The Effect of Financial Risk Arrangements on Service Access and Satisfaction Among Medicaid Beneficiaries

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Objective: **The relationship between financial risk arrangements, access to services, and consumer satisfaction with services was assessed in a sample of Medicaid beneficiaries who were enrolled under three different financial risk arrangements for health care and mental health care.** ***Methods:*** **A survey was mailed to a stratified random sample of 9,449 recipients of Supplemental Security Income. Respondents reported their health and mental health service needs, service use, and satisfaction with services. Access was measured in terms of service needs that were met.** ***Results:*** **Access to services was related to the type of risk arrangement. Respondents who were enrolled in plans that assumed the risk for the cost of services had poorer access to services than respondents who were enrolled in plans that did not assume the risk for the cost of these services. Satisfaction with medical services was negatively related to the plan's assuming the risk for medical expenditures.** ***Conclusions:*** **Financial risk arrangements may have important implications for service use patterns among persons who have disabilities. Health and mental health policy makers should carefully consider risk arrangements when designing health plans for vulnerable populations. (*Psychiatric Services* 53:299–303, 2002)**

Throughout the United States, publicly financed health and mental health systems are undergoing dramatic changes. Driven largely by cost containment, these changes involve the development of new organizational forms, financing arrangements, clinical protocols, and business management strategies that differ fundamentally from those that have traditionally been used.

Federal and state Medicaid expenditures increased from $53.3 billion in 1988 to $157.3 billion in 1995 (1). In 1997 the Congressional Budget Office projected that federal Medicaid spending would increase from $92 billion in 1996 to $216 billion in 2007 (1). To control costs, states have implemented various managed care strategies. In 1991 a total of 2.7 million Medicaid beneficiaries (9.5 percent) were enrolled in managed care plans. By 1997 this figure had increased to 15.3 million (47.8 percent). In 1998 a total of 16.7 million Medicaid beneficiaries were enrolled in some type of managed care plan in 49 states and the District of Columbia (2).

Under many Medicaid managed care arrangements, states limit financial responsibility by capping Medicaid budgets. Capping may be accomplished by using at-risk contracts with managed care organizations or service providers, who assume financial risk for medically necessary services to identified populations for a fixed payment per enrollee per a given period, usually per member per month. Contractors assume risk with the hope of making a profit through the efficient management of care. The ultimate goal of these reforms is to reduce costs while maintaining or enhancing access to services and quality of care by using better clinical management techniques.

The incentives involved in service provision have changed. Under fee-for-service arrangements, providers maximize revenue by increasing the volume of services. Under prospective at-risk arrangements, revenue per enrollee is fixed and profits are maximized when the provision of services is minimized. Minimizing services may be accomplished in several ways, including enrolling low-need populations, promoting well-being among enrollees, selecting more appropriate or effective care, substituting less intensive services, using care management strategies, or restricting access to care. Limiting access to care can result in underserving persons in need. In light of the profit-related incentives for minimizing the volume of services, monitoring access to and outcomes of care should be a major emphasis of evaluations of managed care.

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Studies of the impact of capitated risk arrangements on enrollees' access to care have had mixed results. In a study by Mark and Mueller (3), enrollees in health maintenance organizations (HMOs) who were privately insured reported having more unmet medical needs than persons in traditional plans. Sisk and colleagues (4) found that recipients of Aid to Families With Dependent Children (AFDC) who were enrolled in Medicaid managed care programs were more likely to report a usual source of care and shorter waiting times for appointments than persons enrolled in conventional Medicaid programs. In terms of the ability to obtain needed care, no differences were found between Medicaid beneficiaries who were enrolled in managed care programs and those who were enrolled in conventional programs.

Studies of the effect of managed care on Medicaid enrollees' access to mental health care have also had mixed results. An evaluation of Iowa's Medicaid managed care demonstration by the National Alliance for the Mentally Ill found that clients had difficulty obtaining access to specific mental health services, such as evaluations by psychiatrists and supportive services, and experienced disruptions to their benefits (5).

An examination of Utah's Medicaid mental health plan found that, relative to persons who were served in fee-for-service programs, managed care enrollees had a lower use of psychotherapy and fewer crisis visits and a greater use of case management over a three-year period (6).

These changes in patterns of use of mental health services were not consistent with those of enrollees' in fee-for-service plans. A study of four states that implemented Medicaid mental health carve-outs—Colorado, Iowa, Massachusetts, and Washington—found that access was increased, to varying degrees, by expanding the array of community-based mental health services, but the use of inpatient services decreased (7).

Recent changes in the Florida Medicaid financing system have created an opportunity to examine the relationships between risk arrangements and enrollees' access to and satisfaction with care. Under a Health Care Financing Administration waiver, the Florida Medicaid authority implemented a Medicaid Pre-paid Mental Health Plan (PMHP) in the Tampa area in March 1996. Under the PMHP a monthly prospective payment is made to a specialty behavioral health organization to provide a comprehensive array of mental health services (excluding substance abuse services) to recipients of Temporary Aid to Needy Families (TANF) and Supplemental Security Income (SSI) who are enrolled in Medicaid programs.

The PMHP bears the full financial risk for mental health services. The plan involves a partnership of five community mental health centers that serve the Tampa area and a private for-profit behavioral health organization (7). PMHP enrollees receive general health care through MediPass, a case management program through which primary care physicians are paid a nominal monthly fee to coordinate and authorize components of care. Under the MediPass program, health services are paid on a fee-for-service basis, with no risk to providers.

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All TANF and SSI Medicaid beneficiaries are required to join either MediPass or an HMO. In August 1996, HMOs in the Tampa area were required to provide the same comprehensive array of mental health services to their TANF and SSI enrollees that were provided by the PMHP. The HMOs received an augmented premium to assume risk for the cost of comprehensive mental health services in addition to the general health services for which they already carried the risk. At the time of the study, all the HMOs purchased their mental health services from specialty behavioral health organizations to arrange for the provision of mental health services. The behavioral health organizations were often at financial risk for mental health services, and, typically, they purchased services from the same community mental health centers that constituted the PMHP (8).

In other parts of Florida, Medicaid enrollees receive comprehensive mental health services that are reimbursed through a fee-for-service mechanism in which the state assumes risk for the cost of services. Either HMOs or MediPass may be used for general health services.

In this study we compared access to and satisfaction with services among individuals who were enrolled under these financing arrangements to assess the effects of risk on service use and satisfaction.

Methods

Design

This population-based study was part of a larger evaluation of the three managed care arrangements (8) that used nonequivalent comparison groups. Two financing arrangements in Tampa were contrasted with one in Jacksonville, which is the most similar to Tampa demographically and in characteristics of its health care market. The overall evaluation is ongoing. The data reported here were collected between August 1997 and March 1998.

State enrollment data were used to select a random sample of 9,449 Medicaid enrollees between the ages of 21 and 64 years who were receiving SSI in the Tampa and Jacksonville areas. The sample was stratified by financing arrangement and included 3,019 MediPass enrollees in Tampa, 2,979 HMO enrollees in Tampa, and

3,451 enrollees in the Jacksonville fee-for-service system.

A self-administered questionnaire was developed and pilot-tested for the study (9). The questionnaire contained 24 structured questions that assessed enrollees' Medicaid, Medicare, TANF, and SSI eligibility status; the financing arrangement under which they were enrolled; and any recent changes in their enrollment status. Enrollees also rated their health status and reported on their need for, use of, and satisfaction with medical, mental health, dental, and substance abuse services during the previous nine months. Individuals were offered $5 for completing and returning the questionnaire.

A highly systematic and structured approach to survey design and follow-up was used (10,11). This approach was based in part on a formal feasibility study (9) in which we validated the use of mailed surveys with a Medicaid population.

Data analysis

A retrospective stratified weighting scheme, as described by Rosenbaum (12), was used to adjust for case-mix differences in the sex and race of enrollees across the plans. Case-mix differences were controlled by proportionally weighting observations in each sex and race stratum of each financing arrangement to reflect the weight for the aggregate population in that stratum across all financing arrangements. Although this procedure controls for demographic differences across plans, it does not control for differences in enrollee functioning that may have existed and that may have been related to service use and satisfaction.

To assess the impact of the type of risk arrangement on enrollees' access to services, plans with identical risk mechanisms were pooled. For example, because enrollees in both the Tampa MediPass condition and the MediPass program in Jacksonville do not assume the risk for medical services, these two arrangements were pooled and contrasted with the HMO condition under which the HMOs bear the risk for the cost of medical services. The effects of risk arrangements were then examined with use of an independent t test on the case-mix-adjusted rates of access and ratings of satisfaction with services (13).

To measure access to services, respondents indicated whether they needed services and whether they had used health and mental health services during the previous nine months. Access was calculated by determining the percentage of respondents in need of a service who used that service. This measure of access has been used in other studies and has been described as "one of the most direct measures of access to care" (14). Analyses related to enrollees' satisfaction with a particular service were limited to respondents who had used that service.

For those who were enrolled in plans that did not assume financial risk for medical services, the use of medical services was significantly higher.

Results

Response rate

Of the 9,449 surveys mailed, a total of 4,860 were returned, for an unadjusted response rate of 51 percent. When adjusted for questionnaires that were returned as undeliverable (984, or 10 percent) and for individuals who had died (81, or 1 percent), the response rate was 58 percent. Although this response rate is somewhat lower than those for surveys of the general population, it is substantially higher than those from other studies of Medicaid populations (15–18).

The numbers of participants reported throughout the Results section are based on case-mix-adjusted means and thus are estimates of the number of respondents in each comparison group.

Respondent characteristics

Most of the respondents were female (3,125, or 64.3 percent). A total of 2,381 respondents (49 percent) were white, 1,545 (31.8 percent) were black, and 923 (19 percent) were of other races, most likely of Hispanic origin. A comparison of respondents and nonrespondents showed differences in age, sex, and race. The mean age of respondents was about two years lower than that of nonrespondents (43.2±.18 years and 45.5±.18 years, respectively; t=9.13, df=9,447, p<.001). Women were overrepresented among respondents compared with nonrespondents (64.3 percent and 56.9 percent, respectively; χ^2=30.42, df=9,444, p<.01). Black individuals were underrepresented among respondents compared with nonrespondents (31.8 percent and 39.3 percent, respectively), and white persons were overrepresented among respondents (48.8 percent compared with 41.5 percent; χ^2=64.91, df=2, 9,442, p<.01). Case-mix-adjustment procedures were used to control for these response biases.

Access to services

Overall, 2,940 (97.1 percent) of the 3,028 respondents who reported needing medical services used them. To determine whether access to medical services differed between risk arrangements, respondents who were enrolled in the fee-for-service system or the PMHP were pooled and compared with those who were enrolled in HMOs. Respondents who were enrolled in plans that did not assume financial risk for medical services—the fee-for-service system or the PMHP—reported significantly higher use of medical services (2,009 respondents, or 98 percent) than respondents who were enrolled in HMOs (937 respondents, or 95.4 percent) (t=3.41, df=3,026, p<.001).

To assess the effect of type of risk arrangement on access to mental health services, enrollees in the PMHP and the HMOs, both of which bear the financial risk for mental

health services, were pooled and compared with those enrolled in the fee-for-service system, under which mental health services are provided without financial risk to the providers. Collectively, 1,245 (87.3 percent) of the 1,426 respondents who needed mental health services used them. Access to mental health services was significantly related to type of risk arrangement ($t=2.79$, $df=1,424$, $p<.001$). Respondents who were insured under plans that assumed the risk for mental health services—the PMHP and the HMOs—were significantly less likely to have used mental health services (912 respondents, or 86.1 percent) than those whose mental health services were paid on a fee-for-service basis (569, or 91.2 percent).

A total of 358 respondents who needed mental health services (25.1 percent) reported difficulty obtaining these services, and this difficulty was associated with type of risk arrangement ($t=3.68$, $df=1,405$, $p<.001$). Participants in the PMHP or in HMOs were significantly more likely to report difficulty gaining access to mental health services (290, or 27.9 percent) than enrollees whose mental health services were paid on a fee-for-service basis (68, or 18.7 percent).

Among all respondents, the most frequently cited difficulties were transportation problems (267, or 74.6 percent), the preferred physician's not accepting Medicaid (264, or 73.8 percent), problems obtaining referrals (245, or 68.4 percent), services not being covered (245, or 68.4 percent), long waiting lists (244, or 68.2 percent), problems obtaining appointments (223, or 62.4 percent), and limits on benefits (222, or 62.1 percent). The types of access difficulties cited by respondents did not differ substantially across the three managed care arrangements.

Satisfaction with services

Participants who used medical services were moderately satisfied with them. Collectively, the mean±SE level of satisfaction was 3.18±.02 on a scale ranging from 1, representing not at all satisfied, to 4, representing very satisfied. A significant difference was found in respondents' level of satisfaction on the basis of type of risk arrangement ($t=3.50$, $df=3,096$, $p<.001$). Enrollees in plans that did not bear the risk for medical services—the fee-for-service arrangement and the PMHP—reported significantly greater satisfaction with the services they received (mean±SE=3.24±.03) than enrollees in the HMOs (mean±SE=3.06±.04).

Users of mental health services also reported moderate levels of satisfaction (mean±SE=3.16±.001). However, no difference was found in the level of satisfaction between enrollees whose plans assumed the risk for mental health services and those whose plans did not.

The results of this study suggest that financial risk arrangements affect access to care and, to a limited extent, satisfaction.

Discussion

The results of this study suggest that financial risk arrangements affect access to care and, to a limited extent, satisfaction. Regarding access, the responses to the mailed survey indicated that for adult recipients of SSI, risk-bearing financing strategies were typically associated with reduced access to care. For example, enrollees in HMOs had lower access rates than enrollees in the plans that did not bear financial risk for service costs. Similarly, respondents who were enrolled in the two plans that were at risk for mental health services had lower rates of service use and greater difficulty in obtaining access to mental health services. Although the impact of financial risk in increasing access barriers such as transportation and preventing patients from going to their preferred provider is uncertain at best, the fact that enrollees in these prepaid arrangements are required to receive services by specified providers at specific locations may increase their transportation burden and limit provider choice.

The effect of risk arrangements on enrollees' level of satisfaction with services is less clear. Managed care status appears to influence satisfaction with medical services but not with mental health services. Under all three financing arrangements, mental health services are provided primarily by public community mental health centers. In fact, the PMHP and HMO enrollees in Tampa both use the same community mental health centers. The similarity of service providers might explain the lack of differences in satisfaction with mental health services.

Our findings contrast with those of Sisk and associates (4), who found that Medicaid beneficiaries in New York City who were enrolled in managed care plans had greater access and greater satisfaction than those who were enrolled in conventional plans. That study differed from ours in several important aspects, including the population studied—SSI recipients compared with a general Medicaid population. In fact, in other analyses conducted as part of our evaluation, we did not find these differences in access to services among enrollees who were not recipients of SSI. Special concern may be warranted for populations with disabilities.

Population-based monitoring techniques are important in situations in which financial incentives may limit access to care. Without the availability of such techniques, it might have been difficult or impossible to sensitively measure the differential access relative to respondents' self-identified need. Similarly, outcome estimates that involve only individuals who successfully gain access to care may misrepresent the health status of covered populations. The affordable mailed-survey technique that we used holds promise for systematic assessment of population health needs, access, and outcomes.

In our analyses, we assumed that a respondent's self-identified need was a reliable indicator of need for service. There is some evidence that patients' self-assessments provide information that is not captured in clinical assessments (19). Some might argue that a major function of managed care strategies is to eliminate the demand-based use of services that are not medically necessary. Within the constraints of this study, we could not address the appropriateness of respondents' expressed needs. Unpublished data from our study suggest that persons who have unmet needs may have poorer outcomes than those whose needs are met, although the differences are modest.

Conclusions

Ultimately, the integration of specific need, use, and outcome estimates is required to understand the effects of various types of health care organizations and financial arrangements. This demonstration of the relationships between characteristics of plans, access to services, and satisfaction underscores the importance of carefully considering the structure and operation of health care financing strategies on population health status. The results of these analyses indicate that caution is warranted in enrolling SSI populations in managed care plans that assume the financial risk for their care. The results further underscore the importance of sensitive outcome measurement as a means of gauging the effects of these financial arrangements. ♦

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