Specialists' and Primary Care Physicians' Participation in Medicaid Managed Care

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OBJECTIVE: **To compare specialist and primary care physician participation in California's Medicaid fee-for-service and managed care programs.**

DESIGN: **Cross-sectional survey.**

PARTICIPANTS: **A probability sample stratified by county and by race of 962 specialist physicians and 713 primary care physicians practicing in the 13 largest counties in California in 1998.**

MEASUREMENTS AND ANALYSIS: **We used physician self-report from mailed questionnaires to compare acceptance of new Medicaid and new Medicaid managed care patients by specialists versus primary care physicians and by physician demographics, practice setting, attitudes toward Medicaid patients, and attitudes toward Medicaid managed care. We analyzed results using logistic regression with data weighted to represent the total population of primary care and specialist physicians in the 13 counties.**

MAIN RESULTS: **Specialists were as likely as primary care physicians to have any Medicaid patients in their practices (56% vs 56%; *P* = .9). Among physicians accepting any new patients, specialists were more likely than primary care physicians to be taking new Medicaid patients but were significantly more likely to limit their acceptance to only Medicaid fee-for-service patients. Thus, specialists were much less likely than primary care physicians to accept new Medicaid managed care patients. After controlling for physician demographics, practice settings, and attitudes toward Medicaid patients and Medicaid managed care, specialists remained much less likely to accept new Medicaid managed care patients.**

CONCLUSIONS: **Expansion of Medicaid managed care may decrease access to specialists because specialists were less likely to accept new Medicaid managed care patients compared to Medicaid fee-for-service patients. Any decrease in access may be mitigated if states are able to contract with group model HMOs and to recruit minority physicians.**

KEY WORDS: **access to care; attitude of health personnel; Medicaid managed care; physician participation.**
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The Medicaid program has improved access to care for low-income patients who would otherwise lack health insurance.[1–4] However, many physicians do not participate in Medicaid, limiting the effectiveness of Medicaid in enhancing access to care. There have been numerous studies, predominantly of primary care physicians, to try to understand low physician participation in traditional fee-for-service Medicaid.[5–8] One study of office-based physicians performed in the early 1990s under traditional Medicaid found that non–primary care physicians were more likely than primary care physicians to be full participants (i.e., to accept all new Medicaid patients).[9]

There is reason to suspect that this pattern of Medicaid participation may be changing, particularly as Medicaid programs convert to a managed care format. Specialists tend to have less favorable attitudes than primary care physicians toward managed care overall.[10,11] Specialist antipathy to managed care may deter specialists from participating in Medicaid as the program shifts to managed care. Research on physician participation in Medicaid managed care is extremely limited and, like the work on fee-for-service Medicaid, it has concentrated on primary care physicians and not on specialists.[12,13]

In 1995, California began to expand mandatory managed care for the majority of the state's Medicaid (known as Medi-Cal) beneficiaries on a county by county basis. By July 1998, California had the largest total number of Medicaid beneficiaries (4,971,969) and the largest number in Medicaid managed care (2,317,796, or 47%) in the nation.[14,15]

California's physician fees for Medicaid patients are among the nation's lowest.[16] Furthermore, by federal regulation (42CFR447.361), prepaid payments to Medi-Cal managed care plans may not exceed the cost of providing the same services on a fee-for-service basis to an "actuarially equivalent" nonenrolled population group. Within this constraint on capitation levels, however, payment levels to physicians are at the discretion of the managed care plans. Thus, many of California's managed care plans pay providers at the same or higher rates for Medi-Cal managed care than they would have paid these providers through Medi-Cal fee-for-service arrangements.[16]

The implementation of managed care in California's Medi-Cal program provides a valuable laboratory for studying physician participation in Medicaid managed care. The majority of growth was through a "two-plan model" in which each county has both a "local initiative" and a commercial health plan competing for Medi-Cal beneficiaries. The two-plan model was designed, in part, to

ensure that traditional Medi-Cal physicians would have at least one health plan in their community with whom they could contract for Medi-Cal patients. Under the two-plan model, state law required that the local initiative plan contract with all traditional Medi-Cal providers; these providers agreed to offer services under the same terms and conditions as other providers in the plan. The commercial health plans were encouraged, but not required, to contract with traditional Medi-Cal providers. Thus, traditional Medi-Cal physicians could choose to participate in the local initiative plan but had to be selected to participate in the commercial health plan. Physicians who were not historically involved in offering care to Medi-Cal patients but who wanted to become involved in Medi-Cal managed care needed to be selected by either the local initiative, the commercial health plan, or both. Once a physician was affiliated with a Medi-Cal managed care health plan, the provider could accept Medi-Cal patients who either chose that provider or were assigned to that provider by the health plan.

We investigated physician participation in California's Medi-Cal program to compare specialist and primary care physician involvement in traditional Medi-Cal fee-for-service and in Medi-Cal managed care. We also explored physician attitudes toward Medi-Cal patients and Medi-Cal managed care that might explain potential differences in participation.

METHODS

Sample

In 1998, we mailed self-administered questionnaires to specialist physicians practicing in the 13 largest urban counties in California (Alameda, Contra Costa, Fresno, Los Angeles, Orange, Riverside, San Bernadino, San Diego, Sacramento, San Francisco, San Mateo, Santa Clara, and Solano). The study counties contained 79% of California's practicing specialist physicians, 79% of the state's population and 78% of the state's Medicaid population.[14,17] The physicians were identified from the American Medical Association's physician masterfile. The masterfile contains continuously updated information on all U.S. allopathic physicians and many osteopathic physicians, including those who are not AMA members. To be eligible for the survey, physicians had to be listed as providing direct patient care, not in training, and not employed by the federal government. Specialists were sampled who listed their primary specialty as cardiology, endocrinology, gastroenterology, general surgery, neurology, ophthalmology, or orthopedics. These specialties were chosen to provide a broad spectrum (procedure- and nonprocedure-oriented) of both surgical and medical office-based subspecialties. Specialist physicians were selected using a probability sample stratified by county and by physician race/ethnicity with an oversampling of nonwhite physicians. Completed questionnaires were obtained from 978 of the 1,492 eligible specialist physicians (66%). There were no significant differences in the age, gender, race, or specialty between respondents and nonrespondents to the specialist questionnaire. Sixteen specialists surveyed worked in public clinics or "other" practice settings such as schools or jails. Given the uniqueness of their practice settings, we excluded these 16 specialists and analyzed the responses of the remaining 962.

The primary care physicians were also surveyed in 1998 as part of a related research project. The primary care physicians were initially selected and surveyed in 1996. Details of the sample are given in a previous report.[18] Similar to the specialist survey, primary care physicians were drawn using a probability sample stratified by county and by physician race/ethnicity with an oversampling of nonwhite physicians. Primary care physicians were drawn from the same 13 counties in California used in the specialist survey. Primary care physicians were sampled who listed their primary specialty as family practice, general practice, general internal medicine, general pediatrics, or obstetrics and gynecology. In the original 1996 sample, completed responses were obtained from 947 of 1,336 eligible primary care physicians (response rate 71%). Between 1996 and 1998, 71 primary care physicians became ineligible due to death, retirement, or moving out of the study area. In the 1998 survey wave, completed questionnaires were obtained from 713 of the 876 eligible primary care physicians (81%). There were no significant differences in the demographic characteristics or baseline reports of involvement with the Medi-Cal program between respondents and nonrespondents to the follow-up questionnaire. Sixty-eight primary care physicians reported working in public clinics or in "other" settings. In order to be comparable to the specialists' practice settings, we excluded these 68 primary care physicians and analyzed the responses of the remaining 645.

Physician Questionnaire

Survey items for both the specialist and primary care physicians included physician demographics, practice setting, and characteristics of patients in practice. Physicians were asked whether they were taking any new patients. Physicians who were taking new patients were asked if they were accepting new Medi-Cal patients with managed care or fee-for-service insurance. Physicians used a 4-point Likert scale ranging from strongly agree to strongly disagree to rate several Medi-Cal patient characteristics. Physicians used the same 4-point scale to rate several effects of managed care on the Medi-Cal Program.

Analysis

In the analysis, results were weighted to be generalizable to the overall population of physicians in the

sampled specialties in the 13 study counties. Results were weighted by the inverse of the sampling fraction and the participation rate to account for oversampling of nonwhite physicians and differences in response rates among sampling strata.

For the purposes of simplifying the presentation, responses were collapsed to directional categories of agreement. Analysis comparing the composite groups of medically based specialties (cardiology, endocrinology, gastroenterology, and neurology) versus the surgically based specialties (ophthalmology, orthopedics, and surgery) revealed no clear differences with regard to taking new Medi-Cal patients or attitudes toward Medi-Cal patients and Medi-Cal managed care. Thus, for comparisons with primary care physicians, all 7 specialties were analyzed together as the category "specialists." Similarly, initial analysis of the 5 primary care categories did not show clear patterns of difference, so results from these 5 groups were combined for the group "primary care."

Statistical analyses were performed using χ^2 tests for bivariate comparisons of categorical data. We performed multivariate logistic regression to examine differences in specialists' and primary care physicians' willingness to accept any new Medi-Cal and any new Medi-Cal managed care patients controlling for physician characteristics, practice setting, attitudes toward Medi-Cal patients, and attitudes toward the Medi-Cal program.

Both the primary care and specialist physician survey research protocols were reviewed and approved by the University of California–San Francisco Committee on Human Research.

RESULTS

Compared to primary care physicians, specialists were more likely to be older, white, male, board-certified, and to earn higher incomes (Table 1). Specialists were less likely to be in group model HMOs. Specialists were as likely as primary care physicians to have any Medi-Cal patients in their practices at all (56% vs 56%; $P = .9$). However, among those physicians who saw any Medi-Cal patients, Medi-Cal patients comprised a significantly smaller percentage of the specialists' practices compared to primary care physicians (mean 12% vs 20%; $P < .0001$)

Among physicians taking any new patients, specialists were significantly more likely than primary care physicians to be accepting new Medi-Cal patients (55% vs 49%; $P = .02$). Specialists, however, were more likely to distinguish between Medi-Cal managed care and Medi-Cal fee-for-service patients. Sixty-two percent of specialists accepting new Medi-Cal patients accepted Medi-Cal managed care patients compared with 80% of primary care physicians ($P < .0001$).

Accepting new Medi-Cal patients closely mirrored whether physicians had Medi-Cal patients in their practices. Among specialists, 82% who were accepting new Medi-Cal patients already had some Medi-Cal patients in their practices; 72% who were not accepting new Medi-Cal

Table 1. Unweighted and Weighted Characteristics of Physician Respondents

	Primary Care (*N* = 645)	Specialists (*N* = 962)	Weighted Primary Care (*N* = 645)	Weighted Specialist (*N* = 962)	*P* Value
Age >50 y, %	45	57	51	59	.004
Race/ethnicity, %					<.0001
African American	10	7	3	2	
Asian	27	18	28	18	
Latino	17	8	4	3	
Other	2	4	1	4	
White	44	63	63	72	
Male, %	77	90	80	91	<.0001
U.S. medical school graduate, %	72	73	74	77	.18
Board-certified, %	80	86	81	88	<.0001
Practice setting, %					<.0001
Group model HMO	21	12	23	12	
Group practice	40	44	40	46	
Solo practice	39	44	37	42	
Mean income, $1,000	134.8	201.4	134.6	210.9	<.0001
Any Medi-Cal patients in practice, %	59	58	56	56	.86
Medi-Cal patients in practice if have any, mean, %	21	12	20	12	<.0001
Accepting any new Medi-Cal*, %	51	55	49	55	.02
Of those taking new Medi-Cal*:					
Accepting new Medi-Cal managed care, %	84	64	80	62	<.0001

* *Analyses restricted to those physicians accepting any new patients: 85% of primary care physicians, 98% of specialist physicians.*
Weighted values have been adjusted according to sampling stratification and response rate to represent the total population of primary care and specialist physicians in the areas we studied.

patients had none in their practices. Similarly, among primary care physicians, 86% who were accepting new Medi-Cal patients already had some in their practices; 73% who were not accepting new Medi-Cal patients had none in their practices. Among primary care physicians who reported that they were not accepting new Medi-Cal patients, 59% said it was their own decision to limit Medi-Cal participation as opposed to their medical group's or HMO/IPA's decision. Similarly, among primary care physicians who were accepting Medi-Cal fee-for-service but not Medi-Cal managed care patients, 66% reported that it was their own decision to select among Medi-Cal patients.

In general, both primary care physicians and specialists agreed that Medi-Cal patients have several characteristics that pose challenges (Table 2). Nearly three quarters of both specialists and primary care physicians agreed that Medi-Cal patients have complex clinical problems, have complex psychosocial problems, are noncompliant, and require extra time for explanations. Specialists were slightly more likely to agree that Medi-Cal patients had complex clinical problems while primary care physicians were more likely to agree that Medi-Cal patients had complex psychosocial problems. Specialists were significantly more likely to agree that Medi-Cal patients increase the risk of being sued and are noncompliant.

Consistent with the finding that specialists were less likely to accept new Medi-Cal managed care patients, specialists had consistently and significantly more negative opinions of Medi-Cal managed care compared to primary care physicians (Table 2). Only one third of specialists felt that managed care was improving the Medi-Cal program compared to half of the primary care physicians ($P < .0001$). The specialists were significantly more likely to agree that managed care was increasing the hassles of caring for Medi-Cal patients without increasing reimbursement and without making it easier to obtain tests or consults.

Multivariate Analysis

Noting that primary care and specialist physicians differed in their demographic characteristics and practice setting, we controlled for these differences in a preliminary multivariate regression model to further isolate the impact of physician specialty on accepting Medi-Cal and Medi-Cal managed care patients. After controlling for physician demographics and practice setting, specialists remained significantly more likely than primary care physicians to accept new Medi-Cal patients (odds ratio [OR], 1.5; $P < .002$). African-American, Asian and Latino physicians were significantly more likely to accept new Medi-Cal patients compared to white physicians (OR, 2.41; $P < .0001$, OR, 1.35; $P < .05$, and OR, 1.70; $P < .007$, respectively). Graduates of international medical schools (OR, 1.82; $P < .0001$) and physicians in group model HMOs (OR, 1.71; $P < .004$) were also significantly more likely to accept new Medi-Cal patients.

To determine whether attitudes toward Medi-Cal patients helped to explain the differences in physician willingness to accept new Medi-Cal patients, we included these attitudes toward Medi-Cal patients in a second regression model (Table 3). Specialists remained significantly more likely than primary care physicians to accept new Medi-Cal patients; the differences in attitudes toward Medi-Cal patients that we measured did not explain a large amount of the differences in the willingness of specialists and generalists to accept Medi-Cal patients.

In general, the attitudes toward Medi-Cal patients did not predict whether physicians would accept new Medi-Cal patients with one exception. Physicians who believed that Medi-Cal patients increased the risk of being sued were significantly less likely to take new Medi-Cal patients.

Table 2. Physician Attitudes Toward Medi-Cal Patients and Medi-Cal Managed Care Program

	Weighted Primary Care (*n* = 645)	Weighted Specialist (*n* = 962)	*P* Value
Agree Medi-Cal patients, %			
Have complex clinical problems	77	82	.01
Have complex psychosocial problems	86	81	.02
Are noncompliant	72	77	.02
Require extra time for explanations	70	73	.27
Unsettle other patients in the waiting room	36	38	.26
Increase the risk of being sued	47	55	.002
Agree Medi-Cal managed care is, %			
Improving Medi-Cal overall	50	34	<.0001
Increasing reimbursement	30	18	<.0001
Making it easier to obtain tests and consults	47	28	<.0001
Increasing the hassles of caring for Medi-Cal patients	50	72	<.0001

Weighted values have been adjusted according to sampling stratification and response rate to represent the total population of primary care and specialist physicians in the areas we studied.

Table 3. Odds Ratios from Logistic Regression Models Predicting Taking New Medi-Cal Patients among Physicians Accepting Any New Patients

Predictor	Odds Ratio	95% Confidence Interval
Primary care physicians	1.0	
Specialists	1.40*	1.07 to 1.83
Age ≤50 y	1.0	
Age >50 y	1.02	0.79 to 1.32
Race/ethnicity		
African American	2.47†	1.56 to 3.90
Asian	1.43*	1.04 to 1.96
Latino	1.85†	1.23 to 2.77
Other	1.04	0.52 to 2.08
White	1.0	
Female	1.0	
Male	0.87	0.61 to 1.24
International medical school graduate	1.92†	1.41 to 2.59
U.S. medical school graduate	1.0	
Board-certified	0.83	0.59 to 1.17
Not board-certified	1.0	
Practice setting		
Group model HMO	1.50*	1.01 to 2.21
Group practice	1.13	0.87 to 1.48
Solo practice	1.0	
Income	0.99	0.99 to 1.00
Agree that Medi-Cal patients‡		
Have complex clinical problems	1.03	0.75 to 1.41
Have complex psychosocial problems	1.05	0.74 to 1.50
Are noncompliant	0.84	0.61 to 1.14
Require extra time	1.19	0.88 to 1.61
Unsettle other patients in the waiting room	1.02	0.79 to 1.33
Increase the risk of being sued	0.76*	0.58 to 0.99

* $P < .05$.
† $P < .005$.
‡ *Reference category is those physicians who disagreed with the attitude statement.*
Analysis restricted to physicians accepting any new patients: 85% of primary care physicians, 98% of specialist physicians.

Table 4 presents the analysis restricted to physicians accepting any new Medi-Cal patients: 42% of primary care physicians and 54% of specialists. After controlling for demographic characteristics and practice setting in a preliminary regression model, specialists remained significantly less likely to accept new Medi-Cal managed care patients compared to primary care physicians (OR, 0.35; $P < .0001$). Physicians in group practice (OR, 2.25; $P < .0001$) and especially in group model HMOs (OR, 43.5; $P < .0001$) as compared to physicians in solo practice were significantly more likely to accept new Medi-Cal managed care patients. In stratified analyses, primary care physicians and specialists in group model HMOs were each significantly more likely to accept new Medi-Cal managed care patients compared to their counterparts in solo practice (data not shown). African-American, Asian and Latino physicians were also more likely than white physicians to accept new Medi-Cal managed care patients (OR, 2.66; $P < .006$, OR, 1.80; $P < .03$, and OR, 2.08; $P < .02$, respectively).

Including physician attitudes toward Medi-Cal patients and toward the Medi-Cal managed care program did not change the pattern of results (Table 4). In the complete model, specialists remained far less likely to accept Medi-Cal managed care patients compared to primary care physicians among those physicians who were willing to accept Medi-Cal patients at all (OR, 0.36; $P < .0001$). As might be expected, physicians who agreed

Table 4. Odds Ratio from Logistic Regression Models Predicting Taking New Medi-Cal Managed Care Patients among Physicians Accepting Any New Medi-Cal Patients

Predictor	Odds Ratio	95% Confidence Interval
Primary care physicians	1.0	
Specialists	0.36†	0.22 to 0.61
Age ≤50 y	1.0	
Age >50 y	0.89	0.58 to 1.37
Race/ethnicity		
African American	2.75*	1.26 to 6.02
Asian	1.59	0.92 to 2.72
Latino	2.33*	1.19 to 4.59
Other	1.98	0.55 to 7.09
White	1.0	
Female	1.0	
Male	1.07	0.57 to 2.00
International medical school graduate	1.46	0.89 to 2.40
U.S. medical school graduate	1.0	
Board certified	1.08	0.63 to 1.85
Not board certified	1.0	
Practice setting		
Group model HMO	18.87†	4.35 to 83.3
Group practice	2.11†	1.36 to 3.28
Solo practice	1.0	
Income	1.00	0.99 to 1.00
Agree that Medi-Cal patients‡		
Have complex clinical problems	0.79	0.44 to 1.40
Have complex psychosocial problems	1.27	0.70 to 2.31
Are noncompliant	0.67	0.39 to 1.15
Require extra time	1.47	0.87 to 2.46
Unsettle other patients in the waiting room	1.34	0.86 to 2.08
Increase the risk of being sued	0.78	0.50 to 1.21
Agree Medi-Cal managed care is‡		
Improving Medi-Cal overall	1.78*	1.04 to 3.06
Increasing reimbursement	1.07	0.59 to 1.95
Making it easier to obtain tests and consults	0.96	0.57 to 1.62
Increasing the hassles of caring for Medi-Cal patients	0.93	0.57 to 1.50

* $P < .05$.
† $P < .005$.
‡ *Reference category is those physicians who disagreed with the attitude statement.*
Analysis restricted to physicians accepting any new Medi-Cal patients: 42% of primary care physicians, 54% of specialist physicians.

that managed care was improving the Med-Cal program overall were significantly more likely to accept new Medi-Cal managed care patients.

DISCUSSION

Our research indicates that the adoption of Medicaid managed care could have differential effects on specialist and primary care physicians' participation in Medicaid, which would result in decreased access to specialists for Medicaid managed care patients. While specialists were more likely than primary care physicians to accept new Medi-Cal patients overall, specialists were more likely to differentiate between Medi-Cal fee-for-service and managed care patients. Specialists were far less likely than primary care physicians to accept new Medi-Cal managed care patients. This apparent physician distinction between Medicaid fee-for-service and Medicaid managed care has emerged with the creation of Medicaid managed care. In the early 1990s, before the introduction of Medicaid managed care, a survey of office-based physicians found specialist physicians were more likely to accept new Medicaid patients than were their primary care counterparts.[9]

While both primary care and specialist physicians hold several potentially negative attitudes about Medi-Cal patients, these attitudes, with one exception, do not predict whether the physicians are willing to accept new Medi-Cal patients. It is likely that these negative opinions are outweighed by economic or social considerations. Earlier studies of traditional Medicaid found the level of reimbursement and density of physicians to be the strongest predictors of level of physician participation.[7,9,19–21]

The one exception is the belief that Medi-Cal patients increase the risk of being sued. There has been a long-standing belief among health care providers that the poor and Medicaid patients in particular are more likely than other patients to pursue legal action against physicians.[19,22–24] This fear persists despite a number of reports that indicate otherwise.[23,25–27] Better dissemination of such information may help convince physicians that Medicaid patients are not more likely to sue and may increase physician willingness to accept new Medicaid patients.

Physician attitudes toward Medi-Cal patients and toward the Medi-Cal managed care program also do not predict physician willingness to accept new Medi-Cal managed care patients, again with one exception. Physicians who agreed that managed care was improving the Medi-Cal program overall were more likely to accept new Medi-Cal managed care patients. Agreement with specific program mechanics, such as making it easier to obtain tests and consults, however, were not predictive. As with Medi-Cal in general, attitudes toward Medi-Cal managed care may be outweighed by other factors, particularly economic and social. In Arizona, primary care physicians tended to participate in Medicaid managed care in large part because of reimbursement and their belief in government social programs, even with negative attitudes toward patients and plan administration.[12] Participation of primary care physicians in Kansas Medicaid managed care was most strongly predicted by several variables that all related to reimbursement.[13]

Our analysis suggests that a decrease in specialist participation and the resultant decrease in access to specialists with Medicaid managed care might be mitigated if states are able to contract with group model HMOs. Physicians in this practice setting were more likely to take new Medi-Cal patients in general and were much more likely to take new Medi-Cal managed care patients. In such group model HMOs, the decisions regarding contracting may be made by HMO executives and not individual physicians. Future efforts to increase access to specialist care for Medicaid patients might be successful if such efforts aimed to get Medicaid beneficiaries enrolled in group model HMOs. Targeted expansion of Medicaid managed care into group model HMOs, however, may not be feasible. In California, for example, there were only 2 group model HMOs operating in 1998. Together these 2 plans enrolled approximately 19% (4,568,177) of all privately insured Californians under the age of 65[28] but less than 1% (29,104) of all Medi-Cal beneficiaries.[14]

In addition, African-American, Asian and Latino physicians were more likely to accept new Medi-Cal patients and new Medi-Cal managed care patients compared to white physicians. Previous work before the introduction of Medicaid managed care similarly found minority primary care physicians more likely to care for Medicaid patients.[8,22]

Our finding of decreased specialist participation and likely decreased access to specialists in Medicaid managed care is in contrast to some earlier work. In New York, Sisk et al. documented patient self-reported improved access to outpatient services for Medicaid managed care beneficiaries compared to Medicaid fee-for-service beneficiaries.[29] The access items, however, asked about having a usual source of care and about seeing the same clinician and most likely measure access to primary care physicians and not to specialists. In addition, unlike the mandatory Medicaid managed care program in California, the program in New York was voluntary, allowing for the possibility that patient self-selection could explain the reports of improved access to care for those in Medicaid managed care.

It is important to note certain limitations of our analysis. First, our analysis is limited to physicians in California and may not be generalizable to physicians in other states. Second, the data are derived from physicians' self-reports. While previous research has documented that physicians tend to overestimate the absolute number of Medicaid patients in their practices, they are quite accurate in their reports about nonparticipation.[30] Third, since this is a cross-sectional survey, cause and effect for having a positive attitude toward Medi-Cal managed care and accepting new Medi-Cal managed care patients cannot be assigned. Finally, this survey was conducted relatively early

in the expansion of Medi-Cal managed care and it therefore may not reflect patterns of care that were yet to develop.

Judging by specialists' reports of being far less likely to take Medi-Cal managed care patients compared to traditional Medi-Cal patients, expansion of managed care Medicaid will likely decrease specialist participation in Medicaid managed care and consequently decrease access of Medicaid patients to specialists. This decrease in access may be mitigated if states are able to contract with group model HMOs and to recruit minority physicians. The lack of sufficient numbers of group model HMOs willing to contract with Medicaid and recent declines in minority enrollments in U.S. medical schools,[31] however, may mean that states will have to seek other means to avert a decrease in health care access for Medicaid managed care beneficiaries. Negative attitudes toward Medicaid patients and Medicaid managed care, while pervasive, do not appear to predict acceptance of new Medicaid patients. Further research may try to identify other mutable physician or system characteristics that could be addressed to increase physician participation in the Medicaid program.

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