Patient Protection and Risk Selection

Do Primary Care Physicians Encourage their Patients to Join or Avoid Capitated Health Plans According to the Patients' Health Status?

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BACKGROUND: Individual physicians who are paid prospectively, as in capitated health plans, might tend to encourage patients to avoid or to join these plans according to the patient's health status. Though insurance risk selection has been well documented among organizations paid on a prospective basis, such physician-level risk selection has not been studied.

OBJECTIVE: To assess physician reports of risk selection in capitated health plans and explore potentially related factors.

DESIGN AND PARTICIPANTS: National mailed survey of primary care physicians in 1997–1998, oversampling physicians in areas with more capitated health plans.

RESULTS: The response rate was 63% (787 of 1,252 eligible recipients). Overall, 44% of physicians reported encouraging patients either to join or to avoid capitated health plans according to the patients' health status: 40% encouraged more complex and ill patients to avoid capitated plans and 23% encouraged healthier patients to join capitated plans. In multivariable models, physicians with negative perceptions of capitated plan quality, with more negative experiences in capitated plans, and those who knew at each patient encounter how they were being compensated had higher odds of encouraging sicker patients to avoid capitated plans (odds ratios, 2.0, 2.2, and 2.0; all confidence intervals >1).

CONCLUSIONS: Many primary care physicians report encouraging patients to join or avoid capitated plans according to the patient's health status. Although these physicians' recommendations might be associated primarily with concerns about quality, they can have the effect of insulating certain health plans from covering sicker and more expensive patients.

KEY WORDS: capitation; physician survey; quality; risk; advocacy; ethics.

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Capitated payment, “the purest form of risk sharing,”¹ is the prototypical method of placing physician income at risk for the costs of their patients' care and, despite some predictions of its demise,² recent data show that capitation remains common in every region of the United States,

especially among primary care physicians.^{3,4} Health plans that pay by capitation pay physicians, either individually or in a group, a fixed payment per month for each patient who designates the physician or group as his or her “provider.” Expenditures for a defined package of services for these patients during the month are taken from this fixed payment.

Though individual physicians' compensation methods today are rarely simple (for instance, fee-for-service payments may be accompanied by utilization review and other incentives to reduce resource utilization, whereas capitated payments to physician groups may be passed on in the form of salary or even fee-for-service payments to individuals^{5,6}), health plans that pay by capitation may have unique effects on physicians' perceived roles and responsibilities and may stand apart from other plans in physicians' minds.^{7,8} In California, primary care physicians appear to “distinguish their care for patients for whom their group is capitated from their care for other patients... and have both distinct responsibilities and attitudes about this aspect of their practice.”⁹ In particular, physicians may perceive more ethical and quality issues under capitated payment.¹⁰ While studies of quality of care under prospective payment have been mixed,^{11–16} concerns with capitation have received prominent notice in the popular press,^{17–19} in opinion pages of medical journals,^{20–23} and in several physician surveys.^{9,24,25} Physicians in California medical groups receiving capitated payments were less satisfied with the quality of care they could provide to their capitated patients compared to their patients in other types of plans.⁹ Nationally, primary care physicians have reported that capitation hinders patients' access to care, compromises outcomes, and is “costly in terms of income and professional relationships.”²⁶

Against this backdrop, medical leaders have suggested that physicians should act as informed purchasing advisors to patients²⁷ and should recommend specific health plans to their patients based on the patients' best interests.^{28–30} But when health plans transfer insurance risk to physicians, as with capitated payments, there is a financial incentive for physicians to shun higher cost patients and to attract lower cost individuals into these plans. Avoiding patients whose care is expected to cost more (“risk-avoidance”) and selecting patients whose care is expected to cost less (“cherry-picking” or “cream-skimming”) are called insurance risk-selection, which is generally discouraged and may even be illegal.^{28,31} At the very least, risk selection is undesirable because it protects

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insurers who risk select at the expense of those who cannot avoid caring for the very ill, such as safety net providers.^{32,33}

Risk selection has been documented in organizations, such as health plans, Medicare carriers, hospitals, nursing homes and home health agencies, which typically receive capitated payments.^{31,32,34} One study suggested that individual physicians might practice risk selection when their care outcomes are publicly reported, by declining to operate on high-risk patients,³⁵ though a subsequent study did not confirm this.³⁶ No study that we are aware of has documented individual physician risk selection under capitation, although whether physicians paid by capitation might foster risk selection has been a matter of concerned conjecture among policy makers and ethicists.^{28,30}

To address this issue, we performed a national survey of primary care physicians to determine how often physicians report encouraging patients with better health status to join, or worse health status to avoid, capitated health plans; and, secondarily, whether primarily quality or

financial concerns are associated with attempts at risk-selection.

METHODS

Physician Sampling

We mailed a self-administered survey to primary care physicians in 1997, using 2 random samples from the American Medical Association Masterfile of all physicians licensed in the United States. One thousand physicians were drawn from among all physicians active in primary care clinical practice (i.e., physicians practicing more than 20 hours per week in a primary care specialty [see Table 1]), and an additional 175 physicians were drawn from each of 3 metropolitan areas known to have very high managed care penetration: Portland, Oregon; Minneapolis, Minnesota; and Boston, Massachusetts. Physicians who were deceased, retired or no longer seeing patients, who had moved with no forwarding address, and physicians-in-training were considered ineligible and were excluded. The final sample consisted of 1,252 eligible physicians.

Table 1. Characteristics of Survey Respondents and Nonrespondents*

Characteristic	Respondents (n = 787)	Nonrespondents (n = 465)
Female, n (%)	142 (20)	116 (25)
Mean age, y (SD)	49.9 (11.2)	49.6 (12.8)
Graduation year, mean (SD)	1976 (11)	1976 (13)
Specialty, n (%)		
Internal medicine [†]	350 (44)	244 (52)
Family practice	276 (35)	160 (34)
General practice [‡]	64 (8)	54 (12)
Other [†]	97 (12)	7 (2)
Major professional activity, n (%)		
Office-based practice [†]	551 (70)	367 (79)
Hospital-based practice	65 (8)	40 (9)
Teaching/administration	29 (4)	17 (4)
Other [†]	124 (16)	33 (7)
Present employment, n (%)		
Group practice [†]	230 (33)	120 (26)
Self-employed	160 (23)	98 (21)
Hospital	76 (11)	42 (9)
Medical school	25 (4)	10 (2)
Other/unclassified [†]	206 (30)	194 (42)
Region, n (%)		
Northeast	164 (24)	131 (29)
North central [†]	218 (31)	107 (23)
South	141 (20)	101 (22)
West	170 (25)	117 (26)
Urban/rural, n (%)		
Large urban area (population >1,000,000)	457 (66)	322 (71)
Medium urban area (population 50,000–999,999)	168 (24)	99 (22)
Rural area (population <50,000)	68 (10)	35 (8)
Currently participate in any managed care plans, % yes [§]	79	—
Currently participate in any health plans that pay a capitated rate, % yes [§]	59	—

* Results for demographics are not weighted, to better illustrate differences between respondents and nonrespondents.

[†] P ≤ .01 for difference.

[‡] P ≤ .05 for difference.

[§] Results are weighted to be nationally representative, adjusting for the oversampling of higher managed care penetration cities in our sample.

Data Collection

Physicians were informed in a cover letter that their information would remain strictly confidential. Because of the sensitive nature of some survey questions, an independent survey research firm (Axiom Research Company, Cambridge Mass) conducted all mailings and potentially identifying data, such as names and addresses, were removed from the data set prior to analysis. The investigators cannot identify individual respondents.

Follow-up occurred throughout 1997 and early 1998. The survey was remailed to nonresponders 5 times. After 2 mailings, we phoned nonresponders to confirm addresses and encourage responses. In the fourth mailing, we enclosed a \$10 cash incentive and a shortened version of the survey. Survey shortening was accomplished through elimination of 17 items; remaining items were kept in their original order. This report includes results drawn from the 16 items that remained on the shorter survey.

Variables

Dependent Variables. Our 2 dependent variables corresponded to 2 ways in which physicians might foster risk selection under capitation. First, physicians were asked to report how often in the last year they had encouraged more complex or ill patients to avoid a capitated health plan. Second, they were asked to report how often in the last year they had encouraged healthier patients to join capitated health plans. Each of these items was answered on a 4-point scale from “never” to “very often.”

Independent Variables. Several independent variables assessing physicians' experiences with capitated health plans were pretested in a previously reported pilot survey.²⁵ In addition to certain demographic characteristics (years since medical school graduation, region, specialty and gender) we hypothesized that 4 factors might be correlated with encouraging patients to avoid or join capitated plans.

The first factor was physicians' perceptions of the quality of care they could offer to patients in capitated plans. This was assessed using a single item, adapted from the Medical Outcomes Study and other previous research,^{9,37} asking whether the quality of care the physicians could provide for their patients in capitated plans was different from the quality they could provide for their patients in other plan types (answered on a 5-point scale from “much better” to “much worse”). Those stating that quality was better or worse were each compared with those reporting similar quality in capitated plans.

The second factor was the presence or lack of local alternatives to capitated health plans. Three items addressed this issue. First, physicians were compared based on how many of their patients were in capitated plans (fewer than 25% vs 25% or more). Second, physicians who reported that it would not be “possible to stay in the

practice of medicine *and* not accept capitated payments for patient care” (italics in the original) were compared with those who said it would be possible. Third, those in rural areas (<50,000 population) were compared with nonrural practitioners, since rural areas tend to have fewer available health insurance products.

The third factor was the strength and clarity of any financial incentives favoring risk selection. To assess this, physicians reporting 25% or more of their personal income to be at risk for the costs of patient care were compared with those reporting less income at risk; self-employed physicians were compared with employed physicians; and physicians who reported knowing how they were being compensated at most patient encounters were compared with those who did not usually know what sort of insurance each patient had.

Finally, on the basis of prior research, we hypothesized that prior experience in capitated plans might be important but that experience could lead to either more positive or more negative perceptions.^{25,26} Because this might lead an ‘experience’ variable to give confusing results, we created more meaningful subgroups in the following way. First, we assessed degree of experience by asking how long ago the physician had first accepted a health plan contract that paid a capitated rate. Then, as a general measure of physicians' views toward capitated health plans, we asked whether the physician would be willing to give up some proportion of his or her income to avoid practicing in capitated health plans. We stratified respondents by degree of experience (more or less than 2 years) and by having a negative or positive view toward capitation (those expressing any willingness to give up income to avoid capitated health plans versus those who did not), creating 4 experience/view groups. Those with more experience combined with no willingness to pay to avoid capitated plans (i.e., the most “positive experience” group) were then compared with the 3 other groups.

Analyses

Initially, we employed an oversampling strategy to ensure sufficient numbers of physicians with experience in capitation at a time when we suspected that few such physicians would be found in a national random sample. However, many physicians nationwide have such experience today. Thus, for this report, we were able to back-weight the data so that they are nationally representative: that is, respondents from the 3-city oversample received proportionally less weight than national-sample respondents, so that the results presented are equivalent to a national random sample without an oversampling strategy.

For multivariable analyses, the 2 dependent variables were each dichotomized so that those answering “never” were in one category and the rest were in another. We then created 2 straight-entry multivariable logistic regression models (1 for each dependent variable), including years since medical school graduation, region, specialty, gender,

and the other independent variables listed above. In these models, many potential analytic subgroups were small, which led us to dichotomize many of our independent variables rather than splitting them into multiple smaller groups. Thus, we compare urban versus rural physicians, for example, and those with more than 25% of their incomes at risk to those reporting less income at risk. To assess the reasonableness of these selected cut points, in post hoc analyses we re-ran the multivariable models using reasonable alternative cut points (for example, comparing physicians with no income at risk to those with any income at risk) and found no meaningful changes in the findings presented.

RESULTS

Of the 1,252 surveys, 787 were completed and returned (514 from the national sample and 273 from the high penetration cities) for a response rate of 63%. Table 1 shows that when compared to nonresponders, responders to the survey were less often internists or general practitioners and less often in office-based practice, but more often in group practice. Most respondents (79%) participated in managed care and 59% had at least 1 contract that paid a capitated rate for patient care.

Prevalence of Risk Selection

Table 2 shows results for the 2 dependent variables. Forty percent of physicians reported occasionally or more often encouraging more complex and ill patients to avoid capitated plans, while 23% reported encouraging healthier patients to join capitated plans. Combining these results, in analyses that are not shown in the table, a total of 44% of physicians reported either encouraging healthy patients to join or ill patients to avoid capitated plans, while 20% reported having recommended both that ill patients avoid and that healthier patients join capitated health plans.

Correlates of Risk Selection

Table 3 displays the results of the 2 multivariable models to assess factors that might be associated with physicians' attempts at risk selection. Among general

demographic factors, family physicians had somewhat lower odds of reporting having advised patients to join or avoid capitated plans. Female physicians had somewhat higher odds of having advised healthier patients to join capitated plans, while Southern physicians had lower odds of doing so.

Among the 4 targeted factors that we hypothesized might be related to attempts at risk selection, physicians who reported that they could provide worse quality care to their patients in capitated plans had twice the odds of having encouraged more complex and ill patients to avoid these plans, while those who reported higher quality care in capitated plans had 4 times the odds of having encouraged healthier patients to join these plans. Interestingly, with regard to patient advocacy, 54% of physicians (71 of 131) who believed that the quality of care in capitated plans was worse nevertheless reported never advising ill patients to avoid these plans (unadjusted data, not shown). Among financial factors, physicians who usually knew how they were being paid had 2-fold greater odds of encouraging sicker patients to avoid capitated plans and their healthier patients to join them. But having more of one's patients in capitated plans and reporting more of one's income to be at risk for patient care expenses did not appear to be related to either sort of risk selection activity. Finally, physicians reporting little or no experience in capitated plans had lower odds of encouraging healthier patients to enroll in these plans, while those with negative experience in capitated plans had greater odds of encouraging ill patients to avoid them.

DISCUSSION

Among a nationally representative sample of primary care physicians, we sought first to determine whether some are fostering insurance risk selection—encouraging healthy patients to join and ill patients to avoid capitated health plans. Secondarily, we hypothesized that physicians might steer patients into or away from capitated plans for several reasons, including directing patients into plans on the basis of perceived quality of care and/or for the physicians' own financial interests. Though both might lead to insurance risk selection, the former is

Table 2. Frequency of Primary Care Physicians' Encouragement of Patients to Join or to Avoid Capitated Health Plans According to the Patients' Health Status (N = 787)*

Survey Question	Responses, %			
	Never	Occasionally	Most of the Time	All of the Time
In the last year, how often have you encouraged more complex and ill patients <i>not</i> to join plans that use capitated payments for care? [†]	60	21	10	9
In the last year, how often have you encouraged your healthier patients to <i>join</i> plans that use capitated payments for care? [†]	77	18	4	1

* Results in the table are weighted to be nationally representative, adjusting for the oversampling of higher managed care penetration cities in our sample.

[†] Italics in the original.

Table 3. Multivariable Models Exploring Potential Factors Affecting Physicians' Encouragement of Patients to Join or to Avoid Capitated Health Plans According to the Patients' Health Status (N = 787)*

Hypothesized Factors	Weighted Percent of Sample	Advise Ill Patients not to Join Capitated Plans	Advise Healthier Patients to Join Capitated Plans
		OR (95% CI)	OR (95% CI)
Demographics			
Gender (female) [†]	20	1.3 (0.6 to 2.6)	2.1 (1.0 to 4.3)
Medical school graduation year (pre-1980)	57	1.0 (1.0 to 1.0)	1.0 (1.0 to 1.0)
Internal medicine [§]	44	1.0 (N/A)	1.0 (N/A)
Family practice	35	0.5 (0.3 to 0.9) [‡]	0.6 (0.3 to 1.0)
General practice	8	1.7 (0.8 to 3.5)	1.4 (0.6 to 3.2)
Northeast region [§]	24	1.0 (N/A)	1.0 (N/A)
North central region	31	0.7 (0.4 to 1.3)	0.7 (0.4 to 1.4)
Western region	25	0.6 (0.3 to 1.2)	0.5 (0.2 to 1.1)
Southern region	20	0.6 (0.3 to 1.1)	0.4 (0.2 to 0.8) [‡]
Quality of care concerns			
Report that the quality of care in capitated plans is the same as in other plans [§]	57	1.0 (N/A)	1.0 (N/A)
Report that the quality of care in capitated plans is better than in other plans	10	1.9 (0.9 to 3.9)	4.0 (1.8 to 8.9) [‡]
Report that the quality of care in capitated plans is worse than in other plans	33	2.1 (1.3 to 3.4) [‡]	1.1 (0.6 to 2.0)
Fewer alternatives to capitated plans available[†]			
25% or more of patients in capitated health plans	31	0.9 (0.5 to 1.6)	0.9 (0.5 to 1.8)
Report that it is not possible to avoid capitated health plan contracts	55	0.7 (0.4 to 1.1)	0.6 (0.3 to 1.1)
Practice in rural area (population <50,000)	13	0.9 (0.4 to 2.1)	1.1 (0.4 to 2.8)
Stronger/more apparent financial incentives[†]			
Report 25% or more of total income at risk for the costs of patient care	19	0.8 (0.5 to 1.4)	1.3 (0.7 to 2.4)
Report being self-employed	28	1.7 (1.0 to 2.8)	0.6 (0.3 to 1.1)
Report often or always knowing method of compensation when seeing patients	71	2.0 (1.2 to 3.3) [‡]	2.0 (1.1 to 3.7)
Experience in capitation			
Report some experience with capitation/no desire to avoid it [§]	19	1.0 (N/A)	1.0 (N/A)
Report little or no experience with capitation/no desire to avoid it	23	1.0 (0.4 to 2.1)	0.1 (0.0 to 0.4) [‡]
Report little or no experience with capitation/desire to avoid it	34	1.6 (0.8 to 3.0)	0.7 (0.3 to 1.4)
Report some experience with capitation/desire to avoid it	23	2.2 (1.2 to 4.0) [‡]	1.0 (1.5 to 1.9)

* The models included all of the variables listed (see Methods).

[†] Reference groups for these factors are those responding to the item in any way other than that described, e.g., males, those with fewer than 25% of their patients in capitated plans, those reporting that it is possible to avoid capitated contracts, and so on.

[‡] Statistically significant findings (at $P < .05$) represent independently significant factors, adjusting for all other variables listed.

[§] Reference group.

^{||} Some experience with capitation is defined as more than 2 years since the physician accepted his or her first capitated health plan contract. Desire to avoid capitation is defined by expressing willingness to give up some income to avoid capitation (see Methods).

OR, odds ratio; CI, confidence interval; N/A, not applicable.

a patient advocacy motive and the latter is self-serving. We had hoped to help disentangle the roles of these motives.

With regard to our primary research question, a substantial minority of physicians (44%) reported at least occasionally encouraging patients to join or to avoid capitated health plans according to the patients' health status. Forty percent of physicians reported encouraging more complex and ill patients to avoid capitated plans, while 23% reported encouraging healthier patients to join these plans.

Unfortunately, in assessing why physicians under capitation might try to steer their patients' into or away from these plans our data are equivocal. Regarding patient advocacy, we found that when physicians have negative experiences with capitated plans, and are concerned about their quality, they more often report encouraging sicker patients to avoid these plans. Those who report that care under capitated plans is better more often report encouraging healthier patients to enroll in these plans. However, 66% of physicians reported never making recommendations to patients about their health plan choices—and 54%

of those who believe capitated plans provide worse quality care reported never encouraging ill patients to avoid these plans—suggesting that many physicians are reluctant to advise patients on insurance options. The reasons for this are not clear, but may include that patients' choices are limited, physicians are not aware of patients' options, or they simply do not want to get involved in the issue.

Regarding financial concerns, it is somewhat reassuring that most of the variables we assessed were not associated with risk selection. Physicians with more of their income at risk for patient care costs (who may have a greater incentive to risk select) and physicians with more patients in capitated health plans were neither more nor less likely to report encouraging risk selection. But these 2 variables are admittedly imperfect markers for financial concerns. For instance, some physicians with small numbers of capitated patients might be highly motivated to avoid having ill patients in these plans, given their inability to spread risk effectively. The variable we used to measure the clarity of financial incentives—being aware of how one is compensated for each patient—was an independent correlate of risk selection. But one might expect that physicians who are not aware of each patient's insurance coverage would be less likely to recommend changes in this coverage, so this variable may not reflect physician financial self-interest.

Given the complexities of physician compensation mechanisms, perhaps it is not surprising that we could not clearly distinguish physician financial self-interest and patient advocacy motives under capitation. Capitated plans can vary in the services for which physicians are at financial risk (e.g., pharmacy benefits), which makes disentangling motivations especially difficult; and while physicians under capitation are largely responsible for the quality of care delivered, where physician groups are becoming bankrupt under capitated payments, the line between quality concerns and financial self-interest may become blurred.³⁸ Particularly where physicians do not have stop-loss or reinsurance policies,³⁹ it seems implausible that physicians can entirely ignore the potentially devastating financial implications of having very ill patients in capitated-payment plans.

Without fully disentangling advocacy versus financial motivations, our results document that physicians are probably contributing to risk selection in the current health care market. These data thus raise legal, ethical, and policy questions.

Legally, what should physicians do when a lower quality plan offers financial incentives to discourage sicker patients from joining the plan? Such situations appear to be fairly common, yet legitimate advice about plan selection in these settings—putting patients' interests first—will constitute complicity in insurance risk selection, which is legally risky at best.^{28,31} Ethically, there may be a professional toll when physicians under capitation feel compelled to avoid sicker patients to prevent the heavy financial losses they can bring. After all, physicians

are trained to pride themselves on their ability to care for the most complex and ill patients. Incentives that punish such professional pride and responsibility are deprofessionalizing.^{20,40} Yet refusing to participate in capitation may not solve this problem: first, 55% of physicians reported that it is not possible to avoid capitated health plans (Table 3) and second, refusing to participate in capitation might remove physician input into the best use of limited resources, leaving these decisions in the hands of insurers and employers.

At a policy level, the issues become even more complex. In a world of increasing reliance on patients to make informed choices from among competing health plans, medical leaders have suggested that physicians ought to help their patients make their selections.^{28–30} Many enrollees do not understand available information about health plan quality^{41–43} and physicians have much to offer as advisors, given their experience with a variety of plans and insights into services that each patient may need.⁴⁴ Unfortunately, this study highlights that even well-intentioned physician advice may foster risk selection.

In several ways, risk selection might be undesirable.^{20,45} Risk selection undermines insurance pools by causing disproportionate enrollment of less costly patients into certain health plans. This is expensive for some payers, who overcompensate health plans with healthier than expected enrollees,⁴⁶ and financially risky for providers who do not or cannot risk select, such as safety net providers.³³ Risk selection also makes assessments of health plan quality using outcomes data more difficult, since those caring for healthier patients start with a competitive advantage. Policy makers may be especially concerned with physician-level risk selection, since physicians are likely to be very effective at the task. They have access to detailed information on which to base judgements about their patients' severity of illness and likely medical needs. By comparison, risk selection strategies among large insurers are crude, probably less effective, and easier to prevent using pooling and other population-based techniques.^{46–48} Physicians thus face a dilemma: how to provide useful advice to individual patients without upsetting legal regulators, who are increasingly wary of "cherry picking,"³¹ and inappropriately protecting low-quality plans and harming higher quality plans.

This study has some important strengths. First, we surveyed primary care physicians nationwide and achieved a good response rate compared to other physician surveys during the same time period.^{24,49–52} Second, in contrast to surveys that ask about hypothetical situations,⁵³ we asked for self-reports of actual behaviors. Our data show, for example, that situations in which physicians worry about the quality of care in capitated plans are not uncommon in practice, and that some physicians are encouraging their sicker patients to avoid these plans.

Relying on physician self-reports also leads to important limitations, because self-reports may be biased.⁵³

Steering patients into and out of capitated plans according to their health status is not generally condoned,^{28,31} so the socially desirable response might be to deny this activity, which would bias our results to understate physicians' fostering of insurance risk selection. Alternately, a "professionally" desirable response might actually favor risk selection, as a form of patient advocacy, where quality concerns exist. It is not clear how these potentially conflicting biases weighed in our observed results. An apparently related limitation is that we did not directly measure quality of care in the health plans at issue, so we cannot know whether physicians' reports of plan quality are accurate.⁵⁴ But for this study we were interested in physician behaviors given their *perceptions* of health plan quality (whether accurate or not), since even inaccurate perceptions drive behavior.

Another limitation is that this study examined only risk selection (i.e., segmenting the insurance market to the financial benefit of the insurer), but not the possibility for adverse selection into capitated health plans. That is, some physicians might refer especially ill patients into capitated plans, for instance if such plans offer better prescription drug coverage. Future research should investigate this possibility.

Other limitations include that we surveyed only primary care physicians, so our data may not reflect the views of subspecialists, who tend to view managed care more negatively.⁵¹ Physicians who returned the survey were also slightly more likely to be in group practice than were nonresponders, which is similarly associated with improved perceptions of managed care quality.⁵⁵ Finally, only a few of the variables we assessed were significant, suggesting the need for a study that can address a larger number of variables. In addition to those already mentioned, these might include physician job security, physician communication styles, patient characteristics, and other aspects of the patient-physician relationship.

Some have proposed ways to attenuate the amount and effects of financial incentives on physicians.^{1,56–59} Physician compensation can be tied to patient satisfaction or to quality measures, rather than to costs or utilization, which might reduce risk-selection and promote physician satisfaction.^{52,60} Despite their current immaturity, adoption of risk adjusters for capitated payment rates would reduce the financial incentive to avoid ill patients or to stint on their care.^{46,48,61} Other options include limiting the number and variability of health plans – which raise the need for advice about plan selection – by adopting unified regional or national plans or through mandated benefit designs.

Conclusions

In the face of multiple health plans with varying quality/cost profiles, patients may need advice in selecting plans that meet their varying needs. Physicians can provide this advice and this study suggests that many do, at least with regard to capitated health plans. But this study also

highlights that risk selection can arise from more than one motivation and that it may be an inherent feature of combining health insurance financing and health care delivery functions. Capitation, in transferring insurance functions to physicians, leads to a blurring of physicians' roles and the direct involvement of physicians in risk selection – moving its locus to a site that is even more difficult for policymakers to reach, while posing more difficult ethical challenges for physicians.

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