

Unintended Effects of Medicare HMO Cost-Containment Strategies

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Research Objective: Since the early 1970s, Medicare has encouraged beneficiaries to enroll in health maintenance organizations (HMOs), believing that they are cost-saving alternatives to the fee-for-service (FFS) sector. While strong evidence exists to substantiate a claim that managed care has led to reductions in the rate of increase in health care costs, concerns have grown over the potential reduction in the quality of care associated with cost-containment strategies utilized in this environment. This paper examines the relationship between cost-containment strategies employed by HMOs and their subsequent effect on hospitalization rates of their Medicare membership.

Study Design: A retrospective cross-sectional design was used with data provided by a medium-sized network model HMO in Southern California serving approximately 45,000 Medicare beneficiaries in 1997. We estimated a multivariate regression to explain HMO hospitalization rates of Medicare members in the second half of 1997 for 76 physician groups contracting with the health plan during that period. Explanatory variables were specific physician group characteristics and cost-containment strategies employed by the health plan in the prior 6-month period. These variables included; HMO reimbursement mechanisms to compensate physician groups; a pharmacy brand-use index (PBU) to measure the proportion of brand-named drugs which were prescribed by each group; ambulatory service denial rates per group; pharmacy costs per member per month (PMPM); and the average age of each group's Medicare membership.

Population Studied: 78 physician groups contracting with a medium-sized California HMO.

Principal Findings: All variables contributed significantly to explaining the variation in hospitalization rates. Physician groups paid either by capitation or shared risk (N=40) had 73% more hospitalizations than groups paid per-diem rates (N=38). Higher brand-usage of drugs was associated with fewer admissions, suggesting superior bioavailability and quality of brand-name drugs over generics. Higher drug costs PMPM were associated with higher hospitalization rates, indicative of illness of higher severity or complexity. Ambulatory service denial rates were associated with subsequent hospital admissions, suggesting that by limiting the access to needed services, a possible decrement in health status may ensue. As expected, membership age was also directly associated with hospitalization rates.

Conclusions: These findings provide evidence that HMO cost-containment strategies (such as reliance on capitation, generic drugs usage, and denying ambulatory services) have the unintended effect of increasing Medicare hospitalization rates. The implication is that cost-saving strategies may inadvertently lower health status and HMO cost savings.

Implications for Policy, Delivery or Practice: Medicare's continued reductions in reimbursement rates to HMOs may have unanticipated effects. As HMOs receive lower capitation rates from Medicare, they will be forced to implement stricter cost-containing strategies. Overall, these cost-saving mechanisms may have unintended harmful effects on health status, patient satisfaction, and health expenditures. Use of capitated physician group payment, and formularies and therapeutic substitutions as cost-containment measures appear to result in higher hospitalization rates. Similarly, physician groups who have a policy (implicit or explicit) of denying access to ambulatory services to reduce costs, may increase the risk of hospitalization, and thus, losing any possible financial savings.

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