Final Report to the MSU Applied Policy Research Grant Program

Medicaid Managed Care: How Well Will It Work for African Americans?

A Survey of 691 Medicaid Recipients

submitted by

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ABSTRACT

Research Objective: To investigate the impact of managed care on the satisfaction with ability to get needed health services, satisfaction with health care providers and experiences of discrimination and cultural insensitivity among African Americans and whites insured by Medicaid in the State of Michigan.

Study Design: Telephone survey of 386 randomly selected African Americans and 305 whites with Medicaid insurance from three metropolitan areas in eastern, central and western lower Michigan. Questions address demographics, health status and health services utilization, enrollment in and satisfaction with health plans, and experiences with the health care delivery system, including discrimination.

Principal Findings: African Americans were equally likely to have a choice of health plans (51% vs. 46%), but given these choices only a slightly higher percentage were enrolled in managed care plans (68% vs. 64%). However, significantly fewer blacks met the criteria for being enrolled in a managed care plan -- being required to have a primary care provider who controls access to hospital and specialist services (46% vs. 55%). Only slightly more African Americans were female (79% vs. 73%), but significantly fewer were married (13% vs. 18%). The 2 groups were comparable in age (49 years), education (12 years of schooling), and travel time to usual providers (18 minutes). Blacks had only slightly higher income ($16,000 vs. $13,400 for whites), but were more likely to be employed (41% vs 33%). Blacks were slightly less likely to have had a recent physician office visit (80% vs. 75%), and blacks were marginally more likely to have had an ER visit in the last 6 months (39% vs. 32%), but neither of these differences were statistically significant.

African Americans were only slightly more satisfied than whites with their ability to get general health care when they needed it. The subsample of blacks receiving mental health services, substance abuse services, urgent care/emergency services and home care services were also roughly equally satisfied compared to whites receiving those services. African Americans were only slightly less satisfied with the way in which their health plans handled their inquiries. Regarding satisfaction with the usual provider of care, African Americans were as satisfied as whites with their providers and rated their providers' technical skills nearly the same as did their white counterparts.

Independent of race, respondents who were more comfortable with the cultural environment of their usual place of care and who had never been discriminated against while receiving care expressed significantly higher satisfaction with their providers and rated their technical skills more highly. Also, independent of race, respondents who were more comfortable with the cultural environment of their usual place of care and who had never been discriminated against while receiving care were significantly more satisfied with their ability to get general health care when they needed it and with the way in which their health plans handled their inquiries. The subsample of respondents receiving mental health services, substance abuse services, urgent care/emergency services and home care services tended to be significantly more satisfied with these services when they received care in a comfortable cultural environment free of discrimination.

African Americans valued racial/cultural sensitivity in the health care environment more than their white counterparts2Medicare. They expressed a need for greater sensitivity among administrative staff, nurses and physicians when compared to their white counterparts. African Americans were less likely to feel comfortable with the racial/ethnic environment at their usual site of care (85% vs. 90%), although this difference is only marginally significant. African Americans were more likely to have experienced racial discrimination while receiving care, although the overall rate was low (12% vs. 6%). Nurses were identified most frequently (9%) as the source of discrimination, followed by physicians (7%) and the health plan (4%). Overall, HMO enrollees were less likely to have experienced discrimination from their providers but more likely to have experienced discrimination by their health plans, although none of these differences were statistically significant. For respondents who were less than very satisfied with their ability to get care when needed, racial discrimination was less likely to have played a role for those enrolled in managed care plans (23%) than for those enrolled in traditional plans (37%). This result was also true (although statistically insignificant) for respondents less than very satisfied with their urgent/emergency care, but the opposite result was true (although also statistically insignificant) for respondents less than very satisfied with their mental health care.

Conclusions: African Americans covered by Medicaid value cultural sensitivity in their health care environment. Managed care appears to have a modestly positive impact on improving the cultural environment for Medicaid recipients. More effort is needed to

improve the cultural environment of health care delivery for all racial/ethnic groups.

Implications for patient care in a managed care environment: Managed care plans that can deliver culturally sensitive care are more likely to have higher patient satisfaction ratings by both African Americans and whites.

Research Funding: Michigan State University Applied Policy Research Grant Program

Study Design: We conducted a telephone survey of 386 randomly selected African Americans and 305 whites with Medicaid insurance from three metropolitan areas in eastern, central and western lower Michigan. Respondents were asked 101 questions addressing demographics, health status and health services utilization, enrollment in and satisfaction with health plans, and experiences with the health care delivery system, including discrimination. The survey began on 11/??/98 and was completed on 4/??/99. A copy of the questions is included in the Appendix.

When interviewers successfully contacted a household, the study procedures required them to randomly select an adult from among those residing in the household to be the respondent. The "most recent birthday" technique developed by Salmon and Nichols was used as the mechanism for choosing a respondent within each household.
Telephone numbers were called across times of the day and days of the week. If after a minimum of six call attempts, no contact was made with someone at the number, the call schedule for that case was reviewed by a supervisor to see that it had been tried across a variety of time periods. If it was not, the supervisor re-released the number for additional calling in time periods that have not been tried. If, after additional calls were made, still no contact was made, the number was retired as a non-working number. If the review of the case indicated that it has been tried at various times and days, the supervisor might finalize the case as non-working or might release it for one or two additional tries. If the case contact was established, the number would continue to be tried until the interview was completed, the interview was refused, or the case was determined to be ineligible or incapable.

In the case of an initial refusal, numbers were called back after five days (although this was shortened as the end of the field period nears). Efforts were made to persuade initially reluctant respondents to complete the interview.

Eligible respondents were screened by race (white or African American) and by insurance status (Medicaid coverage, although this coverage could be supplemental to Medicare or private insurance). Finding white Medicaid respondents in the eastern metropolitan region proved to be difficult, adding considerably to the duration of the data collection period.

In calculating the completion rate, refusal rate and average interview length for the study, ineligibles are excluded from the denominator. As is common in most studies where there is a fair amount of screening to find eligibles, most refusals occur before phone numbers are confirmed, before household status is confirmed, and before respondents are selected or eligibility is determined. For this reason, we apportioned all refusals, making the assumption that eligibles that refuse make up the same proportion of all refusals as completes make up of all other households.

Based on these assumptions, the completion rate was ??%. The refusal rate was ?% of all households, and ??% of all "eligible households". The interview length averaged ?? minutes, with a median of ?? minutes, a minimum of ? minutes and a maximum of ?? minutes.

Characteristics of the Sample

The African American and white subsamples are very similar on several socio-demographic dimensions: age, income and education, but they differ in terms of gender and marital status.

	African American	White
Average Age (yrs)	49.2	49.2
Females*	79.3%	73.4%
Married**	12.7%	18.4%
Average Income	$16,000	$14,309
Years of Schooling	12.0	12.1
Number of Respondents	386	305

** = p < 0.05 ; * = p < 0.10.

Results by Race

African Americans were equally likely to have had a choice of health plans, and they were only slightly more likely to be enrolled in an HMO. African Americans were marginally more likely to use emergency departments than whites, and slightly less likely

to have seen a physician in the last 6 months. African Americans were slightly less likely to be in fair or poor health.

Travel time to the usual provider was roughly equal for African Americans and whites, and African Americans were just as likely to have a usual place of care. However, less than 2% of Medicaid beneficiaries claimed to have no actual usual place of care. While African Americans are more likely than whites to use community health centers, health department clinics or hospital outpatient services as a usual place of care, many African Americans who receive care in these setting would prefer private physician offices. Therefore, it is much more likely that the usual place of care is not the preferred place of care for African American Mediciad recipients.

African Americans generally rate the technical skills of their usual providers (1 = excellent, 5 = poor) only slightly lower than their white counterparts, and their general satisfaction with their providers as measured by the American Board of Internal Medicine Physician Satisfaction Questionnaire (10 = excellent, 50 = poor) is also only slightly lower. Both groups were equally likely to feel that their usual provider cared about their personal well-being (1 = a great deal, 4= not at all).

	Number		Mean		p Value
	White	African American	White	African American	
Enrolled in Managed Care Plan	283	372	64.0%	67.5%	0.35
Choice of Health Plan	286	358	45.5%	50.6%	0.198
Fair or Poor Health Status	303	383	39.3%	34.2%	0.173
Seen Doctor in last 6 mos.	305	386	79.7%	74.6%	0.114
Visit ER in last 6 mos.	302	384	32.1%	38.5%	0.080
Usual Place of Care is Preferred Place of Care	305	386	65.2%	50.3%	0.00
Travel Time	294	369	17.4	18.7	0.28
Provider Technical Skill Rating	243	301	1.87	1.96	0.33
ABIM Provider Satisfaction Scale	235	292	16.1	16.8	0.29
How Much Provider Cares	241	301	1.35	1.39	0.54

Regarding issues of ethnic/cultural sensitivity, African Americans were marginally more likely to report that the cultural environment in which they received care was uncomfortable. African

Americans were nearly 2 times more likely to report that they had experienced discrimination while receiving care. Nurses were most likely to be identified as a source of discrimination by Africans Americans and whites. African Americans place a greater importance on provider racial sensitivity than their white counterparts (1 = very important, 4 = not at all important). African Americans were equally likely to report that their physician and their nurse did understand racial/ethnic issues related to their health care.

	Number		Mean		p Value
	White	African American	White	African American	
Cultural Environment Uncomfortable	296	374	10.5%	15.2%	0.07
Ever Experienced Discrimination When Receiving Care	296	373	6.4%	12.3%	0.01
Physician Ever Discriminates	243	297	5.8%	7.7%	0.36
Nurse Ever Discriminates	242	299	7.9%	10.4%	0.31
Health Plan Ever Discriminates	301	378	3.0%	5.6%	0.10
Importance of Doctor Sensitivity to Race	235	294	2.1	1.7	0.0
Importance of Nurse Sensitivity to Race	234	296	2.1	1.8	0.0
Importance of Staff Sensitivity to Race	231	292	2.1	1.7	0.0
How Well Physician Understands Racial/Ethnic Issues	226	282	1.3	1.4	0.29
How Well Nurse Not Understand Racial/Ethnic Issues	228	290	1.5	1.6	0.24

African Americans were equally satisfied with their health plans in terms of their ability to get acute, mental health, substance abuse, urgent/emergency and home care when they need it (1 = very satisfied, 5 = very dissatisfied), and they were equally satisfied with the way their health plans handle inquiries. Although African Americans were about equally likely to have seen a physician or visited an emergency department in the last six months(the most common forms of acute care), they were significantly less likely to have sought mental health care and substance abuse care. Access to home care was roughly equivalent.

Those who rated their satisfaction with any type of health services less than "very satisfied" were asked about the source of their dissatisfaction. Similarly, those who rated their satisfaction with any type of health services less than "very dissatisfied" were asked about the source of their satisfaction.

Sources of satisfaction and dissatisfaction can be aggregated into the following categories:

* Access — The health plan accepts/does not accept Medicaid; good/restricted choice of providers; no coverage for problem.
* Time — The health plan has short/long waits for appointments; short/long travel time to providers; short/long waits to be seen; short/long delays for preapproval/referral.
* Other — The health plan has low/high out-of-pocket costs; little/much paperwork; respectful/disrespectful treatment; good/bad quality of care.

Since the number of respondents who are "very satisfied" with a health services is 3 to 10 times greater than the number who are "very dissatisfied" with the same service, the percentage of users of a service who identify a source of satisfaction is necessarily larger than the number identifying a source of dissatisfaction. In general, popular categories of satisfaction are also popular sources of dissatisfaction, i.e. people are happy in the presence and unhappy in the absence of important health plan features and practices, e.g., people like short waiting times and dislike long waiting times. There was no significant difference in the pattern of sources of satisfaction and dissatisfaction across racial groups; white and African Americans basically agree on what they like and dislike about the way they are treated by their health plans.

Those who rated their satisfaction less than "very satisfied", were asked if racial or ethnic discrimination played a role in their dissatisfaction. For acute care, mental health care and urgent/emergency care, African Americans were more likely to report that racial discrimination played a role in their dissatisfaction. Discrimination played a marginally significant role in dissatisfaction with home care, but no significant role in substance abuse care.

	White	Black	p Value
ACUTE CARE			
See Usual Provider in last 6 months	80.0%	75.0%	0.11
Satisfaction with Ability to Get Needed Health Care	1.8	1.74	0.50
Source of Dissatisfaction			

Access	18.6%	13.0%	0.13
Time	12.8%	18.3%	
Other	5.1%	6.1%	
Source of Satisfaction			
Access	39.9%	44.7%	0.18
Time	29.7%	23.5%	
Other	9.1%	10.8%	
Ever Experienced Discrimination	18.0%	32.0%	0.005
MENTAL HEALTH CARE			
Sought Care	34.0%	23.0%	0.002
Satisfaction with Ability to Get Needed Health Care	2.38	2.3	0.74
Source of Dissatisfaction			
Access	25.0%	27.3%	0.88
Time	7.3%	6.8%	
Other	4.2%	2.3%	
Source of Satisfaction			
Access	25.0%	31.8%	0.76
Time	17.7%	15.9%	
Other	24.0%	21.6%	
Ever Experienced Discrimination	12.0%	37.0%	0.005
SUBSTANCE ABUSE CARE			
Sought Care	9.0%	5.0%	0.02
Satisfaction with Ability to Get Needed Health Care	1.81	1.88	0.89
Source of Dissatisfaction			
Access	11.1%	6.3%	0.59
Time	0.0%	6.3%	
Other	7.4%	6.3%	
Source of Satisfaction			
Access	48.1%	43.8%	0.88
Time	25.9%	12.5%	
Other	14.8%	18.8%	
Ever Experienced Discrimination	13.0%	17.0%	0.83
URGENT/EMERGENCY CARE			
Sought Care	66.0%	65.0%	0.68
Satisfaction with Ability to Get Needed Health Care	1.89	1.97	0.54

Source of Dissatisfaction			
Access	7.7%	5.3%	0.53
Time	21.9%	32.4%	
Other	6.6%	7.8%	
Source of Satisfaction			
Access	34.7%	27.5%	0.76
Time	38.8%	41.0%	
Other	6.6%	8.6%	
Ever Experienced Discrimination	11.0%	25.0%	0.014
HOME CARE			
Sought Care	21.0%	23.0%	0.62
Satisfaction with Ability to Get Needed Health Care	1.81	1.82	0.96
Source of Dissatisfaction			
Access	12.9%	17.1%	0.34
Time	3.2%	7.3%	
Other	8.1%	6.1%	
Source of Satisfaction			
Access	64.5%	54.9%	0.60
Time	14.5%	13.4%	
Other	3.2%	8.5%	
Ever Experienced Discrimination	5.0%	19.0%	0.10
Number	305	386	691

Note: Access = Accepts/Does Not Accept Medicaid; Good/Restricted Choice of Providers; No Coverage for Problem.
Time = Short/Long Wait for Appointment; Short/Long Travel Time to Provider; Short/Long Wait to be Seen; Short/Long Delay for Preapproval/Referral.
Other = Low/High Out-of-Pocket Costs; Little/Much Paperwork; Respectful/Disrespectful Treatment; Good/Bad Quality of Care.

Results by Managed Care Plan Enrollment

There were several differences among the subsamples of respondents who were enrolled in Managed Care Plans (MCPs) and those enrolled in other types of health insurance plans. As mentioned above, African Americans were more likely to enroll in MCPs than whites. MCPs had more females and fewer elderly. Those enrolled in MCPs were more likely to have had a choice of health plan. Those enrolled in MCPs tended to have been covered by their current health plan for 3.5 years, compared to 8.1 years for those with non-MCP coverage. However, non-MCP recipients had been covered by

Medicaid for only slightly longer than MCP recipients, 8.2 vs. 7.2 years.

MCP enrollees are only slightly more likely to have a non-physician as their usual provider of care. While there was a light tendency for MCP enrollees to report a less comfortable racial/cultural environment, but also to report a lower frequency of racial discrimination while receiving care; neither result was statistically significant. MCPs tended to have a similarly racially/ethnically heterogeneous patient mix, based on the insignificant difference in the likelihood that the patients at the usual site of care were mostly of the same race.

MCP enrollees had a higher rate of not being able to see a doctor when needed, and they were less satisfied with their ability to get needed acute and home care. They were also less satisfied with their health plan's handling of inquiries. However these differences became insignificant when age was taken into account. Within the elderly and non-elderly subsets, satisfaction with the ability to get needed care and with health plans' handling of inquiries was roughly equivalent, although MCP enrollees inability to see a doctor when needed remained marginally higher than among those with traditional coverage in both age groups.

On other measures of health plan and provider satisfaction, health status, and health services access and utilization, MCP enrollees were not significantly different from respondents with other types of health plans, except, perhaps paradoxically, they were slightly more likely to have seen a physician in the last 6 months.

	Number		Mean		Significance
	FFS	MCP	FFS	MCP	
African Americans	223	432	54.3%	58.1%	0.00
Female	223	432	67.3%	83.3%	0.00
Elderly	223	432	49.3%	16.9%	0.00
Choice of Health Plan	199	417	33.2%	56.4%	0.00
Time Covered by Medicaid (yrs)	211	416	8.2	7.2	0.12
Time in Health Plan (yrs)	191	411	8.1	3.5	0.00
In Poor Health	219	431	38.8%	34.3%	0.27
Non-Physician as Usual Provider	213	422	8.9%	10.4%	0.54
Cultural Environment Uncomfortable	215	424	11.2%	13.9%	0.31
Ever Experienced Discrimination When Receiving Care	215	424	10.3%	9.4%	0.74
Patients Mostly Same Race	215	424	23.3%	25.0%	0.63
Not Able to See Doctor When Needed	223	426	15.7%	29.1%	0.00
Seen Doctor in last 6 mos.	223	432	72.2%	79.6%	0.04
Visit ER in last 6 mos.	222	428	32.0%	37.9%	0.14
Satisfaction with Health Plan's Handling of Inquiries	212	420	1.8	2.0	0.06
Satisfaction with Ability to Get Acute Care When Needed	213	426	1.6	1.8	0.02
Satisfaction with Ability to Get Acute Care When Needed: Non-Elderly	108	355	1.8	1.9	0.29
Satisfaction with Ability to Get Acute Care When Needed: Elderly	105	71	1.5	1.6	0.55
Satisfaction with Ability to Get Mental Health Care When Needed	47	125	2.2	2.4	0.35
Satisfaction with Ability to Get Substance Abuse Care When Needed	11	27	2.0	1.8	0.74
Satisfaction with Ability to Get Urgent/Emergency Care When Needed	125	294	1.8	2.0	0.21
Satisfaction with Ability to Get Home Care When Needed	42	90	1.5	1.9	0.04
Satisfaction with Ability to Get Home Care When Needed: Non-Elderly	29	74	1.7	2.0	0.16
Satisfaction with Ability to Get Home Care When Needed: Elderly	13	16	1.2	1.6	0.20
Health Plan Offers Adequate Choices of Treatment Sites	206	401	79.6%	78.8%	0.82
Travel Time	209	432	18.8	17.7	0.36
Usual Place of Care is Preferred Place of Care	223	432	61.9%	55.1%	0.09
Provider Technical Skill Rating	167	358	1.9	2.0	0.48
ABIM Provider Satisfaction Scale	160	348	16.1	16.7	0.38

Plan Offer Adequate Physician Choice	205	410	82.9%	83.7%	0.82
Provider Who Cares	166	357	1.3	1.4	0.08

	Traditional	Managed Care	ALL
ACUTE CARE			
See Usual Provider in last 6 months	72.0%	80.0%	77.0%
Satisfaction with Ability to Get Needed Health Care	1.63	1.85	1.77
Source of Dissatisfaction			
Access	11.3%	17.8%	15.4%
Time	10.5%	19.0%	15.9%
Other	7.3%	4.7%	5.6%
Source of Satisfaction			
Access	43.5%	42.0%	42.6%
Time	21.8%	28.9%	26.3%
Other	12.5%	8.7%	10.1%
Ever Experienced Discrimination	34.0%	23.0%	26.0%
MENTAL HEALTH CARE			
Sought Care	25.0%	30.0%	28.0%
Satisfaction with Ability to Get Needed Health Care	2.17	2.42	2.34
Source of Dissatisfaction			
Access	22.0%	28.0%	26.1%
Time	6.8%	7.2%	7.1%
Other	1.7%	4.0%	3.3%
Source of Satisfaction			
Access	23.7%	30.4%	28.3%
Time	22.0%	14.4%	16.8%
Other	23.7%	22.4%	22.8%
Ever Experienced Discrimination	26.0%	22.0%	23.0%
SUBSTANCE ABUSE CARE			
Sought Care	6.0%	7.0%	7.0%
Satisfaction with Ability to Get Needed Health Care	1.88	1.81	1.84
Source of Dissatisfaction			
Access	6.3%	11.1%	9.3%
Time	0.0%	3.7%	2.3%
Other	12.5%	3.7%	7.0%
Source of Satisfaction			
Access	62.5%	37.0%	46.5%
Time	12.5%	25.9%	20.9%
Other	6.3%	22.2%	16.3%
Ever Experienced Discrimination	0.0%	20.0%	14.0%
URGENT/EMERGENCY CARE			
Sought Care	59.0%	69.0%	65.0%
Satisfaction with Ability to Get Needed Health Care	1.81	2	1.94
Source of Dissatisfaction			

Access	2.1%	8.5%	6.4%
Time	27.4%	27.9%	27.7%
Other	7.5%	7.1%	7.3%
Source of Satisfaction			
Access	37.0%	27.6%	30.7%
Time	39.0%	40.5%	40.0%
Other	8.2%	7.5%	7.7%
Ever Experienced Discrimination	25.0%	16.0%	19.0%
HOME CARE			
Sought Care	22.0%	22.0%	22.0%
Satisfaction with Ability to Get Needed Health Care	1.59	1.94	1.81
Source of Dissatisfaction			
Access	14.8%	15.6%	15.3%
Time	3.7%	6.7%	5.6%
Other	5.6%	7.8%	6.9%
Source of Satisfaction			
Access	66.7%	54.4%	59.0%
Time	11.1%	15.6%	13.9%
Other	5.6%	6.7%	6.3%
Ever Experienced Discrimination	6.0%	16.0%	13.0%
	259	432	691

Note: Access = Accepts/Does Not Accept Medicaid; Good/Restricted Choice of Providers; No Coverage for Problem.
Time = Short/Long Wait for Appointment; Short/Long Travel Time to Provider; Short/Long Wait to be Seen; Short/Long Delay for Preapproval/Referral.
Other = Low/High Out-of-Pocket Costs; Little/Much Paperwork; Respectful/Disrespectful Treatment; Good/Bad Quality of Care.

Multivariate Analysis: Health Plan Satisfaction

Prior research in health plan satisfaction (Greenfield 1997, Bouknight and Hogan 1999) suggests that females tend to be less satisfied with their health plans than males, that older patients tend to be more satisfied than younger patients, that African American tend to be less satisfied than white, and that patients in poorer health are less satisfied than more healthy patients. Since African Americans, females and the elderly had significantly different rates of enrollment in MCPs and they also tend to have different levels of satisfication with their health care, we conducted a multivariate analysis to address the possibility of any confounding of demographic factors and insurance plan.

In addition to race, MCP enrollment, gender, age and health status, we hypothesized that:

1) patients with non-physician usual providers would be less satisfied than patients with physician usual providers;

2) patients receiving care in a comfortable cultural environment free of discrimination would be more satisfied, independent of race;

3) patients enrolled in managed care plans that were not MCPs would be less satisfied.

We employed OLS regression to measure the impact of these factors on satisfaction with the health plan's response to inquiries and with the ability to get care when needed. These can be considered aspects of access to care. Since the satisfaction scale ranges from 1 (very satisfied) to 5 (very dissatisfied), negative coefficients represent greater satisfaction; positive coefficients less satisfaction.

Access to Needed Care: As with the simple analyses presented earlier, African Americans were not significantly less satisfied with their ability to get care when needed. Neither the elderly nor females enrolled in MCPs were equally satisfied compared to their counterparts with traditional coverage. However, those in poor health were marginally less satisfied.

Patients enrolled in managed care plans were equally satisfied with their ability to get care, as were patients with non-

physician providers. While choice of health plan had no significant effect on satisfaction, having an adequate choice of treatment settings and choice of providers was highly significant. How much the usual provider is perceived to care about the patient's well-being is a major determinant of satisfaction.

Having a provider of the same gender as the patient was not significantly related to satisfaction. Travel time was negatively related to satisfaction, while time covered by Medicaid was positively related to satisfaction. Patients with some college education were no more satisfied than those with less education.

While having a comfortable cultural environment had a marginally positive impact on health plan satisfaction, having never experienced discrimination while receiving care had no significant effect on satisfaction. The fact that the usual provider's race was the same as the patients and the fact that the patient did not consider provider race to be important has no significant effect on satisfaction.

Response to Inquiries: African Americans and females enrolled in MCPs were equally satisfied with their health plans' responses to inquiries compared to their counterparts with traditional coverage. However, the elderly were more satisfied, while those in poor health were less satisfied.

Patients enrolled in managed care plans were equally satisfied with their health plans' responses to inquiries, as were patients with non-physician providers. Choice of health plan along with having an adequate choice of treatment settings and choice of providers was highly significantly related to satisfaction with response to inquiries. How much the usual provider is perceived to care about the patient's well-being is a major determinant of satisfaction.

Having a provider of the same gender as the patient was not significantly related to satisfaction. Travel time was not related to satisfaction with response to inquiries, nor was time covered by Medicaid. Patients with some college education were less satisfied than those with less education.

Neither having a comfortable cultural environment in which to receive care nor having never experienced discrimination while

receiving care had a significant effect on satisfaction. The fact that the usual provider's race was the same as the patients and the fact that the patient did not consider provider race to be important has no significant effect on satisfaction.

Table ?

	Satisfaction with Ability to Get Needed Health Care		Satisfaction with Health Plan's Handling of Inquiries	
Cases Analyzed	406		401	
Cases Missing	285		290	
Adjusted R-Square	0.212		0.214	
CONSTANT	2.314	**	2.377	**
Female	0.025		0.005	
African American	-0.020		-0.051	
Usual Provider Same Race as Patient	-0.021		-0.059	
Usual Place of Care is Preferred Place of Care	-0.082		-0.003	
Cultural Environment Comfortable	-0.203	*	0.023	
Never Experienced Discrimination	-0.142		-0.123	
Usual Provider Same Gender as Patient	0.051		0.030	
How Much Provider Cares	0.117	**	0.169	**
Usual Provider not Physician	0.062		-0.124	
Travel Time	0.007	**	0.002	
In Poor Health	0.144	*	0.184	**
Adequate Choice of Treatment Locations	-0.420	**	-0.504	**
Adequate Choice of Providers	-0.406	**	-0.439	**
Choice of Health Plan	-0.068		-0.175	**
Time Covered by Medicaid	-0.012	**	0.002	
Enrolled in Managed Care Plan	0.089		-0.020	
Elderly	-0.066		-0.266	**
Employed	0.022		0.127	
Usual Providers Race Not Important	0.058		-0.001	
Some College Education	-0.046		0.170	**

Note: ** = $p < 0.05$; * = $p < 0.10$

Multivariate Analysis: Provider Satisfaction

As with health plan satisfaction, we hypothesized that African Americans would be less satisfied with their providers than whites, that MCP enrollees would be equally as satisfied as non-MCP enrollees, that females would be less satisfied of their usual provider than males, that older patients would be to be more satisfied than younger patients, and that patients in poorer health would be less satisfied than patients in better health. Additionally, we hypothesized that:

* patients with non-physician usual providers would be less satisfied than patients with physician usual providers;
* patients receiving care in a comfortable cultural environment free of discrimination would be more satisfied, independent of race;
* race of physician would be a significant factor in provider satisfaction;
* patients enrolled in managed care plans that were not MCPs would be less satisfied.

Provider Technical Skills: African Americans were not significantly less satisfied with their providers' technical skills. Having a physician of the same race and receiving care in a culturally comfortable environment did not have a significant effect on provider technical skill ratings. However, never having experienced discrimination while receiving care did have a large effect on technical skill ratings.

MCP enrollees were not significantly less satisfied with provider technical skills than respondents in more traditional health plans. Respondents in poor health were significantly less satisfied, while, females and the elderly were not les satisfied. Patients with a non-physician providers were significantly less satisfied with their providers' technical skills. Technical skill ratings were equal among respondents whose race and gender was the same as their physicians. Having a comfortable cultural environment and never having experienced discrimination had no significant impact on satisfaction. Having an adequate choice of providers was significantly related to improved technical skill ratings, although not having adequate choice of treatment settings nor choice of health plan. Being employed lowered technical skills ratings, while having some college education raised ratings.

Having a provider who cares about the patient's well-being increased technical skill ratings.

ABIM Physician Satisfaction Scale: African Americans were not significantly less satisfied with their providers' technical skills. Having a physician of the same race and receiving care in a culturally comfortable environment did not have a significant effect on provider technical skill ratings. However, never having experienced discrimination while receiving care did have a large effect on technical skill ratings. Overall provider satisfaction did not rise among respondents whose race and gender were the same as their physicians.

MCP enrollees tended to give their providers satisfaction scores equal to those of respondents in more traditional health plans. Respondents in poor health and the elderly were not significantly less satisfied, while females were marginally more satisfied. Patients with a non-physician providers were not significantly less satisfied with their providers. Patients with some college education has physician satisfaction scores higher than those with less education.

Table ?

	ABIM Physician Satisfaction Scale		Provider Technical Skill Rating	
Cased Analyzed	411		419	
Cases Missing	280		272	
Adjusted R-Squared	0.229		0.274	
CONSTANT	15.968	**	1.786	**
Female	-1.565	*	-0.165	
African American	0.165		0.007	
Usual Provider Same Race as Patient	-0.266		-0.031	
Usual Place of Care is Preferred Place of Care	-1.911	**	-0.115	
Cultural Environment Comfortable	1.308		-0.286	**
Never Experienced Discrimination	-3.029	**	-0.108	
Usual Provider Same Gender as Patient	-0.579		-0.134	
How Much Provider Cares	3.860	**	0.564	**
Usual Provider not Physician	0.709		0.167	
Travel Time	0.035		0.001	
In Poor Health	1.076		0.184	**
Adequate Choice of Treatment Locations	-0.188		0.072	
Adequate Choice of Providers	-1.428		-0.320	**
Choice of Health Plan	-0.475		0.028	

Time Covered by Medicaid	0.017		0.002	
Enrolled in Managed Care Plan	0.015		-0.053	
Elderly	0.224		0.120	
Employed	1.198		0.344	**
Usual Providers Race Not Important	-0.097		0.047	
Some College Education	-1.433	**	-0.299	**

Note: ** = $p < 0.05$; * = $p < 0.10$

Discussion

APPENDIX I
Variable Names

Variable Name	Variable Description
MCP	Enrolled in MCP
Choice	Has choice of health plans
Number/Diversity of Doctors	Importance of the number and diversity of physicians in choosing health plan
Quality Reputation	Importance of quality reputation in choosing health plan
Overall Cost	Importance of overall cost in choosing health plan
Managed Care Not MCP	Enrolled in managed care program (yes to PCP and Gatekeeper), but not an MCP
Satisfaction with Ability to Get Needed Care	Satisfaction with ability to get care when needed
Satisfaction with Handling Inquiries	Satisfaction with plan's response to inquiries
Treatment Site	Plan offers adequate treatment site choices
Doctors Choices	Adequate choice of physicians
Plan Interested in Racial Issuesrace	Plan Interested in Racial Issuesrace
No Usual Site of Care	No usual place of care
Doctor's Race	Race of usual provider
Doctor Same Race as Patient	Usual provider same race as respondent
Usual Site of Care is Preferred Site	Usual place is also preferred place
Provider Technical Skill Rating	Rating of Provider's technical skill
Non-Physician Provider	Usual provider not physician
ABIM Total Score	ABIM Provider Satisfaction Score: (10 = excellent, 50 = poor)
Provider Cares	How much usual provider cares about respondent's health needs
Patients Same Race	Other patients mostly same race
Environment Comfortable	Racial environment where care is delivered is comfortable
Doctor Understands Race	Doctor understands race-specifc health needs
Nurse Understands Race	Nurse understands race-specifc health needs
Never Experienced Discrimination	Respondent never experienced discrimination while receiving care
Doctor Discriminates	Frequency of doctor discrimination against patient
Nurse Discriminates	Frequency of nurse discrimination against patient
Health Plan Discriminates	Frequency of health plan discrimination against patient
Importance of Doctor Race	Doctor's Race Important (1 = very important, 3= not impor
Importance of Doctor Racial Sensitivity	Doctor Sensitive to Race Important (1 = very important,
Importance of Nurse Racial Sensitivity	Nurse Sensitive to Race Important (1 = very important, 3=
Importance of Health Plan Staff Racial Sensitivity	Staff Sensitive to Race Important (1 = very important, 3=