



findings brief

Managed Care Does Not Appear to Have a Spillover Effect on the Quality of Diabetes Care for Medicare Patients

Expanding managed care may have unanticipated consequences on the quality, cost, and health outcomes for beneficiaries outside the managed care sector.

Research and policy experts often assume that growth in the market penetration of managed care organizations (MCOs) and the incentives they use to control costs have changed health care market behavior across the board. However, according to new research by Paul L. Hebert, Ph.D., and his colleagues at the Mount Sinai School of Medicine, there is little evidence to suggest a spillover effect of managed care market penetration on individuals with diabetes in the non-managed care sector, specifically Medicare beneficiaries with diabetes enrolled in fee-for-service (FFS) plans.

For elderly Medicare beneficiaries with diabetes who were treated in the fee-for-service sector from 1995–1998, the researchers examined measures of quality of care, frequency and use of high-cost services, and incidence of avoidable, diabetes-related hospitalizations. Expanding managed care may have unanticipated consequences on the quality, cost, and health outcomes for beneficiaries outside the managed care sector, according to Hebert and colleagues. “These consequences need to be considered in balancing the costs and benefits of expanding the use of managed care,” Hebert says.

The research, however, suggests that there is little difference in quality, cost, and health outcomes for fee-for-service (FFS) Medicare beneficiaries with diabetes in metropolitan areas of high versus low managed care penetration. The researchers found some evidence that physicians with a greater proportion of their practice from managed care organizations were more familiar with tools provided by managed care and that they perceived these tools to be more useful than physicians with few patients from managed care organizations. This finding did not vary by managed care penetration at the market level, however.

Background

From 1995 to 1998, the percentage of people enrolled in managed care plans expanded substantially, as more workers chose such plans and federal and state policies encouraged greater managed care enrollment for Medicaid and Medicare beneficiaries. Through the establishment of Medicare+Choice (M+C), the Balanced Budget Act (BBA) of 1997 expanded the health care options available to Medicare beneficiaries by



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allowing beneficiaries to enroll in a variety of private health care options beyond the traditional Medicare fee-for-service program.¹

With the expansion in health care options provided by the BBA, there was a surge in market penetration of MCOs in the Medicare market. Research has indicated that increased market penetration of MCOs led to consolidation among hospitals,² decreased use of hospital resources,³ lower total health care costs in the non-managed care sector,⁴ less frequent diagnostic imaging,⁵ and a system-wide decrease in physicians' earnings.⁶ Research also suggests that managed care generally outperforms fee-for-service in terms of preventive care.⁷ MCOs have an incentive to promote the use of preventive care in order to decrease future costs and enhance their ratings on health plan "report cards," such as the Health Plan Employer Data and Information Set (HEDIS).

MCOs that have a sufficient effect on the quality of health care and the resources available to individuals within the organization may also generate spillover effects on the quality of health care and resources available in the non-MCO market. These effects could be caused by MCOs' ability to increase competition in the health care market, change the structure of the health care delivery system, and change physician practice patterns.⁸

Methods

In examining whether managed care market share and the level of competition among managed care firms affect specific services that otherwise would be used by a Medicare fee-for-service beneficiary with diabetes, the researchers analyzed:

- ◆ The provision of eye exams and influenza vaccinations, which are recommended for people with diabetes and included in HEDIS report cards;
- ◆ The provision of HbA1c tests and lipid panel tests, which are recommended for people with diabetes but not part of HEDIS in the study period;
- ◆ The provision of high-cost services, such as MRIs and referral to specialists, which some argue are constrained under managed care; and
- ◆ The incidence of avoidable diabetes-related complications, such as amputation and diabetic ketoacidosis, is believed to be preventable when a patient is given high-quality preventive care.

In order to determine the incidences of the aforementioned exams, vaccinations, tests, and complications, the researchers developed a database of claims information for individuals with diabetes enrolled in the Medicare fee-for-service sector from 1995 to 1998. They then constructed a database of managed care market activity at the metropolitan level, and cross-referenced it with the claims database to determine the effects of managed care market penetration on the quality and incidence of care for FFS Medicare beneficiaries with diabetes.

Findings

Overall, the researchers' findings suggest that the health care of fee-for-service Medicare beneficiaries with diabetes in an area of high managed care market penetration is not significantly different from the health care of similar beneficiaries in a low managed care penetration area.

Specifically, the researchers found:

- ◆ Evidence of only a minimal spillover effect of managed care market penetration on the quality of care (influenza vaccination, HbA1c test, lipid panel test) for FFS beneficiaries.
- ◆ Higher penetration of managed care does not translate into better preventive care (e.g., eye exams) for beneficiaries who remain in fee-for-service. There was a difference, but it was not statistically significant.
- ◆ Beneficiaries who remain in fee-for-service tend to get less preventive care, but the researchers are not sure if that represents a selection of the less sick (or more prevention-oriented) beneficiaries into managed care or a spillover effect.
- ◆ Higher penetration of managed care does not seem to result in more parsimonious care for beneficiaries remaining in fee-for-service (e.g., beneficiaries are not less likely to see specialists).
- ◆ Avoidable diabetes-related complications were rare and did not vary by managed care market penetration.

The researchers also sought to investigate the mechanisms by which managed care might affect the quality of care, using the Physician Survey of the Community Tracking Study.⁹ The researchers hypothesized that physicians who participated in an MCO and received a greater percentage of their revenue from managed care would be more responsive to treatment reminders, treatment guidelines, and computerized clinical information systems provided by the MCO than would physicians who received a lesser percentage of their revenue from managed care. These hypotheses were largely confirmed; physicians who received a low percentage of their revenue from MCOs perceived reminders, guidelines, and other information as less effective than physicians who received a high percentage of their revenue from managed care.

There was a demonstrated relationship between percent of income received from managed care and usefulness of these tools at the level of the individual physician, but it was not related to managed care market penetration. Therefore, there was not a spillover effect of these tools used by managed care. Even in a high managed care penetration area, physicians who had few managed care patients were unlikely to change behavior in response to the tools.

Conclusion

The findings of Hebert and colleagues provide insight into how the expansion and market penetration of managed care affect quality, cost, and health outcomes for beneficiaries outside of managed care.

The results suggest that Medicare beneficiaries enrolled in an FFS plan do not necessarily reap the benefits associated with expanding managed care, such as more extensive preventive care. Nor are they subject to some of the potential downsides of expanding managed care, such as denial of high-cost tests. While these findings were drawn from 1990s data, the behavioral relationships remain valid and thus the lessons from the study are timely—particularly as the search continues for ways to manage the costs of care.

According to this research, managed care market penetration levels had little or no effect on quality of care, expensive tests/procedures, or avoidable hospitalizations for Medicare beneficiaries with

diabetes enrolled in fee-for-service. Based on these findings, even if the managed care market expands, it is not likely to have a large impact on Medicare beneficiaries with diabetes enrolled in the traditional fee-for-service program.

“Although other researchers have found system-wide changes in health care as a result of managed care market penetration, we are unable to detect its effect—either positive or negative—on elderly patients with diabetes,” says Hebert.

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Endnotes

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