table 3 shows how perceived discrimination varied by racial/ethnic group. Blacks reported the most discrimination for both Medicaid insurance (19%) and race/ethnicity (12%), while Whites reported the least discrimination for race/ethnicity (6%) and Hispanics the least discrimination for Medicaid insurance (12%).

Logistic regression results are shown on Table 4. Respondents that were Black, middle age (35–64), and those with lower education (8th grade or less) had higher odds of reporting discrimination based on race/ethnicity. On the other hand, respondents that were less than 55 years had higher odds of reporting discrimination based on insurance status.

Case-mix adjusted regression results appear in Table 5. Findings show that Medicaid beneficiaries who reported discrimination based on their race/ethnicity had worse patient experiences than those who did not perceive discrimination. Those reporting discrimination based on race/ethnicity had lower CAHPS® scores on all dimensions of care, except timeliness of care, ranging from 15 points lower (on a 0–100 scale) for getting needed care to 6 points lower for specialist rating, compared to those who never experienced discrimination (Model 1). The size of these effects ranged from a small to medium effect based on Cohen's guidelines in which 0.20 is considered a small effect, 0.50 is a medium effect, and 0.80 or above a large effect.³⁶ The effect size was medium for two CAHPS® scores (provider communication and health care rating), and small for five CAHPS® measures (getting needed care, health plan customer service, personal doctor rating, specialist rating, and health plan rating). Those reporting discrimination based on Medicaid insurance had lower scores across all CAHPS® measures, ranging from 16 point lower for health plan customer services to 8 points lower for special rating compared to those who never experienced discrimination (Model 2). The size of these effects ranged from medium for five CAHPS® measures (provider communication, health plan customer service, personal doctor rating, health care rating, and health plan rating) to small for three CAHPS® measures (getting needed care, timeliness of care, and specialist rating).

Although regression residuals were not fully normally distributed, and exhibited the skewness typical of CAHPS® data departures from normality were sufficiently small that the sampling distribution of the standard errors of regression coefficients well-approximate normality at these sample sizes, ensuring valid p-values.^{37, 39}

DISCUSSION

Understanding the impact of perceived discrimination on patient experience facilitates identification of barriers to health care, the development of strategies to promote positive health care experiences, which can ultimately lead to desirable health outcomes. This study examined the relationship between Medicaid beneficiaries' reports of provider discrimination and their health care experiences, as measured by CAHPS® reports and ratings of care. Study results show that a substantial proportion of beneficiaries reported discrimination on the basis of race/ethnicity (9%) and Medicaid status (14%), with Blacks reporting such discrimination most often. Patients who reported discrimination provided substantially lower CAHPS® reports and rating of care, with differences as large as 16 percentage points.

There are a number of limitations that are important to note. First, the study used cross-sectional data. Therefore the analysis and conclusions are limited to describing the association between perceptions of discrimination and reports and ratings of care. Unobserved factors may be responsible for the association, as for all observational data. Future longitudinal studies are needed to examine the relationship between perceptions of discrimination and patient experiences with care.²³ Second, survey items do not identify specific instances of discrimination, including the nature of the occurrence and as where or when it occurred. Additional qualitative research studies are needed to examine how and why discrimination occurs. For example, focus groups may be conducted to identify practices and behaviors that may be contributing to perceptions of discrimination, and this information can be used in quality improvement activities. Third, due to data limitations we are not able to assess differences in response rate by racial/ethnic group. We had a much higher participation of Hispanics compared to other racial/ethnic groups. This may have been a result of the PSOs serving areas with a high concentration of Hispanics, such as Miami-Dade and Broward counties. Finally, the study sample is limited to Florida Medicaid beneficiaries. While Florida is a racial and ethnically diverse state with a sizeable Medicaid population, readers may want to be cautious in generalizing findings to other states or other groups with other forms of insurance. Nevertheless, the experiences of Florida's Medicaid population may provide good insight into how beneficiaries in other states may view their medical care.

Results from the study presented here have important implications for practice, policy, and future research aimed at improving experience with care. Findings suggest that reducing perceptions of discrimination may result in improved CAHPS® reports and ratings of care. Practices must develop and implement strategies to reduce perceptions of discrimination among patients. Practice behaviors resulting in perceived discrimination range from the very subtle to the most evident. And, as articulated by the framework postulated by Ngo-Metzger and colleagues perceived discrimination can result from patient interactions with all types of health care workers including nurses, physicians, office and administrative staff, and other ancillary workers.¹⁷ However, as noted in a recent comprehensive literature review very little research has focused on the specific actions perceived as discriminatory or who in the medical encounter conducted the discriminatory action.²³ New research specifically targeted at discovering what patients perceived as discriminatory will aid in the development of strategies that can reduce the incidence of such behaviors.

Cultural competency has been proposed as a broad organizational strategy to ensure effective cross-cultural interactions.^{25, 26} The National Quality Forum (NQF)⁴⁰ has defined cultural competency as the “ongoing capacity of healthcare systems, organizations, and professionals to provide for diverse patient populations high-quality care that is safe, patient and family centered, evidence based, and equitable (p. 2).” Furthermore, cultural

competency is achieved through “policies, learning processes, and structures by which organizations and individuals develop the attitudes, behaviors, and systems that are needed for effective cross-cultural interactions”.⁴⁰ Successful implementation of cultural competency requires an organizational commitment towards a systems approach,^{41, 42} and the restructuring of organizational processes to better serve a diverse patient population. The NQF provides a “Comprehensive Framework and Preferred Practices for Measuring and Reporting Cultural Competency”⁴³, and some of the practices that emerge from this framework relate to: leadership commitment to cultural competency; integration of cultural competency throughout all management practices of the organization; workforce diversity and training; community engagement; patient-provider communication; and care delivery and supporting mechanisms.³⁴ Recent research shows that hospitals that have a higher degree of cultural competency, as assessed by the NQF framework and the Cultural and Linguistic Appropriate Services (CLAS) standards, have higher Hospital CAHPS scores, especially among minority patients.⁴⁴

As the state and Federal governments increase their efforts towards health plan accountability and public reporting of CAHPS® measures, it is imperative that Medicaid health plans use quality improvement efforts to address perceptions of discrimination of their enrolled patient population. In the study state, Florida, policymakers, at the time of the study, were currently experimenting with different forms of managed care within its Medicaid program. To improve cultural competency, contractual arrangements with health plans could include provisions for the assurance of culturally competent care. These policy efforts at a state level could likely lead to the development of unique strategies within the state's Medicaid delivery system. Such strategies might reduce perceived discrimination in health care among a vulnerable population, a worthy end in itself, and improve the health care experiences of many patients.

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Appendix

Appendix 1

CAHPS 4.0 Health Plan Survey Core Composites (Updated December 2007)

Survey Composites and Items (Questions in this section relate to the last 12 Months)	Response Format
Access: Getting Needed Care In the last 12 months...	Never / Sometimes / Usually / Always
Q17 How often was it easy to get an appointment with specialists?	N / S / U / A
Q21 How often was it easy to get the care, tests, or treatment you thought you needed through your health plan	N/S/U/A
Access: Getting Care Quickly In the last 12 months...	N / S / U / A
Q4 When you needed care right away, how often did you get care as soon as you thought you needed?	N / S / U / A
Q6 Not counting the times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?	N / S / U / A

Survey Composites and Items (Questions in this section relate to the last 12 Months)	Response Format
How Well Doctor Communicate In the last 12 months...	N / S / U / A
Q11 How often did your personal doctor explain things in a way that was easy to understand?	N / S / U / A
Q12 How often did your personal doctor listen carefully to you?	N / S / U / A
Q13 How often did your personal doctor show respect for what you had to say?	N / S / U / A
Q14 How often did your personal doctor spend enough time with you?	N / S / U / A
Health Plan Customer Service In the last 12 months...	
Q23 How often did your health plan's customer service give you the information or help you needed?	N / S / U / A
Q24 How often did your health plan's customer service staff treat you with courtesy and respect?	N / S / U / A
Global Ratings	0 (Worst to 10 (Best)
Q8 Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?	<u>0–10</u>
Q15 Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?	<u>0–10</u>
Q19 <i>[We want to know your rating of the specialist you saw most often in the last 12 months.]</i> Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate that specialist?	<u>0–10</u>
Q27 Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?	<u>0 10</u>

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Table 1

Descriptive Statistics of Dependent Variables (N=1,509)

	Mean	Standard Deviation
Getting Needed Care	72.3	34.0
Timeliness of Care	81.8	27.0
Provider Communication	88.2	20.3
Health Plan Customer Service	76.0	30.2
Personal Doctor Rating	88.4	19.8
Specialist Rating	89.0	18.7
Health Care Rating	81.0	22.7
Health Plan Rating	83.6	23.5

Table 2

Descriptive Statistics of Independent and Control Variables (N=1,509)

Variable	Percent
Perceived Discrimination	
Based on Race/Ethnicity	8.8
Based on Medicaid Insurance	14.2
Age	
21 to 24 years old	4.2
25 to 34 years old	11.1
35 to 44 years old	12.6
45 to 54 years old	22.3
55 to 64 years old	25.1
65 years and older	24.1
Missing	0.7
Education	
8th grade or less	22.5
Some high school, but did not graduate	20.3
High school graduate or GED	32.3
Some college or 2-year degree	14.0
4-year college graduate or more	6.9
Missing education	4.0
Male	31.2
Race/Ethnicity	
White	30.8
Hispanic	40.4
Black	24.9
Other	4.0
Self-rated Health	
Excellent	5.0
Very Good	8.4
Good	19.9
Fair	31.2
Poor	33.5
Missing	2.1
Spanish Survey	23.5
Fee-for-service Enrollment	20.5

Table 3

Dependent Variable (Perceived Discrimination) by Race/Ethnicity (N=1509)

	Perceived Discrimination Based on	
	Race/Ethnicity	Medicaid Insurance
White (n=464)	5.9%	13.3%
Hispanic (n=610)	8.6%	11.8%
Black (n=375)	12.2%	18.9%
Other (n=60)	11.1%	15.8%
Chi-square	X=10.6 *	X= 9.9 *

*
p < .05

Table 4

Logistic Results Modeling Perceived Discrimination Based on Race/Ethnicity and Medicaid Insurance
(N=1,509)

Variable	Perceived Discrimination Based on	
	Race/Ethnicity	Medicaid Insurance
	Odds Ratio	Odds Ratio
Age		
21 to 24 years old	0.96	1.93
25 to 34 years old	1.70	2.48 **
35 to 44 years old	2.28 *	1.80 *
45 to 54 years old	2.12 *	2.52 ***
55 to 64 years old	2.23 **	1.42
Education		
8 th grade or less	3.93 *	1.78
Some high school, but did not graduate	2.23	1.00
High school graduate or GED	2.08	1.17
Some college or 2-year degree	0.44	0.78
Missing education	4.17 *	1.88
Male	1.19	0.94
Race/Ethnicity		
Hispanic	1.24	0.87
Black	2.02 **	1.44
Other	2.03	1.15

Comparison groups: 65 years and older; 4-year college graduate or more; Female; White

*
p < 0.05;

**
p < 0.01;

p < 0.001

Table 5Regression Results for Perceived Discrimination¹

	Model 1		Model 2	
	Race/Ethnicity Only		Medicaid Insurance Only	
	B	S.E.	B	S.E.
Getting Needed Care	-15.2 *	6.3	-14.1 ***	3.6
Timeliness of Care	-7.0	4.2	-8.5 ***	1.3
Provider Communication	-11.0 ***	2.7	-13.7 ***	2.7
Health Plan Customer Service	-12.5 **	4.2	-15.6 ***	3.1
Personal Doctor Rating	-8.6 ***	1.5	-12.9 ***	1.5
Specialist Rating	-5.9 **	2.1	-8.2 ***	2.5
Health Care Rating	-12.7 ***	1.4	-11.8 ***	2.7
Health Plan Rating	-9.3 ***	2.4	-13.9 ***	1.9

*
p < 0.05;**
p < 0.01;***
p < 0.001¹ After controlling for age, education, gender, race/ethnicity, self-rated health, survey language, and fee-for-service